Education at a Glance 2014

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Foreword

Governments are increasingly looking to international comparisons of education opportunities and outcomes as they develop policies to enhance individuals' social and economic prospects, provide incentives for greater efficiency in schooling, and help to mobilise resources to meet rising demands. The OECD Directorate for Education and Skills contributes to these efforts by developing and analysing the quantitative, internationally comparable indicators that it publishes annually in *Education at a Glance*. Together with OECD country policy reviews, these indicators can be used to assist governments in building more effective and equitable education systems.

Education at a Glance addresses the needs of a range of users, from governments seeking to learn policy lessons to academics requiring data for further analysis to the general public wanting to monitor how its country's schools are progressing in producing world-class students. The publication examines the quality of learning outcomes, the policy levers and contextual factors that shape these outcomes, and the broader private and social returns that accrue to investments in education.

Education at a Glance is the product of a long-standing, collaborative effort between OECD governments, the experts and institutions working within the framework of the OECD Indicators of Education Systems (INES) programme and the OECD Secretariat. The publication was prepared by the staff of the Innovation and Measuring Progress Division of the OECD Directorate for Education and Skills, under the responsibility of Dirk Van Damme and Corinne Heckmann and in co-operation with Étienne Albiser, Rodrigo Castañeda Valle, Éric Charbonnier, Estelle Herbaut, Karinne Logez, Koji Miyamoto, Joris Ranchin, Cuauhtémoc Rebolledo Gómez, Gara Rojas González, Ignacio Marín, Wida Rogh, David Valenciano and Jean Yip. Administrative support was provided by Rhodia Diallo and Laetitia Dehelle, and additional advice as well as analytical support were provided by Camila de Moraes, Adrien Régnier-Laurent and Vaishali Zambre. The authoring team benefited from the analytical review of José Luis Álvarez-Galván, Francesco Avvisati, Rose Bolognini, Veronica Borg, Vanessa Denis, Alfonso Echazarra, Carlos González Sancho, Sonia Guerriero, Maria Huerta, Hiroko Ikesako, Marco Kools, Kelly Makowiecki, Patricia Mangeol, Simon Normandeau, Giannina Rech, Michele Rimini, Simone Stelten, William Thorn, Karine Tremblay, Sophie Vayssettes, Elisabeth Villoutreix and Juliana Zapata. Marilyn Achiron, Louise Binns, Marika Boiron, Célia Braga-Schich, Cassandra Davis and Sophie Limoges provided valuable support in the editorial and production process. The development of the publication was steered by member countries through the INES Working Party and facilitated by the INES Networks. The members of the various bodies as well as the individual experts who have contributed to this publication and to OECD INES more generally are listed at the end of the book.

While much progress has been accomplished in recent years, member countries and the OECD continue to strive to strengthen the link between policy needs and the best available internationally comparable data. This presents various challenges and trade-offs. First, the indicators need to respond to education issues that are high on national policy agendas, and where the international comparative perspective can offer added value to what can be accomplished through national analysis and evaluation. Second, while the indicators should be as comparable as possible, they also need to be as country-specific as is necessary to allow for historical, systemic and cultural differences between countries. Third, the indicators need to be presented in as straightforward a manner as possible, while remaining sufficiently complex to reflect multi-faceted realities. Fourth, there is a general desire to keep the indicator set as small as possible, but it needs to be large enough to be useful to policy makers across countries that face different challenges in education.

The OECD will continue not only to address these challenges vigorously and develop indicators in areas where it is feasible and promising to develop data, but also to advance in areas where a considerable investment still needs to be made in conceptual work. The OECD Programme for International Student Assessment (PISA) and its extension through the Survey of Adult Skills, a product of the Programme for the International Assessment of Adult Competencies (PIAAC), as well as the OECD Teaching and Learning International Survey (TALIS), are major efforts to this end.

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Editorial

Education and skills for inclusive growth

The world is slowly moving out of the worst economic crisis of our lifetimes. With productivity, innovation, investment and trade not yet at full steam, the recovery still bears risks. It is also becoming clear that economic growth is not enough to foster social progress, particularly if the growth dividend is not shared equitably. Indeed, the social cost of the crisis continues to weigh heavily, with more than 46 million people out of work in OECD countries and relative poverty affecting millions more. In many countries the gap between the richest and the poorest is widening, youth unemployment remains high, and access to social services remains elusive for many. The world is looking for ways to spur economic growth in a more inclusive manner. The OECD contributes to this effort by developing the evidence and tools that policy makers can use to formulate new policies to achieve this goal.

This edition of *Education at a Glance* provides ample evidence of the critical role that education and skills play in fostering social progress. In addition to the usual data sources used for generating the OECD Education Indicators, this edition also draws on the rich database on skills provided by the 2012 Survey of Adult Skills, a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC), published in October 2013 (OECD, 2013a). Together with the 2012 data on the learning outcomes of 15-year-olds from the OECD Programme for International Student Assessment (PISA 2012), published in 2013 and 2014 (OECD, 2013b and 2014a), and 2013 data on lower secondary teachers from the OECD Teaching and Learning International Survey (TALIS 2013), published in June 2014 (OECD, 2014b), we now have the richest international evidence base on education and skills ever produced. And with our newly developed, web-based research tool, *Education GPS*, all this evidence is easily accessible at the click of a mouse.

A first glance at the evidence shows that in OECD countries access to education continues to expand. The change in societies over only a couple of generations, from a time when only an elite few were educated to a situation today where three-quarters of the population have at least an upper secondary education, is one whose consequences are still unfolding. Close to 40% of 25-34 year-olds now have a tertiary education, a proportion 15 percentage points larger than that of 55-64 year-olds; and in many countries, this difference exceeds 20 percentage points. Importantly, the crisis did not slow this process of expansion; on the contrary, when scanty labour markets didn't provide much of an alternative, many individuals used the low opportunity costs to invest in their education with the aim of improving their chances for a better life. And in emerging economies, schooling is expanding – from a relatively narrow base – at a rate that surpasses that in the industrialised world.

It is therefore no surprise that the level of skills found in the population has also increased tremendously. The data on skills show that, across the 24 OECD countries or subnational entities that participated in the Survey of Adult Skills, there is a 13 percentage-point increase, on average, between the share of older and younger adults scoring at the highest levels of literacy proficiency; in a number of countries, the share of younger adults with this level of literacy is 20 percentage points larger than the share of older adults. But the data also show that educational attainment and skills do not always align. Moreover, not all countries with the largest increase in educational attainment rates are those with the largest increase in the proportion of highly skilled adults. In fact, across countries, adults with similar levels of education can have very different levels of proficiency in skills – a fact that argues for a reconsideration of how we define educational qualifications.

On the face of it, the expansion of education and the general increase in the level of skills available in the population should imply a growing and more highly skilled workforce. But we find that socio-economic divisions are deepening, because the impact that skills have on the life chances of individuals has increased considerably. Take the employment situation. On average, over 80% of tertiary-educated adults are employed compared to less than 60% of people with below upper secondary education. And the employment gap between these two groups is 30 percentage-points wide or more in several countries. Still, tertiary-educated people, especially young adults, are not immune to unemployment, and many governments are concerned about rising levels of unemployment among graduates.

On average across OECD countries, the unemployment rate among tertiary-educated adults stood at 5.0% in 2012 (up from 3.3% in 2008), but among 25-34 year-olds, it was 7.4% (up from 4.6% in 2008). By comparison, the unemployment rate for 25-34 year-olds without an upper secondary education reached 19.8% in 2012 (and even higher in many countries), up from 13.6% in 2008. Our data reconfirm that the economic crisis hit young, low-educated adults hardest.

A lack of skills increases the risk of unemployment – even among people with similar levels of education. For example, on average across countries that participated in the Survey of Adult Skills, 5.8% of adults without upper secondary education, but who had a moderate level of literacy proficiency, were unemployed compared to 8.0% of adults with similar educational attainment but who had low levels of literacy proficiency. Similarly, among tertiary-educated adults, 3.9% of those with lower literacy proficiency were unemployed compared with 2.5% of those with the highest proficiency.

The data on earnings also point to a widening gap between the educational "haves" and "have-nots". Across OECD countries, the difference in income from employment between adults without upper secondary education and those with a tertiary degree continues to grow. If we consider that the average income for 25-64 year-olds with an upper secondary education is represented by an index of 100, the income level for adults without upper secondary education was 80 in 2000 and fell to 76 in 2012, while the average income of tertiary-educated adults increased from 151 in 2000 to 159 in 2012. These data also show that the relative income gap between mid-educated and high-educated adults grew twice as large as the gap between mid-educated and low-educated adults. This means that, in relative terms, mid-educated adults moved closer in income to those with low levels of education, which is consistent with the thesis of the "hollowing-out of the middle classes".

Changes in the income distribution towards greater inequality are increasingly determined by the distribution of education and skills in societies. Across OECD countries, 73% of people without an upper secondary education find themselves at or below the median level of earnings, while only 27% of university graduates do. Educational attainment is the measure by which people are being sorted into poverty or relative wealth; and the skills distribution in a society – its inclusiveness, or lack thereof – is manifested in the degree of income inequality in the society. Countries with large proportions of low-skilled adults are also those with high levels of income inequality, as measured by the Gini coefficient, as are countries with a polarised skills profile (i.e. many low-skilled and many high-skilled people, and the skills distribution is usually linked to socio-economic background).

The risks – and, in many instances, also the penalties – of low educational attainment and low skills pertain not only to income and employment, but to many other social outcomes as well. For example, there is a 23 percentage-point difference between the share of adults with high levels of education who report that they are in good health and the share of adults with low levels of education who report so. Levels of interpersonal trust, participation in volunteering activities, and the belief that an individual can have an impact on the political process are all closely related to both education and skills levels. Thus, societies that have large shares of low-skilled people risk a deterioration in social cohesion and well-being. When large numbers of people do not share the benefits that accrue to more highly skilled populations, the long-term costs to society – in healthcare, unemployment and security, to name just a few – accumulate to become overwhelming.

Indeed, the increasing social divide between the educational "haves" and "have-nots" – and the risks that the latter are excluded from the social benefits of educational expansion – threatens societies as a whole. In the past, countries were predominantly concerned with raising their average level of human capital without paying much attention to the way education and skills were distributed across the population. Of course, improving the general level of educational attainment and skills in a population is necessary for economic growth and social progress. But as more developed countries move towards higher levels of education and skills, aggregate measures of human capital seem to lose their ability to explain differences in economic output between countries. Analysis of data from the Survey of Adult Skills shows that when people of all skills levels benefit from greater access to education, so do economic growth and social inclusion. Countries with small shares of low-skilled adults and large shares of high-skilled adults – i.e. countries with a higher degree of inclusiveness in their skills distribution – do better in terms of economic output (per capita GDP) and social equality (Gini coefficient) than countries with a similar average level of skills but with larger differences in skills proficiency across the population (Van Damme, 2014).

Education and skills have thus become increasingly important dimensions of social inequality; but they are also an indispensable part of the solution to this problem. Education can lift people out of poverty and social exclusion, but in order to do so, educational attainment has to translate into social mobility. Maybe the biggest threat to inclusive growth is the risk that social mobility could grind to a halt. Comparing our cross-sectional data over age groups

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seems to confirm that across OECD countries this risk is real. In the countries that participated in the Survey of Adult Skills in 2012, 39% of 35-44 year-old adults, on average, had a tertiary qualification. Their parents' educational background had a strong influence on the likelihood that they too would acquire a tertiary degree: 68% of the adults with at least one tertiary-educated parent had also attained a tertiary education; while only 24% of adults whose parents had not attained an upper secondary education had a tertiary degree. But among the younger age group (25-34 year-olds), where the tertiary attainment rate had risen to 43%, the impact of parents' educational background was just as strong: of the adults with at least one tertiary-educated parent, 65% attained a tertiary qualification, while of the adults with low-educated parents only 23% did. In other words, the benefits of the expansion in education were shared by the middle class, but did not trickle down to less-advantaged families. In relative terms, the children of low-educated families became increasingly excluded from the potential benefits that the expansion in education provided to most of the population. And even if they were able to access education, the interplay between their disadvantaged background and the lower quality of education that these students disproportionately endure resulted in the kinds of education outcomes that did not help them to move up the social ladder.

Inclusive societies need education systems that promote learning and the acquisition of skills in an equitable manner and that support meritocracy and social mobility. When the engine of social mobility slows down, societies become less inclusive. Even at a time when access to education is expanding, too many families risk remaining excluded from the promises of intergenerational educational mobility. On average across the countries that participated in the Survey of Adult Skills, upward mobility (the percentage of the population with higher educational attainment than their parents) is now estimated at 42% among 55-64 year-olds and 43% among 45-54 year-olds, but falls to 38% among 35-44 year-olds and to 32% among 25-34 year-olds. Downward educational mobility increases from 9% among 55-64 year-olds and 10% among 45-54 year-olds, to 12% among 35-44 year-olds and 16% among 25-34 year-olds. These data suggest that the expansion in education has not yet resulted in a more inclusive society, and we must urgently address this setback.

OECD averages can be misleading in that they hide huge differences among countries. In this edition of *Education at a Glance*, the most interesting findings may not be the averages across OECD countries, but the way the indicators highlight the differences among countries. These variations reflect different historical and cultural contexts, but they also demonstrate the power of policies. Different policies produce different outcomes, and this is also true with regard to education and skills. Some countries do better than others in breaking the cycle of social inequality that leads to inequality in education, in containing the risk of exclusion based on education and skills, and in keeping the proportion of low-skilled adults small while providing opportunities to as many adults as possible to improve their skills proficiency.

Education and skills hold the key to future wellbeing and will be critical to restoring long-term growth, tackling unemployment, promoting competitiveness, and nurturing more inclusive and cohesive societies. This large collection of data on education and skills helps countries to compare and benchmark themselves, and will assist them in identifying policies that work.

Angel Gurría
OECD Secretary-General

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Introduction: The Indicators and their Framework

The organising framework

Education at a Glance 2014: OECD Indicators offers a rich, comparable and up-to-date array of indicators that reflects a consensus among professionals on how to measure the current state of education internationally. The indicators provide information on the human and financial resources invested in education, how education and learning systems operate and evolve, and the returns to investments in education. The indicators are organised thematically, and each is accompanied by information on the policy context and an interpretation of the data. The education indicators are presented within an organising framework that:

- distinguishes between the actors in education systems: individual learners and teachers, instructional settings and learning environments, education service providers, and the education system as a whole;
- groups the indicators according to whether they address learning outcomes for individuals or countries, policy levers or circumstances that shape these outcomes, or to antecedents or constraints that put policy choices into context; and
- identifies the policy issues to which the indicators relate, with three major categories distinguishing between the quality of education outcomes and education opportunities, issues of equity in education outcomes and opportunities, and the adequacy and effectiveness of resource management.

The following matrix describes the first two dimensions:

	1. Education and learning outputs and outcomes	**2. Policy levers and contexts shaping educational outcomes**	**3. Antecedents or constraints that contextualise policy**
I. Individual participants in education and learning	**1.I.** The quality and distribution of individual educational outcomes	**2.I.** Individual attitudes towards, engagement in, and behaviour in teaching and learning	**3.I.** Background characteristics of the individual learners and teachers
II. Instructional settings	**1.II.** The quality of instructional delivery	**2.II.** Pedagogy, learning practices and classroom climate	**3.II.** Student learning conditions and teacher working conditions
III. Providers of educational services	**1.III.** The output of educational institutions and institutional performance	**2.III.** School environment and organisation	**3.III.** Characteristics of the service providers and their communities
IV. The education system as a whole	**1.IV.** The overall performance of the education system	**2.IV.** System-wide institutional settings, resource allocations, and policies	**3.IV.** The national educational, social, economic, and demographic contexts

Actors in education systems

The OECD Indicators of Education Systems (INES) programme seeks to gauge the performance of national education systems as a whole, rather than to compare individual institutional or other sub-national entities. However, there is increasing recognition that many important features of the development, functioning and impact of education systems can only be assessed through an understanding of learning outcomes and their relationships to inputs and processes at the level of individuals and institutions. To account for this, the indicator framework distinguishes between a macro level, two meso-levels and a micro-level of education systems. These relate to:

- the education system as a whole;
- the educational institutions and providers of educational services;
- the instructional setting and the learning environment within the institutions; and
- the individual participants in education and learning.

To some extent, these levels correspond to the entities from which data are being collected, but their importance mainly centres on the fact that many features of the education system play out quite differently at different levels of the system, which needs to be taken into account when interpreting the indicators. For example, at the level of students within a classroom, the relationship between student achievement and class size may be negative, if students in small classes benefit from improved contact with teachers. At the class or school level, however, students are often intentionally grouped such that weaker or disadvantaged students are placed in smaller classes so that they receive more individual attention. At the school level, therefore, the observed relationship between class size and student achievement is often positive, suggesting that students in larger classes perform better than students in smaller classes. At higher aggregated levels of education systems, the relationship between student achievement and class size is further confounded, e.g. by the socio-economic intake of schools or by factors relating to the learning culture in different countries. Therefore, past analyses that have relied on macro-level data alone have sometimes led to misleading conclusions.

Outcomes, policy levers and antecedents

The second dimension in the organising framework further groups the indicators at each of the above levels:

- indicators on observed outputs of education systems, as well as indicators related to the impact of knowledge and skills for individuals, societies and economies, are grouped under the sub-heading *output and outcomes of education and learning;*
- the sub-heading *policy levers and contexts* groups activities seeking information on the policy levers or circumstances that shape the outputs and outcomes at each level; and
- these policy levers and contexts typically have *antecedents* – factors that define or constrain policy. These are represented by the sub-heading *antecedents and constraints*. The antecedents or constraints are usually specific for a given level of the education system; antecedents at a lower level of the system may well be policy levers at a higher level. For teachers and students in a school, for example, teacher qualifications are a given constraint while, at the level of the education system, professional development of teachers is a key policy lever.

Policy issues

Each of the resulting cells in the framework can then be used to address a variety of issues from different policy perspectives. For the purpose of this framework, policy perspectives are grouped into three classes that constitute the third dimension in the organising framework for INES:

- quality of educational outcomes and educational opportunities;
- equality of educational outcomes and equity in educational opportunities; and
- adequacy, effectiveness and efficiency of resource management.

In addition to the dimensions mentioned above, the time perspective in the framework allows for dynamic aspects of the development of education systems to be modelled as well.

The indicators that are published in *Education at a Glance 2014* fit within this framework, though often they speak to more than one cell.

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Most of the indicators in **Chapter A,** *The output of educational institutions and the impact of learning,* relate to the first column of the matrix describing outputs and outcomes of education. Even so, indicators in Chapter A measuring educational attainment for different generations, for instance, not only provide a measure of the output of the education system, but also provide context for current education policies, helping to shape polices on, for example, lifelong learning.

Chapter B, *Financial and human resources invested in education,* provides indicators that are either policy levers or antecedents to policy, or sometimes both. For example, expenditure per student is a key policy measure that most directly affects the individual learner, as it acts as a constraint on the learning environment in schools and learning conditions in the classroom.

Chapter C, *Access to education, participation and progression,* provides indicators that are a mixture of outcome indicators, policy levers and context indicators. Internationalisation of education and progression rates are, for instance, outcome measures to the extent that they indicate the results of policies and practices at the classroom, school and system levels. But they can also provide contexts for establishing policy by identifying areas where policy intervention is necessary to address issues of inequity, for example.

Chapter D, *The learning environment and organisation of schools,* provides indicators on instruction time, teachers' working time and teachers' salaries that not only represent policy levers that can be manipulated but also provide contexts for the quality of instruction in instructional settings and for the outcomes of individual learners. It also presents data on the profile of teachers, the levels of government at which decisions about education are taken, and pathways and gateways to gain access to secondary and tertiary education.

The reader should note that this edition of *Education at a Glance* covers a significant amount of data from partner countries as well (please refer to the *Reader's Guide* for details).

Reader's Guide

Coverage of the statistics

Although a lack of data still limits the scope of the indicators in many countries, the coverage extends, in principle, to the entire national education system (within the national territory), regardless of who owns or sponsors the institutions concerned and regardless of how education is delivered. With one exception (described below), all types of students and all age groups are included: children (including students with special needs), adults, nationals, foreigners, and students in open-distance learning, in special education programmes or in education programmes organised by ministries other than the Ministry of Education, provided that the main aim of the programme is to broaden or deepen an individual's knowledge. However, children below the age of three are only included if they participate in programmes that typically cater to children who are at least three years old. Vocational and technical training in the workplace, with the exception of combined school- and work-based programmes that are explicitly deemed to be part of the education system, is not included in the basic education expenditure and enrolment data.

Educational activities classified as "adult" or "non-regular" are covered, provided that the activities involve the same or similar content as "regular" education studies, or that the programmes of which they are a part lead to qualifications similar to those awarded in regular educational programmes.

Courses for adults that are primarily for general interest, personal enrichment, leisure or recreation are excluded.

Country coverage

This publication features data on education from the 34 OECD member countries, two partner countries that participate in the OECD Indicators of Education Systems programme (INES), namely Brazil and the Russian Federation, and the other partner countries that do not participate in INES (Argentina, China, Colombia, India, Indonesia, Latvia, Saudi Arabia and South Africa). Data sources for these latter eight countries are specified below the tables.

The statistical data for Israel are supplied by and under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Calculation of international means

The OECD average is calculated as the unweighted mean of the data values of all OECD countries for which data are available or can be estimated. The OECD average therefore refers to an average of data values at the level of the national systems and can be used to answer the question of how an indicator value for a given country compares with the value for a typical or average country. It does not take into account the absolute size of the education system in each country.

The OECD total is calculated as the weighted mean of the data values of all OECD countries for which data are available or can be estimated. It reflects the value for a given indicator when the OECD area is considered as a whole. This approach is taken for the purpose of comparing, for example, expenditure charts for individual countries with those of the entire OECD area for which valid data are available, with this area considered as a single entity.

Both the OECD average and the OECD total can be significantly affected by missing data. Given the relatively small number of countries surveyed, no statistical methods are used to compensate for this. In cases where a category is not applicable (code "a") in a country or where the data value is negligible (code "n") for the corresponding calculation, the value zero is imputed for the purpose of calculating OECD averages. In cases where both the numerator and the denominator of a ratio are not applicable (code "a") for a certain country, this country is not included in the OECD average.

For financial tables using trend series over 1995-2011, both the OECD average and OECD total are also calculated for countries providing data for all reference years used. This allows for a comparison of the OECD average and OECD total over time with no distortion due to the exclusion of certain countries in the different years.

For many indicators, an **EU21 average** is also presented. It is calculated as the unweighted mean of the data values of the 21 countries that are members of both the European Union and the OECD for which data are available or can be estimated. These 21 countries are Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Poland, Portugal, the Slovak Republic, Slovenia, Spain, Sweden and the United Kingdom.

For some indicators, a **G20 average** is presented. The G20 average is calculated as the unweighted mean of the data values of all G20 countries for which data are available or can be estimated (Argentina, Australia, Brazil, Canada, China, France, Germany, India, Indonesia, Italy, Japan, Korea, Mexico, the Russian Federation, Saudi Arabia, South Africa, Turkey, the United Kingdom and the United States; the European Union is the 20th member of the G20 but is not included in the calculation). The G20 average is not computed if the data for China or India are not available.

For some indicators, an **average** is presented. This average is included in tables with data from the 2012 Survey of Adult Skills, a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC). The average corresponds to the arithmetic mean of the estimates included in the table or chart from both the national and the sub-national entities (which include Flanders (Belgium) and England/Northern Ireland [UK]). Partner countries are not included in the average presented in any of the tables or charts.

Standard error (S.E.)

The statistical estimates presented in this report are based on samples of adults, rather than values that could be calculated if every person in the target population in every country had answered every question. Therefore, each estimate has a degree of uncertainty associated with sampling and measurement error, which can be expressed as a standard error. The use of confidence intervals provides a way to make inferences about the population means and proportions in a manner that reflects the uncertainty associated with the sample estimates. In this report, confidence intervals are stated at a 95% level. In other words, the result for the corresponding population would lie within the confidence interval in 95 out of 100 replications of the measurement on different samples drawn from the same population.

In tables showing standard errors, there is one column with the heading "%", which indicates the average percentage, and a column with the heading "S.E.", which indicates the standard error. Given the survey method, there is a sampling uncertainty in the percentages (%) of twice the standard error (S.E.). For example, for the values: % = 10 and S.E. = 2.6, 10% has an uncertainty zone of twice (1.96) the standard error of 2.6, assuming an error risk of 5%. Thus, the true percentage would probably (error risk of 5%) be somewhere between 5% and 15% ("confidence interval"). The confidence interval is calculated as: % +/– 1.96 * S.E., i.e. for the previous example, 5% = 10% – 1.96 * 2.6 and 15% = 10% + 1.96 * 2.6.

Classification of levels of education

The classification of the levels of education is based on the International Standard Classification of Education (ISCED 1997). ISCED 1997 is an instrument for compiling statistics on education internationally; it distinguishes among six levels of education. ISCED 1997 was recently revised, and the new International Standard Classification of Education (ISCED 2011) was formally adopted in November 2011. This new classification will be implemented in *Education at a Glance 2015*.

Term used in this publication	**ISCED classification** (and subcategories)
Pre-primary education The first stage of organised instruction designed to introduce very young children to the school atmosphere. Minimum entry age of 3.	ISCED 0
Primary education Designed to provide a sound basic education in reading, writing and mathematics and a basic understanding of some other subjects. Entry age: between 5 and 7. Duration: 6 years.	ISCED 1

…

Lower secondary education Completes provision of basic education, usually in a more subject oriented way with more specialist teachers. Entry follows 6 years of primary education; duration is 3 years. In some countries, the end of this level marks the end of compulsory education.	**ISCED 2** (subcategories: 2A prepares students for continuing academic education, leading to 3A; 2B has stronger vocational focus, leading to 3B; 2C offers preparation of entering workforce)
Upper secondary education Stronger subject specialisation than at lower secondary level, with teachers usually more qualified. Students typically expected to have completed 9 years of education or lower secondary schooling before entry and are generally 15 or 16 years old.	**ISCED 3** ISCED 3 (subcategories: 3A prepares students for university-level education at level 5A; 3B for entry to vocationally oriented tertiary education at level 5B; 3C prepares students for workforce or for post-secondary non-tertiary education at level ISCED 4)
Post-secondary non-tertiary education Internationally, this level straddles the boundary between upper secondary and post-secondary education, even though it might be considered upper secondary or post-secondary in a national context. Programme content may not be significantly more advanced than that in upper secondary, but is not as advanced as that in tertiary programmes. Duration usually the equivalent of between 6 months and 2 years of full-time study. Students tend to be older than those enrolled in upper secondary education.	**ISCED 4** ISCED 4 (subcategories: 4A may prepare students for entry to tertiary education, both university level and vocationally oriented; 4B typically prepares students to enter the workforce)
Tertiary education	**ISCED 5** (subcategories: 5A and 5B; see below)
Tertiary-type A education Largely theory-based programmes designed to provide sufficient qualifications for entry to advanced research programmes and professions with high skill requirements, such as medicine, dentistry or architecture. Duration at least 3 years full-time, though usually 4 or more years. These programmes are not exclusively offered at universities; and not all programmes nationally recognised as university programmes fulfil the criteria to be classified as tertiary-type A. Tertiary-type A programmes include second-degree programmes, such as the American master's degree.	**ISCED 5A**
Tertiary-type B education Programmes are typically shorter than those of tertiary-type A and focus on practical, technical or occupational skills for direct entry into the labour market, although some theoretical foundations may be covered in the respective programmes. They have a minimum duration of two years full-time equivalent at the tertiary level.	**ISCED 5B**
Advanced research programmes Programmes that lead directly to the award of an advanced research qualification, e.g. Ph.D. The theoretical duration of these programmes is 3 years, full-time, in most countries (for a cumulative total of at least 7 years full-time equivalent at the tertiary level), although the actual enrolment time is typically longer. Programmes are devoted to advanced study and original research.	**ISCED 6**

The glossary available at *www.oecd.org/edu/eag.htm* also describes these levels of education in detail, and Annex 1 shows the typical age of graduates of the main educational programmes, by ISCED level.

Symbols for missing data and abbreviations

These symbols and abbreviations are used in the tables and charts:

- a Data are not applicable because the category does not apply.
- c There are too few observations to provide reliable estimates (e.g. in PISA, there are fewer than 30 students or fewer than five schools with valid data; in the Survey of Adult Skills, there are fewer than 30 individuals). However, these statistics were included in the calculation of cross-country averages.

ESCS *PISA index of economic, social and cultural status*
m Data are not available.
n Magnitude is either negligible or zero.
r Values are below a certain reliability threshold and should be interpreted with caution (see Annex 3 for country-specific definitions).
S.E. Standard Error.
w Data have been withdrawn at the request of the country concerned.
x Data included in another category or column of the table (e.g. x(2) means that data are included in column 2 of the table).
~ Average is not comparable with other levels of education.

Further resources

The website *www.oecd.org/edu/eag.htm* is a rich source of information on the methods used to calculate the indicators, on the interpretation of the indicators in the respective national contexts, and on the data sources involved. The website also provides access to the data underlying the indicators and to a comprehensive glossary for technical terms used in this publication.

All post-production changes to this publication are listed at *www.oecd.org/edu/eag.htm*.

Education at a Glance uses the OECD's StatLinks service. Below each table and chart in *Education at Glance 2014* is a URL that leads to a corresponding Excel workbook containing the underlying data for the indicator. These URLs are stable and will remain unchanged over time. In addition, readers of the *Education at a Glance* e-book will be able to click directly on these links and the workbook will open in a separate window.

Layout of tables

In all tables, the numbers in parentheses at the top of the columns are simply used for reference. When a consecutive number does not appear, that column is available on line only.

Codes used for territorial entities

These codes are used in certain charts. Country or territorial entity names are used in the text. Note that throughout the publication, the Flemish Community of Belgium and the French Community of Belgium may be referred to as "Belgium (Fl.)" or "Flanders (Belgium)", and "Belgium (Fr.)", respectively.

ARG	Argentina	IRL	Ireland
AUS	Australia	ISL	Iceland
AUT	Austria	ISR	Israel
BEL	Belgium	ITA	Italy
BFL	Belgium (Flemish Community)	JPN	Japan
BFR	Belgium (French Community)	KOR	Korea
BRA	Brazil	LUX	Luxembourg
CAN	Canada	LVA	Latvia
CHE	Switzerland	MEX	Mexico
CHL	Chile	NLD	Netherlands
CHN	China	NOR	Norway
COL	Colombia	NZL	New Zealand
CZE	Czech Republic	POL	Poland
DEU	Germany	PRT	Portugal
DNK	Denmark	RUS	Russian Federation
ENG	England	SAU	Saudi Arabia
ESP	Spain	SCO	Scotland
EST	Estonia	SVK	Slovak Republic
FIN	Finland	SVN	Slovenia
FRA	France	SWE	Sweden
GRC	Greece	TUR	Turkey
HUN	Hungary	UKM	United Kingdom
IDN	Indonesia	USA	United States
IND	India	ZAF	South Africa

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About the Survey of Adults Skills

Design and methods

The Survey of Adult Skills, a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC), assessed the proficiency of adults from the ages of 16-65 in literacy, numeracy and problem solving in technology-rich environments. These skills are key information-processing competencies that are relevant to adults in many social contexts and work situations, and necessary for fully integrating and participating in the labour market, education and training, and social and civic life.

Information was also collected on the background of respondents, their education and labour market experience and some other outcomes, such as their health. In addition, the survey collected a range of information on the reading- and numeracy-related activities of respondents, the use of information and communication technologies at work and in everyday life, and on a range of generic skills, such as collaborating with others and organising one's time, required of individuals in their work. Respondents were also asked whether their skills and qualifications match their work requirements and whether they have autonomy over key aspects of their work.

The Survey of Adult Skills was designed primarily as a computer-based assessment. Most respondents completed the assessment in this format. Respondents who had no prior experience with computers or very limited computer skills took the assessment in a pencil-and-paper format. Respondents took the assessment in the national language or languages of their country of residence, or in some cases, a widely used minority language.

Twenty-four countries[1] took part in the first round of the assessment.[2] Data collection took place between August 2011 and March 2012 in most countries. All participating countries administered the literacy and numeracy assessments. Four countries (Cyprus[3], France, Italy and Spain) did not administer the assessment of problem solving in technology-rich environments.

Readers should note that the sample for the Russian Federation does not include the population of the Moscow municipal area. The data published, therefore, do not represent the entire resident population aged 16-65 in Russia but rather the population of Russia excluding the population residing in the Moscow municipal area. More detailed information regarding the data from the Russian Federation as well as that of other countries can be found in the *Technical Report of the Survey of Adult Skills* (OECD, 2013, forthcoming).

More information on the design and methods of the survey can be found in:

OECD (2013), *OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264204256-en.*

OECD (2013), *The Survey of Adult Skills: Reader's Companion*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264204027-en.*

The Survey of Adult Skills uses the following definitions of literacy, numeracy and problem-solving in technology-rich environments:

Literacy

Literacy is defined as "understanding, evaluating, using and engaging with written texts to participate in society, to achieve one's goals, and to develop one's knowledge and potential". It does not involve either the comprehension or production of spoken language or the production of text (writing). Literacy is conceived as a skill that involves constructing meaning, and evaluating and using texts to achieve a range of possible goals in a variety of contexts. It thus extends well beyond the skills of decoding or comprehending texts to encompass the capacity to respond to texts in a manner that is appropriate to the context.

Numeracy

Numeracy is defined as the ability to access, use, interpret and communicate mathematical information and ideas in order to engage in and manage the mathematical demands of a range of situations in adult life. A numerate adult is one who responds appropriately to mathematical content, information, and ideas represented in various ways in order to manage situations and solve problems in a real-life context. While performance on numeracy tasks is, in part, dependent on the ability to read and understand text, numeracy involves more than applying arithmetical skills to information embedded in text.

Problem solving in technology-rich environments

Problem solving in technology-rich environments is defined as "using digital technology, communication tools and networks to acquire and evaluate information, communicate with others and perform practical tasks". It focuses on "the abilities to solve problems for personal, work and civic purposes by setting up appropriate goals and plans, and accessing and making use of information through computers and computer networks" (*OECD Skills Outlook 2013: First Results from the Survey of Adult Skills*, *http://dx.doi.org/10.1787/9789264204256-en*).

Problem solving in technology-rich environments represents the intersection of what are sometimes described as "computer literacy" skills (i.e. the capacity to use information and communication technologies [ICT] tools and applications) and the cognitive skills required to solve problems. However, the objective was not to test proficiency in the use of ICT tools and applications in isolation, but rather to assess the capacity of adults to use these tools to access, process, evaluate and analyse information effectively in a goal-oriented way.

Reporting the results

In each of the three domains assessed, proficiency is considered as a continuum of ability involving the mastery of information-processing tasks of increasing complexity. The results are represented on a 500-point scale.

To help interpret the results, the reporting scales have been divided into "proficiency levels" defined by particular score-point ranges. Six proficiency levels are defined for literacy and numeracy (Levels 1 through 5 plus below Level 1) and four for problem solving in technology-rich environments (Levels 1 through 3 plus below Level 1). Each proficiency level is described in terms of the characteristics of the types of tasks that can be successfully completed by adults with proficiency scores in the range of scores that defines a level. Descriptions of the types of tasks related to each level on the literacy scale are provided below.

Proficiency at Level 5 (scores equal to or higher than 376 points)

Level 5 is the highest proficiency level on the skills scale. Adults reaching this level can perform tasks that involve searching for and integrating information across multiple, dense texts; constructing syntheses of similar and contrasting ideas or points of view, or evaluating evidence and arguments. They can apply and evaluate logical and conceptual models, and evaluate the reliability of evidentiary sources and select key information. They are aware of subtle, rhetorical cues and are able to make high-level inferences or use specialised background knowledge.

Proficiency at Level 4 (scores from 326 points to less than 376 points)

At Level 4, adults can perform multiple-step operations to integrate, interpret, or synthesise information from complex or lengthy continuous, non-continuous, mixed, or multiple-type texts that involve conditional and/or competing information.

Proficiency at Level 3 (scores from 276 points to less than 326 points)

Adults performing at Level 3 can understand and respond appropriately to dense or lengthy texts, including continuous, non-continuous, mixed, or multiple pages. They understand text structures and rhetorical devices and can identify, interpret, or evaluate one or more pieces of information and make appropriate inferences. They can also perform multistep operations and select relevant data from competing information in order to identify and formulate responses.

Proficiency at Level 2 (scores from 226 points to less than 276 points)

At Level 2, adults can integrate two or more pieces of information based on criteria, compare and contrast or reason about information and make low-level inferences. They can navigate within digital texts to access and identify information from various parts of a document.

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Proficiency at Level 1 (scores from 176 points to less than 226 points)

At Level 1, adults can read relatively short digital or print continuous, non-continuous, or mixed texts to locate a single piece of information, which is identical to or synonymous with the information given in the question or directive. These texts contain little competing information. Adults performing at this level can complete simple forms, understand basic vocabulary, determine the meaning of sentences, and read continuous texts with a degree of fluency.

Proficiency below Level 1 (scores below 176 points)

Individuals at this level can read brief texts on familiar topics and locate a single piece of specific information identical in form to information in the question or directive. They are not required to understand the structure of sentences or paragraphs and only basic vocabulary knowledge is required. Tasks below Level 1 do not make use of any features specific to digital texts.

For more information on the Survey of Adult Skills (PIAAC), please consult *http://skills.oecd.org* and *http://www.oecd.org/site/piaac*.

Notes

1. Australia, Austria, Belgium (Flanders), Canada, Cyprus, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Ireland, Italy, Japan, Korea, the Netherlands, Norway, Poland, the Russian Federation, the Slovak Republic, Spain, Sweden, the United Kingdom (England and Northern Ireland), and the United States.

2. A further nine countries will collect data in 2014.

3. Readers should note the following information provided by Turkey and by the European Union Member States of the OECD and the European Union regarding the status of Cyprus:

Note by Turkey: The information in this document with reference to "Cyprus" relates to the southern part of the Island. There is no single authority representing both Turkish and Greek Cypriot people on the Island. Turkey recognises the Turkish Republic of Northern Cyprus (TRNC). Until a lasting and equitable solution is found within the context of the United Nations, Turkey shall preserve its position concerning the "Cyprus issue".

Note by all the European Union Member States of the OECD and the European Union: The Republic of Cyprus is recognised by all members of the United Nations with the exception of Turkey. The information in this document relates to the area under the effective control of the Government of the Republic of Cyprus.

Chapter

A

The Output of Educational Institutions and the Impact of Learning

Indicator A1 To what level have adults studied?
StatLink http://dx.doi.org/10.1787/888933114761

Indicator A2 How many students are expected to complete upper secondary education?
StatLink http://dx.doi.org/10.1787/888933115122

Indicator A3 How many students are expected to complete tertiary education?
StatLink http://dx.doi.org/10.1787/888933115388

Indicator A4 To what extent does parents' education influence participation in tertiary education?
StatLink http://dx.doi.org/10.1787/888933115521

Indicator A5 How does educational attainment affect participation in the labour market?
StatLink http://dx.doi.org/10.1787/888933115711

Indicator A6 What are the earnings advantages from education?
StatLink http://dx.doi.org/10.1787/888933116053

Indicator A7 What are the incentives to invest in education?
StatLink http://dx.doi.org/10.1787/888933116281

Indicator A8 What are the social outcomes of education?
StatLink http://dx.doi.org/10.1787/888933116547

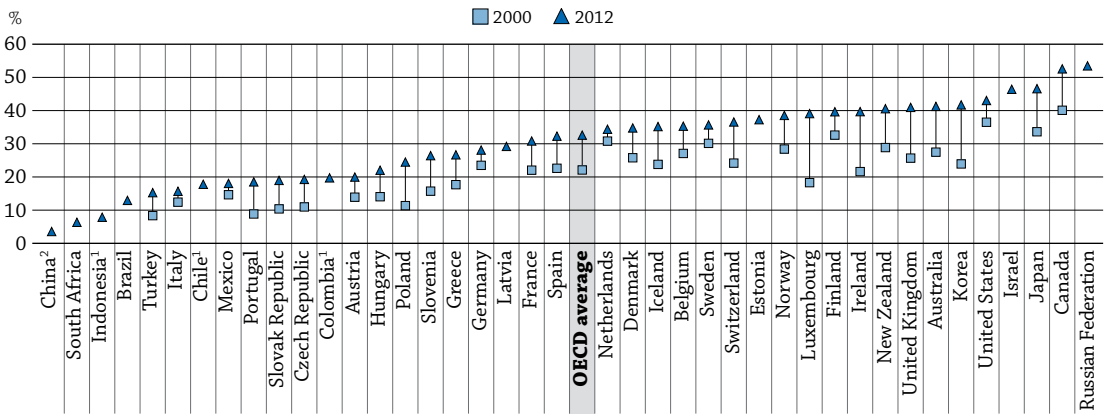
Indicator A9 How are student performance and equity in education related?
StatLink http://dx.doi.org/10.1787/888933116737

TO WHAT LEVEL HAVE ADULTS STUDIED?

- Across countries, about 75% of adults aged 25-64 have attained at least upper secondary education; among 25-34 year-olds, about 80% have.
- On average, 25-34 year-old women have higher attainment rates in both upper secondary and tertiary education than men of the same age.
- Across the countries that participated in the Survey of Adult Skills (PIAAC), the proportion of adults who perform at the highest proficiency levels in literacy is largest among tertiary-educated adults.

Chart A1.1. Percentage of tertiary-educated adults in 2000 and 2012

25-64 year-olds



1. Year of reference 2011.
2. Year of reference 2010.

Countries are ranked in ascending order of the percentage of 25-64 year-olds who have attained tertiary education in 2012 (or latest available year).

Source: OECD. Table A1.4a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933114951

Context

The level of educational attainment is the percentage of a population that has reached a certain level of education. Higher levels of educational attainment are associated with better health, more social engagement, higher employment rates and are perceived as a gateway to better labour opportunities and higher relative earnings. Foundation skills, such as literacy and numeracy, are also strongly associated with better outcomes in the labour market and with living better and healthier lives. Individuals have strong incentives to pursue more education, and governments have incentives to build on the skills of the population through education.

Educational attainment is frequently used as a measure of human capital and the level of an individual's skills – in other words, a measure of the skills available in the population and the labour force. Qualifications certify and offer information on the type of knowledge and skills that graduates have acquired in formal education.

The importance of formal education and training in the development of skills like literacy and numeracy is more evident today than ever before. The Survey of Adult Skills (OECD, 2013a), a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC), complements the annual data on educational attainment with new data on the distribution of literacy, numeracy and problem-solving skills in the adult population.

Over the past decades, almost all OECD countries have seen significant increases in the educational attainment of their populations. Tertiary education has expanded markedly, and in most OECD countries, a large majority of adults now has an upper secondary qualification.

This indicator includes information on educational attainment and, for the first time, a snapshot of adults' skills by level and orientation of education, age and gender.

Other findings

- **In some OECD countries, younger adults have higher tertiary attainment rates than older adults by an average of more than 20 percentage points**.
- **More than 40% of 25-34 year-olds in most OECD and partner countries have tertiary education**, but this proportion of tertiary-educated 55-64 year-olds is seen only in Canada, Israel, the Russian Federation and the United States.
- **In Australia, Finland, Japan, the Netherlands and Sweden, more than 30% of tertiary-educated adults perform at Level 4 or 5** – the highest levels – in literacy proficiency on the Survey of Adult Skills.

Trends

Between 2000 and 2012, the proportion of people without upper secondary or post-secondary non-tertiary education has shrunk at an average annual rate of about 3%. Meanwhile, tertiary education continued to expand during the same period, growing more than 3% each year. For the first time, in 2012, about one in three adults in OECD countries held a tertiary qualification.

Gender differences in educational attainment have reversed over the years. In 2000, adult men had higher tertiary attainment rates than adult women. In 2012, the situation was inverted: 34% of women had attained a tertiary education compared with 31% of men.

Note

Different indicators in this publication show the level of education among individuals. Indicator A1 shows the level of attainment, i.e. the percentage of a population that has successfully completed a given level of education and the relationship between level of attainment and the acquisition of basic skills. Graduation rates in Indicators A2 and A3 measure the estimated percentage of younger adults who are expected to graduate from a particular level of education during their lifetimes. Completion rates from upper secondary programmes in Indicator A2 estimate the proportion of students who enter a programme and complete it successfully within a certain period of time.

A1

Analysis

Attainment levels in OECD countries

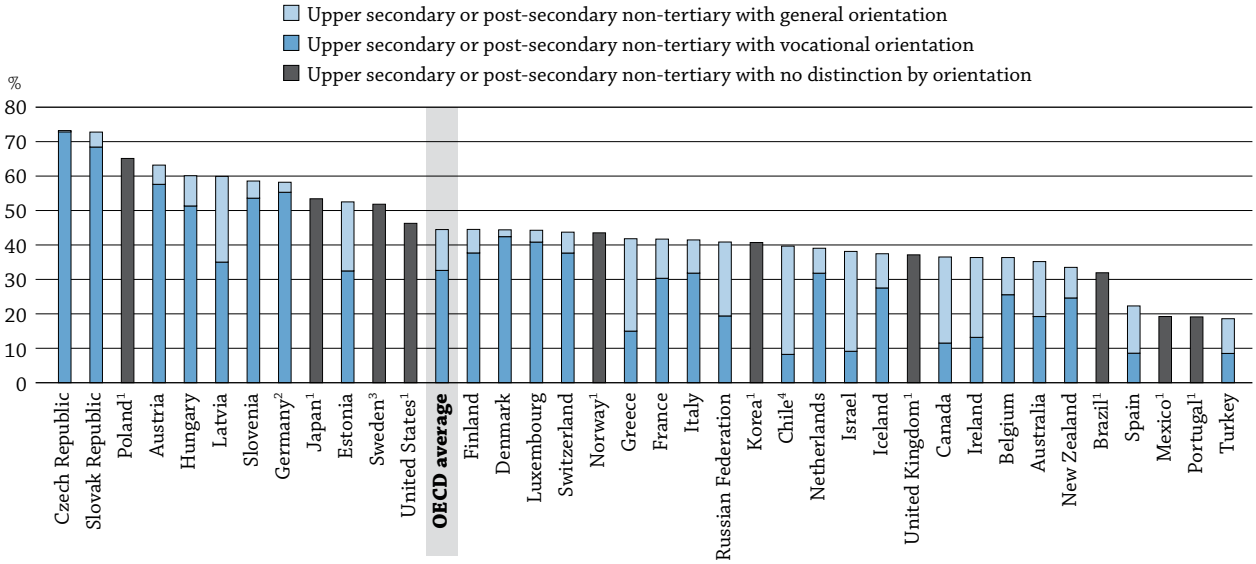
Upper secondary attainment and the weight of vocational education and training (VET)

Upper secondary education is the most commonly attained level of education in most OECD countries: more adults (25-64 year-olds) have attained upper secondary education or post-secondary non-tertiary education as their highest level of education (i.e. ISCED levels 3 and 4; see *Definitions* section at the end of this chapter) than have attained any other level of education. On average, about 45% of adults across OECD countries have attained an upper secondary education as their highest qualification. In Austria, the Czech Republic, Hungary, Latvia, Poland and the Slovak Republic, more than 60% of adults have attained this level of education (Table A1.4a).

The increase in attainment rates signals that people are staying longer in education and that policy initiatives have been successful in tackling such problems as dropout and lack of equity in education. Indeed, results from the latest round of the OECD Programme for International Student Assessment (PISA) reveal that most of the countries that have improved their performance since 2003 either maintained or improved equity in education so that a basic minimum standard of education is available to all (OECD, 2013b).

Chart A1.2. Population whose highest level of education is upper secondary or post-secondary non-tertiary, by programme orientation (2012)

25-64 year-olds



1. Countries for which no information about programme orientation is available.
2. Persons with ISCED 4A attainment in Germany have successfully completed both a general and a vocational programme. In this chart they have been allocated to vocational.
3. Figures for Sweden include about 10% of 25-64 year-olds who have attained ISCED levels 3 or 4 in programmes that cannot be allocated by orientation.
4. Year of reference 2011.

Countries are ranked in descending order of the percentage of 25-64 year-olds with upper secondary or post-secondary non-tertiary attainment (ISCED 3/4) as highest level of attainment, regardless of the orientation of the programmes.

Source: OECD. Table A1.5a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933114970

Chart A1.2 shows the percentage of the population with upper secondary or post-secondary non-tertiary education as the highest level of education and whether the qualification is from a general or vocational track. It shows the different weight that vocational upper secondary education has in several countries. At least one in two adults in Austria, the Czech Republic, Germany, Hungary, the Slovak Republic and Slovenia, have attained vocational upper secondary qualifications as the highest level of attainment while in Chile, Israel, Spain and Turkey, this proportion is smaller than 10%. There are large differences in attainment depending on programme orientation, as in upper secondary attainment overall, among countries (Table A1.5a).

Countries with relatively low upper secondary attainment rates can fall into one of two categories: either most individuals leave education before obtaining an upper secondary qualification (i.e. they have below upper secondary education), or they continue in education beyond this level until they earn a higher degree (i.e. they have attained tertiary education). In Australia, Canada, Ireland, Israel, Korea, New Zealand, the Russian Federation, Spain and the United Kingdom, tertiary attainment rates are higher than upper secondary attainment rates. In Luxembourg and Portugal, the rates for upper secondary and tertiary education are similar (Table A1.4a).

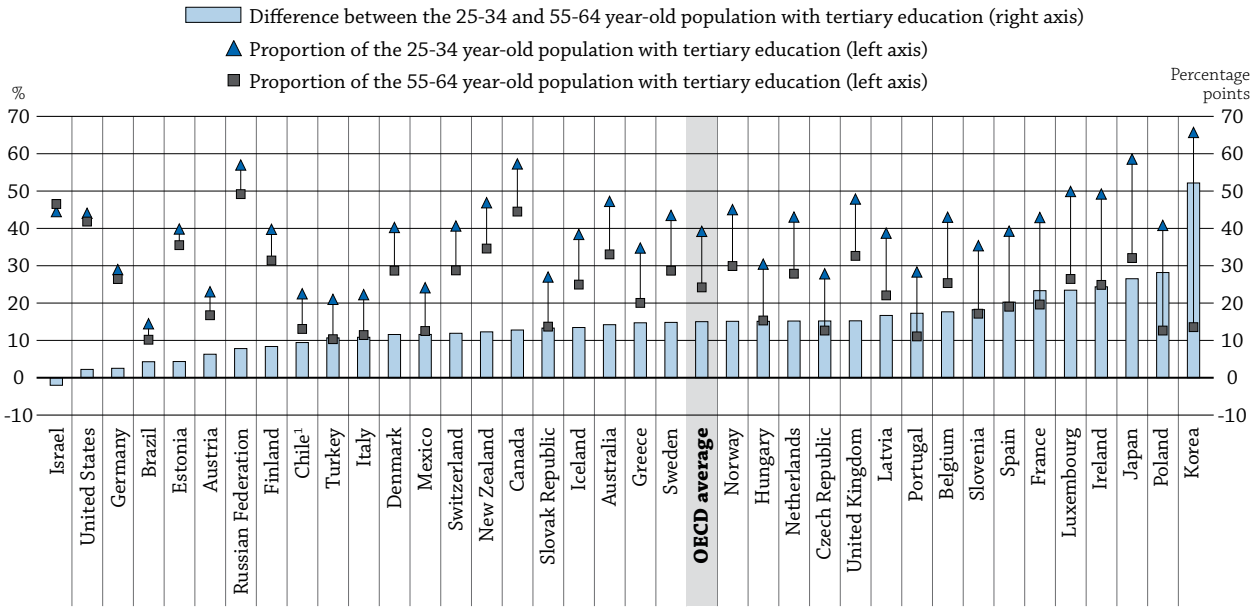
The gender gap in attainment rates has reversed among younger adults. On average, 25-34 year-old women have higher attainment rates in tertiary education than men of the same age. Some 84% of younger women have attained at least an upper secondary education while 81% of younger men have, on average (Tables A1.2b and A1.4b, available on line).

Tertiary attainment

Chart A1.1 shows that across OECD countries, tertiary attainment (including advanced research programmes, i.e. ISCED levels 5A, 5B and 6) has increased by 10 percentage points since 2000. On average, 34% of adult women and 31% of adult men have attained tertiary education. Younger adults have spurred this growth, and the change is even larger among women: in all OECD countries, younger women have higher tertiary attainment rates than older women by an average of more than 20 percentage points (Table A1.3b, available on line).

Chart A1.3. Percentage of younger and older tertiary-educated adults (2012)

25-34 and 55-64 year-olds, and percentage-point difference between these two groups



1. Year of reference 2011.

Countries are ranked in ascending order of the percentage-point difference between the 25-34 and 55-64 year-old population with tertiary education.

Source: OECD. Table A1.3a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933114989

Chart A1.3 shows that in some countries, the difference between generations is substantial: over 20 percentage points in France, Ireland, Japan, Luxembourg, Poland and Spain. In Korea, there is a 52 percentage-point gap in tertiary attainment rates between these two age groups. By contrast, the gap in tertiary attainment rates between the two age groups is less than three percentage points in Germany, Israel and the United States (Table A1.3a).

The proportion of 25-34 year-olds with tertiary education is larger than 40% in most OECD and partner countries (the OECD average is 39%), while among 55-64 year-olds this is only the case in Canada, Israel, the Russian Federation and the United States. Data also show that only 14% of 25-34 year-olds in Brazil have a tertiary education, and less than 14% of 55-64 year-olds in Brazil, Chile, the Czech Republic, Italy, Mexico, Poland, Portugal and Turkey do.

Although among 55-64 year-olds men are more likely to hold a tertiary degree (25%) than women (23%), in most OECD countries, women – particularly young women – are more likely to hold a tertiary qualification than men. Tertiary attainment rates among young women (25-34 year-olds) are highest in Australia, Belgium, Canada, Denmark, Estonia, Ireland, Israel, Japan, Korea, Latvia, Luxembourg, New Zealand, Norway, Poland, the Russian Federation, Sweden and the United Kingdom, where at least one in two young women have attained tertiary education (Table A1.3b, available on line).

Box A1.1. **Policy relevance of sub-national comparisons**

The main purpose of *Education at a Glance* is to provide an authoritative compilation of key international comparisons of education statistics. While countries attain specific values in these comparisons, readers should not assume that countries themselves are homogeneous. The country averages include significant variations among sub-national jurisdictions, much as the OECD average encompasses a variety of national experiences.

In most OECD countries, at least some education policy decisions are made by sub-national government authorities, while national decisions may affect sub-national entities differently. In some counties, the structure of the education system and the relatively small geographic expanse may limit the policy relevance of sub-national comparisons. In countries with federal education systems, sub-national governments have the primary role for managing education programmes; even in countries with more centralised education systems, sub-national education authorities may have specific administrative responsibilities. It is not surprising, then, that large federal countries, such as Canada, Germany and the United States, in which education is largely controlled by regional authorities, might have large internal variations in education measures. But, many other countries with centralised education systems, such as France and Italy, have substantial variations within their countries as well. The proportion of 25-34 year-olds with a tertiary degree in the United States in 2011 ranged from a low of 29% in the state of Nevada to a high of 71% in the District of Columbia (treated by the United States as a state for statistical purposes). In Canada, the proportion of 25-34 year-olds in 2010 who attained tertiary education ranged from 28% in Nunavut to 64% in Ontario. In Germany, the proportion of 25-34 year-olds with tertiary education ranged from 20% in Sachsen-Anhalt to 38% in Berlin.

Although France has a national education system, there is still a substantial variation in tertiary attainment across regions. The percentage of 25-34 year-olds with a tertiary degree ranged from a low of 19% in Guyane to a high of 55% in Île-de-France. The tertiary attainment of 30-34 year-olds in Italy in 2011 ranged from a low of 15% in Campania to a high of 27% in Puglia [Apulia], based on data compiled for the European Union by Eurostat. The tertiary attainment rates for 30-34 year-olds in the United Kingdom ranged from 32% in Merseyside to 69% in Inner London. Examples of countries with large differences in tertiary education attainment rates (i.e. more than double) among 30-34 year-olds in sub-national regions include Greece, Hungary, Portugal, the Slovak Republic, Spain, and Turkey. OECD countries with smaller ranges include Austria, Finland, Ireland, Norway, Poland, Slovenia, Sweden and Switzerland.

Other types of education statistics show substantial sub-national variations as well, including those preceding the tertiary level of attainment. In some countries, the proportions of 15-19 year-olds enrolled in secondary school or tertiary education varied widely among sub-national units in 2011. For example, the enrolment rates for 15-19 year-olds in sub-national areas ranged from 58% to 87% in Italy, from 70% to 95% in Spain, and from 71% to 95% in Portugal. While still significant, the ranges were smaller in such countries as France (69% to 88%), the United Kingdom (71% to 88%), and the United States (82% to 91%). Some countries had small sub-national differences in enrolment rates for 15-19 year-olds, including Norway (84% to 92%) and Sweden (87% to 88%).

While more complete information is needed to understand the geographical context of these data and their local implications, they do serve to illustrate that country-level averages sometimes mask important variations within countries that are of high interest to national and local policy makers. In additional to governmental boundaries, other types of subnational distinctions may be relevant for countries, such as those based on geographic boundaries, or urban or rural distinctions. Some countries with relatively high overall averages may have local areas that are lagging substantially behind average national levels. Some countries with low overall averages may have some localities showing high performance. Sub-national data can also help to show countries' success in ensuring equity in education across regions.

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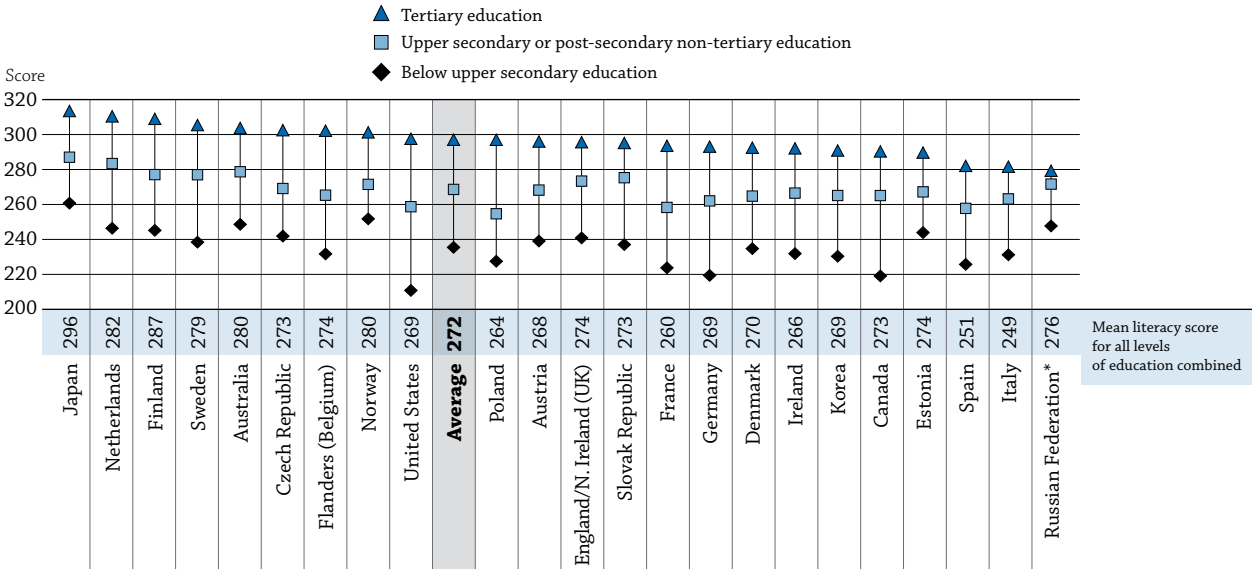
Educational attainment and literacy and numeracy skills

The Survey of Adult Skills assessed the proficiency of adults in literacy and numeracy. These skills are considered foundation skills in that they are essential for other types of learning, for example, people learn to read and then they learn through reading. Given that these skills are largely acquired and developed through formal education, measuring proficiency in literacy and numeracy can give governments and policy makers an indication of the effectiveness of their education systems.

Although closely related to each other, proficiency in literacy and numeracy and educational attainment measure different things. Qualifications earned through formal education do not always reflect the level of an individual's literacy or numeracy skills – even at the point in life when those qualifications are acquired. They also represent other sets of skills that cannot be reflected in literacy and numeracy proficiency, such as specialised (or practical) knowledge and work-specific skills.

Chart A1.4. Mean literacy score, by educational attainment (2012)

Survey of Adult Skills, 25-64 year-olds



* See note on data for the Russian Federation in the *Methodology* section.

Countries are ranked in descending order of the mean literacy score of 25-64 year-olds with tertiary education.

Source: OECD. Table A1.9a (L). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

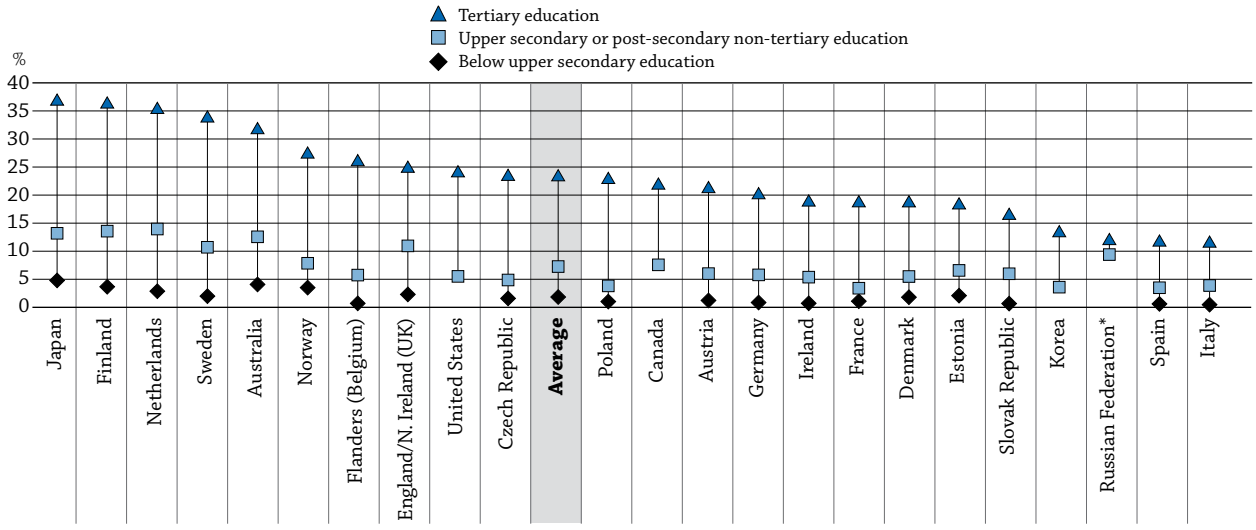
StatLink http://dx.doi.org/10.1787/888933115008

Chart A1.4 gives some insights into this complex relationship and shows the dispersion of the mean literacy score in the Survey of Adult Skills for all levels of education combined. The average mean literacy score is over 270 points. In all countries, the mean score is highest for those adults with tertiary education and lowest for those with below upper secondary education. In all countries except the Russian Federation, adults with tertiary education have a mean score above 280 points. Across countries, the average difference in score between adults with tertiary education and those with below upper secondary education is about 60 points, ranging from about 30 points in the Russian Federation to over 70 points in Canada, Flanders (Belgium), Germany and the United States (Table A1.9a [L]).

Chart A1.5 shows that, in all countries, the proportion of adults who perform at the highest proficiency levels in the Survey of Adult Skills (i.e. Level 4 or 5) is largest for tertiary-educated adults. In Australia, Finland, Japan, the Netherlands and Sweden, the proportion of adults scoring at literacy proficiency Level 4 or 5 is the largest: more than 30% of the tertiary-educated population scores at Level 4 or 5. In these countries, the difference in scores between tertiary-educated adults and those with below upper secondary education is also the largest: more than 25 percentage points. Data also show that, in all countries, there are larger proportions of adults who perform at literacy proficiency Level 4 or 5 among adults with higher educational attainment. The difference in literacy levels between tertiary-educated adults and those with an upper secondary education is larger than that between adults with an upper secondary education and those with below upper secondary education (Table A1.6a [L]).

Chart A1.5. Percentage of adults scoring at literacy proficiency Level 4/5, by educational attainment (2012)

Survey of Adult Skills, 25-64 year-olds



* See note on data for the Russian Federation in the *Methodology* section.

Countries are ranked in descending order of the percentage of 25-64 year-olds with tertiary education performing at literacy proficiency Level 4 or 5.

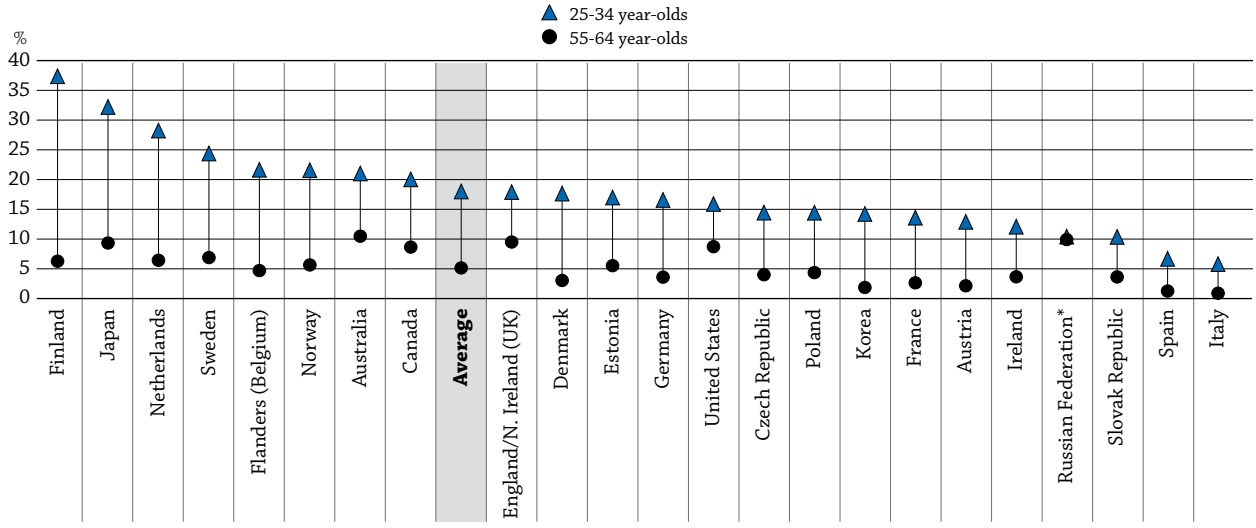
Source: OECD. Table A1.6a (L). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933115027

Chart A1.6 shows that, in all countries, the proportion of adults scoring at literacy proficiency Level 4 or 5 in the Survey of Adult Skills is on average about 10 percentage points greater among younger adults than older adults. This difference is over 20 percentage points in Finland, Japan and the Netherlands. In all countries, more than 5% of younger adults score at these high proficiency levels, while in Austria, the Czech Republic, Denmark, France, Germany, Ireland, Italy, Korea, Poland, the Slovak Republic and Spain, less than 5% of older adults do (Table A1.7a [L]).

Chart A1.6. Percentage of younger and older adults scoring at literacy proficiency Level 4/5 (2012)

Survey of Adult Skills, 25-34 and 55-64 year-olds



* See note on data for the Russian Federation in the *Methodology* section.

Countries are ranked in descending order of the percentage of 25-34 year-olds performing at literacy proficiency Level 4 or 5.

Source: OECD. Table A1.7a (L). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933115046

Box A1.2. Adults' skills and readiness to use information and communication technologies (ICT) for problem solving

While on the one hand there is a need for new and better skills in the context of an ever-evolving labour market, on the other hand, the rapid development of new technologies renders some skills redundant. As Frank Levy (2010) observed, "... technology can change the nature of work faster than people can change their skills". Thus, having the skills to use technology for completing non-routine tasks for which technology cannot (yet) replace people, is of critical value. For most of today's workers, ICT skills are key to getting a job and/or a better salary; for economies, they are crucial for remaining competitive in the global market. OECD countries anticipate that technology will continue to be a key driver of job creation, and have placed the development of ICT skills as the most important policy strategy for economic recovery (Chinien and Boutin, 2011; OECD, 2010).

Besides literacy and numeracy, the Survey of Adult Skills also measured problem solving skills in technology-rich environments and estimated the frequency of using different skills, including ICT skills, at work and at home. The assessment of problem solving in technology-rich environments was established as a computer-based assessment. Respondents had to have had earlier computer experience, some readiness to solve tasks with the laptop offered by the interviewer, and minimal computer skills, which were tested with a simple six-task test called "ICT core". Across the countries that participated in the survey, 74% of respondents passed the ICT core test and took the computer-based assessment (OECD, 2013a). The focus of the problem-solving assessment included understanding the nature of the problem, setting sub-goals and steps through which the problem may be solved, and taking the steps required to reach those sub-goals. However, the problems presented in the assessment were directly related to computer technology, and solving the problems required using technology. Higher levels of proficiency in problem solving in technology-rich environments thus reflect both higher problem-solving skills and also better skills in using digital technology, communication tools and networks to acquire and evaluate information, communicate with others and perform practical tasks (PIAAC Expert Group in Problem Solving in Technology-Rich Environments, 2009).

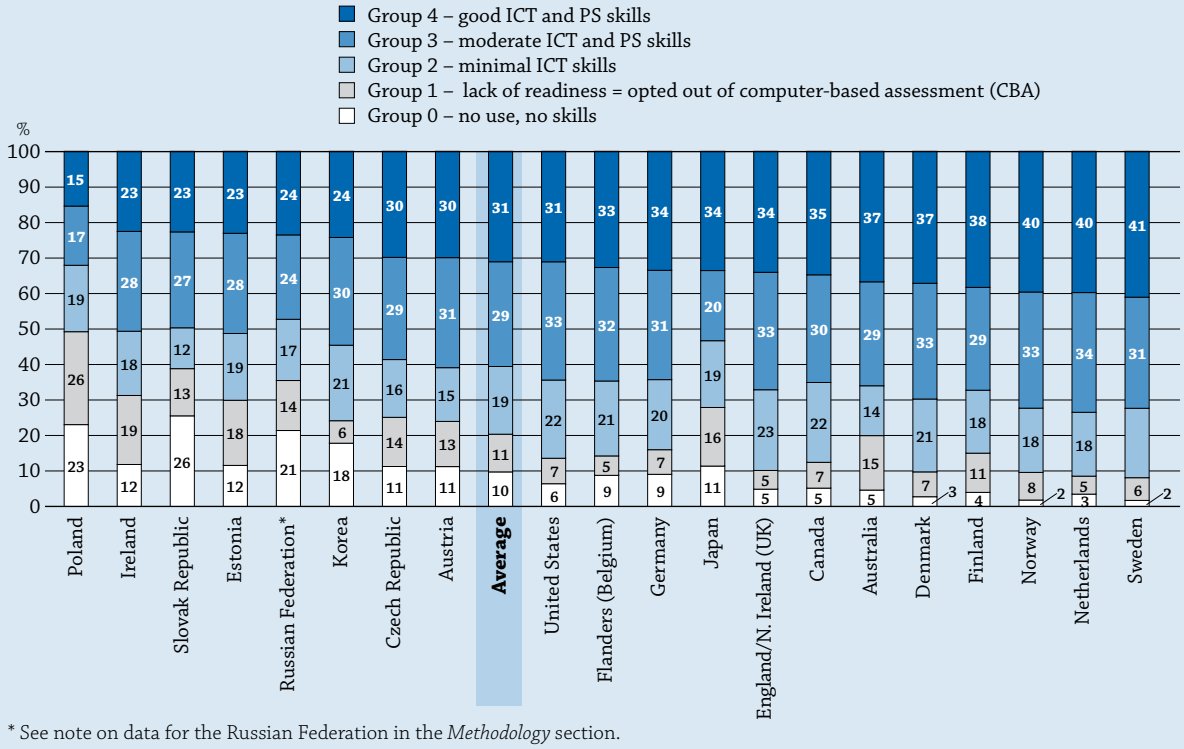
The information available through the Survey of Adult Skills allowed for the creation of an indicator that measures **skills and readiness to use ICT for problem solving**. This indicator brings together the information about performance in the problem-solving assessment (four groups, from below Level 1 to Level 3) and information about the reasons for not participating in the computer-based assessment and thus not having a score in problem solving (three groups). A self-estimate of the frequency of ICT use was used to validate the division of the groups. The use of ICT (the frequency of different activities related to the computer and the Internet) is related to the level of skills and readiness to use ICT for problem solving (see Chart A1.b below). The above mentioned groups are defined as follows:

- **Group 0 – No use, no skills.** Individuals with no computer experience. Across 19 countries that participated in the assessment of problem solving in technology-rich environments, **9% of 16-65 year-olds** belong to this group.
- **Group 1 – Lack of readiness to use new devices and systems, minimal use of ICT.** This group **opted out of the computer-based assessment**. Although there may have been very different reasons for opting out of the assessment, the frequency of computer use at home, as well as the self-reported level of required computer skills at work, are lower than for the next group; thus this group probably has less skill in ICT use too. About **10% of the population** belong to this group.
- **Group 2 – Minimal ICT skills, moderate ICT use.** These are individuals with low ICT skills but who have the confidence to use ICT. They are able to use only "one function within a generic interface" (OECD, 2013c) and may even fail in very basic ICT tasks like scrolling or highlighting text (ICT core). This group includes individuals who score below Level 1 in the assessment of problem solving in technology-rich environments and those who fail the ICT core test. These two groups were merged into one since their experiences in using computers are similar across countries: they use computers at home more often than people in Group 1 do but less often than people in Group 3 do. They also differ from the other groups in their literacy and numeracy skills, which are generally better than those of people in Group 0 but not as high as those in Groups 1 and 3. This group includes about **17% of the population.**

...

- **Group 3 – Moderate ICT and problem-solving skills** (Level 1). These individuals can "use widely available and familiar technology applications, such as e-mail software or a web browser" (OECD, 2013c). They are often not aware of, nor do they know how to use, specific tools and functions (e.g. a sort function). The tasks they succeed in completing require little or no navigation. About **29% of the population** belong to this group.
- **Group 4 – Good ICT and problem-solving skills** (Levels 2 and 3). These are individuals with high ICT skills who can solve complicated problems with the help of technology. At this level, "tasks typically require the use of both generic and more specific technology applications. Some navigation across pages and applications is required to solve the problem. The use of tools (e.g. a sort function) facilitates the resolution of the problem" (OECD, 2013c). About **33% of the population** belong to this group.

Chart A1.a. Distribution of skills and readiness to use information and communication technologies (ICT) for problem solving (PS) among adult population
25-64 year-olds



* See note on data for the Russian Federation in the *Methodology* section.
Countries are ranked in ascending order of the proportion of adult population with good ICT and PS skills.
Source: OECD. Survey of Adult Skills (PIAAC). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933115065

Although there is a clear relationship between frequency of computer use at home and skills and readiness to use ICT (Chart A1.b), the term "group" is used rather than "level" since these groupings differ in nature from those concerning literacy and numeracy and are based on different kinds of information. Groups 0 and 1 are derived from the information about earlier experience and readiness to use computers in testing situation; groups 2-4 are based on an assessment of ICT and problem-solving skills.

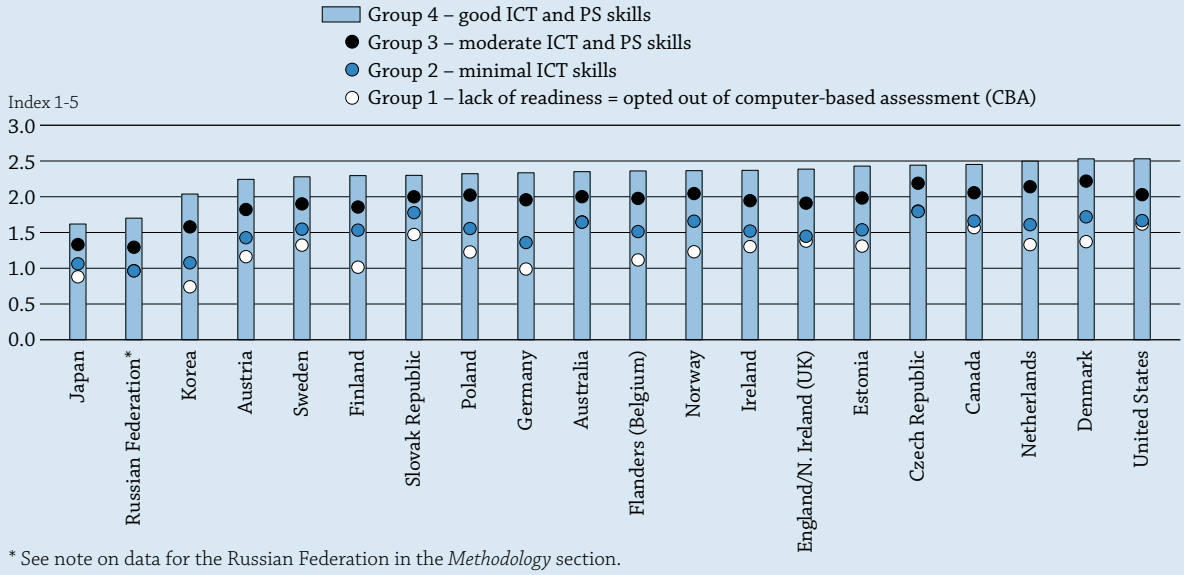
The distribution of the population according to these five groups in each of the countries participating in the Survey of Adult Skills is represented in Chart A1.a.

Chart A1.c shows that higher skills and readiness to use ICT for problem solving is associated with significant differences in adults' salaries in all countries. Further relationships between skills and readiness to use ICT for problem solving will be examined in a special chapter in *Education at a Glance 2015*.

...

Chart A1.b. Frequency of using ICT at home (index 1-5) across people with different skills and readiness to use information and communication technologies (ICT) for problem solving (PS)

25-64 year-olds



* See note on data for the Russian Federation in the *Methodology* section.

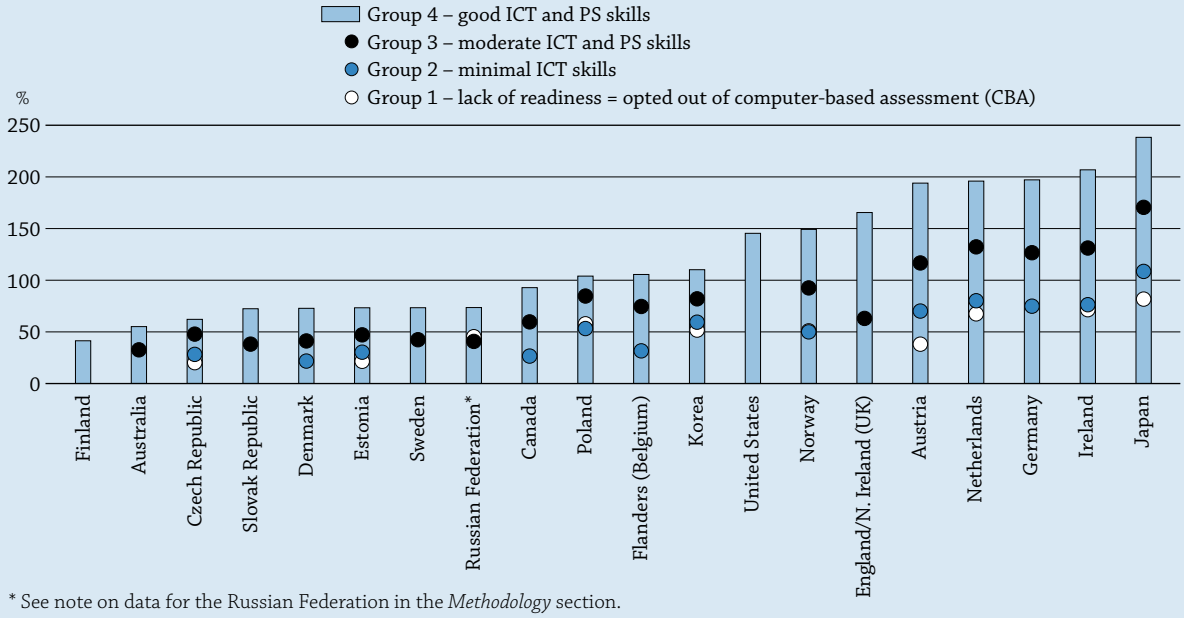
Countries are ranked in ascending order of the average frequency of using ICT at home among adult population with good ICT and PS skills.

Source: OECD. Survey of Adult Skills (PIAAC). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933115084

Chart A1.c. Difference in salary (%) compared to the group 0 (no use, no skills), adjusted for age and education

25-64 year-olds



* See note on data for the Russian Federation in the *Methodology* section.

Note: Only differences statistically significant are shown on the chart.

Countries are ranked in ascending order of the difference in salary (%) compared to the group 0.

Source: OECD. Survey of Adult Skills (PIAAC). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933115103

Definitions

Age groups: adults refers to 25-64 year-olds; **younger adults** refers to 25-34 year-olds; **older adults** refers to 55-64 year-olds.

Levels of education: below upper secondary corresponds to ISCED levels 0, 1, 2 and 3C short programmes; **upper secondary or post-secondary non-tertiary** corresponds to ISCED levels 3A, 3B, 3C long programmes, and ISCED level 4; and **tertiary** corresponds to ISCED levels 5A, 5B and 6. See the *Reader's Guide* at the beginning of the book for a presentation of all ISCED levels.

Methodology

Data on population and educational attainment for most countries are taken from OECD and Eurostat databases, which are compiled from National Labour Force Surveys by the OECD LSO (Labour Market and Social Outcomes of Learning) Network. Data on educational attainment for Argentina, China, Colombia, Indonesia, Saudi Arabia and South Africa are taken from the UNESCO Institute of Statistics (UIS) database on educational attainment of the population aged 25 and older. Data on proficiency levels and mean scores are based on the Survey of Adult Skills (PIAAC) (2012). PIAAC is the OECD Programme for the International Assessment of Adult Competencies. See *About the Survey of Adult Skills* at the beginning of this publication and Annex 3 for additional information (*www.oecd.org/edu/eag.htm*). Box A1.1 is based on the INES survey of sub-national data.

Attainment profiles are based on the percentage of the population aged 25-64 that has successfully completed a specified level of education.

Most OECD countries include people without education (i.e. illiterate adults or people whose educational attainment does not fit national classifications) under the international classification ISCED 0 and therefore averages for ISCED 0/1 (i.e. pre-primary and primary education) are likely to be influenced.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Note regarding data from the Russian Federation in the Survey of Adult Skills (PIAAC)

Readers should note that the sample for the Russian Federation does not include the population of the Moscow municipal area. The data published, therefore, do not represent the entire resident population aged 16-65 in Russia but rather the population of Russia *excluding* the population residing in the Moscow municipal area. More detailed information regarding the data from the Russian Federation as well as that of other countries can be found in the *Technical Report of the Survey of Adult Skills* (OECD, forthcoming).

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Tables of Indicator A1

StatLink http://dx.doi.org/10.1787/888933114761

	Table A1.1a	Educational attainment of 25-64 year-olds (2012)
WEB	Table A1.1b	Educational attainment of 25-64 year-olds, by gender (2012)
	Table A1.2a	Percentage of adults who have attained at least upper secondary education, by age group (2012)
WEB	Table A1.2b	Percentage of adults who have attained at least upper secondary education, by age group and gender (2012)
	Table A1.3a	Percentage of adults who have attained tertiary education, by type of programme and age group (2012)
WEB	Table A1.3b	Percentage of adults who have attained tertiary education, by type of programme, age group and gender (2012)
	Table A1.4a	Trends in educational attainment, by age group, and average annual growth rate (2000, 2005-12)
WEB	Table A1.4b	Trends in educational attainment, by gender and age group, and average annual growth rate (2000, 2005-12)
	Table A1.5a	Adults with upper secondary education, by programme orientation and gender (2012)
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	Table A1.6a (L)	Educational attainment of 25-64 year-olds, by literacy proficiency level (2012)
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WEB	Table A1.6b (L)	Educational attainment of 25-64 year-olds, by literacy proficiency level and gender (2012)
WEB	Table A1.6b (N)	Educational attainment of 25-64 year-olds, by numeracy proficiency level and gender (2012)
	Table A1.7a (L)	Distribution of literacy proficiency levels, by age (2012)
WEB	Table A1.7a (N)	Distribution of numeracy proficiency levels, by age (2012)
WEB	Table A1.7b (L)	Distribution of literacy proficiency levels, by age and gender (2012)
WEB	Table A1.7b (N)	Distribution of numeracy proficiency levels, by age and gender (2012)
	Table A1.8 (L)	Percentage of 25-64 year-olds with vocational or general upper secondary or post-secondary non-tertiary education, by literacy proficiency level and mean literacy score (2012)
WEB	Table A1.8 (N)	Percentage of 25-64 year-olds with upper secondary or post-secondary non-tertiary education, by programme orientation, numeracy proficiency level and mean numeracy score (2012)
	Table A1.9a (L)	Mean literacy score, by educational attainment and age (2012)
WEB	Table A1.9a (N)	Mean numeracy score, by educational attainment and age (2012)
WEB	Table A1.9b (L)	Distribution of mean literacy scores, 25-64 year-olds (2012)
WEB	Table A1.9b (N)	Distribution of mean numeracy scores, 25-64 year-olds (2012)

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Table A1.1a. Educational attainment of 25-64 year-olds (2012)

		Pre-primary and primary education	Lower secondary education	ISCED 3C (short programme)	Upper secondary education: ISCED 3C (long programme)/ 3B	Upper secondary education: ISCED 3A	Post-secondary non-tertiary education	Tertiary education: Type B	Tertiary education: Type A	Tertiary education: Advanced research programmes	All levels of education
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
OECD	Australia	6	18	a	14	16	5	11	29	1	100
	Austria	x(2)	16	1	47	6	10	7	13	x(8)	100
	Belgium	12	16	a	10	24	3	17	18	1	100
	Canada	3	8	a	x(5)	25	12	25	28	x(8)	100
	Chile[1]	18	25	a	x(5)	40	a	6	11	1	100
	Czech Republic	n	7	a	38	35	x(5)	x(8)	19	x(8)	100
	Denmark	1	20	1	37	6	c	6	28	1	100
	Estonia	1	10	a	14	32	7	13	24	n	100
	Finland	6	10	a	a	44	1	13	25	1	100
	France	10	18	a	30	11	n	12	18	1	100
	Germany	3	10	a	47	3	8	11	16	1	100
	Greece	21	11	x(4)	7	27	8	9	17	n	100
	Hungary	1	17	a	29	29	2	1	21	1	100
	Iceland	21	7	2	19	10	6	4	30	1	100
	Ireland	10	14	1	x(5)	21	13	15	24	1	100
	Israel	10	6	a	7	31	a	14	31	1	100
	Italy	10	32	1	8	33	1	n	15	n	100
	Japan	x(5)	x(5)	x(5)	x(5)	53	a	20	26	x(8)	100
	Korea	8	10	a	x(5)	41	a	13	28	x(8)	100
	Luxembourg	8	9	5	16	20	4	13	25	1	100
	Mexico	39	23	a	5	14	a	1	17	x(8)	100
	Netherlands	8	19	x(4)	14	22	3	3	31	1	100
	New Zealand	x(2)	19	7	14	9	11	15	25	x(8)	100
	Norway	n	18	a	27	13	4	2	36	1	100
	Poland	x(2)	10	a	31	31	4	x(8)	25	x(8)	100
	Portugal	42	21	x(5)	x(5)	19	n	x(8)	16	3	100
	Slovak Republic	n	8	x(4)	35	38	x(5)	1	17	n	100
	Slovenia	1	14	a	27	32	a	12	12	2	100
	Spain	17	29	a	9	14	n	10	22	1	100
	Sweden	4	9	a	x(5)	45	7	9	25	1	100
	Switzerland	3	9	2	39	5	6	11	23	3	100
	Turkey	55	12	a	9	10	a	x(8)	15	x(8)	100
	United Kingdom	n	9	13	30	7	a	10	30	1	100
	United States	4	7	x(5)	x(5)	46	x(5)	10	31	1	100
		Below upper secondary education			Upper secondary level of education			Tertiary level of education			
	OECD average	24			44			33			
	EU21 average	23			48			29			
Partners	Argentina[2]	44	14	a	x(5)	28	a	x(8)	14	x(8)	100
	Brazil	40	15	x(5)	x(5)	32	a	x(8)	13	x(8)	100
	China[3]	35	43	m	x(5)	14	5	x(8)	4	x(8)	100
	Colombia[1]	44	14	a	x(5)	22	a	x(8)	20	x(8)	100
	India	m	m	m	m	m	m	m	m	m	m
	Indonesia[1]	56	16	a	x(5)	21	a	x(8)	8	x(8)	100
	Latvia	1	10	m	3	48	8	1	27	n	100
	Russian Federation	1	5	x(4)	19	21	x(4)	26	28	n	100
	Saudi Arabia[4]	33	18	a	x(5)	23	5	x(8)	21	x(8)	100
	South Africa	26	14	a	x(5)	47	7	x(8)	6	x(8)	100
	G20 average	36			36			27			

Note: Due to discrepancies in the data, OECD and EU21 averages have not been calculated for each column individually.

1. Year of reference 2011.
2. Year of reference 2003.
3. Year of reference 2010.
4. Year of reference 2013.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933114780

Table A1.2a. Percentage of adults who have attained at least upper secondary education, by age group (2012)

		Age group					
		25-64	30-34	25-34	35-44	45-54	55-64
		(1)	(2)	(3)	(4)	(5)	(6)
OECD	Australia	76	86	87	81	71	64
	Austria	83	89	89	86	83	74
	Belgium	72	82	82	79	69	56
	Canada	89	93	92	92	88	84
	Chile[1]	57	72	77	61	50	38
	Czech Republic	92	93	94	95	93	87
	Denmark	78	83	82	82	77	71
	Estonia	90	86	86	90	94	88
	Finland	85	91	90	90	87	74
	France	73	83	83	79	69	59
	Germany	86	87	87	87	87	84
	Greece	68	81	83	74	65	50
	Hungary	82	87	88	84	82	75
	Iceland	71	77	75	75	71	61
	Ireland	75	86	86	80	70	55
	Israel	85	89	90	86	81	77
	Italy	57	70	72	62	53	42
	Japan	m	m	m	m	m	m
	Korea	82	98	98	96	78	48
	Luxembourg	78	86	86	80	76	69
	Mexico	37	42	46	37	35	25
	Netherlands	73	83	83	78	72	61
	New Zealand	74	81	80	78	73	64
	Norway	82	84	82	86	79	82
	Poland	90	94	94	92	90	81
	Portugal	38	55	58	43	27	20
	Slovak Republic	92	94	94	94	92	86
	Slovenia	85	94	94	89	83	74
	Spain	55	65	64	62	51	35
	Sweden	88	90	91	92	88	79
	Switzerland	86	89	89	88	86	82
	Turkey	34	43	46	32	25	21
	United Kingdom	78	85	85	81	76	69
	United States	89	89	89	89	89	90
	OECD average	75	82	82	79	73	64
	EU21 average	77	84	84	81	75	66
Partners	Argentina[2]	42	m	m	m	m	m
	Brazil	45	56	59	45	38	27
	China[3]	22	m	m	m	m	m
	Colombia[1]	42	m	m	m	m	m
	India	m	m	m	m	m	m
	Indonesia[1]	29	m	m	m	m	m
	Latvia	89	84	85	89	94	87
	Russian Federation	94	94	94	95	96	92
	Saudi Arabia[4]	49	m	m	m	m	m
	South Africa	61	m	m	m	m	m
	G20 average	61	m	m	m	m	m

Note: These calculations exclude ISCED 3C short programmes.

1. Year of reference 2011.
2. Year of reference 2003.
3. Year of reference 2010.
4. Year of reference 2013.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933114799

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Table A1.3a. Percentage of adults who have attained tertiary education, by type of programme and age group (2012)

	Tertiary-type B						Tertiary-type A or advanced research programmes						Total tertiary						
	25-64	30-34	25-34	35-44	45-54	55-64	25-64	30-34	25-34	35-44	45-54	55-64	25-64	30-34	25-34	35-44	45-54	55-64	25-64 (in thousands)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)
OECD																			
Australia	**11**	11	10	13	12	10	**30**	38	37	32	25	23	**41**	49	47	45	37	33	4 846
Austria	**7**	6	5	7	8	8	**13**	20	18	14	10	8	**20**	26	23	22	19	17	934
Belgium	**17**	20	18	20	16	13	**18**	24	25	21	16	12	**35**	44	43	40	32	25	2 089
Canada	**25**	26	25	27	25	22	**28**	32	32	32	24	22	**53**	58	57	59	50	44	9 981
Chile[1]	**6**	6	6	7	6	4	**12**	17	16	12	9	9	**18**	23	22	19	16	13	1 492
Czech Republic	**x(7)**	x(8)	x(9)	x(10)	x(11)	x(12)	**19**	26	28	19	18	13	**19**	26	28	19	18	13	1 164
Denmark	**6**	6	5	6	6	5	**29**	37	35	32	27	24	**35**	43	40	39	32	29	817
Estonia	**13**	12	13	12	13	12	**25**	27	27	24	24	23	**37**	39	40	36	37	35	272
Finland	**13**	2	1	15	21	17	**26**	44	39	33	21	15	**40**	46	40	47	41	31	1 136
France	**12**	17	16	16	10	7	**19**	27	27	22	14	13	**31**	44	43	38	24	20	10 049
Germany	**11**	10	9	11	12	11	**17**	22	19	19	15	15	**28**	32	29	30	28	26	12 612
Greece	**9**	11	13	8	8	5	**18**	20	21	19	16	15	**27**	31	35	27	24	20	1 641
Hungary	**1**	1	1	1	c	c	**21**	29	29	22	19	15	**22**	30	30	22	19	15	1 225
Iceland	**4**	c	3	5	5	5	**31**	40	36	37	30	20	**35**	40	38	42	34	25	56
Ireland	**15**	18	16	18	13	10	**25**	33	33	28	19	15	**40**	51	49	46	32	25	965
Israel	**14**	13	12	14	14	16	**33**	38	33	36	30	30	**46**	51	44	50	45	47	1 691
Italy	**n**	n	n	n	n	n	**15**	21	22	17	12	11	**16**	22	22	17	12	11	5 272
Japan	**20**	m	23	25	20	13	**26**	m	35	27	26	19	**47**	m	59	52	46	32	30 890
Korea	**13**	25	26	17	6	2	**28**	40	40	36	23	11	**42**	66	66	52	29	14	12 331
Luxembourg	**13**	12	14	15	12	10	**26**	38	36	30	20	17	**39**	50	50	45	32	26	114
Mexico	**1**	1	1	1	1	1	**17**	20	23	15	15	12	**18**	21	24	16	17	13	9 661
Netherlands	**3**	3	3	3	3	2	**32**	41	40	34	28	25	**34**	44	43	37	31	28	2 922
New Zealand	**15**	14	14	15	16	17	**25**	34	33	28	22	18	**41**	48	47	42	38	35	882
Norway	**2**	c	1[r]	2	3	3	**36**	47	44	41	32	27	**39**	47	45	44	35	30	1 017
Poland	**x(7)**	x(8)	x(9)	x(10)	x(11)	x(12)	**25**	39	41	26	16	13	**25**	39	41	26	16	13	5 157
Portugal	**x(7)**	x(8)	x(9)	x(10)	x(11)	x(12)	**19**	27	28	20	14	11	**19**	27	28	20	14	11	1 095
Slovak Republic	**1**	1	1	1	1	1	**18**	22	26	16	15	12	**19**	24	27	17	16	14	598
Slovenia	**12**	15	14	13	11	9	**15**	24	22	18	12	8	**26**	39	35	30	23	17	315
Spain	**10**	13	13	12	8	4	**23**	27	27	27	20	15	**32**	40	39	39	28	19	8 508
Sweden	**9**	9	9	8	9	10	**27**	39	34	32	21	19	**36**	48	43	40	30	29	1 736
Switzerland	**11**	10	9	12	12	10	**26**	34	32	29	23	19	**37**	44	41	41	35	29	1 619
Turkey	**x(7)**	x(8)	x(9)	x(10)	x(11)	x(12)	**15**	19	21	15	10	10	**15**	19	21	15	10	10	5 271
United Kingdom	**10**	9	8	11	11	10	**31**	42	40	35	26	22	**41**	50	48	45	37	33	13 508
United States	**10**	11	10	11	10	11	**33**	35	34	35	31	31	**43**	45	44	46	41	42	70 207
OECD average	**10**	10	10	11	10	9	**24**	31	30	26	20	17	**32**	40	39	35	29	24	
OECD total (in thousands)																			222 074
EU21 average	**9**	9	9	10	10	8	**22**	30	29	24	18	15	**30**	38	37	33	26	22	
Partners																			
Argentina[2]	**x(13)**	m	m	m	m	m	**x(13)**	m	m	m	m	m	**14**	m	m	m	m	m	m
Brazil	**x(7)**	x(8)	x(9)	x(10)	x(11)	x(12)	**13**	15	14	13	13	10	**13**	15	14	13	13	10	13 199
China[3]	**x(13)**	m	m	m	m	m	**x(13)**	m	m	m	m	m	**4**	m	m	m	m	m	m
Colombia[1]	**x(13)**	m	m	m	m	m	**x(13)**	m	m	m	m	m	**20**	m	m	m	m	m	m
India	**m**	m	m	m	m	m	**m**	m	m	m	m	m	**m**	m	m	m	m	m	m
Indonesia[1]	**x(13)**	m	m	m	m	m	**x(13)**	m	m	m	m	m	**8**	m	m	m	m	m	m
Latvia	**1**	2	3	2	1	n	**28**	36	36	27	26	22	**29**	37	39	29	27	22	321
Russian Federation	**26**	22	21	26	28	28	**28**	34	35	29	24	21	**53**	56	57	55	52	49	44 583
Saudi Arabia[4]	**x(13)**	m	m	m	m	m	**x(13)**	m	m	m	m	m	**21**	m	m	m	m	m	m
South Africa	**x(13)**	m	m	m	m	m	**x(13)**	m	m	m	m	m	**6**	m	m	m	m	m	m
G20 average	**x(13)**	m	m	m	m	m	**x(13)**	m	m	m	m	m	**27**	m	m	m	m	m	
G20 total (in thousands)																			m

1. Year of reference 2011.
2. Year of reference 2003.
3. Year of reference 2010.
4. Year of reference 2013.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data and the "r" symbol next to some figures.

StatLink http://dx.doi.org/10.1787/888933114818

Table A1.4a. [1/2] Trends in educational attainment, by age group, and average annual growth rate (2000, 2005-12)

	Educational attainment	25-64 year-olds				25-34 year-olds				55-64 year-olds			
		2000	2005	2010	2012	2000	2005	2010	2012	2000	2005	2010	2012
		(1)	(2)	(7)	(9)	(11)	(12)	(17)	(19)	(21)	(22)	(27)	(29)
OECD Australia	Below upper secondary	41	35	27	24	32	21	15	13	54	50	42	36
	Upper secondary or post-secondary non-tertiary	31	33	36	35	37	41	40	39	27	26	29	30
	Tertiary	27	32	38	41	31	38	44	47	19	24	30	33
Austria	Below upper secondary	24	19	18	17	16	13	12	11	37	30	27	26
	Upper secondary or post-secondary non-tertiary	62	63	63	63	69	68	67	66	53	56	56	57
	Tertiary	14	18	19	20	14	20	21	23	10	14	16	17
Belgium	Below upper secondary	41	34	30	28	25	19	18	18	62	52	46	44
	Upper secondary or post-secondary non-tertiary	31	35	36	36	39	40	38	39	22	26	29	31
	Tertiary	27	31	35	35	36	41	44	43	17	22	26	25
Canada	Below upper secondary	19	15	12	11	12	9	8	8	36	25	18	16
	Upper secondary or post-secondary non-tertiary	41	39	38	36	40	37	36	35	36	39	40	39
	Tertiary	40	46	51	53	48	54	56	57	28	36	42	44
Chile[1]	Below upper secondary	m	m	29	m	m	m	13	m	m	m	47	m
	Upper secondary or post-secondary non-tertiary	m	m	45	m	m	m	48	m	m	m	34	m
	Tertiary	m	m	27	m	m	m	38	m	m	m	19	m
Czech Republic	Below upper secondary	14	10	8	8	8	6	6	6	24	17	14	13
	Upper secondary or post-secondary non-tertiary	75	77	75	73	81	80	72	66	67	73	75	74
	Tertiary	11	13	17	19	11	14	23	28	9	11	12	13
Denmark	Below upper secondary	20	19	24	22	13	13	20	18	31	25	32	29
	Upper secondary or post-secondary non-tertiary	54	47	42	43	58	48	42	42	51	48	41	42
	Tertiary	26	34	33	35	29	40	38	40	18	27	28	29
Estonia[2]	Below upper secondary	15	11	11	10	9	13	13	14	33	20	15	12
	Upper secondary or post-secondary non-tertiary	56	56	54	53	60	55	49	47	39	51	54	53
	Tertiary	29	33	35	37	31	33	38	40	27	29	31	36
Finland	Below upper secondary	27	21	17	15	14	11	9	10	50	39	30	26
	Upper secondary or post-secondary non-tertiary	41	44	45	45	48	52	52	50	27	34	40	43
	Tertiary	33	35	38	40	39	38	39	40	23	27	30	31
France	Below upper secondary	38	33	29	27	24	19	16	17	56	49	44	41
	Upper secondary or post-secondary non-tertiary	41	41	42	42	45	42	41	40	31	35	37	39
	Tertiary	22	25	29	31	31	40	43	43	13	16	18	20
Germany	Below upper secondary	18	17	14	14	15	16	14	13	26	21	17	16
	Upper secondary or post-secondary non-tertiary	58	59	59	58	63	62	60	58	54	56	58	58
	Tertiary	23	25	27	28	22	22	26	29	20	23	25	26
Greece	Below upper secondary	51	43	35	32	31	26	21	17	75	68	56	50
	Upper secondary or post-secondary non-tertiary	32	36	41	42	45	49	48	48	17	20	27	30
	Tertiary	18	21	25	27	24	26	31	35	8	12	17	20
Hungary	Below upper secondary	31	24	19	18	19	15	14	12	60	39	26	25
	Upper secondary or post-secondary non-tertiary	55	59	61	60	67	65	60	57	28	46	58	59
	Tertiary	14	17	20	22	15	20	26	30	12	15	16	15
Iceland	Below upper secondary	44	37	33	29	37	31	28	25	60	51	45	39
	Upper secondary or post-secondary non-tertiary	32	32	34	36	33	33	36	37	27	28	32	36
	Tertiary	24	31	33	35	30	36	36	38	13	21	23	25
Ireland	Below upper secondary	43	35	27	25	27	19	14	14	64	60	50	45
	Upper secondary or post-secondary non-tertiary	36	35	35	35	43	40	37	37	22	23	29	30
	Tertiary	22	29	38	40	30	41	48	49	13	17	22	25
Israel	Below upper secondary	m	21	18	15	m	14	12	10	m	31	26	23
	Upper secondary or post-secondary non-tertiary	m	33	37	38	m	36	44	46	m	26	29	31
	Tertiary	m	46	46	46	m	50	44	44	m	43	45	47
Italy	Below upper secondary	55	50	45	43	41	34	29	28	76	70	62	58
	Upper secondary or post-secondary non-tertiary	36	38	40	42	49	50	50	50	18	22	28	31
	Tertiary	10	12	15	16	11	16	21	22	6	8	11	11
Japan	Below upper secondary	17	m	m	m	6	m	m	m	37	m	m	m
	Upper secondary or post-secondary non-tertiary	49	60	55	53	46	47	43	41	48	78	71	68
	Tertiary	34	40	45	47	48	53	57	59	15	22	29	32
Korea	Below upper secondary	32	24	20	18	7	3	2	2	71	65	57	52
	Upper secondary or post-secondary non-tertiary	44	44	41	41	56	46	33	33	20	25	30	34
	Tertiary	24	32	40	42	37	51	65	66	9	10	13	14
Luxembourg	Below upper secondary	39	34	22	22	32	23	16	14	51	45	31	31
	Upper secondary or post-secondary non-tertiary	43	39	42	39	45	40	40	36	36	37	44	42
	Tertiary	18	27	35	39	23	37	44	50	13	19	25	26
Mexico	Below upper secondary	71	68	65	63	63	62	57	54	87	84	78	75
	Upper secondary or post-secondary non-tertiary	14	17	18	19	20	20	21	22	6	8	10	12
	Tertiary	15	15	17	18	17	18	21	24	7	8	12	13
Netherlands	Below upper secondary	34	28	28	27	25	19	18	17	46	41	40	39
	Upper secondary or post-secondary non-tertiary	42	42	40	40	48	46	42	42	35	35	34	35
	Tertiary	24	30	32	33	27	35	40	41	19	24	26	27

Note: Columns showing data for years 2006, 2007, 2008, 2009, 2011 and average annual growth rate are available for consultation on line (see *StatLink* below).

1. Break in the time series between 2010 and 2011. Data for 2011 are not comparable with previous years.

2. Figures for 2012 for Estonia and Slovenia in this table may differ from figures in other tables of Indicator A1 because the source of the figures is different. This table uses EU-LFS for all years.

3. Figures for 2000 are not comparable with more recent years as in 2000 the former classification of educational attainment was used.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933114837

Table A1.4a. [2/2] Trends in educational attainment, by age group, and average annual growth rate (2000, 2005-12)

		Educational attainment	25-64 year-olds				25-34 year-olds				55-64 year-olds			
			2000	2005	2010	2012	2000	2005	2010	2012	2000	2005	2010	2012
			(1)	(2)	(7)	(9)	(11)	(12)	(17)	(19)	(21)	(22)	(27)	(29)
OECD	New Zealand	Below upper secondary	37	32	27	26	31	24	21	20	49	44	38	36
		Upper secondary or post-secondary non-tertiary	34	29	32	33	40	33	33	33	28	24	29	29
		Tertiary	29	39	41	41	29	43	46	47	23	32	34	35
	Norway[3]	Below upper secondary	15	23	19	18	7	17	17	18	30	27	21	18
		Upper secondary or post-secondary non-tertiary	57	45	43	43	59	43	36	37	50	49	51	52
		Tertiary	28	33	37	39	35	41	47	45	20	24	27	30
	Poland	Below upper secondary	20	15	11	10	11	8	6	6	43	30	21	19
		Upper secondary or post-secondary non-tertiary	69	68	66	65	75	66	57	54	47	58	66	69
		Tertiary	11	17	22	25	14	26	37	41	10	13	13	13
	Portugal	Below upper secondary	81	74	68	62	68	57	48	42	92	87	84	80
		Upper secondary or post-secondary non-tertiary	11	14	16	19	19	24	27	30	3	5	7	9
		Tertiary	9	13	15	19	13	19	25	28	5	7	9	11
	Slovak Republic	Below upper secondary	16	12	9	8	6	7	6	6	38	23	17	14
		Upper secondary or post-secondary non-tertiary	73	74	74	73	82	77	70	67	54	65	71	72
		Tertiary	10	14	17	19	11	16	24	27	8	12	13	14
	Slovenia[2]	Below upper secondary	25	20	17	15	15	9	7	6	39	31	28	26
		Upper secondary or post-secondary non-tertiary	59	60	60	59	66	67	62	59	49	53	56	57
		Tertiary	16	20	24	26	19	25	31	35	12	16	16	17
	Spain	Below upper secondary	62	51	47	45	45	36	35	36	85	74	68	65
		Upper secondary or post-secondary non-tertiary	16	21	22	22	21	24	26	25	6	11	14	16
		Tertiary	23	28	31	32	34	40	39	39	10	14	18	19
	Sweden	Below upper secondary	22	16	14	12	13	9	9	9	37	28	23	21
		Upper secondary or post-secondary non-tertiary	47	54	52	52	54	53	49	47	40	47	50	51
		Tertiary	30	30	34	36	34	37	42	43	23	25	27	29
	Switzerland	Below upper secondary	16	15	14	14	10	10	11	11	26	21	19	18
		Upper secondary or post-secondary non-tertiary	60	56	51	50	64	59	49	49	55	57	53	53
		Tertiary	24	29	35	37	26	31	40	41	18	22	28	29
	Turkey	Below upper secondary	77	72	69	66	72	63	58	54	87	84	81	79
		Upper secondary or post-secondary non-tertiary	15	18	18	19	19	24	25	25	7	8	9	10
		Tertiary	8	10	13	15	9	13	17	21	6	8	9	10
	United Kingdom	Below upper secondary	37	33	25	22	33	27	17	15	45	40	35	31
		Upper secondary or post-secondary non-tertiary	37	37	37	37	38	38	37	37	37	36	35	36
		Tertiary	26	30	38	41	29	35	46	48	19	24	30	33
	United States	Below upper secondary	13	12	11	11	12	13	12	11	18	14	10	10
		Upper secondary or post-secondary non-tertiary	51	49	47	46	50	47	46	45	52	49	49	48
		Tertiary	36	39	42	43	38	39	42	44	30	37	41	42
	OECD average	Below upper secondary	34	30	26	24	24	21	18	17	51	43	38	35
		Upper secondary or post-secondary non-tertiary	44	44	44	44	49	47	45	44	34	38	40	42
		Tertiary	22	27	31	33	26	33	38	40	15	20	23	25
	OECD average for countries with data available for all reference years	Below upper secondary	35	30	26	25	25	21	19	18	51	44	38	35
		Upper secondary or post-secondary non-tertiary	44	44	44	44	49	47	45	44	34	37	40	41
		Tertiary education	22	26	30	32	26	32	37	39	15	19	22	24
	EU21 average	Below upper secondary	34	29	25	23	23	19	17	16	51	42	36	34
		Upper secondary or post-secondary non-tertiary	46	48	48	48	53	52	49	47	35	40	43	44
		Tertiary education	20	24	28	29	24	29	35	37	14	18	20	22
Partners	Argentina		m	m	m	m	m	m	m	m	m	m	m	m
	Brazil	Below upper secondary	m	m	m	55	m	m	m	41	m	m	m	73
		Upper secondary or post-secondary non-tertiary	m	m	m	32	m	m	m	44	m	m	m	17
		Tertiary education	m	m	m	13	m	m	m	14	m	m	m	10
	China	Below upper secondary	m	m	78	m	m	m	m	m	m	m	m	m
		Upper secondary or post-secondary non-tertiary	m	m	19	m	m	m	m	m	m	m	m	m
		Tertiary education	m	m	4	m	m	m	m	m	m	m	m	m
	Colombia		m	m	m	m	m	m	m	m	m	m	m	m
	India		m	m	m	m	m	m	m	m	m	m	m	m
	Indonesia		m	m	m	m	m	m	m	m	m	m	m	m
	Latvia	Below upper secondary	m	m	m	11	m	m	m	15	m	m	m	13
		Upper secondary or post-secondary non-tertiary	m	m	m	60	m	m	m	47	m	m	m	65
		Tertiary education	m	m	m	29	m	m	m	39	m	m	m	22
	Russian Federation	Below upper secondary	m	m	m	6	m	m	m	6	m	m	m	8
		Upper secondary or post-secondary non-tertiary	m	m	m	41	m	m	m	37	m	m	m	42
		Tertiary education	m	m	m	53	m	m	m	57	m	m	m	49
	Saudi Arabia		m	m	m	m	m	m	m	m	m	m	m	m
	South Africa	Below upper secondary	m	m	m	39	m	m	m	m	m	m	m	m
		Upper secondary or post-secondary non-tertiary	m	m	m	54	m	m	m	m	m	m	m	m
		Tertiary education	m	m	m	6	m	m	m	m	m	m	m	m
	G20 average		m	m	m	m	m	m	m	m	m	m	m	m

Note: Columns showing data for years 2006, 2007, 2008, 2009, 2011 and average annual growth rate are available for consultation on line (see *StatLink* below).

1. Break in the time series between 2010 and 2011. Data for 2011 are not comparable with previous years.

2. Figures for 2012 for Estonia and Slovenia in this table may differ from figures in other tables of Indicator A1 because the source of the figures is different. This table uses EU-LFS for all years.

3. Figures for 2000 are not comparable with more recent years as in 2000 the former classification of educational attainment was used.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table A1.5a. Adults with upper secondary education, by programme orientation and gender (2012)

Upper secondary or post-secondary non-tertiary education, 25-64 year-olds

		Vocational			General			Total[1]		
		M + W	Men	Women	M+W	Men	Women	M+W	Men	Women
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OECD	Australia	19	25	13	16	15	17	35	40	30
	Austria	58	61	54	6	5	6	63	66	60
	Belgium	26	28	23	11	10	12	36	38	35
	Canada	12	15	8	25	25	24	36	41	32
	Chile[2]	8	8	8	31	32	31	40	40	39
	Czech Republic	73	76	70	n	n	n	73	76	70
	Denmark	42	47	38	2	2	2	43	48	38
	Estonia	32	38	28	20	21	19	53	59	47
	Finland	38	41	34	7	8	6	45	49	41
	France	30	35	26	11	9	13	42	44	39
	Germany[3]	55	55	56	3	3	3	58	58	58
	Greece	15	18	12	27	24	29	42	42	42
	Hungary	51	60	43	9	6	11	60	66	55
	Iceland	28	36	19	10	8	11	36	44	28
	Ireland	13	14	12	23	23	23	35	36	34
	Israel	9	11	7	29	31	27	38	42	35
	Italy	32	36	28	10	6	13	42	42	41
	Japan	x(7)	x(8)	x(9)	x(7)	x(8)	x(9)	53	53	54
	Korea	x(7)	x(8)	x(9)	x(7)	x(8)	x(9)	41	41	41
	Luxembourg	41	40	42	3	3	4	39	38	40
	Mexico	x(7)	x(8)	x(9)	x(7)	x(8)	x(9)	19	19	20
	Netherlands	32	32	32	7	7	7	40	41	40
	New Zealand	25	31	19	9	8	9	33	39	28
	Norway	x(7)	x(8)	x(9)	x(7)	x(8)	x(9)	43	48	39
	Poland	x(7)	x(8)	x(9)	x(7)	x(8)	x(9)	65	69	61
	Portugal	x(7)	x(8)	x(9)	x(7)	x(8)	x(9)	19	19	20
	Slovak Republic	68	74	63	4	3	6	73	77	69
	Slovenia	54	61	46	5	4	6	59	65	52
	Spain	9	8	9	14	14	13	22	22	22
	Sweden	33	37	28	10	10	10	52	56	48
	Switzerland[4]	38	36	40	6	5	7	50	46	53
	Turkey	9	10	6	10	11	9	19	21	15
	United Kingdom	x(7)	x(8)	x(9)	x(7)	x(8)	x(9)	37	39	35
	United States	x(7)	x(8)	x(9)	x(7)	x(8)	x(9)	46	48	45
	OECD average	33	36	29	12	11	12	44	46	41
	EU21 average	39	42	36	10	9	10	48	50	45
Partners	Argentina	m	m	m	m	m	m	m	m	m
	Brazil	x(7)	x(8)	x(9)	x(7)	x(8)	x(9)	32	31	33
	China	m	m	m	m	m	m	m	m	m
	Colombia	m	m	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m	m	m
	Indonesia	m	m	m	m	m	m	m	m	m
	Latvia	35	39	31	25	25	24	60	64	56
	Russian Federation	19	24	15	21	24	20	41	48	35
	Saudi Arabia	m	m	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m	m	m
	G20 average	m	m	m	m	m	m	m	m	m

1. Figures stand for one of the following: the combined proportions of people with vocational and general attainment; the combined proportions of people with attainment in both tracks and in programmes for which no orientation is specified; or the proportion of people with attainment in programmes for which no orientation is specified. Figures in these columns are equivalent to those for upper secondary or post-secondary non-tertiary education in Tables A1.4a and b.

2. Year of reference 2011.

3. Persons with ISCED 4A attainment in Germany have successfully completed both a general and a vocational programme. In this table they have been allocated to vocational.

4. Persons with ISCED 4 attainment in Switzerland are only included in the Total given that it is no possible to distinguish the programme orientation for this ISCED level.

Source: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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A1

Table A1.6a (L). [1/2] Educational attainment of 25-64 year-olds, by literacy proficiency level (2012)

Literacy proficiency in the Survey of Adult Skills

	Proficiency level	Below upper secondary education		Upper secondary or post-secondary non-tertiary education		Tertiary education		All levels of education	
		%	S.E	%	S.E	%	S.E	%	S.E
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
OECD National entities									
Australia	0/1	28	(1.6)	11	(1.0)	5	(0.5)	13	(0.6)
	2	40	(1.9)	33	(1.7)	19	(1.4)	29	(0.8)
	3	28	(1.7)	44	(1.8)	45	(1.8)	40	(1.1)
	4/5	4	(0.7)	13	(1.4)	32	(1.5)	18	(0.8)
Austria	0/1	35	(2.2)	14	(0.8)	4	(0.9)	16	(0.7)
	2	45	(2.5)	42	(1.4)	24	(1.8)	39	(1.0)
	3	19	(2.3)	38	(1.4)	51	(2.0)	37	(1.0)
	4/5	1	(0.6)	6	(0.6)	21	(1.5)	8	(0.5)
Canada	0/1	53	(2.4)	18	(0.9)	9	(0.5)	17	(0.5)
	2	35	(2.4)	39	(1.1)	26	(0.7)	32	(0.7)
	3	12	(1.3)	35	(1.1)	43	(1.0)	37	(0.7)
	4/5	1	(0.4)	8	(0.8)	22	(0.9)	14	(0.6)
Czech Republic	0/1	33	(4.6)	12	(1.1)	2	(0.9)	12	(0.9)
	2	46	(6.0)	43	(2.4)	18	(2.9)	38	(1.9)
	3	19	(4.4)	40	(2.0)	57	(3.8)	41	(1.8)
	4/5	2	(1.3)	5	(0.7)	24	(3.0)	8	(0.8)
Denmark	0/1	39	(2.3)	16	(1.0)	6	(0.5)	16	(0.6)
	2	40	(2.2)	42	(1.5)	23	(1.2)	34	(0.9)
	3	20	(1.9)	37	(1.5)	52	(1.4)	40	(0.8)
	4/5	2	(0.7)	5	(0.7)	19	(1.3)	10	(0.6)
Estonia	0/1	33	(2.1)	16	(1.0)	7	(0.6)	14	(0.6)
	2	42	(2.7)	40	(1.1)	28	(1.1)	35	(0.7)
	3	23	(2.2)	38	(1.1)	47	(1.6)	40	(1.0)
	4/5	2	(0.8)	7	(0.7)	19	(1.2)	11	(0.7)
Finland	0/1	31	(2.5)	13	(0.9)	4	(0.5)	11	(0.5)
	2	41	(2.6)	33	(1.6)	16	(1.1)	27	(0.9)
	3	25	(2.3)	40	(1.6)	44	(1.4)	40	(0.9)
	4/5	4	(1.1)	14	(1.0)	37	(1.2)	22	(0.6)
France	0/1	49	(1.3)	20	(1.0)	5	(0.6)	23	(0.6)
	2	37	(1.5)	45	(1.1)	24	(1.3)	37	(0.8)
	3	13	(1.1)	31	(1.0)	52	(1.3)	33	(0.7)
	4/5	1	(0.3)	3	(0.4)	19	(1.1)	7	(0.4)
Germany	0/1	55	(3.7)	20	(1.1)	6	(0.8)	18	(0.8)
	2	35	(3.8)	42	(1.6)	25	(1.6)	35	(1.1)
	3	9	(2.0)	33	(1.3)	49	(1.6)	36	(1.0)
	4/5	1	(0.5)	6	(0.7)	20	(1.3)	10	(0.7)
Ireland	0/1	40	(2.3)	14	(1.2)	5	(0.7)	18	(0.9)
	2	43	(2.4)	42	(1.6)	27	(1.5)	37	(0.9)
	3	16	(1.5)	38	(1.8)	49	(1.5)	36	(0.9)
	4/5	1	(0.4)	5	(0.9)	19	(1.4)	9	(0.6)
Italy	0/1	42	(2.0)	17	(1.3)	9	(1.3)	29	(1.2)
	2	44	(1.7)	45	(1.6)	31	(2.3)	43	(1.0)
	3	13	(1.2)	35	(1.8)	48	(2.6)	25	(1.0)
	4/5	n	(0.3)	4	(0.7)	12	(1.7)	3	(0.3)
Japan	0/1	19	(2.2)	6	(0.8)	1	(0.3)	5	(0.4)
	2	42	(3.1)	30	(1.4)	12	(0.9)	23	(0.9)
	3	34	(2.7)	51	(1.5)	50	(1.5)	49	(1.1)
	4/5	5	(1.4)	13	(1.0)	37	(1.3)	23	(0.8)
Korea	0/1	43	(2.2)	13	(0.9)	3	(0.4)	14	(0.6)
	2	44	(2.1)	48	(1.7)	29	(1.3)	40	(0.9)
	3	12	(1.3)	35	(1.7)	55	(1.3)	39	(1.0)
	4/5	c	c	4	(0.5)	14	(0.9)	7	(0.4)
Netherlands	0/1	32	(1.7)	9	(1.0)	3	(0.6)	13	(0.6)
	2	39	(1.9)	31	(1.5)	14	(1.1)	27	(0.8)
	3	26	(1.7)	47	(1.6)	48	(1.5)	41	(0.8)
	4/5	3	(0.7)	14	(1.1)	36	(1.5)	18	(0.8)
Norway	0/1	26	(2.0)	13	(1.3)	5	(0.6)	12	(0.7)
	2	41	(2.4)	37	(1.6)	17	(1.1)	30	(0.9)
	3	30	(2.0)	42	(1.5)	51	(1.4)	43	(0.9)
	4/5	4	(1.1)	8	(1.0)	28	(1.2)	15	(0.7)

* See note on data for the Russian Federation in the *Methodology* section.

Note: Rows showing information for all literacy proficiency levels combined are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933114875

Table A1.6a (L). [2/2] Educational attainment of 25-64 year-olds, by literacy proficiency level (2012)

Literacy proficiency in the Survey of Adult Skills

		Proficiency level	Below upper secondary education		Upper secondary or post-secondary non-tertiary education		Tertiary education		All levels of education	
			%	S.E	%	S.E	%	S.E	%	S.E
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
OECD	**National entities**									
	Poland	0/1	45	(3.1)	24	(1.1)	4	(0.8)	20	(0.7)
		2	39	(3.2)	44	(1.4)	24	(1.5)	38	(1.1)
		3	15	(2.1)	29	(1.2)	48	(2.0)	33	(1.1)
		4/5	1	(0.7)	4	(0.5)	23	(1.7)	9	(0.6)
	Slovak Republic	0/1	37	(2.6)	9	(0.7)	3	(0.8)	12	(0.7)
		2	44	(3.2)	39	(1.6)	23	(2.1)	37	(1.2)
		3	18	(2.2)	46	(1.5)	57	(2.1)	44	(1.1)
		4/5	1	(0.5)	6	(0.6)	17	(1.9)	7	(0.5)
	Spain	0/1	47	(1.5)	21	(1.4)	8	(1.0)	29	(0.8)
		2	41	(1.4)	46	(2.0)	32	(1.5)	39	(0.9)
		3	12	(1.1)	30	(1.8)	48	(1.8)	27	(0.8)
		4/5	1	(0.2)	3	(0.8)	12	(1.1)	5	(0.4)
	Sweden	0/1	34	(2.7)	12	(1.0)	5	(0.6)	14	(0.7)
		2	43	(3.5)	32	(1.8)	15	(1.3)	28	(1.2)
		3	21	(2.2)	45	(1.9)	46	(1.5)	41	(1.0)
		4/5	2	(0.8)	11	(0.9)	34	(1.6)	17	(0.6)
	United States	0/1	62	(2.8)	22	(1.4)	5	(0.7)	19	(0.9)
		2	31	(2.8)	42	(1.8)	23	(1.3)	33	(1.2)
		3	7	(1.5)	31	(1.4)	49	(1.7)	36	(1.1)
		4/5	c	c	6	(0.8)	24	(1.7)	12	(0.8)
	Sub-national entities									
	Flanders (Belgium)	0/1	42	(2.3)	16	(1.1)	3	(0.5)	16	(0.6)
		2	41	(2.4)	41	(1.5)	17	(1.3)	32	(0.9)
		3	17	(1.8)	36	(1.8)	53	(1.7)	40	(1.1)
		4/5	1	(0.4)	6	(0.7)	26	(1.6)	13	(0.7)
	England (UK)	0/1	34	(1.7)	14	(1.4)	7	(0.9)	16	(0.8)
		2	45	(2.2)	35	(1.8)	23	(1.4)	33	(1.0)
		3	20	(1.6)	39	(1.6)	45	(1.8)	37	(1.1)
		4/5	2	(0.7)	11	(1.1)	25	(1.8)	15	(0.9)
	Northern Ireland (UK)	0/1	35	(2.5)	14	(2.0)	5	(1.0)	18	(1.3)
		2	46	(2.6)	41	(2.9)	23	(2.1)	37	(1.8)
		3	17	(2.0)	38	(3.6)	50	(2.1)	35	(1.8)
		4/5	1	(0.4)	8	(1.2)	22	(2.1)	10	(0.8)
	England/N. Ireland (UK)	0/1	34	(1.7)	14	(1.3)	7	(0.9)	16	(0.8)
		2	45	(2.1)	35	(1.8)	23	(1.4)	33	(1.0)
		3	19	(1.5)	39	(1.6)	45	(1.8)	37	(1.0)
		4/5	2	(0.7)	11	(1.1)	25	(1.7)	14	(0.9)
	Average	0/1	39	(0.5)	15	(0.2)	5	(0.2)	16	(0.2)
		2	41	(0.6)	40	(0.3)	22	(0.3)	34	(0.2)
		3	19	(0.4)	38	(0.3)	49	(0.4)	38	(0.2)
		4/5	2	(0.2)	7	(0.2)	24	(0.3)	12	(0.1)
Partners	**Russian Federation***	0/1	c	c	15	(2.5)	11	(1.6)	13	(1.7)
		2	c	c	36	(2.7)	34	(2.5)	35	(2.0)
		3	c	c	40	(3.8)	44	(2.2)	42	(2.2)
		4/5	c	c	9	(2.9)	12	(2.1)	11	(2.0)

* See note on data for the Russian Federation in the *Methodology* section.

Note: Rows showing information for all literacy proficiency levels combined are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933114875

A1

Table A1.7a (L). Distribution of literacy proficiency levels, by age (2012)

Literacy proficiency in the Survey of Adult Skills

		25-34 year-olds								55-64 year-olds							
		Level 0/1		Level 2		Level 3		Level 4/5		Level 0/1		Level 2		Level 3		Level 4/5	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
OECD	**National entities**																
	Australia	10	(1.1)	26	(1.8)	43	(2.4)	21	(1.7)	20	(1.7)	35	(2.0)	35	(1.9)	10	(1.2)
	Austria	11	(1.3)	31	(1.9)	45	(2.0)	13	(1.3)	24	(1.8)	51	(2.6)	23	(2.1)	2	(0.6)
	Canada	11	(0.9)	29	(1.7)	40	(2.1)	20	(1.3)	23	(1.1)	37	(1.3)	32	(1.1)	9	(0.8)
	Czech Republic	7	(1.3)	29	(2.9)	50	(2.9)	14	(1.8)	17	(2.1)	43	(3.8)	36	(3.5)	4	(1.1)
	Denmark	12	(1.1)	26	(2.0)	44	(2.3)	18	(1.8)	25	(1.1)	43	(1.2)	29	(1.1)	3	(0.5)
	Estonia	10	(1.1)	28	(1.5)	45	(1.8)	17	(1.5)	20	(1.4)	41	(1.6)	34	(1.6)	5	(0.8)
	Finland	5	(0.9)	15	(1.7)	43	(2.1)	37	(1.6)	20	(1.3)	41	(1.5)	32	(1.4)	6	(0.7)
	France	13	(1.1)	31	(1.5)	42	(1.8)	14	(1.0)	35	(1.4)	40	(1.6)	23	(1.2)	3	(0.4)
	Germany	14	(1.4)	28	(1.7)	42	(1.7)	17	(1.5)	23	(2.1)	45	(2.4)	29	(1.8)	4	(0.9)
	Ireland	13	(1.1)	35	(1.7)	40	(1.7)	12	(1.2)	28	(2.1)	40	(2.2)	28	(1.9)	4	(0.9)
	Italy	22	(2.3)	38	(2.4)	34	(2.3)	6	(1.1)	41	(2.5)	42	(2.7)	16	(1.9)	1	(0.4)
	Japan	2	(0.6)	14	(1.6)	52	(1.9)	32	(2.0)	12	(1.2)	38	(1.9)	41	(2.1)	9	(1.2)
	Korea	4	(0.6)	28	(1.7)	53	(1.8)	14	(1.3)	30	(1.7)	47	(1.9)	21	(1.8)	2	(0.5)
	Netherlands	8	(1.2)	19	(1.5)	45	(2.4)	28	(2.4)	22	(1.5)	38	(2.0)	34	(1.9)	6	(0.9)
	Norway	11	(1.3)	21	(1.7)	46	(2.4)	22	(1.9)	19	(1.8)	42	(2.4)	34	(2.0)	6	(0.8)
	Poland	14	(1.3)	34	(2.0)	39	(2.1)	14	(1.3)	28	(1.7)	42	(2.0)	26	(1.6)	4	(1.0)
	Slovak Republic	11	(1.1)	32	(1.7)	47	(1.7)	10	(1.2)	15	(1.6)	41	(2.3)	40	(2.1)	4	(0.9)
	Spain	20	(1.4)	39	(1.8)	34	(1.5)	7	(1.0)	46	(2.0)	38	(2.1)	15	(1.6)	1	(0.5)
	Sweden	11	(1.2)	20	(1.7)	45	(2.2)	24	(1.7)	19	(1.5)	39	(2.2)	35	(2.1)	7	(1.0)
	United States	17	(1.7)	31	(2.2)	37	(2.2)	16	(1.7)	22	(1.7)	36	(2.4)	34	(1.9)	9	(1.0)
	Sub-national entities																
	Flanders (Belgium)	8	(1.0)	23	(1.7)	47	(2.2)	22	(1.9)	26	(1.5)	39	(2.0)	31	(2.1)	5	(0.9)
	England (UK)	14	(1.6)	29	(2.2)	38	(1.9)	18	(1.5)	19	(1.6)	38	(2.1)	34	(2.3)	10	(1.5)
	Northern Ireland (UK)	15	(2.2)	31	(2.9)	40	(2.8)	14	(1.7)	24	(2.5)	43	(2.8)	28	(2.8)	6	(1.4)
	England/N. Ireland (UK)	14	(1.5)	30	(2.1)	38	(1.9)	18	(1.4)	19	(1.6)	38	(2.0)	33	(2.2)	9	(1.5)
	OECD average	11	(0.3)	28	(0.4)	43	(0.4)	18	(0.3)	24	(0.4)	41	(0.5)	30	(0.4)	5	(0.2)
Partners	Russian Federation*	15	(2.7)	35	(3.1)	40	(3.7)	10	(2.2)	12	(2.5)	36	(4.6)	42	(4.9)	10	(2.2)

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for other age groups (i.e. 35-44, 45-54 and 25-64 year-olds) are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933114894

Table A1.8 (L). Percentage of 25-64 year-olds with vocational or general upper secondary or post-secondary non-tertiary education, by literacy proficiency level and mean literacy score (2012)

Literacy proficiency in the Survey of Adult Skills

	Vocational								General							
	Level 0/1		Level 2		Level 3		Level 4/5		Level 0/1		Level 2		Level 3		Level 4/5	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
OECD																
National entities																
Australia	11	(1.2)	36	(1.9)	43	(2.3)	11	(1.3)	12	(1.5)	28	(2.8)	45	(2.8)	15	(2.4)
Austria	15	(1.0)	44	(1.5)	36	(1.4)	5	(0.5)	9	(2.4)	25	(4.1)	52	(5.1)	14	(3.6)
Canada	15	(1.2)	38	(1.6)	38	(1.8)	8	(1.1)	20	(1.2)	39	(1.4)	34	(1.4)	7	(0.9)
Czech Republic	13	(1.2)	44	(2.4)	38	(2.0)	4	(0.7)	2	(1.5)	27	(5.9)	56	(7.1)	14	(5.3)
Denmark	19	(1.1)	45	(1.6)	34	(1.5)	3	(0.7)	10	(1.8)	27	(3.5)	46	(4.8)	17	(3.2)
Estonia	17	(1.2)	41	(1.7)	37	(1.5)	5	(0.8)	15	(1.4)	38	(1.6)	38	(1.7)	8	(1.1)
Finland	14	(1.1)	37	(1.8)	39	(1.7)	9	(1.0)	6	(1.9)	13	(2.6)	46	(3.4)	35	(3.5)
France	23	(1.1)	48	(1.3)	27	(1.1)	2	(0.4)	11	(1.4)	38	(2.1)	44	(2.1)	8	(1.3)
Germany	20	(1.2)	42	(1.6)	33	(1.4)	5	(0.7)	c	c	c	c	c	c	c	c
Ireland	15	(1.6)	42	(2.0)	37	(2.2)	6	(1.3)	14	(1.7)	43	(2.5)	38	(2.4)	5	(1.1)
Italy	23	(2.8)	49	(3.2)	25	(2.6)	2	(0.9)	c	c	c	c	c	c	c	c
Japan	5	(1.1)	30	(2.8)	53	(3.1)	12	(1.9)	6	(1.1)	30	(1.8)	50	(1.7)	13	(1.5)
Korea	11	(1.4)	47	(2.3)	39	(2.3)	3	(0.7)	14	(1.3)	49	(2.1)	33	(2.1)	4	(0.7)
Netherlands	10	(1.2)	35	(1.8)	45	(2.0)	10	(1.1)	5	(1.5)	17	(2.6)	52	(3.5)	26	(3.3)
Norway	15	(1.3)	41	(1.5)	39	(1.4)	5	(1.0)	10	(1.9)	28	(2.7)	48	(3.2)	14	(2.1)
Poland	25	(1.3)	44	(1.6)	27	(1.2)	4	(0.6)	14	(2.6)	42	(3.8)	38	(3.5)	6	(1.6)
Slovak Republic	15	(1.1)	45	(1.8)	37	(1.8)	3	(0.5)	5	(0.8)	35	(2.0)	52	(1.9)	8	(1.0)
Spain	27	(5.0)	52	(5.5)	20	(4.1)	c	c	20	(1.6)	46	(2.1)	31	(1.9)	4	(0.9)
Sweden	12	(1.6)	37	(2.2)	43	(2.1)	7	(1.1)	13	(1.6)	27	(2.7)	46	(3.0)	14	(1.7)
United States	16	(3.1)	42	(3.9)	35	(3.1)	7	(1.7)	28	(2.3)	45	(2.6)	24	(1.8)	3	(0.7)
Sub-national entities																
Flanders (Belgium)	27	(2.6)	48	(2.9)	23	(2.5)	1	(0.7)	c	c	c	c	c	c	c	c
England (UK)	19	(2.8)	41	(3.9)	35	(3.5)	5	(2.0)	14	(1.5)	37	(2.0)	38	(2.3)	11	(1.6)
Northern Ireland (UK)	13	(2.8)	47	(4.6)	35	(4.7)	5	(2.1)	14	(2.3)	43	(3.0)	37	(3.6)	6	(1.3)
England/N. Ireland (UK)	18	(2.6)	41	(3.7)	35	(3.3)	5	(1.9)	14	(1.4)	37	(1.9)	38	(2.2)	11	(1.5)
OECD average	17	(0.4)	42	(0.5)	36	(0.5)	6	(0.2)	12	(0.4)	33	(0.7)	43	(0.7)	12	(0.5)
Partners																
Russian Federation*	14	(2.5)	36	(3.7)	39	(4.0)	11	(3.2)	16	(3.7)	35	(3.8)	41	(5.7)	8	(3.5)

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing proficiency levels for Total (i.e. General plus Vocational) and the mean scores by programme orientation are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933114913

A1

Table A1.9a (L). Mean literacy score, by educational attainment and age (2012)

Literacy proficiency in the Survey of Adult Skills

	Below upper secondary education				Upper secondary or post-secondary non-tertiary education				Tertiary education				All levels of education			
	25-34		55-64		25-34		55-64		25-34		55-64		25-34		55-64	
	Score	S.E.	Score	S.E.	Score	S.E.	Score	S.E.	Score	S.E.	Score	S.E.	Score	S.E.	Score	S.E.
	(1)	(2)	(7)	(8)	(11)	(12)	(17)	(18)	(21)	(22)	(27)	(28)	(31)	(32)	(37)	(38)
OECD																
National entities																
Australia	250	(5.4)	242	(2.9)	282	(2.6)	265	(3.2)	306	(2.5)	292	(2.7)	287	(1.7)	264	(1.9)
Austria	238	(5.4)	235	(3.5)	279	(1.8)	251	(1.8)	308	(2.9)	276	(3.6)	280	(1.5)	250	(1.6)
Canada	230	(5.0)	220	(2.7)	274	(2.0)	258	(1.9)	299	(1.6)	279	(1.7)	285	(1.3)	261	(1.2)
Czech Republic	257	(6.6)	242	(5.8)	278	(2.4)	263	(2.0)	311	(2.9)	289	(4.0)	287	(1.8)	262	(2.1)
Denmark	242	(6.8)	228	(2.5)	275	(2.6)	250	(1.5)	298	(2.4)	277	(1.7)	282	(1.7)	253	(1.1)
Estonia	250	(4.0)	240	(3.5)	279	(2.0)	258	(2.0)	304	(1.9)	275	(2.1)	286	(1.7)	261	(1.5)
Finland	264	(8.0)	237	(3.5)	298	(2.5)	256	(2.3)	328	(2.0)	285	(2.0)	309	(1.7)	261	(1.5)
France	231	(3.9)	220	(2.2)	269	(1.7)	250	(1.8)	305	(1.5)	278	(2.2)	278	(1.4)	242	(1.3)
Germany	224	(6.0)	217	(7.2)	276	(2.3)	248	(2.1)	306	(2.3)	275	(2.7)	281	(1.8)	255	(1.7)
Ireland	235	(4.1)	230	(2.9)	267	(2.5)	264	(2.6)	295	(2.0)	284	(3.3)	276	(1.5)	251	(1.9)
Italy	231	(4.0)	224	(2.6)	263	(2.7)	256	(3.2)	290	(2.9)	262	(4.8)	260	(2.2)	234	(2.3)
Japan	280	(5.0)	247	(3.2)	299	(2.6)	271	(2.1)	319	(1.8)	299	(2.4)	309	(1.7)	274	(1.6)
Korea	c	c	227	(1.9)	278	(2.4)	258	(2.3)	298	(1.4)	279	(3.5)	290	(1.2)	245	(1.4)
Netherlands	255	(5.1)	240	(2.4)	291	(2.6)	264	(2.5)	323	(2.8)	292	(2.6)	298	(2.0)	261	(1.7)
Norway	253	(5.3)	245	(3.2)	280	(3.0)	256	(2.4)	308	(2.5)	283	(2.4)	289	(1.8)	262	(1.6)
Poland	236	(7.2)	223	(3.8)	260	(2.2)	250	(2.1)	300	(2.1)	283	(4.0)	277	(1.5)	250	(1.7)
Slovak Republic	230	(4.6)	242	(2.6)	278	(1.7)	272	(1.7)	300	(2.1)	284	(3.4)	278	(1.4)	266	(1.4)
Spain	235	(2.7)	211	(2.2)	263	(2.5)	247	(3.7)	286	(2.0)	265	(3.6)	263	(1.5)	228	(1.9)
Sweden	245	(7.2)	239	(3.0)	284	(2.7)	267	(2.3)	313	(2.6)	286	(2.8)	290	(1.9)	264	(1.4)
United States	221	(5.7)	203	(5.1)	261	(2.7)	256	(2.2)	304	(2.5)	289	(2.7)	275	(2.0)	262	(1.6)
Sub-national entities																
Flanders (Belgium)	236	(6.2)	230	(2.8)	275	(2.3)	255	(2.7)	314	(2.2)	284	(2.4)	291	(1.8)	255	(1.6)
England (UK)	240	(4.3)	241	(3.3)	277	(3.3)	269	(3.2)	296	(2.8)	288	(3.2)	280	(2.1)	265	(2.1)
Northern Ireland (UK)	234	(5.0)	238	(3.6)	273	(4.3)	269	(4.7)	301	(3.5)	282	(4.8)	278	(2.9)	257	(3.2)
England/N. Ireland (UK)	240	(4.2)	241	(3.2)	277	(3.2)	269	(3.2)	296	(2.7)	288	(3.1)	280	(2.1)	265	(2.0)
OECD average	242	(1.2)	231	(0.7)	277	(0.5)	258	(0.5)	305	(0.5)	282	(0.6)	284	(0.4)	256	(0.4)
Partners																
Russian Federation*	c	c	257	(12.2)	266	(6.3)	274	(5.7)	278	(3.7)	278	(3.7)	273	(4.1)	275	(4.2)

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for other age groups (i.e. 35-44, 45-54 and 25-64 year-olds) are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933114932

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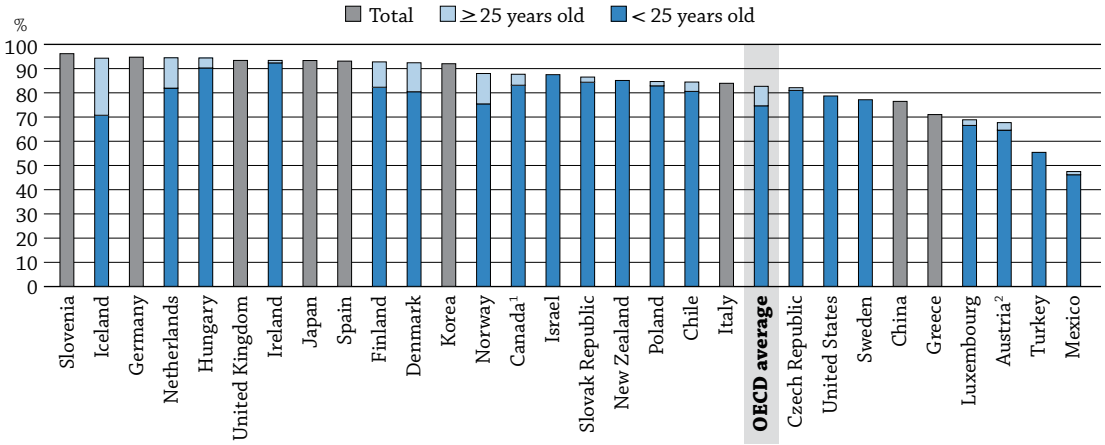
HOW MANY STUDENTS ARE EXPECTED TO COMPLETE UPPER SECONDARY EDUCATION?

- Based on current patterns, it is estimated that an average of 84% of today's young people in OECD countries will complete upper secondary education over their lifetimes; in G20 countries, some 80% of young people will.
- Young women are now more likely than young men to graduate from upper secondary programmes in almost all OECD countries, a reversal of the historical pattern.
- More than 10% of upper secondary graduates in Denmark, Finland, the Netherlands and Norway are 25 or older, while in Iceland nearly 20% are.

Chart A2.1. Upper secondary graduation rates (2012)



Note: Only first-time graduates in upper secondary programmes are reported in this chart.
1. Year of reference 2011.
2. Programmes spanning ISCED levels 3 and 4 (*Höhere berufsbildende Schule*) not included.
Countries are ranked in descending order of the upper secondary graduation rates in 2012.
Source: OECD. Tables A2.1a and A2.1b. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933115255

Context

Upper secondary education, which consolidates students' basic skills and knowledge through either an academic or a vocational pathway, aims to prepare students for entry into tertiary education or the labour market, and to become engaged citizens. In many countries, this level of education is not compulsory and can last from two to five years. What is crucial, however, is that these two pathways are of equal quality and that both ensure that students can make those transitions successfully.

Graduating from upper secondary education has become increasingly important in all countries, as the skills needed in the labour market are becoming more knowledge-based and as workers are progressively required to adapt to the uncertainties of a rapidly changing global economy. While graduation rates give an indication of the extent to which education systems are succeeding in preparing students to meet the labour market's minimum requirements, they do not capture the quality of education outcomes.

By the end of lower secondary education in many OECD countries, students can exit or disengage from the education system, meaning, in turn, that they can leave school without an upper secondary qualification. These young people tend to face severe difficulties entering – and remaining in – the labour market. Leaving school early is a problem, both for individuals and society. Policy makers are examining ways to reduce the number of early school-leavers, defined as those students who do not complete their upper secondary education. Internationally comparable measures of how many students successfully complete upper secondary programmes – which also imply how many students do not complete those programmes – can assist efforts to that end.

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Other findings

- **In 25 of 31 countries with available data, first-time upper secondary graduation rates equal or exceed 75%**. In Denmark, Finland, Germany, Hungary, Iceland, Ireland, Japan, Korea, Latvia, the Netherlands, Slovenia, Spain and the United Kingdom, graduation rates equal or exceed 90%.
- **On average across OECD countries, students graduate for the first time at upper secondary level at the age of 19**, from the age of 17 in Israel, New Zealand, Turkey and the United States, to the age of 22 or older in Iceland and Norway.
- **More young women are graduating from vocational programmes than ever before**. Their graduation rates from these programmes are now approaching those of young men.
- **Most young men in upper secondary vocational programmes choose to study engineering, manufacturing and construction, while young women in such programmes opt for several different fields of study**, notably business, law, social sciences, health and welfare, and services.
- This edition marks the third time that comparable data have been published from 29 countries that participated in a special survey on the successful completion of upper secondary programmes. The data show that **72% of students who begin upper secondary education complete the programmes they entered within the theoretical duration of the programme**. However, there are large differences in completion rates, depending on gender and type of programme.

Trends

Since 2000, upper secondary graduation rates have increased by an average of 8 percentage points among OECD countries with comparable data. The greatest increase occurred in Mexico, which showed an annual growth rate of 3% between 2000 and 2012.

Note

Graduation rates represent the estimated percentage of people from a given age cohort that is expected to graduate at some point during their lifetime. This estimate is based on the number of graduates in 2012 and the age distribution of this group. Graduation rates are based on both the population and the current pattern of graduation, and are thus sensitive to any changes in the education system, such as the introduction of new programmes, and the lengthening or shortening of programme duration. Graduation rates can be very high – even above 100% – during a period when an unexpected number of people goes back to school. This happened in 2010 in Portugal, for example, when the "New Opportunities" programme was launched to provide a second chance for those individuals who left school early without a secondary diploma.

In this indicator, the age refers generally to the age of the students at the beginning of the calendar year; students could be one year older than the age indicated when they graduate at the end of the school year. Twenty-five is regarded as the upper age limit for completing initial education. Among OECD countries, more than 90% of first-time graduates from upper secondary programmes in 2012 were younger than 25. People who graduate from this level at age 25 or older are usually enrolled in specific programmes, e.g. second-chance programmes.

Analysis

Graduation from upper secondary programmes

A snapshot of upper secondary graduation rates

Since 2000, first-time upper secondary graduation rates increased by 8 percentage points. Current estimates indicate that 84% of people will complete upper secondary education over their lifetime across OECD countries (Table A2.1a). Attaining an upper secondary education is often considered to be the minimum credential for successful entry into the labour market and needed to continue to further education. The costs, to both individuals and society, of not completing this level of education on time can be considerable (see Indicators A6 and A7).

Graduation rates offer an indication of whether government initiatives have been successful in increasing the number of people who graduate from upper secondary education. The great differences in graduation rates between countries reflect the variety of systems and programmes available.

In Denmark, Finland, Germany, Hungary, Iceland, Ireland, Latvia, Japan, Korea, the Netherlands, Slovenia, Spain and the United Kingdom, more than 90% of people are expected to graduate from upper secondary school during their lifetime; in Mexico and Turkey, less than 60% of people are expected to do so (Table A2.1a). Yet Mexico, Spain and Turkey show the highest average annual growth rates (from 1995 or 2000 to 2012) for upper secondary graduation – considerably above the OECD average of 0.8%. The annual growth rate in Spain and Turkey exceeds 2%, while in Mexico the annual increase is more than 3% (Table A2.2a). For some countries, the annual growth rate is low because they had earlier made it a priority to increase access to upper secondary education to a larger number of students. Thus, graduation rates in Japan, Korea and Norway had already reached 90% in 2000 and have remained at this level since then.

Vocational education and training (VET) is an important part of upper secondary education in many OECD countries (see Indicator A1). Between 2005 and 2012, graduation rates for pre-vocational and vocational programmes kept pace with overall upper secondary rates, increasing by about 3 percentage points, on average. However, countries vary considerably in these trends. In Germany, for example, upper secondary VET graduation rates shrunk by 15 percentage points during the period, while in Portugal they increased by 37 percentage points (Table A2.2b, available on line).

In addition, graduation rates do not imply that all graduates will pursue a tertiary degree or enter the labour force immediately. Indeed, the number of graduates who wind up neither employed nor in education or training (NEET) has been growing throughout OECD countries (see Indicator C5). For this reason, it is important to have quality upper secondary programmes that provide individuals with the right mix of guidance and education opportunities to ensure that there are no dead-ends once students have graduated.

Upper secondary graduation rates, by age

Graduation rates also vary according to the age of the graduates. As indicated in the note section above, a student's age at graduation can be related to changes in the education system. For example, opportunities available to complete upper secondary education later on in life or the duration of general and vocational programmes can lead to differences in the typical age of graduates.

The average age of a first-time upper secondary graduate in OECD countries is 19; more than 90% of first-time graduates are 25 or younger. However, the age at which students graduate from upper secondary education varies between countries, sometimes significantly. In Israel, New Zealand, Turkey and the United States, the average age of a first-time graduate is 17 – the youngest age among all OECD countries. Iceland and Norway are at the opposite extreme, with an average age of 22 or higher (Tables A2.1a and b).

Variations in the age of graduates are found within countries as well. As shown in Chart A2.2, there are marked differences between the ages of students graduating from vocational programmes and those graduating from general programmes within the same country. On average, the age at graduation is higher for vocational graduates (22 years old) than for graduates of general programmes (19 years old). However, in Belgium, Brazil, Denmark, Finland, Iceland, Ireland, the Netherlands and Norway, the average age of graduates from vocational programmes is 25 or older; in Australia, it reaches 31 (Chart A2.2).

The average age of first-time graduates also reflects specific national contexts. In some countries, systems are flexible enough to allow students who left the education system early to re-enter later on. That is why graduation rates for students 25 years or older are relatively high in Denmark, Finland, the Netherlands and Norway, where

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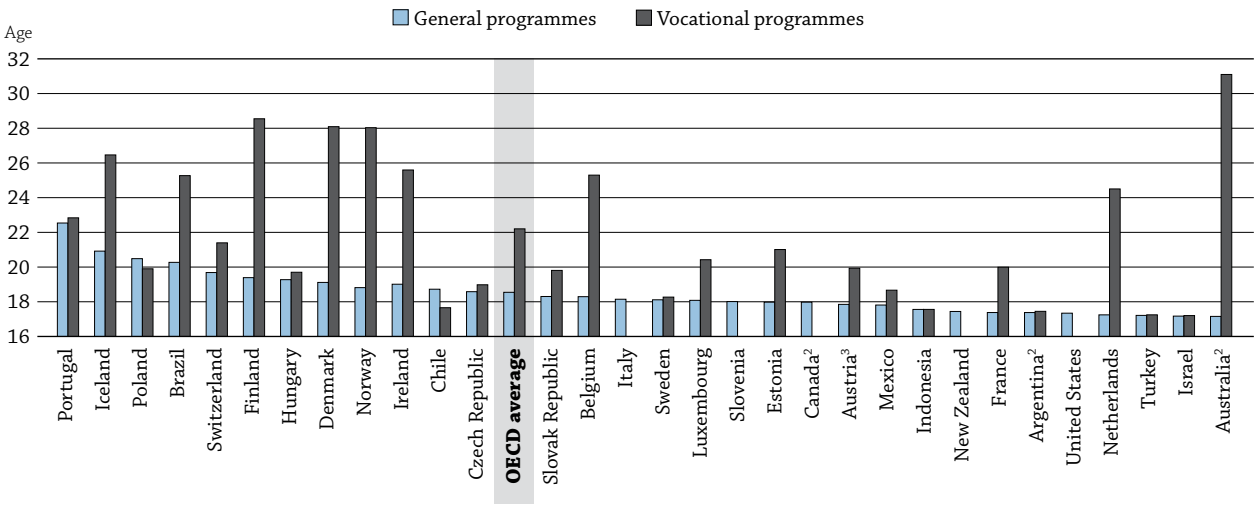
at least 10% of graduates are older than 25, while in Iceland, 20% of upper secondary graduates are older than 25. Likewise, the fact that the proportion of graduates outside the typical age at graduation varies between countries and programmes may also be related to the availability of "second-chance" programmes. These types of programmes help to improve skills for the labour market. In Portugal, for example, the "New Opportunities" programme, launched in 2005, was introduced to provide a second chance to individuals who left school early or were at risk of doing so, and to assist those in the labour force who want to acquire further qualifications. As a result of this initiative, graduation rates rose by more than 40 percentage points between 2008 and 2010. In 2010, more than 40% of the students concerned were older than 25.

Chart A2.2. Average age[1] of upper secondary graduation (2012)



1. The average age refers generally to the age of the students at the beginning of the calendar year; students could be one year older than the age indicated when they graduate at the end of the school year.
2. Year of reference 2011.
3. Programmes spanning ISCED levels 3 and 4 (*Höhere berufsbildende Schule*) not included.
Countries are ranked in descending order of the average age for upper secondary graduation in general programmes in 2012.
Source: OECD. Table A2.1a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933115274

Upper secondary graduation rates, by gender

In most OECD countries, first-time upper secondary graduation rates also vary significantly between men and women. On average, graduation rates for women (87%) are higher than those for men (81%). In Denmark, Greece, Iceland, Israel and Norway, graduation rates for women are at least 10 percentage points higher than those for men. Only in Austria and Germany is the proportion of male graduates higher than that of female graduates (Table A2.1a).

This tendency is even starker among students younger than 25 who graduate from general programmes. In 2012, graduation rates from general upper secondary programmes were 54% for women and 43% for men, on average across OECD countries. In Austria, the Czech Republic, Italy, Poland, the Slovak Republic and Slovenia, women outnumber men as graduates by at least three to two (Table A2.1b).

Traditionally, men have had higher graduation rates than women for pre-vocational and vocational programmes, although in some countries this is not the case. On average, graduation rates from these programmes are higher for men than for women by 3 percentage points (50% and 46%, respectively). This tendency has been changing in many countries, including Belgium, Denmark, Finland, Ireland, the Netherlands and Spain, where graduation rates for women are at least 5 percentage points higher than those for men. However, vocational programmes are not available to the same extent in all countries, thus graduation rates can differ substantially. Pre-vocational and vocational graduation rates are over 70% in Austria, Finland, France, Ireland, the Netherlands, Slovenia and Switzerland; but in Argentina, Brazil, Canada, Estonia, Hungary, Indonesia, Japan, Korea, Latvia, Mexico and Turkey, the rates are below 30% (Table A2.1a).

Upper secondary graduation and field of education

Gender differences are also apparent in young people's choice of field of study when pursuing vocational education. These differences can be attributed to traditional perceptions of gender roles and identities as well as the cultural values sometimes associated with particular fields of education. On average across OECD countries, the largest share of students in upper secondary vocational education graduates from engineering, manufacturing and construction programmes (34%), and, most of the graduates from those programmes are men (Tables A2.3a and b, available on line). In the Czech Republic, Hungary and Norway, 70% or more of graduates from this field are men. By contrast, female graduates are more dispersed among social sciences, business and law (24%), health and welfare (19%) and services (19%) (Table A2.3a).

Graduation from post-secondary non-tertiary programmes

Various kinds of post-secondary non-tertiary programmes are offered in OECD countries. These programmes straddle upper secondary and post-secondary education and may be considered either as upper secondary or post-secondary programmes, depending on the country concerned. Although the content of these programmes may not be significantly more advanced than upper secondary programmes, they broaden the knowledge of individuals who have already attained an upper secondary qualification.

Students in these programmes tend to be older than those enrolled in upper secondary schools. These programmes usually offer trade and vocational certificates, and include nursery-teacher training in Austria and vocational training in the dual system for those who have attained general upper secondary qualifications in Germany. Apprenticeships designed for students who have already graduated from an upper secondary programme are also included among these programmes (Table A2.1c, available on line).

First-time graduation rates from post-secondary non-tertiary education are low compared with those from upper secondary programmes. On average, it is estimated that 9% of today's young people in OECD countries will complete post-secondary non-tertiary programmes over their lifetime. The rate for women (9%) is slightly higher than that for men (8%). The highest graduation rates for these programmes are in Austria (26%), the Czech Republic (28%) and New Zealand (33%); and in these three countries, graduation rates are considerably higher among women (32%, 32% and 39%, respectively) than men (20%, 24% and 27%, respectively) (Table A2.1c, available on line).

Transitions following upper secondary education or post-secondary non-tertiary programmes

The vast majority of students who graduate from upper secondary education graduate from programmes designed to provide access to tertiary education (ISCED 3A and 3B). Programmes that facilitate direct entry into tertiary-type A education (ISCED 3A) are preferred by students in all countries except Austria, Slovenia and Switzerland, where the education systems are more strongly oriented towards vocational education and thus more young people graduate from an upper secondary education that leads to tertiary-type B programmes. For long upper secondary programmes that lead to the labour market or to post-secondary non-tertiary education (ISCED 3C long), graduation rates in 2012, averaged 18% in OECD countries (Table A2.1a).

Chart A2.3 shows how countries vary when the proportion of students who graduate from programmes designed as preparation for entry into tertiary-type A programmes (ISCED 3A and 4A) are compared with the proportion of students who actually enter these programmes under the age of 25. In Belgium, Chile, Finland, Ireland, Israel and Sweden, there is at least a 30 percentage-point difference between these two groups. This suggests that many students who attain qualifications that would allow them to enter tertiary-type A programmes do not do so, although upper secondary programmes in Belgium and Israel also prepare students for tertiary-type B programmes. Much like the decision to continue on to upper secondary education, students' decision to enter tertiary education might depend on various factors, including the opportunity cost of investing in tertiary education compared to entering the labour market (Zapata, *forthcoming*) (see Indicator A7).

In Finland, upper secondary education includes vocational training, and many graduates enter the labour market immediately after completing this level, without any studies at the tertiary level. There is also a *numerus clausus* system in Finnish higher education, which means that the number of entry places is restricted. Therefore, graduates from upper secondary general education may have to take a break of two to three years before obtaining a place in a university or polytechnic institution. In Ireland, the majority of secondary students take the "Leaving Certificate Examination" (ISCED 3A). Although this is designed to allow students to enter tertiary education, not all of the students who take this examination intend to do so. Until the onset of the global economic crisis, school-leavers in Ireland could benefit from a strong labour market, and this also may have had an impact on the difference.

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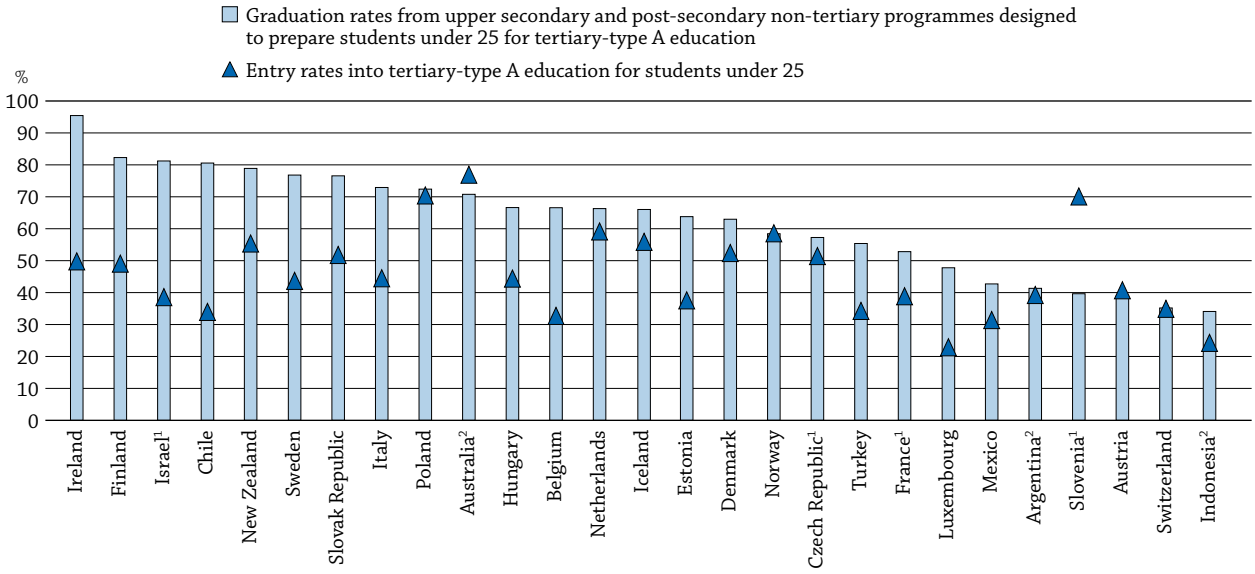
Chart A2.3. Access to tertiary-type A education for upper secondary and post-secondary non-tertiary graduates under 25 (2012)



1. Data for post-secondary non-tertiary graduates are missing.
2. Year of reference for graduation rates 2011.
Countries are ranked in descending order of graduation rates from upper secondary and post-secondary non-tertiary programmes designed to prepare students under 25 for tertiary-type A education in 2012.
Source: OECD. Tables A2.1b, A2.1c (available on line) and C3.1b. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933115293

Box A2.1. Completion and graduation: Two different measures

How is completion measured in *Education at a Glance*? "Successful completion" describes the percentage of students who enter an upper secondary programme for the first time and who graduate from it a given number of years after they entered. It is a measure of how efficiently students flow through upper secondary education. It represents the relationship between the graduates of and the new entrants into the same level of education. The calculation is made using the amount of time normally allocated for completing the programme, and after an additional two years (for students who had to repeat a grade or individual courses, who studied part time, etc.). This indicator also includes the percentage of students who do not graduate from an upper secondary programme but are still in education. These might include part-time students who need more time to complete their studies and adults who decide to return to school, perhaps while they are working. Only initial education programmes are covered by this indicator.

This measure should not be confused with upper secondary graduation rates. Graduation rates represent the estimated percentage of people from a certain age cohort that is expected to graduate at some point during their lifetime. It measures the production of graduates from upper secondary education, relative to the country's population, and represents the relationship between all the graduates in a given year and a particular population. For each country, for a given year, the number of students who graduate is broken down into age groups. For example, the number of 15-year-old graduates is divided by the total number of 15-year-olds in the country; the number of 16-year-old graduates is divided by the total number of 16-year-olds in the country, etc. The graduation rate is the sum of these age-specific graduation rates.

A third indicator in *Education at a Glance* uses the notion of educational attainment (see Indicator A1). Attainment measures the percentage of a population that has reached a certain level of education, in this case, those who graduated from upper secondary education. It represents the relationship between all graduates (of the given year and previous years) and the total population.

In contrast, in Slovenia, the upper secondary and post-secondary non-tertiary graduation rate is markedly lower – by 30 percentage points – than entry rates into tertiary-type A programmes. Although many students in Slovenia are more likely to graduate from upper secondary programmes leading to tertiary-type B programmes, some may choose to pursue university studies later, and can do so because of the flexible pathways between the two types of tertiary programmes in the country.

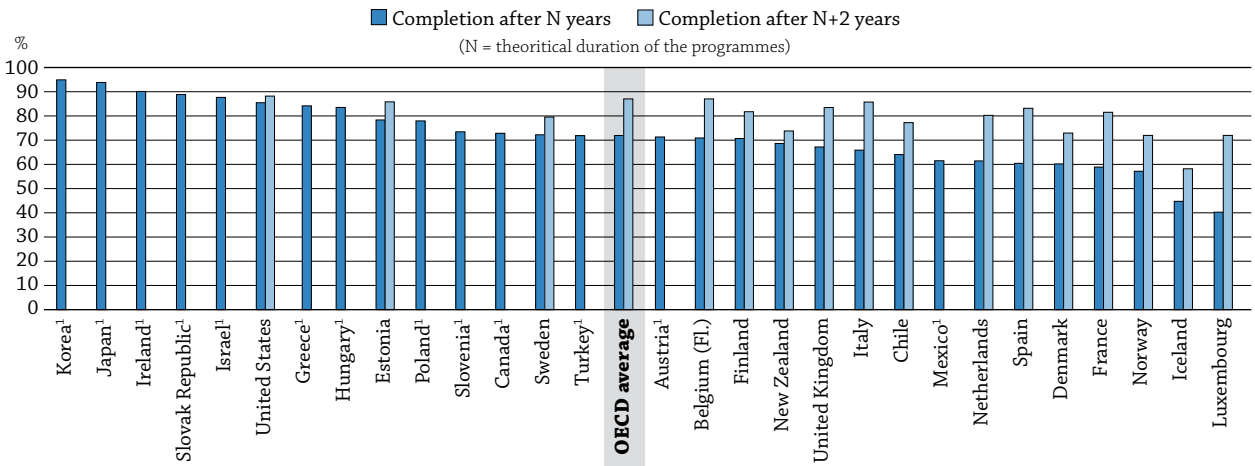
Successful completion of upper secondary programmes

This edition of *Education at a Glance* presents, for the third time, an indicator to measure the successful completion of upper secondary programmes and, thus, the pathways between programmes. The indicator sheds light on the time needed to complete these programmes and the proportion of students still in education after the theoretical duration of programmes. It allows for an estimation of the number of students who drop out and a comparison of completion rates by gender and programme orientation. Thus, like the graduation rate, the completion rate does not indicate the quality of upper secondary education; it does, however indicate to a certain extent the capacity of this education level to engage students to complete upper secondary programmes within a specific period.

The majority of students who start upper secondary education complete the programmes they entered. It is estimated that 72% of young men and women who begin an upper secondary programme graduate within the theoretical duration of the programme. However, in some countries, it is relatively common for students and apprentices to take a break from their studies and leave the education system temporarily. Some return quickly to their studies, while others stay away for longer periods of time, which can increase students' risk of not completing upper secondary education. In other countries, it is also common for students to repeat a grade or to change programmes; by doing so, their graduation is delayed. System-level policies, such as grade repetition, can undermine equity in the education system (OECD, 2012a).

The proportion of students who complete their education in the stipulated time varies considerably among countries, with Korea having the highest share (95%), and Luxembourg the lowest share (40%). In Greece, Hungary, Ireland, Israel, Japan, Korea, the Slovak Republic and the United States, over 80% of students complete their education in the stipulated time. Giving two extra years to students to complete their upper secondary programmes, 87% of students successfully complete programmes two years after the stipulated time of graduation, on average across OECD countries – 15 percentage points more than the proportion of students who complete their programme within its theoretical duration (Table A2.4). With the extra two years, eight more countries pass the upper secondary completion bar of 80%: the Flemish Community of Belgium, Estonia, Finland, France, Italy, the Netherlands, Spain and the United Kingdom. Iceland has the smallest proportion of students (58%) who complete upper secondary education after two extra years.

Chart A2.4. Successful completion of upper secondary programmes



Note: Please refer to Annex 3 for details concerning this indicator, including methods used, programmes included/excluded, year of entry, etc.
1. N+2 information missing.
Countries are ranked in descending order of the successful completion of upper secondary programmes.
Source: OECD. Table A2.4. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933115312

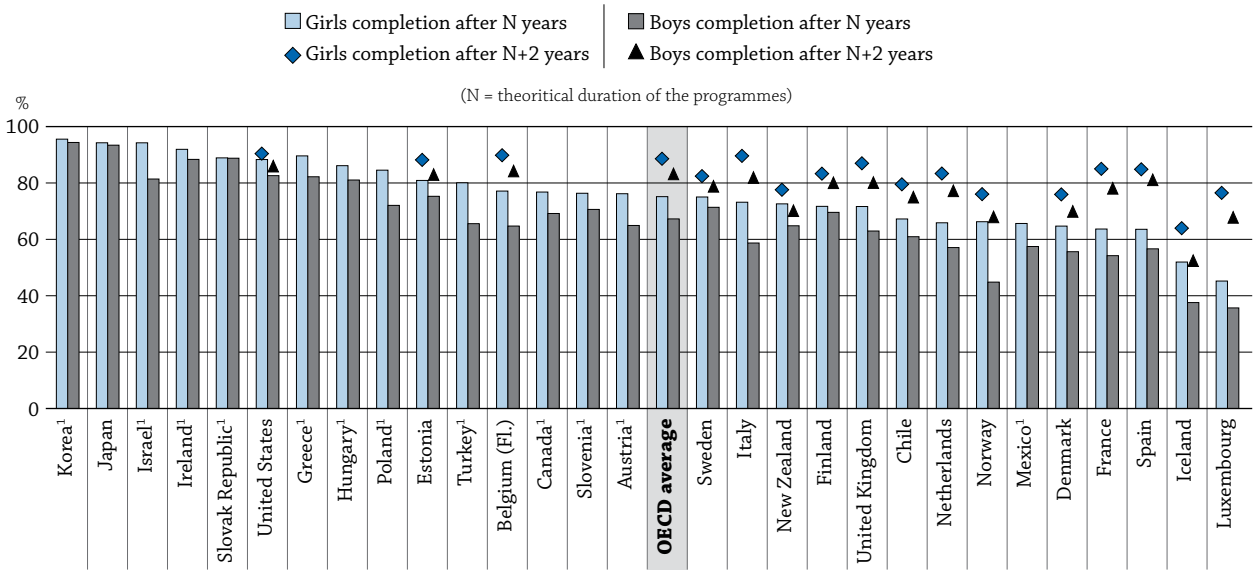
Within countries, the difference in rates between completion within the stipulated time and within two additional years is partly due to the fact that in most OECD countries, students may attend regular educational institutions for additional years to complete their upper secondary education, whereas in some other countries, older students must attend special programmes designed specifically for them. The difference in the proportion of students who completed their programmes within the stipulated time and that of students who completed after two additional years is 32 percentage points in Luxembourg, where it is common for students to repeat one or more years of school. In contrast, among countries with available data, the difference in New Zealand and in the United States is as low as five and three percentage points, respectively (Chart A2.4). In the United States, it is highly unusual for students over the age of 20 to be enrolled in a regular high school programme; students who do not graduate within the stipulated time can obtain an equivalent high school qualification by successfully passing the General Educational Development (GED) test.

Successful completion of upper secondary education also depends on how accessible these programmes are. In all of the countries with available data, except Mexico and Turkey, upper secondary entry rates for students under age 20 are around or over 90%. It is reasonable to expect that a higher percentage of students will graduate from upper secondary education in countries with limited access to this level than in countries that have nearly universal access. In other words, countries where students have to pass an examination or are academically selected to enter upper secondary programmes may have a larger share of higher-achieving students moving on to these programmes, which could produce a higher completion rate (Table A2.4). The selectivity of programmes can hinder equity in the education as access to programmes might be limited.

Successful completion by gender

In all countries with available data, young men are more likely than young women to not complete their upper secondary education on time. On average, 76% of young women complete their upper secondary education within the stipulated time, compared to 68% of young men. Only in Finland, Greece, Ireland, Japan, Korea, the Slovak Republic and Sweden is the difference in the proportions of young men and women who do not complete their upper secondary education less than five percentage points. In Iceland, Italy, Norway and Turkey, young women outnumber young men who successfully completed upper secondary education by more than 14 percentage points (Chart A2.5). The gender differences seen in Norway are likely due to the fact that young women tend to have better academic performance than young men in lower secondary school. Controlling for performance in lower secondary school, there is no gender difference, or just a small advantage for young men (Falch et al., 2010).

Chart A2.5. Successful completion of upper secondary programmes, by gender



1. N+2 information missing.

Countries are ranked in descending order of the successful completion of girls in upper secondary programmes (after N years).

Source: OECD. Table A2.4. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933115331

The gender gap narrowed slightly, to an average of five percentage points, when completion was delayed by two years. The difference in completion rates between the stipulated time and the two additional years is larger among young men (16 percentage points) than among young women (13 percentage points). The narrowing of the gender gap could be related to a high incidence of grade repetition or transfer to a different programme, or to economic and socio-cultural factors that could extend the time needed by young men to complete a degree beyond a programme's stipulated duration (OECD, 2012b).

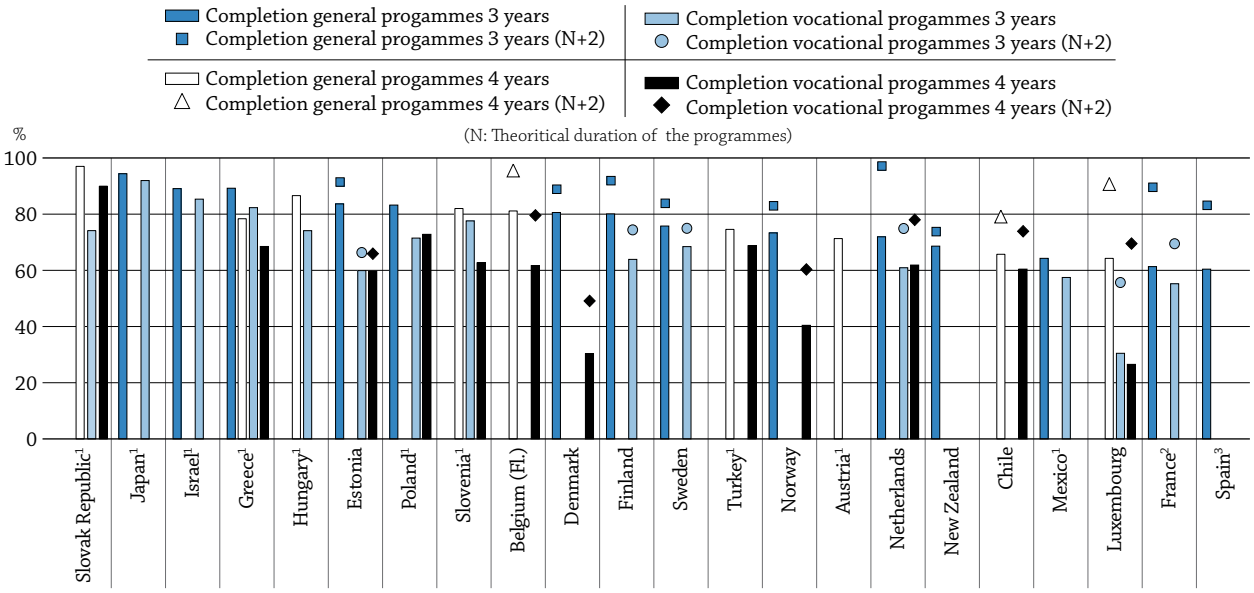
The gender gap also varies depending on the programme: 80% of young women complete general programmes, compared to 73% of young men; 67% of young women complete vocational programmes, compared to 61% of young men. In vocational programmes in Iceland, this gender gap widens to more than 16 percentage points, in favour of young women. Only in Estonia, Greece and the Slovak Republic, young women in vocational programmes are not as successful as young men in completing their upper secondary education within the normal duration of the programmes (Table A2.5).

Many studies, including the OECD Programme for International Student Assessment (PISA) analyses, confirm that young women in OECD countries are more likely to perform better and less likely than young men to leave school early (OECD, 2012a; OECD, 2012b; OECD, 2014). That said, young women who do leave school early tend to have poorer outcomes than their male counterparts, despite their higher average attainment (see Indicators A1 and C5). The completion rate for upper secondary programmes and engagement of students in education are also linked to many other issues, such as social pressures from family and friends, prior academic experiences, and physical and emotional changes (OECD, 2012a; Zapata, forthcoming) as well as to their parents' educational attainment and immigrant background (Box A2.2).

Successful completion by programme orientation

Students enter general or vocational programmes at different points in their educational careers, depending on the country. In countries with a comprehensive system, students follow a common core curriculum until the start of upper secondary education at the age of 16 (e.g. the Nordic countries); in countries with a highly differentiated system, the choice of a particular programme or type of school can be made during lower secondary education from the age of 10-13 onwards (e.g. Luxembourg).

Chart A2.6. Successful completion of upper secondary programmes, by programme orientation and duration



Note: Please refer to Annex 3 for details concerning this indicator, including methods used, programmes included/excluded, year of entry, etc.
1. N+2 information missing.
2. 2 years programmes instead of 3 for vocational programmes.
3. 2 years programmes instead of 3 for general programmes.
Countries are ranked in descending order of the successful completion of upper secondary general programmes (after N years).
Source: OECD. Table A2.5. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933115350

In several countries, general and vocational programmes are organised separately and students have to opt for one or the other. This is the case for such countries as Germany and France, where upper secondary pathways are clearly differentiated. In other countries, upper secondary education is comprehensive and there is less separation between general and vocational programmes, such as in Sweden. Despite the arrangement of upper secondary programmes, countries offer students opportunities to change pathways, such as in Finland and the Netherlands. Flexibility between vocational and general pathways can accommodate those students who might want to change orientation and pursue a different upper secondary programme (OECD, 2012a).

Students who enter general programmes are more likely to graduate than those who are enrolled in vocational programmes. Among the 26 countries with available data, 76% of students completed their general programme within the theoretical duration of the programme, and that proportion increased by 15 percentage points among students who completed their programme two years after its stipulated duration.

In contrast, only 64% of students completed their vocational programme within the theoretical duration; that proportion increased by 15 percentage points two years after the stipulated time. While the average difference between completion rates for general and vocational upper secondary programmes is 13 percentage points, differences ranges from more than 40 percentage points in Denmark, to 5 percentage points or less in Chile, Israel and Japan (Table A2.5).

The large difference in completion rates between upper secondary general and vocational programmes among countries can be explained by the fact that in some countries, low-achieving students may be oriented (or reoriented) into vocational programmes, while higher-achieving students go into general programmes. Some students may also have difficulty determining which vocational programme is best for them and thus may have to repeat one or more grades at this level of education. They may also face difficulties finding an employer who will agree to offer an apprenticeship programme, may have to wait for a place in such a programme to become available, or may give up trying.

Pathways between these two types of education are well developed in some countries. In Norway, for example, among the 40% of students who entered a vocational programme and graduated within the stipulated time, 45% graduated with a vocational degree and 55% changed programmes and graduated with a general diploma. In Chile, of the 66% of students who entered a general programme and graduated within the stipulated time, 79% graduated with a general degree, and 21% changed programmes and graduated with a vocational diploma (Table A2.5).

Some students who begin a vocational programme may leave the education system to enter the labour market directly. The attractiveness of employment opportunities can play a role in students' disengagement from the education system, particularly those students in the later grades of upper secondary education (Stearns et al., 2006 in Zapata, forthcoming). Access to employment for people with low educational attainment could also affect successful completion rates and the incidence of dropping out.

Among students who do not complete their programmes within the stipulated time, 56% of those who follow a general programme are still in education, compared to only 43% of those who follow a vocational programme. There is large variation among countries: in Belgium (Flemish Community), Finland, France and Luxembourg, 80% or more of students who had not graduated after the theoretical duration of general programmes are still in education, compared to 10% in Israel and only 7% in Korea (Table A2.5).

The picture is slightly different when it comes to completion of upper secondary programmes (general and vocational) by programme duration. The duration of upper secondary programmes varies among countries: from two years in the Netherlands and Spain for general programmes to five years in Luxembourg for vocational programmes (Table A2.5). One would assume that completion rates for programmes of longer duration will be lower than those for programmes of shorter duration. However, Chart A2.6 shows that this assumption does not hold. For example, the duration of general upper secondary programmes in Spain is two years, while in other OECD countries it is between three and four years. With a successful completion rate of 60% after N years, Spain has a low completion rate (which increases substantially after two years to 83%). In contrast, the duration of general programmes in Hungary is four years, and the successful completion rate of 87% for that country is one of the highest. The accessibility of the programmes and the academic selectivity of the education system might explain the high completion rates for programmes of longer duration. The engagement of students and the quality of upper secondary teaching and learning environments are also key for completion.

Box A2.2. Successful completion of upper secondary programmes, by parents' education or immigrant background

Ratio of graduates to new entrants, based on cohorts

		ISCED 3 by parental education			ISCED 3 with imigrant background (first or second generation)	
	N = theoretical duration	ISCED 0-2	ISCED 3	ISCED 5-6	First generation	Second generation
Belgium (Fl.)	within N	58	71	80	m	m
	2 years after N	75	89	94	m	m
Chile	within N	78	82	86	m	m
	2 years after N	87	90	92	m	m
Denmark	within N	44	56	73	46	50
	2 years after N	54	72	84	57	64
Finland	within N	57	68	76	56	62
	2 years after N	67	78	88	70	78
France	within N	50	59	68	46	49
	2 years after N	70	83	92	68	71
Hungary	within N	m	m	m	32	m
	2 years after N	m	m	m	m	m
Iceland	within N	m	m	m	26	20
	2 years after N	m	m	m	31	20
Israel	within N	78	92	95	85	m
	2 years after N	m	m	m	m	m
Netherlands	within N	m	m	m	51	53
	2 years after N	m	m	m	67	73
Norway	within N	36	52	70	39	55
	2 years after N	49	69	83	52	68
Sweden	within N	59	73	80	65	68
	2 years after N	67	80	88	74	76
United Kingdom	within N	49	69	85	m	m
	2 years after N	69	84	93	m	m
United States	within N	68	83	91	80	84
	2 years after N	74	86	92	85	89

Note: Please refer to Annex 3 (*www.oecd.org/edu/eag.htm*) for details concerning this indicator, including methods used, programmes included/excluded, year of entry, etc.

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Among the 29 countries that participated in the survey on successful completion of upper secondary programmess, 13 reported completion rates for separate social groups. These rates cannot be directly compared to the overall rates presented above as the cohorts used to calculate them are not the same. A detailed description of the cohort used for each country is presented in Annex 3. The analysis below focuses only on comparing the successful completion of upper secondary programmes as associated with parents' education or an immigrant background.

Ten countries reported completion rates for immigrant students. Differences in the completion rates of first- and second-generation immigrant students are less than five percentage points in Denmark, France, the Netherlands, Sweden and the United States. The exception is Norway, where the completion rates of second-generation immigrant students is 17 percentage points higher than the completion rates of first-generation students. Further data will be needed to determine if immigrant students in Norway are better integrated compared to those in other countries where completion rates are similar between first- and second-generation immigrant students.

Ten countries reported completion rates by parents' education level. The difference in upper secondary completion rates between students from families where parents have a tertiary education and those from families where parents have no more than a lower secondary education ranges from 7 percentage points in Chile to more than 30 percentage points in Norway and the United Kingdom. In Norway, only 36% of students from families with low levels of education complete upper secondary programmes in the stipulated time, compared to 70% of those from highly educated families.

Learning outcomes among students with an immigrant background or from families with low level of education should be an area of focus among education policy makers, particularly in countries where these students show significantly lower completion rates than their peers who do not come from these social groups.

Definition

First-generation students are those who were born outside the country, as were their parents.

Graduates in the reference period can be either first-time graduates or repeat graduates. A **first-time graduate** is a student who has graduated for the first time at a given level of education in the reference period. Thus, if a student has graduated multiple times over the years, he or she is counted as a graduate each year, but as a first-time graduate only once.

Net graduation rates represent the estimated percentage of an age group that will complete upper secondary education, based on current patterns of graduation.

Second-generation students are those who were born in the country, but their parents were born outside. More details on the definitions used by countries in Box A2.2 is available in Annex 3.

Successful completion of upper secondary general programmes represents the proportion of new entrants to upper secondary general programmes who graduated at the upper secondary level a specific number of years later (based on cohorts).

Successful completion of upper secondary programmes represents the proportion of new entrants to upper secondary programmes who graduated at the upper secondary level a specific number of years later (based on cohorts).

Successful completion of upper secondary vocational programmes represents the proportion of new entrants to upper secondary general programmes who graduated at the upper secondary level a specific number of years later (based on cohorts).

Methodology

Data refer to the academic year 2011/12 and are based on the UOE data collection on education statistics administered by the OECD in 2012 (for details, see Annex 3 at *www.oecd.org/edu/eag.htm*).

Data on trends in graduation rates at upper secondary level for the years 1995 and 2000 through 2004 are based on a special survey carried out in January 2007.

Unless otherwise indicated, graduation rates are calculated as net graduation rates (i.e. as the sum of age-specific graduation rates). Gross graduation rates are presented for countries that are unable to provide such detailed data. In order to calculate gross graduation rates, countries identify the age at which graduation typically occurs (see Annex 1). The number of graduates, regardless of their age, is divided by the population at the typical graduation age. In many countries, defining a typical age of graduation is difficult, however, because graduates are dispersed over a wide range of ages.

Graduates of ISCED 3A, 3B and 3C (or 4A, 4B, 4C) programmes are not considered as first-time counts. Therefore, graduation rates cannot be added, as some individuals graduate from more than one upper secondary programme and would be counted twice. The same applies for graduation rates according to programme orientation, i.e. general or vocational. In addition, the typical graduation ages are not necessarily the same for the different types of programmes (see Annex 1). Pre-vocational and vocational programmes include both school-based programmes and combined school- and work-based programmes that are recognised as part of the education system. Entirely work-based education and training programmes that are not overseen by a formal education authority are not included.

In Tables A2.4, A2.5 and Box A2.2, data are based on a special survey carried out in December 2013. Successful completion of upper secondary programmes is calculated as the ratio of the number of students who graduate from an upper secondary programme during the reference year to the number of new entrants in this programme N years before (or N+2), with N being the duration of the programme. The calculation of successful completion is defined from a cohort analysis in three quarters of the countries listed in Table A2.4 (true cohort and longitudinal survey). The estimation for the other countries without a real cohort tracking system assumes constant student flows at the upper secondary level, owing to the need for consistency between the graduate cohort in the reference year and the entrant cohort N years before (Proxy cohort data). This assumption may be an oversimplification. A detailed description of the method used for each country is included in Annex 3 (years of new entrants, years of graduates, programmes taken into account, etc.).

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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Tables of Indicator A2

StatLink http://dx.doi.org/10.1787/888933115122

	Table A2.1a	Upper secondary graduation rates and average ages (2012)
	Table A2.1b	Upper secondary graduation rates: Under 25 years old (2012)
WEB	Table A2.1c	Post-secondary non-tertiary graduation rates (2012)
	Table A2.2a	Trends in first-time graduation rates at upper secondary level (1995-2012)
WEB	Table A2.2b	Trends in graduation rates (general and pre-vocational/vocational programmes) at upper secondary level (2005-2012)
	Table A2.3a	Distribution of upper secondary vocational graduates, by field of education and gender (2012)
WEB	Table A2.3b	Distribution of upper secondary vocational graduates, by field of education (2012)
	Table A2.4	Successful completion of upper secondary programmes, by gender and programme orientation
	Table A2.5	Successful completion of upper secondary programmes, by programme orientation and duration

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Table A2.1a. Upper secondary graduation rates and average ages (2012)

Sum of age-specific graduation rates, by programme destination, programme orientation and gender

		Total (first-time graduates)				General programmes				Pre-vocational/ vocational programmes				ISCED 3A[1]	ISCED 3B[1]	ISCED 3C (long)[1]	ISCED 3C (short)[1]
		M + W	Men	Women	Average age[2]	M + W	Men	Women	Average age[2]	M + W	Men	Women	Average age[2]	M + W	M + W	M + W	M + W
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(17)	(21)	(25)
OECD	Australia[3]	**m**	m	m	*m*	**71**	67	75	*17*	**59**	58	61	*31*	**71**	**a**	**59**	**a**
	Austria	**68**	71	64	*18*	**18**	14	22	*18*	**76**	87	65	*20*	**18**	**55**	**1**	**20**
	Belgium	**m**	m	m	*m*	**35**	31	40	*18*	**66**	61	72	*25*	**59**	**a**	**19**	**23**
	Canada[3]	**88**	85	91	*19*	**84**	81	88	*18*	**4**	4	3	*m*	**84**	**a**	**4**	**a**
	Chile	**84**	81	88	*18*	**55**	52	58	*19*	**30**	30	30	*18*	**84**	**a**	**a**	**a**
	Czech Republic	**82**	81	83	*19*	**24**	18	30	*19*	**58**	63	53	*19*	**58**	**n**	**24**	**a**
	Denmark	**92**	86	99	*21*	**62**	54	70	*19*	**47**	44	49	*28*	**62**	**a**	**46**	**n**
	Estonia	**m**	m	m	*m*	**65**	55	76	*18*	**22**	27	17	*21*	**65**	**20**	**2**	**a**
	Finland	**93**	89	96	*21*	**44**	37	52	*19*	**97**	89	106	*29*	**93**	**a**	**a**	**a**
	France	**m**	m	m	*m*	**53**	46	60	*17*	**75**	77	72	*20*	**53**	**24**	**4**	**47**
	Germany	**95**	95	94	*m*	**49**	44	54	*m*	**46**	51	40	*m*	**49**	**45**	**a**	**1**
	Greece	**71**	64	78	*m*	**71**	64	78	*m*	**33**	39	27	*m*	**71**	**a**	**33**	**x(21)**
	Hungary	**94**	95	94	*19*	**70**	63	77	*19*	**25**	32	18	*20*	**70**	**a**	**25**	**x(21)**
	Iceland	**95**	82	109	*23*	**79**	64	94	*21*	**55**	55	56	*26*	**76**	**3**	**37**	**18**
	Ireland	**93**	92	95	*19*	**69**	70	68	*19*	**80**	61	99	*26*	**97**	**a**	**6**	**46**
	Israel	**87**	82	93	*17*	**53**	48	59	*17*	**34**	35	34	*17*	**81**	**a**	**6**	**a**
	Italy	**84**	82	86	*m*	**36**	27	46	*18*	**64**	72	56	*m*	**75**	**1**	**a**	**24**
	Japan	**93**	92	94	*m*	**71**	68	75	*m*	**22**	24	20	*m*	**71**	**1**	**21**	**x(21)**
	Korea	**92**	92	92	*m*	**71**	70	72	*m*	**21**	22	20	*m*	**71**	**a**	**21**	**a**
	Luxembourg	**69**	66	72	*20*	**31**	27	35	*18*	**47**	46	47	*20*	**47**	**9**	**20**	**1**
	Mexico	**47**	45	50	*18*	**44**	41	46	*18*	**4**	4	4	*19*	**44**	**a**	**4**	**a**
	Netherlands	**94**	91	98	*21*	**42**	38	45	*17*	**78**	79	76	*25*	**70**	**a**	**49**	**a**
	New Zealand	**85**	83	88	*17*	**85**	83	88	*17*	**m**	m	m	*m*	**74**	**m**	**m**	**11**
	Norway	**88**	83	94	*22*	**59**	48	71	*19*	**34**	41	27	*28*	**59**	**a**	**34**	**m**
	Poland	**85**	80	89	*20*	**52**	40	65	*20*	**39**	47	31	*20*	**77**	**a**	**14**	**a**
	Portugal	**m**	m	m	*m*	**47**	40	54	*23*	**50**	50	50	*23*	**a**	**a**	**a**	**a**
	Slovak Republic	**86**	85	89	*19*	**27**	21	33	*18*	**66**	71	62	*20*	**78**	**a**	**14**	**1**
	Slovenia	**96**	92	101	*m*	**35**	28	43	*18*	**73**	79	67	*m*	**39**	**46**	**21**	**2**
	Spain	**93**	90	97	*m*	**52**	46	59	*m*	**50**	49	50	*m*	**52**	**23**	**11**	**16**
	Sweden	**77**	75	80	*18*	**43**	38	48	*18*	**35**	37	32	*18*	**77**	**n**	**n**	**n**
	Switzerland	**m**	m	m	*m*	**34**	27	41	*20*	**71**	77	66	*21*	**30**	**69**	**6**	**x(21)**
	Turkey	**55**	54	57	*17*	**30**	27	32	*17*	**26**	27	25	*17*	**55**	**a**	**a**	**m**
	United Kingdom	**93**	92	95	*m*	**m**	m	m	*m*	**m**	m	m	*m*	**m**	**m**	**81**	**12**
	United States	**79**	75	82	*17*	**x(1)**	x(2)	x(3)	*x(4)*	**x(1)**	x(2)	x(3)	*x(4)*	**a**	**a**	**a**	**a**
	OECD average	**84**	81	87	*19*	**52**	46	58	*19*	**48**	50	46	*22*	**61**	**10**	**18**	**8**
	EU21 average	**86**	84	89	*20*	**46**	40	53	*19*	**56**	58	54	*22*	**61**	**11**	**18**	**10**
Partners	Argentina[3]	**m**	m	m	*m*	**34**	28	41	*17*	**7**	7	7	*17*	**41**	**a**	**a**	**a**
	Brazil	**m**	m	m	*m*	**63**	51	75	*20*	**12**	10	14	*25*	**64**	**12**	**a**	**a**
	China	**76**	76	77	*m*	**42**	41	44	*m*	**60**	60	59	*m*	**44**	**x(13)**	**33**	**25**
	Colombia	**m**	m	m	*m*	**m**	m	m	*m*	**m**	m	m	*m*	**m**	**m**	**m**	**m**
	India	**m**	m	m	*m*	**m**	m	m	*m*	**m**	m	m	*m*	**m**	**m**	**m**	**m**
	Indonesia[3]	**m**	m	m	*m*	**36**	32	41	*18*	**25**	29	22	*18*	**36**	**25**	**a**	**a**
	Latvia	**90**	87	93	*20*	**63**	55	70	*19*	**28**	33	23	*20*	**86**	**a**	**4**	**a**
	Russian Federation	**m**	m	m	*m*	**43**	x(5)	x(5)	*m*	**45**	x(9)	x(9)	*m*	**43**	**18**	**22**	**5**
	Saudi Arabia	**m**	m	m	*m*	**m**	m	m	*m*	**m**	m	m	*m*	**m**	**m**	**m**	**m**
	South Africa	**m**	m	m	*m*	**m**	m	m	*m*	**m**	m	m	*m*	**m**	**m**	**m**	**m**
	G20 average	**77**	76	78	*m*	**52**	48	58	*m*	**34**	34	31	*m*	**54**	**9**	**16**	**9**

Notes: Columns showing graduation rates for men, women and average age at upper secondary level by programme orientation (i.e. columns 14-16, 18-20, 22-24, 26-28) are available for consultation on line (see *StatLink* below).

Refer to Annex 1 for information on the method used to calculate graduation rates (gross rates versus net rates) and the corresponding typical ages.

Mismatches between the coverage of the population data and the graduate data mean that the graduation rates for those countries that are net exporters of students may be underestimated (for instance Luxembourg) and those that are net importers may be overestimated.

1. ISCED 3A (designed to prepare for direct entry to tertiary-type A education).
   ISCED 3B (designed to prepare for direct entry to tertiary-type B education).
   ISCED 3C (long) similar to duration of typical 3A or 3B programmes.
   ISCED 3C (short) shorter than duration of typical 3A or 3B programmes.
2. The average age refers generally to the age of the students at the beginning of the calendar year; students could be one year older than the age indicated when they graduate at the end of the school year. It refers to an average weighted age. Please see Annex 3 to learn how it is calculated.
3. Year of reference 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table A2.1b. Upper secondary graduation rates: Under 25 years old (2012)

Sum of graduation rates for single year of age, by programme destination, programme orientation and gender

	Total (first-time graduates)				General programmes				Pre-vocational/ vocational programmes				ISCED 3A[1]	ISCED 3B[1]	ISCED 3C (long)[1]	ISCED 3C (short)[1]
	M + W	Men	Women	Share of graduates below 25[2]	M + W	Men	Women	Share of graduates below 25[2]	M + W	Men	Women	Share of graduates below 25[2]	M + W	M + W	M + W	M + W
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(16)	(19)	(22)
OECD																
Australia[3]	**m**	m	m	*m*	**71**	67	75	*100*	**27**	28	26	*45*	**71**	**a**	**27**	**a**
Austria	**65**	68	61	*95*	**18**	14	22	*99*	**68**	78	58	*88*	**18**	**49**	**1**	**18**
Belgium	**m**	m	m	*m*	**35**	31	40	*100*	**48**	48	49	*71*	**59**	**a**	**19**	**4**
Canada[3]	**83**	80	86	*95*	**82**	79	86	*97*	**1**	2	1	*34*	**82**	**a**	**1**	**a**
Chile	**81**	78	83	*96*	**51**	49	53	*94*	**29**	29	30	*99*	**81**	**a**	**a**	**a**
Czech Republic	**81**	80	82	*98*	**24**	18	30	*100*	**57**	62	51	*97*	**57**	**a**	**23**	**a**
Denmark	**80**	77	85	*87*	**60**	53	69	*97*	**26**	29	23	*56*	**60**	**a**	**26**	**n**
Estonia	**m**	m	m	*m*	**64**	54	74	*96*	**20**	25	15	*93*	**64**	**19**	**1**	**a**
Finland	**82**	80	84	*89*	**44**	36	52	*99*	**53**	55	51	*55*	**82**	**a**	**a**	**a**
France	**m**	m	m	*m*	**53**	46	60	*100*	**67**	73	61	*90*	**53**	**24**	**3**	**40**
Germany	**m**	m	m	*m*	**m**	m	m	*m*	**m**	m	m	*m*	**m**	**m**	**a**	**m**
Greece	**m**	m	m	*m*	**m**	m	m	*m*	**m**	m	m	*m*	**m**	**a**	**m**	**m**
Hungary	**90**	91	89	*94*	**67**	61	73	*94*	**24**	32	16	*96*	**67**	**a**	**24**	**x(19)**
Iceland	**75**	66	84	*80*	**68**	56	81	*87*	**31**	33	30	*58*	**66**	**2**	**20**	**12**
Ireland	**92**	91	94	*99*	**67**	68	66	*97*	**59**	51	68	*68*	**95**	**a**	**6**	**25**
Israel	**87**	78	93	*100*	**53**	48	59	*100*	**34**	35	34	*100*	**81**	**a**	**6**	**a**
Italy	**m**	m	m	*m*	**36**	27	46	*100*	**m**	m	m	*m*	**73**	**m**	**a**	**m**
Japan	**m**	m	m	*m*	**m**	m	m	*m*	**m**	m	m	*m*	**m**	**m**	**m**	**m**
Korea	**m**	m	m	*m*	**m**	m	m	*m*	**m**	m	m	*m*	**m**	**a**	**m**	**a**
Luxembourg	**67**	63	70	*96*	**31**	27	35	*100*	**44**	44	44	*94*	**47**	**9**	**18**	**1**
Mexico	**46**	44	49	*98*	**43**	40	45	*98*	**3**	3	3	*93*	**43**	**a**	**3**	**a**
Netherlands	**82**	79	85	*86*	**42**	38	45	*100*	**59**	60	58	*76*	**66**	**a**	**35**	**a**
New Zealand	**85**	83	88	*100*	**85**	83	88	*100*	**m**	m	m	*m*	**74**	**m**	**m**	**11**
Norway	**75**	71	80	*85*	**58**	47	69	*98*	**21**	27	13	*59*	**58**	**a**	**21**	**m**
Poland	**83**	79	87	*97*	**48**	36	60	*90*	**39**	47	31	*99*	**72**	**a**	**14**	**a**
Portugal	**m**	m	m	*m*	**40**	33	47	*80*	**42**	44	40	*79*	**a**	**a**	**a**	**a**
Slovak Republic	**84**	83	85	*97*	**27**	21	33	*99*	**63**	69	57	*94*	**76**	**a**	**14**	**n**
Slovenia	**m**	m	m	*m*	**35**	28	43	*100*	**m**	m	m	*m*	**39**	**m**	**m**	**2**
Spain	**m**	m	m	*m*	**m**	m	m	*m*	**m**	m	m	*m*	**m**	**m**	**m**	**m**
Sweden	**77**	75	80	*100*	**43**	38	48	*100*	**35**	37	32	*100*	**77**	**m**	**n**	**m**
Switzerland	**m**	m	m	*m*	**33**	27	40	*99*	**65**	71	60	*91*	**29**	**64**	**5**	**m**
Turkey	**55**	54	57	*100*	**30**	27	32	*100*	**26**	27	25	*100*	**55**	**a**	**a**	**m**
United Kingdom	**m**	m	m	*m*	**m**	m	m	*m*	**m**	m	m	*m*	**m**	**m**	**m**	**m**
United States	**79**	75	82	*100*	**x(1)**	x(2)	x(3)	*x(4)*	**x(1)**	x(2)	x(3)	*x(4)*	**a**	**a**	**a**	**a**
OECD average	**78**	75	80	*95*	**48**	43	54	*97*	**39**	42	36	*81*	**59**	**6**	**10**	**5**
EU21 average	**80**	79	82	*94*	**43**	37	49	*97*	**47**	50	44	*84*	**59**	**7**	**11**	**6**
Partners																
Argentina[3]	**m**	m	m	*m*	**34**	28	41	*100*	**7**	7	7	*100*	**41**	**a**	**a**	**a**
Brazil	**m**	m	m	*m*	**56**	48	65	*88*	**7**	6	9	*61*	**56**	**7**	**a**	**a**
China	**m**	m	m	*m*	**m**	m	m	*m*	**m**	m	m	*m*	**m**	**m**	**m**	**m**
Colombia	**m**	m	m	*m*	**m**	m	m	*m*	**m**	m	m	*m*	**m**	**m**	**m**	**m**
India	**m**	m	m	*m*	**m**	m	m	*m*	**m**	m	m	*m*	**m**	**m**	**m**	**m**
Indonesia[3]	**m**	m	m	*m*	**34**	31	37	*m*	**22**	25	18	*m*	**34**	**m**	**m**	**a**
Latvia	**89**	86	92	*99*	**63**	55	70	*m*	**27**	32	22	*m*	**86**	**m**	**4**	**a**
Russian Federation	**m**	m	m	*m*	**m**	m	m	*m*	**m**	m	m	*m*	**m**	**m**	**m**	**m**
Saudi Arabia	**m**	m	m	*m*	**m**	m	m	*m*	**m**	m	m	*m*	**m**	**m**	**m**	**m**
South Africa	**m**	m	m	*m*	**m**	m	m	*m*	**m**	m	m	*m*	**m**	**m**	**m**	**m**
G20 average	**m**	m	m	*m*	**m**	m	m	*m*	**m**	m	m	*m*	**m**	**m**	**m**	**m**

Notes: Columns showing graduation rates for men and women at upper secondary level by programme orientation (i.e. columns 14-15, 17-18, 20-21, 23-24) are available for consultation on line (see *StatLink* below).

Refer to Annex 1 for information on the method used to calculate graduation rates (gross rates versus net rates) and the corresponding typical ages.

Mismatches between the coverage of the population data and the graduate data mean that the graduation rates for those countries that are net exporters of students may be underestimated (for instance Luxembourg) and those that are net importers may be overestimated.

1. ISCED 3A (designed to prepare for direct entry to tertiary-type A education).
   ISCED 3B (designed to prepare for direct entry to tertiary-type B education).
   ISCED 3C (long) similar to duration of typical 3A or 3B programmes.
   ISCED 3C (short) shorter than duration of typical 3A or 3B programmes.
2. Share of below 25-year-old graduates among the total population of graduates.
3. Year of reference 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table A2.2a. Trends in first-time graduation rates at upper secondary level (1995-2012)

		1995	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	Average annual growth rate 1995-2012[1]
OECD	Australia	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Austria[2]	m	m	m	m	m	m	m	m	m	m	m	m	66	**68**	m
	Belgium	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Canada	m	m	77	79	83	79	80	81	77	81	81	85	88	**m**	m
	Chile	m	m	m	m	m	79	85	82	82	83	85	83	83	**84**	m
	Czech Republic	78	m	84	83	88	87	89	89	88	85	83	80	78	**82**	0.3%
	Denmark	83	95	95	94	88	88	82	84	85	83	85	86	90	**92**	0.7%
	Estonia	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Finland	91	91	85	84	90	95	94	94	97	93	95	93	96	**93**	0.1%
	France	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Germany[3]	100	92	92	94	97	99	99	100	100	97	84	87	92	**95**	m
	Greece	80	54	76	85	96	93	100	98	96	91	m	m	m	**71**	-0.7%
	Hungary	m	m	83	82	87	86	84	87	84	78	86	86	86	**94**	m
	Iceland	80	67	70	79	81	87	79	87	86	89	89	88	90	**95**	1.1%
	Ireland	m	74	77	78	91	92	91	87	90	88	91	94	89	**93**	*1.9%*
	Israel	m	m	m	90	89	93	90	90	92	90	89	92	85	**87**	m
	Italy	m	78	81	78	m	82	85	86	84	86	81	83	79	**84**	*0.6%*
	Japan	96	95	93	94	95	96	95	96	96	95	95	96	96	**93**	-0.2%
	Korea	88	96	100	99	92	94	94	93	91	93	89	94	93	**92**	0.3%
	Luxembourg	m	m	m	69	71	69	75	71	75	73	69	70	70	**69**	m
	Mexico	m	33	34	35	37	39	40	42	43	44	45	47	49	**47**	*3.1%*
	Netherlands	m	m	m	m	m	m	m	m	m	m	m	m	92	**94**	m
	New Zealand	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Norway	77	99	105	97	92	100	89	88	92	91	91	87	90	**88**	0.8%
	Poland	m	90	93	91	86	79	85	81	84	83	85	84	84	**85**	*-0.5%*
	Portugal[4]	52	52	48	50	60	53	51	54	65	63	96	104	89	**m**	m
	Slovak Republic	85	87	72	60	56	83	85	86	86	82	82	86	85	**86**	0.1%
	Slovenia	m	m	m	m	m	m	85	97	91	85	96	94	99	**96**	m
	Spain	62	60	66	66	67	66	72	72	74	73	74	80	88	**93**	2.4%
	Sweden	m	75	71	72	76	78	76	75	74	74	74	75	75	**77**	*0.2%*
	Switzerland	86	88	91	91	88	87	87	88	88	88	92	94	m	**m**	m
	Turkey	37	37	37	37	41	55	48	52	58	26	45	54	56	**55**	2.4%
	United Kingdom	m	m	m	m	m	m	86	88	89	91	92	93	93	**93**	m
	United States	69	70	71	73	74	75	76	75	75	76	76	77	77	**79**	0.7%
	OECD average	78	76	77	78	79	81	82	82	83	81	83	84	82	**84**	m
	OECD average for countries with available data 2000-2012		*76*	*76*	*75*	*76*	*80*	*79*	*79*	*81*	*79*	*81*	*83*	*83*	*84*	*0.8%*
	EU21 average	79	77	79	77	79	78	81	82	84	84	85	85	83	**83**	m
Partners	Argentina	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Brazil	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Colombia	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	China	m	m	m	m	m	m	m	m	m	m	m	69	73	**76**	m
	India	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Latvia	m	m	m	m	m	m	m	m	m	m	m	m	m	**90**	m
	Indonesia	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Russian Federation	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Saudi Arabia	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	South Africa	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	G20 average	m	m	m	m	m	m	m	m	m	m	m	71	75	**76**	m

Notes: Up to 2004, graduation rates at upper secondary level were calculated on a gross basis. From 2005 and for countries with available data, graduation rates are calculated as net graduation rates (i.e. as the sum of age-specific graduation rates).

Refer to Annex 1 for information on the method used to calculate graduation rates (gross rates versus net rates) and the corresponding typical ages.

1. For countries that do not have data for the year 1995, the 2000-12 average annual growth rate is indicated in italics.
2. Programmes spanning ISCED levels 3 and 4 (*Höhere berufsbildende Schule*) not included.
3. Break in the series between 2008 and 2009 due, in Germany, to a partial reallocation of vocational programmes into ISCED 2 and ISCED 5B.
4. Year of reference 1997 instead of 1995.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933115179

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Table A2.3a. Distribution of upper secondary vocational graduates, by field of education and gender (2012)

		Men									Women								
		Pre-vocational/ vocational programmes graduation rates	Humanities, arts and education	Health and welfare	Social sciences, business and law	Services	Engineering, manufacturing and construction	Sciences	Agriculture	Not known or unspecified	Pre-vocational/ vocational programmes graduation rates	Humanities, arts and education	Health and welfare	Social sciences, business and law	Services	Engineering, manufacturing and construction	Sciences	Agriculture	Not known or unspecified
		(1)	(2)	(5)	(6)	(7)	(8)	(9)	(14)	(15)	(16)	(17)	(20)	(21)	(22)	(23)	(24)	(29)	(30)
OECD	Australia[1]	*58*	2	5	13	12	**59**	2	6	1	*61*	6	**37**	30	16	5	1	2	4
	Austria[2]	*87*	1	1	11	8	**46**	2	8	23	*65*	2	9	**35**	21	7	n	8	19
	Belgium	*61*	15	6	11	7	**32**	3	2	23	*72*	23	23	12	13	2	n	1	**26**
	Canada[1]	*4*	m	m	m	m	m	m	m	m	*3*	m	m	m	m	m	m	m	m
	Chile	*30*	1	2	24	7	**59**	n	6	n	*30*	13	8	**48**	16	12	n	4	n
	Czech Republic	*63*	3	1	10	12	**70**	n	3	n	*53*	8	13	33	30	9	n	5	n
	Denmark	*44*	3	7	17	15	**49**	n	8	n	*49*	1	**50**	31	10	5	n	4	n
	Estonia	*27*	1	n	n	15	**68**	9	7	n	*17*	6	4	8	**52**	19	5	6	n
	Finland	*89*	4	5	10	16	**55**	4	5	n	*106*	7	**31**	20	26	10	1	6	n
	France	*77*	2	3	14	12	**62**	n	7	n	*72*	2	29	**32**	26	7	n	3	n
	Germany	*51*	2	3	27	9	**53**	4	3	n	*40*	3	16	**54**	17	7	1	1	n
	Greece	*m*	m	m	m	m	m	m	m	m	*m*	m	m	m	m	m	m	m	m
	Hungary	*32*	1	n	4	21	**73**	n	2	n	*18*	3	8	23	**52**	11	n	3	n
	Iceland	*55*	14	1	11	16	**54**	2	2	n	*56*	**24**	21	21	26	6	n	n	2
	Ireland	*61*	m	m	m	m	m	m	m	m	*99*	m	m	m	m	m	m	m	m
	Israel	*35*	m	m	m	m	m	m	m	m	*34*	m	m	m	m	m	m	m	m
	Italy	*72*	m	m	m	m	m	m	m	m	*56*	m	m	m	m	m	m	m	m
	Japan	*24*	n	1	17	2	**56**	n	11	12	*20*	n	10	**40**	12	8	n	12	17
	Korea	*22*	18	n	7	4	**58**	11	2	n	*20*	**34**	1	**26**	5	20	12	1	n
	Luxembourg	*46*	m	m	m	m	m	m	m	m	*47*	m	m	m	m	m	m	m	m
	Mexico	*4*	m	m	m	m	m	m	m	m	*4*	m	m	m	m	m	m	m	m
	Netherlands	*79*	4	8	18	25	**34**	7	4	n	*76*	7	**45**	23	19	3	n	3	n
	New Zealand	*m*	m	m	m	m	m	m	m	m	*m*	m	m	m	m	m	m	m	m
	Norway	*41*	1	4	2	15	**72**	3	3	n	*27*	4	**48**	12	24	9	n	3	n
	Poland	*47*	1	n	8	13	**62**	13	4	n	*31*	3	n	31	**47**	13	2	3	n
	Portugal	*50*	m	m	m	m	m	m	m	m	*50*	m	m	m	m	m	m	m	m
	Slovak Republic	*71*	4	2	11	19	**61**	n	3	n	*62*	8	13	**35**	33	8	n	3	n
	Slovenia	*79*	3	5	13	13	**54**	7	5	n	*67*	14	21	**33**	21	6	n	5	n
	Spain	*49*	17	5	10	10	**42**	9	4	3	*50*	**29**	24	25	15	3	2	1	1
	Sweden	*37*	8	7	6	10	**65**	n	4	n	*32*	24	**27**	13	18	8	n	10	n
	Switzerland	*77*	2	2	24	6	**54**	4	6	2	*66*	4	23	**48**	12	9	n	3	1
	Turkey	*27*	1	2	11	4	**52**	13	n	17	*25*	4	**26**	17	8	11	10	n	24
	United Kingdom	*m*	m	m	m	m	m	m	m	m	*m*	m	m	m	m	m	m	m	m
	United States	*m*	m	m	m	m	m	m	m	m	*m*	m	m	m	m	m	m	m	m
	OECD average	*50*	4	3	11	10	**48**	4	4	17	*47*	9	19	**24**	19	7	2	3	17
	EU21 average	*59*	4	3	11	12	**50**	5	4	12	*56*	8	20	**25**	23	7	1	3	12
Partners	Argentina[1]	*7*	m	m	m	m	m	m	m	m	*7*	m	m	m	m	m	m	m	m
	Brazil	*10*	m	m	m	m	m	m	m	m	*14*	m	m	m	m	m	m	m	m
	China	*60*	m	m	m	m	m	m	m	m	*59*	m	m	m	m	m	m	m	m
	Colombia	*m*	m	m	m	m	m	m	m	m	*60*	m	m	m	m	m	m	m	m
	India	*m*	m	m	m	m	m	m	m	m	*m*	m	m	m	m	m	m	m	m
	Indonesia[1]	*29*	2	2	**49**	n	39	n	n	8	*22*	2	6	**49**	n	29	n	4	10
	Latvia	*33*	4	n	6	12	**67**	10	2	n	*23*	15	3	34	**34**	9	2	2	n
	Russian Federation	*m*	m	m	m	m	m	m	m	m	*m*	m	m	m	m	m	m	m	m
	Saudi Arabia	*m*	m	m	m	m	m	m	m	m	*m*	m	m	m	m	m	m	m	m
	South Africa	*m*	m	m	m	m	m	m	m	m	*m*	m	m	m	m	m	m	m	m
	G20 average	*33*	m	m	m	m	m	m	m	m	*30*	m	m	m	m	m	m	m	m

Notes: Columns showing the breakdown of humanities, arts and education (3, 4, 18 and 19) and sciences (10-13, 25-28) are available for consultation on line (see *StatLink* below). The averages were adjusted to 100% and do not correspond exactly to the average of each column. Columns 1 and 16 show the relative share of pre-vocational/vocational graduates among all upper secondary graduates. Figures in bold highlight the field of education with the larger share of graduates in each country.

1. Year of reference 2011.

2. Programmes spanning ISCED levels 3 and 4 (*Höhere berufsbildende Schule*) not included.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See annex 3 for notes (www.oecd.org/edu/eag.htm).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table A2.4. [1/2] Successful completion of upper secondary programmes, by gender and programme orientation

Ratio of graduates to new entrants, based on cohorts

					Completion of upper secondary programmes			Completion of general programmes [1]				Completion of vocational programmes [2]			
		Method	Year used for new entrants Duration programme (G: general, V: vocational)	N = theoretical duration	M + W	Men	Women	M + W	Men	Women	Proportion of vocational programme graduates[3]	M + W	Men	Women	Proportion of general programmes graduates[4]
OECD	Austria	True cohort	2007-08	within N	71	65	76	71	65	76	3	m	m	m	m
			4 years G & V	2 years after N	m	m	m	m	m	m	m	m	m	m	m
	Belgium (Fl.)	True cohort	2007-08	within N	71	65	77	81	75	86	14	62	57	67	n
			4 years G & V	2 years after N	87	84	90	95	94	97	19	80	77	82	n
	Canada	Proxy cohort	2008-09	within N	73	69	77	m	m	m	m	m	m	m	m
		data	3 years	2 years after N	m	m	m	m	m	m	m	m	m	m	m
	Chile	True cohort	2007	within N	64	61	67	66	62	69	21	60	58	63	12
			4 years G & V	2 years after N	77	75	80	79	77	81	21	74	72	76	18
	Denmark	True cohort	2004-05	within N	60	56	65	81	78	83	1	35	35	35	2
			3-4 years G & 2-5 years V	2 years after N	73	70	76	89	87	90	3	53	54	53	9
	Estonia	True cohort	2005	within N	78	75	81	84	82	85	1	60	60	59	2
			3 years G & 3-4 years V	2 years after N	86	83	88	91	91	92	3	66	67	66	3
	Finland	True cohort	2006	within N	71	70	72	80	79	81	1	64	64	64	1
			3 years G & V	2 years after N	82	80	83	92	91	93	4	74	74	75	1
	France	Longitudinal	1999-2005	within N	59	54	64	61	56	66	5	55	52	60	n
		sample survey	3 years G & 2 years V	2 years after N	82	78	85	90	88	91	6	69	67	73	1
	Greece	Cross cohort	2008-11	within N	85	82	87	89	86	92	m	76	77	76	m
			3-4 years G & 2-4 years V	2 years after N	m	m	m	m	m	m	m	m	m	m	m
	Hungary	Cross cohort	2009-10	within N	84	81	86	87	85	88	m	74	73	77	m
			4 years	2 years after N	m	m	m	m	m	m	m	m	m	m	m
	Iceland	True cohort	2004	within N	45	38	52	47	40	53	14	37	32	48	35
			4 years G & V	2 years after N	58	52	64	61	56	65	19	49	44	57	41
	Ireland	True Cohort	2007	within N	90	88	92	m	m	m	m	m	m	m	m
			2-3 years G & V	2 years after N	m	m	m	m	m	m	m	m	m	m	m
	Israel	True cohort	2009	within N	88	81	94	89	83	95	9	85	80	92	14
			3 years G & V	2 years after N	m	m	m	m	m	m	m	m	m	m	m
	Italy	Cross cohort	2005-06	within N	66	59	73	79	75	82	m	61	58	67	m
			5 years G & V	2 years after N	86	82	90	m	m	m	m	m	m	m	m
	Japan	True cohort	2009	within N	94	93	94	94	94	95	m	92	91	93	m
			3 years G & V	2 years after N	m	m	m	m	m	m	m	m	m	m	m
	Korea	Cross cohort	2009	within N	95	94	96	97	96	97	m	90	89	90	m
			3 years G & V	2 years after N	m	m	m	m	m	m	m	m	m	m	m
	Luxembourg	True cohort	2006-07	within N	40	36	45	64	60	68	3	29	27	32	n
			4 years G & 2-5 years V	2 years after N	72	68	76	90	88	91	9	64	60	68	n
	Mexico	True cohort	2009-2010	within N	62	57	66	64	60	68	a	57	54	62	a
			3 years G & V	2 years after N	m	m	m	m	m	m	a	m	m	m	a
	Netherlands	True cohort	2007	within N	61	57	66	69	66	72	3	57	52	62	n
			2-3 years G & 2-4 years V	2 years after N	80	77	83	94	93	95	4	73	69	76	1
	New Zealand	True cohort	2008	within N	69	65	73	69	65	73	m	m	m	m	m
			3 years G	2 years after N	74	70	78	74	70	78	m	m	m	m	m
	Norway	True cohort	2006	within N	57	49	66	73	68	77	n	40	34	50	55
			3 years G & 4 years V	2 years after N	72	68	76	83	79	87	1	60	59	62	40
	Poland	True cohort	2008-09	within N	78	72	85	83	74	90	m	72	70	76	m
			3 years G & 3-4 years V	2 years after N	m	m	m	m	m	m	m	m	m	m	m
	Slovak Republic	Cross cohort	2006	within N	89	89	89	97	96	98	m	85	87	84	m
			4 years G & 2-4 years V	2 years after N	m	m	m	m	m	m	m	m	m	m	m
	Slovenia	Cross cohort	2009-11	within N	73	71	76	82	83	81	m	66	64	71	m
			4 years G & 3-4 years V	2 years after N	m	m	m	m	m	m	m	m	m	m	m
	Spain	Cross cohort	2008-09	within N	60	57	64	60	57	64	m	m	m	m	m
			2 years G & V	2 years after N	83	81	85	83	81	85	m	m	m	m	m
	Sweden[5]	True cohort	2007	within N	72	71	75	76	74	78	1	68	69	71	2
			3 years G & V	2 years after N	80	79	82	84	82	86	4	75	76	78	3
	Turkey	True cohort	2008-09	within N	72	66	80	75	68	82	5	69	63	77	9
			4-5 years G & 4 years V	2 years after N	m	m	m	m	m	m	m	m	m	m	m
	United Kingdom	True cohort	2006	within N	67	63	72	67	63	72	m	m	m	m	m
			2 years	2 years after N	83	80	87	m	m	m	m	m	m	m	m
	United States	Longitudinal	2002	within N	85	83	88	m	m	m	m	m	m	m	m
		sample survey	3 years G & V	2 years after N	88	86	90	m	m	m	m	m	m	m	m
	OECD average[6]			within N	72	68	76	76	73	80	m	64	61	67	m
				2 years after N	87	84	89	91	89	93	m	79	77	81	m

Note: Data presented in this table come from a special survey in which 29 countries participated and only concern initial education programmes. Refer to Annex 3 for details concerning this indicator, including methods used, programmes included/excluded, year of entry, etc.

1. ISCED 3 general programmes entrants who graduated from either a general or vocational programme.
2. ISCED 3 vocational programmes entrants who graduated from either a general or vocational programme.
3. ISCED 3 general programmes entrants who graduated from a vocational programme.
4. ISCED 3 vocational programme entrants who graduated from a general programme.
5. Excluding students having continued their studies in the adult education system.
6. OECD average for N + 2 corresponds to the OECD average for N + the difference (in percentage points) of the average for countries with N and N + 2 data.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933115217

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Table A2.4. [2/2] Successful completion of upper secondary programmes, by gender and programme orientation

	Method	Year used for new entrants Duration programme (G: general, V: vocational)	N = theoretical duration	Proportion of students who are still in education among the students who did not graduated (General programmes) M + W	Men	Women	Proportion of students who are still in education among the students who did not graduated (Vocational programmes) M + W	Men	Women	Net entry rates at upper secondary level for students below 20 years old (2012)[5]
OECD										
Austria	True cohort	2007-08	within N	76	78	74	m	m	m	100
		4 years G & V	2 years after N	m	m	m	m	m	m	
Belgium (Fl.)	True cohort	2007-08	within N	88	89	86	67	68	65	m
		4 years G & V	2 years after N	8	10	6	6	6	5	
Canada	Proxy cohort	2008-09	within N	m	m	m	m	m	m	m
	data	3 years	2 years after N	m	m	m	m	m	m	
Chile	True cohort	2007	within N	57	58	57	57	58	56	90
		4 years G & V	2 years after N	34	35	33	37	39	35	
Denmark	True cohort	2004-05	within N	73	75	70	65	66	65	95
		3-4 years G & 2-5 years V	2 years after N	41	44	39	42	42	42	
Estonia	True cohort	2005	within N	58	54	60	34	31	39	100
		3 years G & 3-4 years V	2 years after N	27	24	30	16	16	24	
Finland	True cohort	2006	within N	82	81	83	50	49	52	m
		3 years G & V	2 years after N	52	54	50	28	26	31	
France	Longitudinal	1999-2005	within N	93	93	94	80	81	79	m
	sample survey	3 years G & 2 years V	2 years after N	21	24	19	13	12	15	
Greece	Cross cohort	2008-11	within N	m	m	m	m	m	m	100
		3-4 years G & 2-4 years V	2 years after N	m	m	m	m	m	m	
Hungary	Cross cohort	2009-10	within N	m	m	m	m	m	m	100
		4 years	2 years after N	m	m	m	m	m	m	
Iceland	True cohort	2004	within N	54	55	53	39	38	41	98
		4 years G & V	2 years after N	32	32	33	21	20	24	
Ireland	True Cohort	2007	within N	m	m	m	m	m	m	100
		2-3 years G & V	2 years after N	m	m	m	m	m	m	
Israel	True cohort	2009	within N	10	9	12	2	2	4	98
		3 years G & V	2 years after N	m	m	m	m	m	m	
Italy	Cross cohort	2005-06	within N	m	m	m	m	m	m	m
		5 years G & V	2 years after N	m	m	m	m	m	m	
Japan	True cohort	2009	within N	m	m	m	m	m	m	100
		3 years G & V	2 years after N	m	m	m	m	m	m	
Korea	Cross cohort	2009	within N	7	11	n	7	3	12	m
		3 years G & V	2 years after N	m	m	m	m	m	m	
Luxembourg	True cohort	2006-07	within N	82	84	81	62	63	62	90
		4 years G & 2-5 years V	2 years after N	27	35	17	19	21	17	
Mexico	True cohort	2009-2010	within N	m	m	m	m	m	m	77
		3 years G & V	2 years after N	m	m	m	m	m	m	
Netherlands	True cohort	2007	within N	77	75	79	35	35	35	m
		2-3 years G & 2-4 years V	2 years after N	43	43	44	20	21	19	
New Zealand	True cohort	2008	within N	46	45	48	m	m	m	100
		3 years G	2 years after N	15	14	16	m	m	m	
Norway	True cohort	2006	within N	37	36	38	37	40	31	99
		3 years G & 4 years V	2 years after N	14	14	15	13	13	14	
Poland	True cohort	2008-09	within N	m	m	m	m	m	m	88
		3 years G & 3-4 years V	2 years after N	m	m	m	m	m	m	
Slovak Republic	Cross cohort	2006	within N	m	m	m	m	m	m	92
		4 years G & 2-4 years V	2 years after N	m	m	m	m	m	m	
Slovenia	Cross cohort	2009-11	within N	m	m	m	m	m	m	100
		4 years G & 3-4 years V	2 years after N	m	m	m	m	m	m	
Spain	Cross cohort	2008-09	within N	m	m	m	m	m	m	m
		2 years G & V	2 years after N	m	m	m	m	m	m	
Sweden[5]	True cohort	2007	within N	50	49	50	37	36	38	100
		3 years G & V	2 years after N	1	1	2	1	1	1	
Turkey	True cohort	2008-09	within N	22	20	25	23	22	26	79
		4-5 years G & 4 years V	2 years after N	m	m	m	m	m	m	
United Kingdom	True cohort	2006	within N	50	46	54	m	m	m	m
		2 years	2 years after N	m	m	m	m	m	m	
United States	Longitudinal	2002	within N	m	m	m	m	m	m	98
	sample survey	3 years G & V	2 years after N	m	m	m	m	m	m	
OECD average[6]			within N	56	56	60	43	42	43	m
			2 years after N	m	m	m	m	m	m	

Note: Data presented in this table come from a special survey in which 29 countries participated and only concern initial education programmes. Refer to Annex 3 for details concerning this indicator, including methods used, programmes included/excluded, year of entry, etc.

1. ISCED 3 general programmes entrants who graduated from either a general or vocational programme.
2. ISCED 3 vocational programmes entrants who graduated from either a general or vocational programme.
3. ISCED 3 general programmes entrants who graduated from a vocational programme.
4. ISCED 3 vocational programme entrants who graduated from a general programme.
5. Excluding students having continued their studies in the adult education system.
6. OECD average for N + 2 corresponds to the OECD average for N + the difference (in percentage points) of the average for countries with N and N + 2 data.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table A2.5. Successful completion of upper secondary programmes, by programme orientation and duration

Ratio of graduates to new entrants, based on cohorts

		N = theoretical duration	Completion of general programmes[1]				Completion of vocational programmes[2]				
			Total	2 years	3 years	4 years	Total	2 years	3 years	4 years	5 years
OECD	Austria	within N	71	a	a	71	m	m	m	m	m
		2 years after N	m	a	a	m	m	m	m	m	m
	Belgium (Fl.)	within N	81	a	m	81	62	m	m	62	m
		2 years after N	95	a	m	95	80	m	m	80	m
	Canada	within N	m	a	m	m	m	m	m	m	m
		2 years after N	m	a	m	m	m	m	m	m	m
	Chile	within N	66	a	a	66	60	a	a	60	a
		2 years after N	79	a	a	79	74	a	a	74	a
	Denmark	within N	81	a	81	m	35	53	m	30	80
		2 years after N	89	a	89	m	53	69	m	49	97
	Estonia	within N	84	a	84	a	60	a	60	60	a
		2 years after N	91	a	91	a	66	a	66	66	a
	Finland	within N	80	a	80	n	64	n	64	n	n
		2 years after N	92	a	92	n	74	n	74	n	n
	France	within N	61	a	61	a	55	55	a	a	a
		2 years after N	90	a	90	a	69	69	a	a	a
	Greece	within N	89	a	89	78	76	70	82	69	a
		2 years after N	m	a	m	m	m	m	m	m	a
	Hungary	within N	87	a	a	87	74	a	74	a	a
		2 years after N	m	a	a	m	m	a	m	a	a
	Iceland	within N	47	a	m	m	37	m	m	m	m
		2 years after N	61	a	m	m	49	m	m	m	m
	Ireland	within N	m	a	m	m	m	m	m	m	m
		2 years after N	m	a	m	m	m	m	m	m	m
	Israel	within N	89	a	89	a	85	a	85	m	a
		2 years after N	m	a	m	a	m	a	m	m	a
	Italy	within N	79	a	m	m	61	m	m	m	m
		2 years after N	m	a	m	m	m	m	m	m	m
	Japan	within N	94	a	94	m	92	m	92	m	a
		2 years after N	m	a	m	m	m	m	m	m	a
	Korea	within N	97	a	m	m	90	m	m	m	m
		2 years after N	m	a	m	m	m	m	m	m	m
	Luxembourg	within N	64	a	a	64	29	41	30	27	29
		2 years after N	90	a	a	90	64	55	56	70	69
	Mexico	within N	64	a	64	m	57	a	57	m	m
		2 years after N	m	a	m	m	m	m	m	m	m
	Netherlands	within N	69	67	72	a	57	51	61	62	a
		2 years after N	94	92	97	a	73	66	75	78	a
	New Zealand	within N	69	a	69	n	m	m	m	m	m
		2 years after N	74	a	74	n	m	m	m	m	m
	Norway	within N	73	a	73	n	40	a	m	40	m
		2 years after N	83	a	83	n	60	a	m	60	m
	Poland	within N	83	a	83	a	72	a	71	73	a
		2 years after N	m	a	m	a	m	a	m	m	a
	Slovak Republic	within N	97	a	a	97	85	63	74	90	a
		2 years after N	m	a	a	m	m	m	m	m	a
	Slovenia	within N	82	a	a	82	66	a	78	63	a
		2 years after N	m	a	a	m	m	a	m	m	a
	Spain	within N	60	60	a	a	m	m	m	m	m
		2 years after N	83	83	a	a	m	m	m	m	m
	Sweden[3]	within N	76	a	76	a	68	a	68	a	a
		2 years after N	84	a	84	a	75	a	75	a	a
	Turkey	within N	75	a	a	75	69	a	a	69	a
		2 years after N	m	a	a	m	m	a	a	m	a
	United Kingdom	within N	67	a	m	m	m	m	m	m	m
		2 years after N	m	a	m	m	m	m	m	m	m
	United States	within N	m	a	m	m	m	m	m	m	m
		2 years after N	m	a	m	m	m	m	m	m	m
	OECD average[4]	within N	76	m	79	78	64	m	69	59	m
		2 years after N	91	m	92	95	79	m	82	78	m

Note : Please refer to Annex 3 for details concerning this indicator, including methods used, programmes included/excluded, year of entry, etc.

1. ISCED 3 general programmes entrants who graduated from either a general or vocational programme.
2. ISCED 3 vocational programmes entrants who graduated from either a general or vocational programme.
3. Excluding students having continued their studies in the adult education system.
4. OECD average for N + 2 corresponds to the OECD average for N + the difference (in percentage points) of the average for countries with N and N + 2 data.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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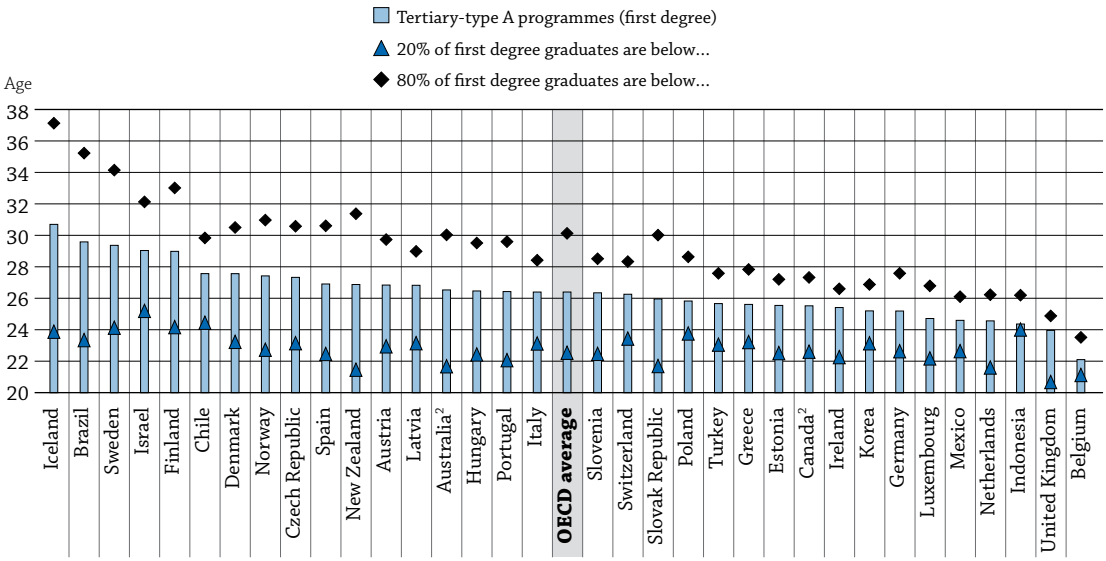
HOW MANY STUDENTS ARE EXPECTED TO COMPLETE TERTIARY EDUCATION?

- Based on current trends in graduation rates, 39% of today's young adults on average across OECD countries are expected to complete tertiary-type A (university level) education during their lifetime.
- Some 11% of today's young adults on average across OECD countries are expected to complete tertiary-type B (vocationally oriented) education during their lifetime.
- On average across OECD countries, students obtain their first university-level degree at the age of 27, with ages ranging from less than 25 in Belgium, Luxembourg, Mexico, the Netherlands and the United Kingdom to 29 or older in Brazil, Finland, Iceland, Israel and Sweden.

Chart A3.1. Average age[1] of graduates at ISCED 5A level and age distribution (2012)



1. The average age refers to an average weighted age, generally the age of the students at the beginning of the calendar year. Students may be one year older than the age indicated when they graduate at the end of the school year. Please see Annex 3 to learn how the average age is calculated.
2. Year of reference 2011.
Countries are ranked in descending order of the average age of graduates for tertiary-type A education in 2012.
Source: OECD. Table A3.1a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933115464

Context

Tertiary graduation rates illustrate a country's capacity to provide future workers with specialised knowledge and skills. Incentives to obtain a tertiary degree remain strong across OECD countries; from higher salaries to better employment prospects (see Indicators A5 and A6 for further reading on these themes). Tertiary education varies widely in structure and scope among countries, and graduation rates seem to be influenced by the ease of access to and flexibility in completing programmes, as well as the demand that exists for higher skills in the labour market. Expanding access to and linking tertiary education to the demands in the labour market are vital to knowledge-based economies; but these objectives are even more difficult to achieve when budgets are tight.

In recent decades, access to tertiary education has expanded remarkably, involving new types of institutions, which offer more choices and new modes of delivery (OECD, 2008). In parallel, the student population is becoming increasingly heterogeneous, as groups that were traditionally excluded now participate in tertiary education, such as older individuals seeking to upgrade their qualifications to succeed in a more competitive labour market, or as first-time graduates pursue a second degree.

Other findings

- Most graduates of tertiary education programmes are women, except at the doctoral level. Based on current patterns of graduation, it is estimated that **on average 15 percentage points more women than men across OECD countries will complete tertiary-type A education over their lifetime, 47% compared with 31%**.
- On average across OECD countries, **1.6% of young people are expected to complete advanced research programmes**.
- **International students represent a significant share of tertiary graduates in a number of countries**, such as Australia (18%) and New Zealand (11%).

Trends

Over the past 17 years, tertiary-type A graduation rates have risen by 22 percentage points, on average across OECD countries with available data, while rates for tertiary-type B programmes have remained stable. Even though doctorates represent only a small proportion of tertiary programmes, the graduation rate from these programmes has doubled over the same period, from 0.8% to 1.6%.

Notes

Graduation rates represent the estimated percentage of an age cohort that is expected to graduate over their lifetime. This estimate is based on the total number of graduates in 2012 and the age distribution of this group. Therefore, graduation rates are based on the current pattern of graduation, and thus are sensitive to any changes in the education systems, such as the introduction of new programmes or any variation in a programme's duration, like those seen recently in many EU countries with the implementation of the Bologna Process.

In this indicator, 30 is regarded as the upper age limit of the typical first-time graduate from a tertiary-type A or B programme. The upper age limit of the typical graduate from an advanced research programme is set at 35.

Many countries make a clear distinction between first and second university degrees (i.e. undergraduate and postgraduate programmes). However, in some countries, degrees that are internationally comparable to a master's degree are obtained through a single programme of long duration. In order to make accurate comparisons, data presented in this indicator refer to first-time graduates unless otherwise indicated.

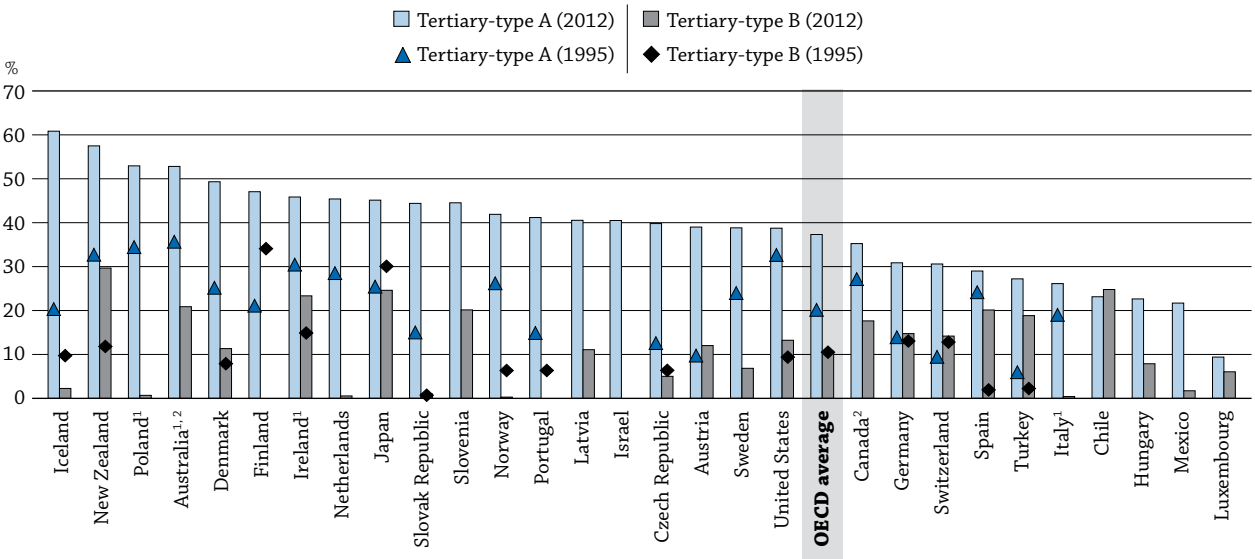
A3

Analysis

Based on current patterns of graduation, 38% of young people, on average across the 26 OECD countries with comparable data for 2012, will graduate for the first time from tertiary-type A programmes during their lifetime. The proportion ranges from less than 25% in Chile, Hungary, Luxembourg and Mexico, to 50% or more in Australia, Iceland, New Zealand and Poland (Chart A3.2).

These programmes, typically offered by universities, are largely theory-based and are designed to provide qualifications for entry into advanced research programmes and professions with high requirements in knowledge and skills.

Chart A3.2. First-time graduation rates in tertiary-type A and B education (1995 and 2012)



1. Year of reference 2000 instead of 1995.
2. Year of reference 2011 instead of 2012.

Countries are ranked in descending order of first-time graduation rates for tertiary-type A education in 2012.

Source: OECD. Table A3.2a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933115483

On average across OECD countries, 39% of young people will graduate from tertiary-type A first-degree programmes (often called bachelor's degree) and 18% from tertiary-type A second degree programmes (often called master's degree). For first-degree programmes, the graduation rate equals or exceeds 50% in Australia, Finland, Iceland, New Zealand, Poland and the Russian Federation but is 25% or less in Argentina, Belgium, Chile, China, Estonia, Greece, Indonesia, Luxembourg, Mexico, Saudi Arabia and South Africa. The low graduation rates in Belgium and China are counterbalanced by a higher level of first-degree graduation rates from tertiary-type B (vocationally oriented) programmes. In China, an estimated 15% of young people today will graduate from a tertiary-type A programme, and 18% will graduate from a tertiary-type B, vocational programme, during their lifetime. The graduation rate from second-degree programmes equals or exceeds 30% in Poland, Portugal and the Slovak Republic. With the implementation of the Bologna Process, programmes at this level of education have expanded considerably in many EU countries (Table A3.1a).

The demand for vocationally oriented programmes has not increased as rapidly in recent decades as the demand for university programmes. In 2012, graduation rates for tertiary-type B programmes averaged 11% among the 27 OECD countries with comparable data; 12% of women and 10% of men graduated from such programmes. These programmes are classified at the same academic level as more theory-based programmes, but are often shorter in duration (usually two to three years). They are generally not intended to lead to further university-level degrees, but rather to equip individuals with skills that can be used directly in the labour market and also to respond to employers' needs for specialised skills (Table A3.1a).

Trend data

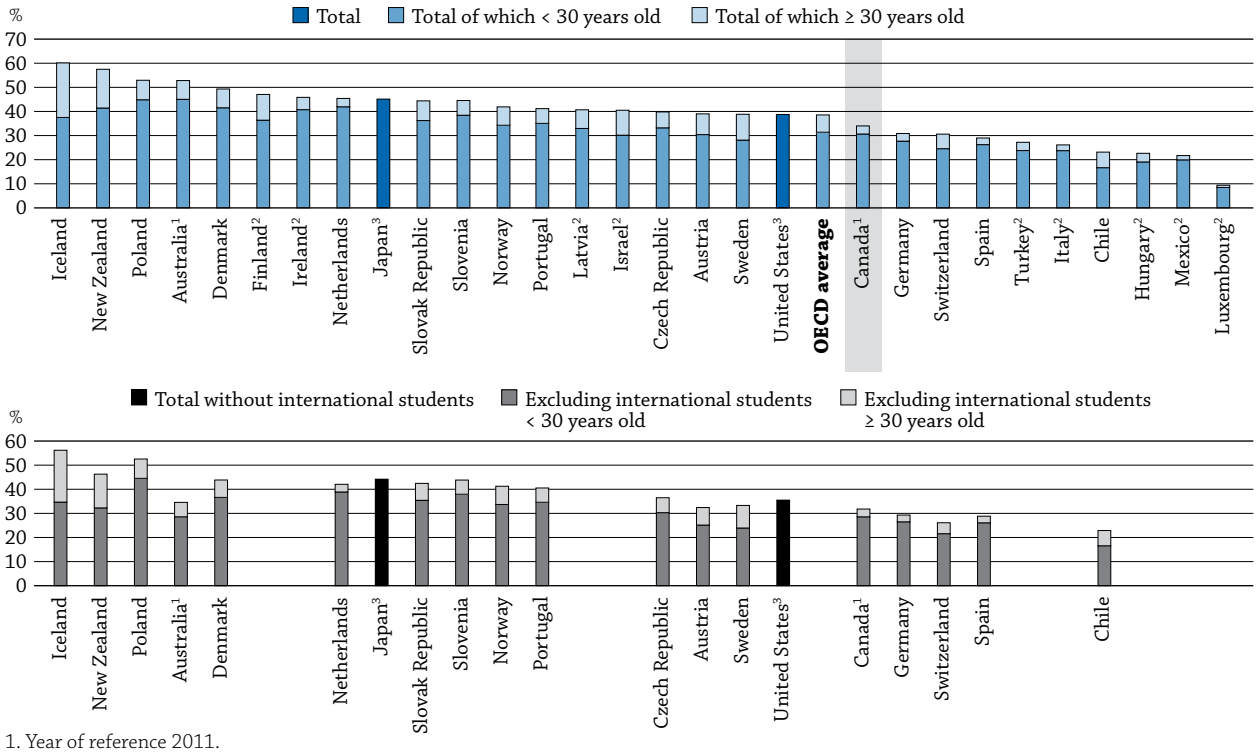
In every country for which comparable data are available, tertiary-type A graduation rates increased between 1995 and 2012. In most of them, the increase was particularly significant between 1995 and 2005, from 20% to 36%, and then levelled off. Over the past five years, tertiary type-A graduation rates have remained relatively stable, at around 38%. As of 1995, or since the year for which data was first available, the expected tertiary graduation rates increased by 20 percentage points or more in Austria, the Czech Republic, Denmark, Finland, Japan, New Zealand, Poland, Portugal, the Slovak Republic, Slovenia, Switzerland and Turkey (Table A3.2a).

The Bologna Process has increased harmonisation among systems of higher education by shifting away from longer programmes in favour of three-year programmes. In result, some countries have seen rapid rises in their graduation rates such as in the Czech Republic between 2004 and 2007, and in Finland and the Slovak Republic between 2007 and 2008.

Trends in tertiary-type B education between 1995 and 2012 varied in some countries, even though the OECD average has been stable. In Spain, the sharp rise in graduation rates from this type of education, from 2% to 20%, can be attributed to the introduction of new advanced-level vocational training programmes; in New Zealand and Turkey, tertiary-type B graduation rates also increased by more than 15 percentage points during this period. By contrast, in Finland, as tertiary-type B programmes are being phased out, graduation rates have fallen sharply while those from academically oriented tertiary education have risen (Chart A3.2).

Trend data by gender show that the growth in tertiary-type A graduation rates has been particularly strong for women in several OECD countries, such as Austria, the Czech Republic and the Slovak Republic, with increases of more than 20 percentage points, and Slovenia, with an increase of almost 40 percentage points between 2005 and 2012. Men's graduation rates in these countries increased too, but by much smaller proportions (Table A3.2b, available on line).

Chart A3.3. Tertiary-type A "first-time" graduation rates, including and excluding international students, by age (2012)



1. Year of reference 2011.
2. Graduates for international students are missing.
3. Graduates by age are missing.

Countries are ranked in descending order of the total graduation rates for tertiary-type A education in 2012.

Source: OECD. Tables A3.1a and b. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933115502

Graduation rates under the typical age of graduation

On average across OECD countries, a student obtains his/her first university-level degree at the age of 27, but the age at graduation varies greatly among countries. Students in Belgium, Luxembourg, Mexico, the Netherlands and the United Kingdom graduate before their 25th birthday, while students in Brazil, Finland, Iceland, Israel and Sweden receive their first university degree after their 29th birthday (Chart A3.1).

Age differences among graduates may be linked to structural factors, such as graduation from upper secondary education, the length of tertiary education programmes or the obligation to do military service. Age differences may also be linked to economic factors, such as the lack of scholarships and flexibility to combine work and study, or the existence of policies to encourage those who have already gained experience in the workplace to enrol in tertiary education in order to improve or add to their skills. In the current global context of economic turmoil, some young people may have decided to extend their studies in tertiary education as the opportunity cost of entering into an unstable labour market is high in several OECD countries. The fact that these men and women are entering the labour force later has economic repercussions that policy makers should consider, such as higher expenditure per student and foregone tax revenues as a result of these individuals' shorter working lives.

Less than a third of young adults are expected to complete tertiary-type A education before the age of 30, from a high of more than 40% in Australia, Denmark, Ireland, the Netherlands, New Zealand and Poland, to 20% or less in Chile, Hungary, Luxembourg and Mexico (Chart A3.3).

Graduation rates excluding international students

The term "international students" refers to students who have crossed borders expressly with the intention to study. For various reasons, international students have a marked impact on estimated graduation rates. By definition, they are considered first-time graduates, regardless of their previous education in other countries (i.e. an international student who enters and graduates from a second-degree programme will be considered a first-time graduate in the country of destination). Furthermore, as they have crossed borders with the intention to study and not necessarily to work or to stay in the country, they might increase the absolute number of graduates within the population. For countries with a high proportion of international students, such as Australia and New Zealand, graduation rates are thus artificially inflated. For example, when international students are excluded from consideration, first-time tertiary-type A graduation rates for Australia and New Zealand drop by 18 and 11 percentage points, respectively, and first-time tertiary-type B graduation rates drop by 8 percentage points in New Zealand (Table A3.1a).

Graduation rates for advanced research programmes

Doctoral graduates are those who have obtained the highest level of formal education, and typically include researchers who hold a Ph.D. Based on 2012 patterns of graduation, 1.6% of young people, on average across OECD countries, will graduate from advanced research programmes, compared to 1.0% in 2000. Countries with the largest increase in advanced research graduation rates are the Czech Republic, Denmark, Ireland, Italy, New Zealand, Norway, the Slovak Republic and the United Kingdom, where graduation rates increased by at least 1 percentage point between 2000 and 2012 (Table A3.2c, available on line).

Although the graduation rate for women (1.5%) is lower than that for men (1.7%) at the doctoral level, in several countries the estimated proportion of women who will graduate from an advanced research programme is larger than that of men. In Finland, Italy, Latvia, Portugal and the United States, women's graduation rates are at least 0.2 percentage points higher than those for men (Table A3.1a).

Some countries aim to attract international students to study at the doctoral level. For example, the high graduation rates at this level (more than 2.5%) observed in Finland, Germany, Sweden and Switzerland, are partly due to the large proportion of international students at the doctoral level (Table A3.1a). Excluding international students from the calculations reduces graduation rates for these countries from 0.3 percentage points in Finland to 1.6 percentage points in Switzerland, where approximately half of Ph.D. graduates are international students.

On average across OECD countries, graduates from an advanced research programme are 35 years old, but the average age at graduation ranges from 32 or younger in Germany, the Netherlands and the Slovak Republic, to 38 or older in Brazil, Finland, Israel, Korea, Latvia, Norway and Portugal (Table A3.1a).

Gender differences in fields of study

The distribution of graduates by field of study is driven by the relative popularity of these fields among students, the relative number of positions offered in universities and equivalent institutions, and the degree structure of the various disciplines in a particular country.

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Tertiary graduates in most fields of study are predominately female. This is especially true in the fields of *education* and *health and welfare*, in which they represent almost 78% and 75%, respectively, of all tertiary students (tertiary-type A and advanced research programmes) who graduated from this field in 2012. In contrast, women are awarded only a small proportion of the degrees in the fields of *engineering, manufacturing and construction* (28%) and *computing* (20%) (Table A3.3, available on line). Only in Argentina, Colombia, Estonia, Iceland, Italy, Luxembourg and Poland was the proportion of women who graduated in the fields of *engineering, manufacturing and construction* in 2012 equal to or higher than one in three graduates.

This situation has changed only slightly since 2000, despite many initiatives to promote gender equality in OECD countries and at the EU level. For example, in 2000, the European Union established a goal to increase the number of tertiary-type A graduates in mathematics, science and technology by at least 15% by 2010, and to reduce the gender imbalance in these subjects. So far, however, progress towards this goal has been marginal. The Czech Republic, Germany, Portugal, the Slovak Republic and Switzerland are the only five countries in which the proportion of women in the broad field of *science* (which includes *life sciences*, *physical sciences*, *mathematics and statistics*, and *computing*) grew by at least 10 percentage points between 2000 and 2012. As a result, these countries are now closer to or even above the OECD average in this respect. Among OECD countries, the proportion of women in these fields has grown slightly from 40% in 2000 to 41% in 2012 – even as the proportion of female graduates in all fields grew from 54% to 58% during that period. Although the proportion of women in *engineering, manufacturing and construction* is small, it also increased slightly, from 23% to 28%, over the past decade (Table A3.3, available on line).

Definitions

A **first degree** programme at tertiary-type A level has a minimum cumulative theoretical duration of three years, full-time equivalent, e.g. the bachelor's degrees in many English-speaking countries, the *Diplom* in many German-speaking countries, and the *licence* in many French-speaking countries.

A **first-time graduate** is a student who has graduated for the first time at a given level of education or, in the case of ISCED 5, from a type A or type B programme, during the reference period. Therefore, if a student has graduated multiple times over the years, he or she is counted as a graduate each year, but as a first-time graduate only once.

International students are those students who left their country of origin and moved to another country for the purpose of study. By definition, they are considered first-time graduates, regardless of their previous education in other countries.

Net graduation rates represent the estimated percentage of people from a specific age cohort who will complete tertiary education over their lifetimes, based on current patterns of graduation.

Second degree and higher theory-based programmes (e.g. master's degree in many countries) are classified as tertiary-type A separately from advanced research qualifications, which have their own classification as ISCED 6.

Tertiary graduates are those who obtain a university degree, vocational qualifications, or advanced research degrees of doctoral standard.

Methodology

Data refer to the academic year 2011/12 and are based on the UOE data collection on education statistics administered by the OECD in 2012 (for details, see Annex 3 at *www.oecd.org/edu/eag.htm*).

Data on the impact of international students on tertiary graduation rates are based on a special survey conducted by the OECD in December 2013.

Data on trends in graduation rates at the tertiary level for the years 1995 and 2000 through 2004 are based on a special survey carried out in January 2007.

To allow for comparisons that are independent of differences in national degree structures, university-level degrees are subdivided according to the total theoretical duration of study, in other words, the standard number of years, established by law or regulations, in which a student can complete the programme. Degrees obtained from programmes of less than three years' duration are not considered equivalent to completing this level of education and are not included in this indicator. Second-degree programmes are classified according to the cumulative duration of the first- and second-degree programmes. Individuals who already hold a first degree are not included in the count of first-time graduates.

Unless otherwise indicated, graduation rates are calculated as net graduation rates (i.e. as the sum of age-specific graduation rates). Gross graduation rates are presented for countries that are unable to provide such detailed data. In order to calculate gross graduation rates, countries identify the age at which graduation typically occurs (see Annex 1). The number of graduates, regardless of their age, is divided by the population at the typical graduation age. In many countries, defining a typical age of graduation is difficult, however, because graduates are dispersed over a wide range of ages.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Tables of Indicator A3

StatLink http://dx.doi.org/10.1787/888933115388

	Table A3.1a	Tertiary graduation rates and average age at graduation (2012)
	Table A3.1b	Tertiary graduation rates among students under the typical age at graduation (2012)
	Table A3.2a	Trends in tertiary graduation rates (1995-2012)
WEB	Table A3.2b	Trends in tertiary graduation rates, by gender (2005-2012)
WEB	Table A3.2c	Trends in net graduation rates at advanced research level (1995-2012)
WEB	Table A3.3	Percentage of tertiary qualifications awarded to women in tertiary-type A and advanced research programmes, by field of education (2000, 2012)

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Table A3.1a. Tertiary graduation rates and average age at graduation (2012)

Sum of age-specific graduation rates. by gender and programme destination

		Tertiary-type B programmes (first-time graduates)			Tertiary-type B programmes (first degree)			Tertiary-type A programmes (first-time graduates)			Tertiary-type A programmes (first degree)			Tertiary-type A programmes (second and further degrees)			Advanced research programmes		
		Total	Adjusted graduation rate (without international/ foreign students)	Average age[1]	Total	Adjusted graduation rate (without international/ foreign students)	Average age[1]	Total	Adjusted graduation rate (without international/ foreign students)	Average age[1]	Total	Adjusted graduation rate (without international/ foreign students)	Average age[1]	Total	Adjusted graduation rate (without international/ foreign students)	Average age[1]	Total	Adjusted graduation rate (without international/ foreign students)	Average age[1]
		(1)	(4)	(5)	(6)	(9)	(10)	(11)	(14)	(15)	(16)	(19)	(20)	(21)	(24)	(25)	(26)	(29)	(30)
OECD	Australia[2]	**21**	18	*31*	**31**	25	*33*	**53**	35	*25*	**64**	46	*27*	**21**	9	*31*	**2.0**	1.4	*37*
	Austria	**12**	12	*30*	**14**	14	*32*	**39**	32	*28*	**36**	31	*27*	**12**	10	*32*	**2.2**	1.6	*34*
	Belgium	**m**	m	*m*	**32**	30	*25*	**m**	m	*m*	**18**	17	*22*	**26**	22	*m*	**1.7**	1.2	*33*
	Canada[2]	**18**	17	*26*	**21**	19	*27*	**34**	32	*25*	**35**	33	*26*	**12**	11	*32*	**1.3**	1.1	*36*
	Chile	**25**	25	*28*	**26**	26	*28*	**23**	23	*29*	**21**	20	*28*	**7**	7	*37*	**0.2**	0.2	*37*
	Czech Republic	**5**	5	*25*	**5**	5	*25*	**40**	36	*27*	**42**	38	*27*	**25**	23	*29*	**1.6**	1.4	*35*
	Denmark	**11**	10	*27*	**12**	11	*27*	**49**	44	*27*	**48**	45	*28*	**25**	21	*29*	**2.2**	1.7	*35*
	Estonia	**m**	m	*m*	**19**	19	*29*	**m**	m	*m*	**23**	22	*26*	**13**	13	*30*	**1.0**	0.9	*36*
	Finland	**n**	n	*m*	**n**	n	*m*	**47**	m	*28*	**50**	48	*29*	**24**	22	*32*	**2.8**	2.5	*39*
	France[2]	**m**	m	*m*	**27**	26	*m*	**m**	m	*m*	**38**	34	*m*	**18**	15	*m*	**1.7**	1.0	*m*
	Germany	**15**	m	*m*	**15**	m	*m*	**31**	29	*25*	**31**	29	*25*	**7**	6	*27*	**2.7**	2.3	*31*
	Greece	**m**	m	*m*	**15**	m	*26*	**m**	m	*m*	**25**	m	*26*	**9**	m	*m*	**1.0**	m	*m*
	Hungary	**8**	m	*23*	**9**	9	*23*	**23**	m	*26*	**29**	27	*26*	**13**	13	*33*	**0.8**	0.7	*35*
	Iceland	**2**	m	*38*	**2**	2	*37*	**60**	56	*31*	**65**	60	*31*	**26**	23	*35*	**0.9**	0.5	*35*
	Ireland	**23**	m	*30*	**23**	22	*30*	**46**	m	*25*	**46**	44	*25*	**24**	22	*31*	**2.0**	1.6	*34*
	Israel	**m**	m	*m*	**m**	m	*m*	**40**	m	*29*	**42**	42	*29*	**19**	18	*35*	**1.5**	1.5	*38*
	Italy	**n**	m	*m*	**n**	n	*m*	**26**	m	*26*	**32**	31	*26*	**24**	m	*m*	**1.4**	m	*34*
	Japan	**25**	24	*m*	**25**	24	*m*	**45**	44	*m*	**45**	44	*m*	**7**	6	*m*	**1.1**	0.9	*m*
	Korea	**m**	m	*m*	**29**	m	*25*	**m**	m	*m*	**49**	m	*25*	**11**	m	*34*	**1.5**	m	*40*
	Luxembourg	**6**	m	*26*	**6**	4	*26*	**9**	m	*25*	**9**	6	*25*	**2**	2	*m*	**0.7**	n	*33*
	Mexico	**2**	m	*22*	**2**	m	*22*	**22**	m	*25*	**22**	m	*25*	**3**	m	*m*	**0.3**	m	*m*
	Netherlands	**1**	1	*m*	**1**	1	*m*	**45**	42	*24*	**49**	45	*25*	**22**	18	*27*	**2.0**	1.2	*32*
	New Zealand	**30**	22	*29*	**36**	27	*29*	**57**	46	*28*	**60**	51	*27*	**19**	15	*34*	**1.9**	1.1	*37*
	Norway	**n**	m	*m*	**n**	n	*m*	**42**	41	*27*	**46**	45	*27*	**13**	12	*32*	**2.1**	1.9	*38*
	Poland	**1**	m	*m*	**1**	m	*m*	**53**	53	*26*	**53**	53	*26*	**52**	52	*m*	**0.6**	0.6	*33*
	Portugal	**n**	n	*m*	**n**	n	*m*	**41**	41	*26*	**41**	41	*26*	**30**	29	*31*	**1.9**	1.7	*38*
	Slovak Republic	**1**	m	*26*	**1**	m	*26*	**44**	42	*26*	**44**	42	*26*	**39**	39	*28*	**2.5**	2.3	*32*
	Slovenia	**20**	20	*31*	**21**	m	*31*	**45**	44	*26*	**45**	45	*26*	**7**	m	*34*	**1.9**	1.7	*35*
	Spain	**20**	m	*24*	**20**	m	*24*	**29**	29	*25*	**37**	36	*27*	**10**	9	*30*	**1.2**	0.9	*37*
	Sweden	**7**	m	*29*	**7**	7	*29*	**39**	33	*29*	**35**	34	*29*	**12**	6	*32*	**2.8**	2.0	*37*
	Switzerland	**14**	m	*m*	**21**	m	*31*	**31**	26	*28*	**28**	25	*26*	**19**	14	*31*	**3.3**	1.7	*33*
	Turkey	**19**	m	*25*	**19**	19	*25*	**27**	m	*26*	**27**	27	*26*	**2**	2	*30*	**0.4**	0.4	*34*
	United Kingdom	**m**	m	*m*	**15**	m	*31*	**m**	m	*m*	**45**	38	*24*	**28**	15	*30*	**2.4**	1.3	*34*
	United States	**13**	13	*m*	**13**	13	*m*	**39**	35	*m*	**39**	37	*m*	**19**	17	*m*	**1.8**	1.4	*m*
	OECD average	**11**	m	*28*	**14**	m	*28*	**39**	m	*27*	**39**	m	*26*	**18**	m	*31*	**1.6**	m	*35*
	EU21 average	**8**	m	*27*	**12**	m	*28*	**38**	m	*26*	**37**	m	*26*	**20**	m	*30*	**1.8**	m	*35*
Partners	Argentina[2]	**m**	m	*m*	**15**	m	*m*	**m**	m	*m*	**12**	m	*m*	**1**	m	*m*	**0.3**	m	*m*
	Brazil	**m**	m	*m*	**6**	6	*32*	**m**	m	*m*	**28**	28	*30*	**2**	2	*33*	**0.5**	0.5	*38*
	China	**m**	m	*m*	**18**	m	*m*	**m**	m	*m*	**15**	m	*m*	**n**	m	*m*	**m**	m	*m*
	Colombia	**m**	m	*m*	m	m	*m*	**m**	m	*m*	**m**	m	*m*	**m**	m	*m*	**m**	m	*m*
	India	**m**	m	*m*	**m**	m	*m*	**m**	m	*m*	**m**	m	*m*	**m**	m	*m*	**m**	m	*m*
	Indonesia	**m**	m	*m*	**5**	m	*m*	**m**	m	*m*	**15**	m	*m*	**1**	m	*m*	**0.1**	m	*m*
	Latvia	**12**	m	*28*	**12**	m	*28*	**43**	m	*27*	**43**	m	*27*	**17**	m	*30*	**1.0**	m	*38*
	Russian Federation	**m**	m	*m*	**26**	26	*m*	**m**	m	*m*	**60**	59	*m*	**2**	m	*m*	**m**	m	*m*
	Saudi Arabia	**m**	m	*m*	**8**	m	*m*	**m**	m	*m*	**19**	m	*m*	**2**	m	*m*	**0.1**	m	*m*
	South Africa	**m**	m	*m*	**5**	m	*m*	**m**	m	*m*	**6**	m	*m*	**4**	m	*m*	**0.2**	m	*m*
	G20 average	**m**	m	*m*	**15**	m	*m*	**m**	m	*m*	**30**	m	*m*	**11**	m	*m*	**1.0**	m	*m*

Notes: Columns showing graduation rates for men and women (i.e. columns 2, 3, 7, 8, 12, 13, 17, 18, 22, 23, 27, 28) are available for consultation on line (see *StatLink* below).

Refer to Annex 1 for information on the method used to calculate graduation rates (gross rates versus net rates) and the corresponding typical ages.

Mismatches between the coverage of the population data and the graduate data mean that the graduation rates for those countries that are net exporters of students may be underestimated, and those that are net importers may be overestimated. The adjusted graduation rates in Tables A3.1a and A3.1b seek to compensate for that.

1. The average age refers to an average weighted age, generally the age of the students at the beginning of the calendar year. Students may be one year older than the age indicated when they graduate at the end of the school year. Please see Annex 3 to learn how the average age is calculated.

2. Year of reference 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933115407

A3

Table A3.1b. Tertiary graduation rates among students under the typical age at graduation (2012)

Sum of age-specific graduation rates up to 30 years for tertiary-type A or B, and up to 35 years for advanced research programmes, by gender and programme destination

	Tertiary-type B programmes (first-time graduates)		Tertiary-type B programmes (first degree)		Tertiary-type A programmes (first-time graduates)		Tertiary-type A programmes (first degree)		Tertiary-type A programmes (second and further degrees)		Advanced research programmes	
	Total	Adjusted graduation rate (without international/ foreign students)	Total	Adjusted graduation rate (without international/ foreign students)	Total	Adjusted graduation rate (without international/ foreign students)	Total	Adjusted graduation rate (without international/ foreign students)	Total	Adjusted graduation rate (without international/ foreign students)	Total	Adjusted graduation rate (without international/ foreign students)
	(1)	(4)	(5)	(8)	(9)	(12)	(13)	(16)	(17)	(20)	(21)	(24)
OECD												
Australia[1]	**12**	9	**16**	11	**45**	29	**51**	34	**13**	4	**1.1**	0.7
Austria	**8**	7	**8**	8	**30**	25	**29**	25	**7**	6	**1.6**	1.2
Belgium	**m**	m	**28**	m	**m**	m	**18**	m	**24**	m	**1.3**	m
Canada[1]	**15**	14	**16**	15	**31**	29	**31**	29	**7**	6	**0.8**	0.6
Chile	**17**	17	**18**	18	**17**	17	**16**	16	**2**	2	**0.2**	0.2
Czech Republic	**4**	4	**4**	4	**33**	30	**35**	32	**20**	19	**0.8**	0.6
Denmark	**9**	7	**9**	8	**42**	37	**39**	36	**18**	16	**1.5**	1.1
Estonia	**m**	m	**13**	m	**m**	m	**19**	m	**9**	m	**0.6**	m
Finland	**n**	n	**n**	n	**36**	m	**37**	35	**14**	13	**1.1**	0.9
France[1]	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m
Germany	**m**	m	**m**	m	**28**	26	**28**	26	**6**	5	**2.3**	2.0
Greece	**m**	m	**13**	m	**m**	m	**23**	m	**m**	m	**m**	m
Hungary	**7**	m	**8**	m	**19**	m	**24**	m	**7**	m	**0.5**	m
Iceland[1]	**1**	m	**1**	1	**37**	35	**39**	38	**10**	8	**0.7**	0.4
Ireland	**15**	m	**15**	15	**41**	m	**41**	39	**15**	13	**1.4**	1.1
Israel	**m**	m	**m**	m	**30**	m	**31**	m	**6**	m	**0.6**	m
Italy	**m**	m	**m**	m	**24**	m	**28**	m	**m**	m	**1.1**	m
Japan	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m
Korea	**m**	m	**25**	m	**m**	m	**47**	m	**5**	m	**0.6**	m
Luxembourg	**5**	m	**m**	m	**8**	m	**8**	m	**2**	m	**0.6**	m
Mexico	**2**	m	**2**	m	**20**	m	**20**	m	**m**	m	**m**	m
Netherlands	**n**	n	**n**	m	**42**	39	**44**	41	**18**	15	**1.7**	1.1
New Zealand	**19**	12	**22**	15	**41**	32	**45**	38	**9**	6	**1.0**	0.5
Norway	**n**	m	**n**	m	**34**	34	**36**	36	**8**	7	**1.1**	1.0
Poland	**1**	m	**1**	m	**45**	45	**45**	45	**m**	m	**0.5**	m
Portugal	**n**	n	**n**	n	**35**	35	**35**	35	**20**	20	**1.0**	0.9
Slovak Republic	**1**	m	**1**	m	**36**	35	**36**	35	**30**	29	**1.9**	1.9
Slovenia	**12**	12	**12**	m	**38**	38	**39**	39	**3**	m	**1.2**	1.1
Spain	**18**	m	**18**	m	**26**	26	**31**	31	**7**	6	**0.7**	m
Sweden	**5**	m	**5**	5	**28**	24	**24**	24	**7**	3	**1.7**	1.1
Switzerland	**m**	m	**13**	m	**25**	22	**24**	22	**12**	9	**2.6**	1.3
Turkey	**16**	m	**16**	m	**24**	m	**24**	m	**1**	m	**0.2**	m
United Kingdom	**m**	m	**8**	7	**m**	m	**40**	33	**18**	8	**1.6**	0.9
United States	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m
OECD average	**8**	m	**10**	m	**31**	m	**32**	m	**11**	m	**1.1**	m
EU21 average	**6**	m	**9**	m	**32**	m	**31**	m	**13**	m	**1.2**	m
Partners												
Argentina[1]	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m
Brazil	**m**	m	**3**	m	**m**	m	**18**	m	**1**	m	**0.2**	m
China	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m
Colombia	**m**	m	m	m	**m**	m	**m**	m	**m**	m	**m**	m
India	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m
Indonesia	**m**	m	**1**	m	**m**	m	**13**	m	**1**	m	**0.1**	m
Latvia	**9**	m	**9**	m	**35**	m	**35**	m	**11**	m	**0.5**	m
Russian Federation	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m
Saudi Arabia	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m
South Africa	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m
G20 average	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m	**m**	m

Notes: Columns showing graduation rates for men and women (i.e. columns 2, 3, 6, 7, 10, 11, 14, 15, 18, 19, 22, 23) are available for consultation on line (see *StatLink* below).

Refer to Annex 1 for information on the method used to calculate graduation rates (gross rates versus net rates) and the corresponding typical ages. Mismatches between the coverage of the population data and the graduate data mean that the graduation rates for those countries that are net exporters of students may be underestimated, and those that are net importers may be overestimated. The adjusted graduation rates in Tables A3.1a and A3.1b seek to compensate for that.

The averages were adjusted to 100% and do not correspond exactly to the average of each column.

1. Year of reference 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table A3.2a. Trends in tertiary graduation rates (1995-2012)

Sum of age-specific graduation rates, by programme destination

		Tertiary-type 5A (first-time graduates)						Tertiary-type 5B (first-time graduates)					
		1995	2000	2005	2010	2011	2012	1995	2000	2005	2010	2011	2012
		(1)	(2)	(7)	(12)	(13)	(14)	(15)	(16)	(21)	(26)	(27)	(28)
OECD	Australia	m	36	50	50	53	**m**	m	m	m	17	21	**m**
	Austria	10	15	20	30	35	**39**	m	m	8	12	12	**12**
	Belgium	m	m	m	m	m	**m**	m	m	m	m	m	**m**
	Canada	27	27	32	35	35	**m**	m	m	20	21	18	**m**
	Chile	m	m	m	m	m	**23**	m	m	m	m	m	**25**
	Czech Republic	13	14	23	38	41	**40**	6	5	6	5	5	**5**
	Denmark	25	37	46	50	50	**49**	8	10	10	9	11	**11**
	Estonia	m	m	m	m	m	**m**	m	m	m	m	m	**m**
	Finland	21	40	47	49	47	**47**	34	7	n	n	n	**n**
	France	m	m	m	m	m	**m**	m	m	m	m	m	**m**
	Germany[1]	14	18	20	30	31	**31**	13	11	11	14	14	**15**
	Greece	14	15	25	m	m	**m**	5	6	11	m	m	**m**
	Hungary	m	m	33	31	27	**23**	m	m	4	6	7	**8**
	Iceland	20	33	56	60	61	**60**	10	5	4	2	2	**2**
	Ireland	m	30	38	47	43	**46**	m	15	24	26	24	**23**
	Israel	m	m	35	37	40	**40**	m	m	m	m	m	**m**
	Italy	m	19	41	32	32	**26**	m	n	1	1	m	**m**
	Japan	25	29	37	40	44	**45**	30	30	28	25	25	**25**
	Korea	m	m	m	m	m	**m**	m	m	m	m	m	**m**
	Luxembourg	m	m	m	m	m	**9**	m	m	m	m	m	**6**
	Mexico	m	m	17	20	21	**22**	m	m	1	1	2	**2**
	Netherlands	29	35	42	42	42	**45**	m	m	n	n	n	**1**
	New Zealand	33	50	51	49	53	**57**	12	17	23	27	30	**30**
	Norway	26	37	41	42	43	**42**	6	6	2	n	n	**n**
	Poland	m	34	47	55	58	**53**	m	m	n	1	1	**1**
	Portugal	15	23	32	40	39	**41**	6	8	9	n	n	**n**
	Slovak Republic	15	m	30	49	46	**44**	1	2	2	1	1	**1**
	Slovenia	m	m	18	29	37	**45**	m	m	24	26	27	**20**
	Spain[2]	24	29	30	30	32	**29**	2	8	15	16	18	**20**
	Sweden	24	28	38	37	41	**39**	m	4	5	6	7	**7**
	Switzerland	9	12	27	31	32	**31**	13	14	8	16	15	**14**
	Turkey	6	9	12	23	23	**27**	2	m	m	19	17	**19**
	United Kingdom	m	42	48	50	54	**m**	m	7	11	12	13	**m**
	United States	33	34	34	38	39	**39**	9	8	10	11	12	**13**
	OECD average	20	28	36	*39*	41	**38**	11	9	*9*	11	11	**10**
	OECD average for countries with 1995, 2005 and 2012 data	*20*		*35*			*42*	*11*					*11*
	EU21 average	18	27	34	*40*	41	**38**	9	7	*8*	8	9	**8**
Partners	Argentina	m	m	m	m	m	**m**	m	m	m	m	m	**m**
	Brazil	m	10	m	m	m	**m**	m	m	m	m	m	**m**
	China	m	m	m	m	m	**m**	m	m	m	m	m	**m**
	Colombia	m	m	m	m	m	**m**	m	m	m	m	m	**m**
	India	m	m	m	m	m	**m**	m	m	m	m	m	**m**
	Indonesia	m	m	m	m	m	**m**	m	m	m	m	m	**m**
	Latvia	m	m	m	m	m	**43**	m	m	m	m	m	**12**
	Russian Federation	m	m	m	m	m	**m**	m	m	m	m	m	**m**
	Saudi Arabia	m	13	18	20	20	**m**	n	3	5	8	8	**m**
	South Africa	m	m	m	m	m	**m**	m	m	m	m	m	**m**
	G20 average	m	m	m	m	m	**m**	m	m	m	m	m	**m**

Note: Years 2001, 2002, 2003, 2004, 2006, 2007 are available for consultation on line (see *StatLink* below).

Up to 2004, graduation rates at the tertiary-type A or B levels were calculated on a gross basis. From 2005 and for countries with available data, graduation rates are calculated as net graduation rates (i.e. as the sum of age-specific graduation rates). Please refer to Annex 1 for information on the method used to calculate graduation rates (gross rates versus net rates) and the corresponding typical ages.

1. Break in the series between 2008 and 2009 due to a partial reallocation of vocational programmes into ISCED 2 and ISCED 5B.

2. Break in time series following methodological change in 2008 for ISCED 5A.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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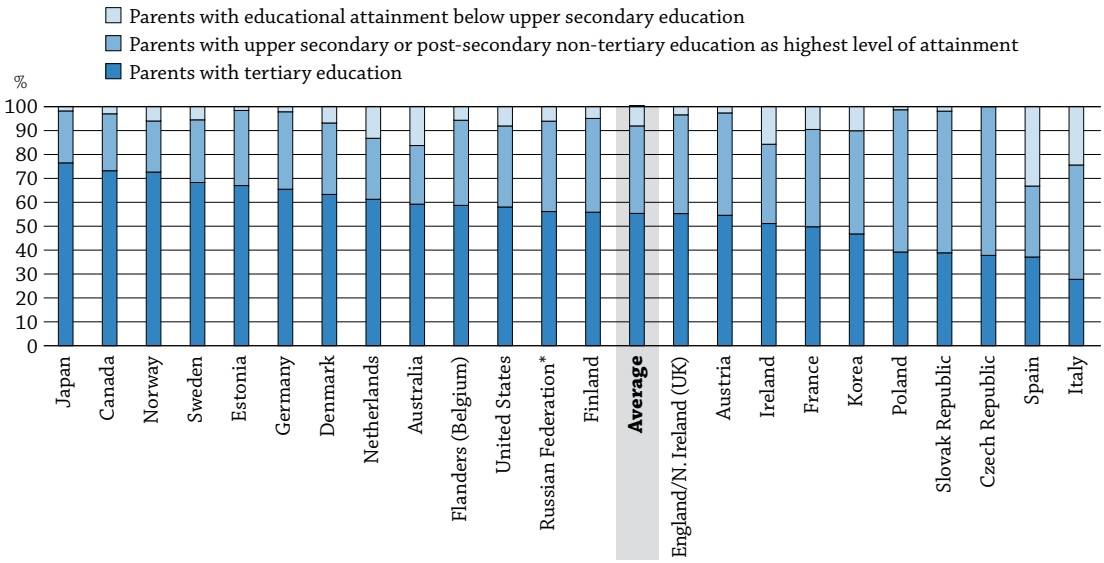
TO WHAT EXTENT DOES PARENTS' EDUCATION INFLUENCE PARTICIPATION IN TERTIARY EDUCATION?

- Across countries, about 40% of non-student adults (25-64 year-olds) have a higher level of educational attainment than their parents. Intergenerational educational mobility is the highest in Finland, Flanders (Belgium), Korea and the Russian Federation, where more than 55% of non-students have attained a higher level of education than their parents.
- More than 30% of non-student adults whose parents have not attained upper secondary education also ended their schooling before completing upper secondary education. However, over 45% of these adults have an upper secondary or post-secondary non-tertiary education and about 20% have a tertiary education.
- Across participating countries, 25% of adults whose parents have below upper secondary education perform at or below Level 1 in literacy, the lowest level in the Survey of Adult Skills (PIAAC), while only around 5% perform at Level 4 or 5. Among adults whose parents have a tertiary education, more than 20% perform at Level 4 or 5.

Chart A4.1. Percentage of 20-34 year-olds in tertiary education, by parents' educational attainment (2012)



* See note on data for the Russian Federation in the *Methodology* section.

Countries are ranked in descending order of the participation in tertiary education of 20-34 year-olds that have parents with tertiary attainment.

Source: OECD. Table A4.1a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933115635

Context

Because of its strong links to earnings, employment, overall wealth and the well-being of individuals, education can reduce inequalities in societies, but it can also reproduce them. Giving all young people a fair chance to obtain a quality education is a fundamental part of the social contract. Addressing inequalities in education opportunities is critically important for maintaining social mobility and broadening the pool of candidates for higher education and high-skilled jobs. For the first time, this indicator draws from the Survey of Adult Skills, a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC), to analyse the influence of parents' education on their children's participation in tertiary education.

It is crucial for countries to have an educated and skilled workforce if they aim to promote future growth. In today's fast-changing labour markets, the gap in returns between low- and high-qualified workers is growing. On average, less-educated adults have the highest unemployment and inactivity rates and have the lowest and more rapidly declining wages over their working lives (see Indicators A5 and A6).

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Having a large population of low-qualified workers may thus lead to a heavier social burden and deepening inequalities that are both difficult and costly to address once people have left initial education.

Results from the 2012 OECD Programme for International Student Assessment (PISA) show that in several countries that designed and implemented policies with a stronger focus on equity, students from disadvantaged backgrounds have improved their performance. A significant number of countries that underperformed in 2003 improved their PISA scores markedly by 2012. In several of these countries, the improvement was mainly due to giving more students higher-quality education (OECD, 2013).

It is important, then, to provide a level playing field in education for all young people, including those from low educational backgrounds. Various policy options, such as maintaining reasonable costs for higher education and funding student support systems can help disadvantaged students. Ensuring access to and success in tertiary education for all is important, but so is addressing inequalities at the earliest stages of schooling.

Other findings

- **In Austria, the Czech Republic, Germany, Italy, Poland, the Slovak Republic, Spain and the United States, more than 50% of non-student adults have the same educational attainment as their parents**.
- **In all countries, at least 35% of 20-34 year-olds in tertiary education have at least one parent who has completed that level of education**. In Canada, Estonia, Germany, Norway and Sweden, at least 65% of these students do.
- **On average, 12% of non-student adults have lower educational attainment than their parents**. In Austria, Denmark, Estonia, Germany, Norway, Sweden and the United States, more than 15% of these populations do.

Trends

The expansion of education systems in many OECD countries, both at the upper secondary or post-secondary non-tertiary and tertiary levels of education, has given young people (25-34 year-olds) an opportunity to attain a higher level of education than their parents. On average across OECD countries participating in the Survey of Adult Skills, 32% of young people have achieved a higher level of education than their parents, while only 16% have not attained their parents' education level. In all countries except Estonia, Germany, Norway and Sweden, absolute upward mobility in education is more common than absolute downward mobility, reflecting the expansion of education systems in most OECD countries. This expansion has been particularly pronounced in France, Ireland, Italy, Korea, Spain and the Russian Federation, where the difference between upward and downward educational mobility is 30 percentage points or more.

Analysis

Mobility indicators and terminology

The literature on mobility typically distinguishes between absolute and relative measures of mobility. Concerning education, absolute mobility refers to the proportion of individuals whose level of education is different from that of their parents: higher in the case of upward mobility, and lower in the case of downward mobility across generations. Measures of absolute mobility are sensitive to the number of educational attainment levels chosen for intergenerational comparisons (more mobility tends to be observed the higher the number of categories) and, more substantially, to changes in the structure of the education system, most notably to its expansion at specific levels. Mobility patterns can be further disaggregated into short-range mobility (involving movements between adjacent categories) and long-range mobility (involving movements between more distant categories) as these may have different implications for individuals. By contrast, immobility in education refers to the situation where children attain the same level of education as their parents.

The analysis of educational mobility also relies on measures of relative mobility, which considers the magnitude of difference in the chance of attaining a given level of education rather than another among people whose parents have different levels of education. One extreme instance of relative mobility would be a lack of difference between individuals from different education backgrounds in their chances of obtaining a given level of education rather than another.

Measures of absolute and relative mobility tend to be interrelated but capture different things. The fact that a country shows more or less absolute mobility than another does not necessarily mean that the opportunities to access a given level of education for individuals from different backgrounds are greater or lesser in one country than in the other.

This indicator examines the chances of accessing tertiary education rather than leaving the education system with a lower level of attainment among individuals whose parents attained different levels of education. The indicator thus provides information about the advantages and disadvantages associated with having parents with different levels of educational attainment.

Inequalities in participation in tertiary education across countries

For some, pursuing higher education is not a viable option. Some young adults may have to enter the labour market earlier than others in order to support themselves and their families. Growing up in a disadvantaged family where the parents have low levels of education often means having less financial support available for continuing studies. This situation is reinforced if the education system does not provide support for students from disadvantaged backgrounds. In the short term, staying in education can involve foregoing earnings from employment. In these cases, it is not surprising to see the extent to which parents' educational attainment and socio-economic background affects students' level of education.

More than half of 20-34 year-olds in tertiary education have at least one parent with that level of education (56%), and slightly more than a third (36%) have at least one parent with upper secondary education as highest level of attainment. By contrast, the proportion of 20-34 year-old tertiary students whose parents have not completed an upper secondary education is small: about one tertiary student in ten has parents with below upper secondary education (9%).

As shown in the introductory chart (Chart A4.1), in all countries, around 35% or more of 20-34 year-old tertiary students have at least one parent who has completed that level of education. In Canada, Estonia, Germany, Japan, Norway and Sweden, 65% or more of these students do. Since data refer to enrolled students, it should be borne in mind that in some countries, including Sweden, some students (for instance, those from an academic family background) may enrol in longer university programmes, and that may inflate enrolment numbers. In all countries with available data, except Spain, the proportion of tertiary-students with parents with upper secondary education is larger than the proportion of these students with parents with below upper secondary education.

Assessing inequalities in access to higher education is a crucial initial step in designing policies to reduce such inequalities. The basic measure of relative mobility is the odds ratio (see *Definitions* section below). Across countries with available data, the likelihood of a student participating in tertiary education, depending on the level of education attained by his or her parents and compared with the likelihood of individuals whose parents attained below upper secondary education, is twice as great if at least one of the parents attained upper secondary or post-secondary non-tertiary education, and 4.5 times as great if the parents attained tertiary education (Table A4.1b).

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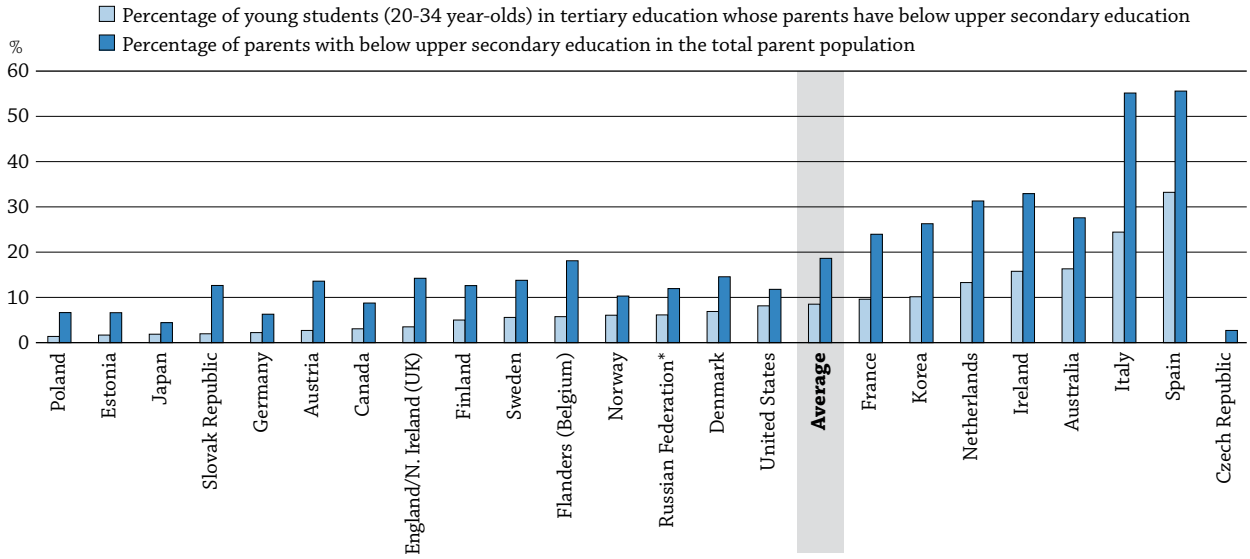
On average, 9% of all students in tertiary education have parents with low levels of education while 19% of all parents (i.e. parents of students and non-students) have a low level of education. The largest proportions of 20-34 year-olds in tertiary education whose parents have below upper secondary education (among countries with available data) are found in Australia, Ireland, Italy, the Netherlands and Spain (over 10%). But these are also some of the countries where the proportion of parents with below upper secondary education among all parents is the largest (more than 20%) (Chart A4.2).

Chart A4.2. Participation in tertiary education of 20-34 year-old students whose parents have below upper secondary education (2012)



* See note on data for the Russian Federation in the *Methodology* section.

Countries are ranked in ascending order of the proportion of 20-34 year-old students in tertiary education whose parents have below upper secondary education.

Source: OECD. Table A4.1a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933115654

Intergenerational mobility in education

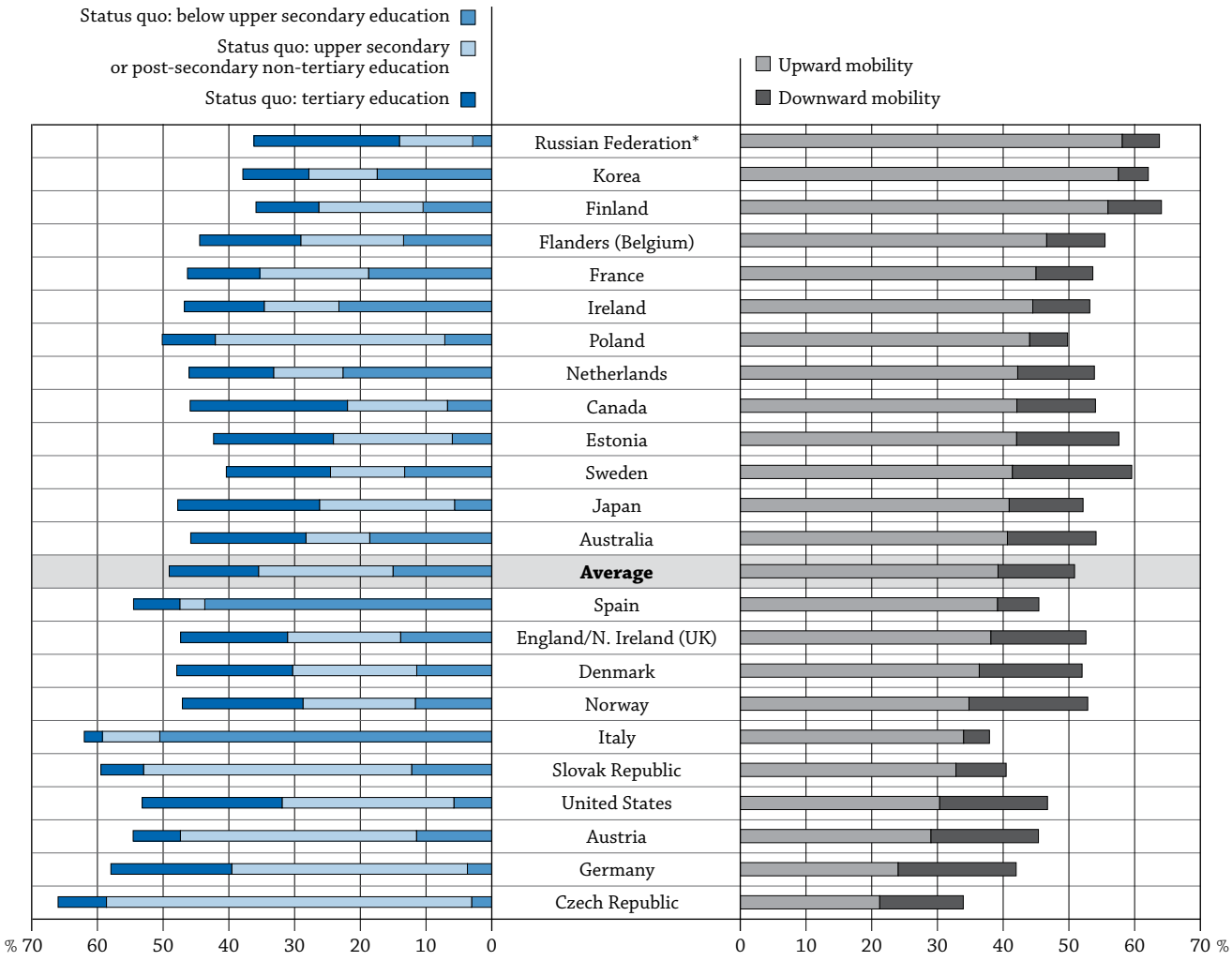
As shown in Indicator A1, tertiary education attainment rates have been growing in recent years, on average, especially among younger generations. Indeed, both the highest tertiary attainment rates (about 40%) and the smallest proportion of people who have not completed at least an upper secondary education (less than 20%) are found among 25-34 year-olds. In addition, the proportion of older adults (55-64 year-olds) with tertiary education reached an historic high (since 2000) of 25% in 2012. Between 2000 and 2012, the average annual growth in tertiary attainment rates among 55-64 year-olds – 4% – was the largest across the generations (see Indicator A1, Table A1.4a).

This suggests that in most countries for which information is available, there has been a positive expansion of access to education. On average, about 40% of 25-64 year-olds have a higher level of educational attainment than their parents (upward mobility). However, in most countries, 40% to 50% of non-student adults have the same educational attainment as their parents (*status quo*). This share is even larger in Austria, the Czech Republic, Germany, Italy, the Slovak Republic, Spain and the United States (Table A4.4).

Chart A4.3 shows that across countries about half of adults has attained the same education level as their parents, and the other half have either higher or lower educational attainment than their parents. In all countries, upward mobility (i.e. adults whose educational attainment is higher than that of their parents) is considerably more common than downward mobility. The incidence of intergenerational mobility in education is particularly high in Finland, Flanders (Belgium), Korea and the Russian Federation: more than 55% of adults in these countries have either exceeded or not attained their parents' level of education; in these countries, more than 45% of adults attained higher levels of education than their parents (absolute upward mobility) – the largest proportion among all countries; but in Finland and Flanders (Belgium), a relatively large proportion of adults – about 8% – attained a lower level of education than their parents (downward mobility).

Chart A4.3. Absolute educational mobility (2012)

Percentage of 25-64 year-old non-students whose educational attainment is higher than (upward mobility), lower than (downward mobility) or the same as (status quo) that of their parents



* See note on data for the Russian Federation in the *Methodology* section.

Countries are ranked in descending order of the proportion of adults with upward mobility with respect to the education attainment of their parents.

Source: OECD. Table A4.4. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933115673

In Austria, the Czech Republic, Germany, Italy and the Slovak Republic, more than 55% of adults attained the same education level as their parents. In Italy and Spain, more than 40% of adults with below upper secondary education have parents who attained that level of education. In Austria, the Czech Republic, Germany and the Slovak Republic, more than 35% of adults who attained upper secondary or post-secondary non-tertiary education have parents who also attained that level of education. These countries, together with Hungary, Poland and Slovenia, are the OECD countries with the largest proportions of adults attaining this level of education (over 55% in each country; see Table A1.5a in Indicator A1). In Canada, Japan, the Russian Federation and the United States, more than 20% of adults whose parents have attained tertiary education also attain that level of education (Table A4.4).

The incidence of the absolute upward mobility is somewhat higher among women (40%) than among men (38%), on average. But in some countries, men are considerably more upwardly mobile in educational attainment than women: Austria (25% among women and 33% among men), Germany (21% and 27%, respectively), Korea (53% and 62%, respectively) and the Netherlands (40% and 45%, respectively) (Table A4.4).

Intergenerational mobility varies according to people's education level and context. More than 30% of non-students adults whose parents have not attained upper secondary education also ended their schooling before completing upper secondary education. However, over 45% of these adults have an upper secondary or post-secondary non-tertiary education and about 20% have a tertiary education. In Canada, Finland and the Russian Federation, over 30% of this group of adults have attained tertiary education. In contrast, in Austria, the Czech Republic, Germany, Italy, Poland, the Slovak Republic and the United States, 15% or less of non-student adults whose parents have below upper secondary education have attained a tertiary education (Table A4.2).

Similarly, across countries, over 65% of non-students whose parents have a tertiary education have attained the same level of education, about 30% have an upper secondary or post-secondary non-tertiary education as their highest qualification, and only 5% have ended schooling before completing upper secondary education. In all countries except Austria, which has one of the largest proportions of adults with upper secondary or post-secondary non-tertiary education, over 50% of adults with tertiary-educated parents have also attained tertiary education (Table A4.2).

Access to tertiary education is also affected by inequalities at earlier stages of schooling. One necessary condition for attaining higher levels of education is to have acquired the skills and knowledge required to pursue further studies. Intergenerational mobility in education can be strongly influenced by a student's early schooling, since schools could reinforce socio-economic advantage or disadvantage. Since its first cycle, PISA results have shown that, in many countries, students' socio-economic background is related to their school performance. Very often, students from disadvantaged backgrounds have limited access to quality education. On average, a more socio-economically advantaged student scores 39 points higher in mathematics than a less-advantaged student. This difference represents the equivalent of nearly one year of schooling (OECD, 2013). Providing access to high-quality pre-primary, primary and secondary education is essential for giving every student the chance to enter tertiary education, regardless of their parents' educational attainment, their occupation or their labour market status.

Adult skills in relation to parents' educational attainment

Parents' education also seems to have an effect on individuals' literacy and numeracy proficiency. On average, most of the people with the highest scores in literacy, as measured by the Survey of Adult Skills, a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC), are those from families where at least one parent has attained tertiary education. Similarly, most of the adults with the lowest levels of literacy proficiency are those whose parents have below upper secondary education as their highest level of attainment (Table A4.3 [L]).

Chart A4.4 shows the literacy proficiency of adults in relation to the educational attainment of their parents. Across participating countries, 25% of adults whose parents have below upper secondary education perform at or below Level 1, 40% perform at Level 2, less than 30% perform at Level 3, and only about 5% perform at Level 4 or 5. In France, Germany, Italy, Poland, Spain and the United States, more than 30% of these adults perform at or below Level 1 in literacy proficiency while 3%, at most, perform at Level 4 or 5. Similarly small proportions of highly proficient adults are found in Austria, the Czech Republic and the Slovak Republic.

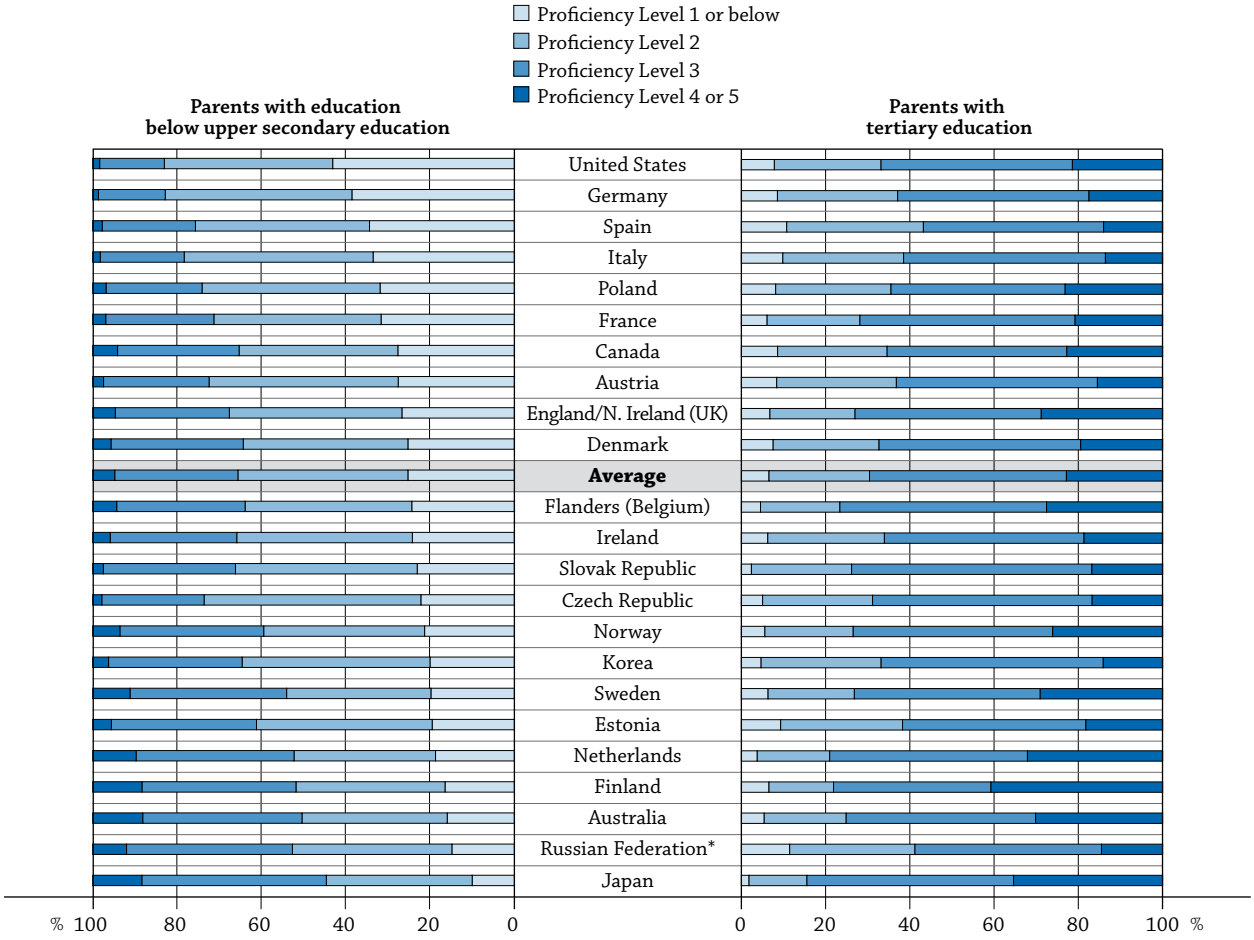
The picture changes significantly when considering adults whose parents have a tertiary education. Across countries, 7% of these adults perform at or below Level 1 in literacy in the Survey of Adult Skills, less than 25% perform at Level 2, over 45% perform at Level 3, and over 20% perform at Level 4 or 5. In most countries, more than 20% of adults with tertiary-educated parents perform at Level 4 or 5 in literacy, and in Australia, Finland, Japan and the Netherlands 30% or more do.

Among adults whose parents have not attained upper secondary education, about one in three have also not attained that level of education while the remainder have attained at least upper secondary education. One in four of these adults score at or below Level 1 in literacy (Tables A4.2 and A4.3 [L]).

Flexibility in intergenerational mobility requires a multifaceted approach. Long-term strategies, including distributing resources and opportunities equally throughout the school system, deploying top-performing teachers and school leaders in underperforming schools, have paid off well in some countries where performance is high and equity is above average, notably Canada, Finland, Japan and Korea (OECD, 2012). In short, all students, regardless of their socio-economic background, should be given the same opportunities to succeed.

Chart A4.4. Literacy proficiency levels and parents' educational attainment (2012)

Survey of Adult Skills, percentage of 25-64 year-old non-students at a given literacy level



* See note on data for the Russian Federation in the *Methodology* section.

Countries are ranked in descending order of the adults with literacy proficiency Level 1 or below whose parents have attainment below upper secondary education.

Source: OECD. Table A4.3 (L). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933115692

Definitions

Adults refers to 25-64 year-olds.

Levels of education: below upper secondary corresponds to ISCED levels 0, 1, 2 and 3C short programmes; **upper secondary or post-secondary non-tertiary** corresponds to ISCED levels 3A, 3B, 3C long programmes, and ISCED level 4; and **tertiary** corresponds to ISCED levels 5A, 5B and 6. See the Reader's Guide at the beginning of the book for a presentation of all ISCED levels.

Odds ratio reflects the relative likelihood of an event occurring for a particular group relative to a reference group. An odds ratio of 1 represents equal chances of an event occurring for a particular group vis-à-vis the reference group. Coefficients with a value below 1 indicate that there is less chance of an event occurring for a particular group compared to the reference group, and coefficients greater than 1 represent greater chances.

Parents' educational attainment: below upper secondary means that both parents have attained ISCED level 0, 1, 2 or 3C short programmes; **upper secondary or post-secondary non-tertiary** means that at least one parent (whether mother or father) has attained ISCED level 3A, 3B, 3C long programmes, or ISCED level 4; and **tertiary** means that at least one parent (whether mother or father) has attained ISCED level 5A, 5B or 6. See the *Reader's Guide* at the beginning of the book for a presentation of all ISCED levels.

Methodology

All data are based on the Survey of Adult Skills (PIAAC) (2012). PIAAC is the OECD Programme for the International Assessment of Adult Competencies. See *About the Survey of Adult Skills* at the beginning of this publication and Annex 3 (*www.oecd.org/edu/eag.htm*) for additional information.

Note regarding data from the Russian Federation in the Survey of Adult Skills (PIAAC)

Readers should note that the sample for the Russian Federation does not include the population of the Moscow municipal area. The data published, therefore, do not represent the entire resident population aged 16-65 in Russia but rather the population of Russia *excluding* the population residing in the Moscow municipal area. More detailed information regarding the data from the Russian Federation as well as that of other countries can be found in the *Technical Report of the Survey of Adult Skills* (OECD, forthcoming).

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OECD (2012), "How pronounced is income inequality around the world – and how can education help reduce it?", *Education Indicators in Focus*, OECD Publishing, Paris, *http://www.oecd.org/edu/50204168.pdf.*

Tables of Indicator A4

StatLink http://dx.doi.org/10.1787/888933115521

	Table A4.1a	Participation of 20-34 year-olds in tertiary education, by gender and parents' educational attainment (2012)
	Table A4.1b	Likelihood of participating in tertiary education, by parents' educational attainment and gender (2012)
	Table A4.2	Educational attainment of non-students, by age group and parents' educational attainment (2012)
	Table A4.3 (L)	Literacy proficiency level among non-students, by age group, gender and parents' educational attainment (2012)
WEB	Table A4.3 (N)	Numeracy proficiency level among non-students, by age group, gender and parents' educational attainment (2012)
	Table A4.4	Educational mobility among non-students, by age group and parents' educational attainment (2012)

A4

Table A4.1a. Participation of 20-34 year-olds in tertiary education, by gender and parents' educational attainment (2012)

Percentage of 20-34 year-olds in tertiary education, by parents' educational attainment, and parents' educational attainment among 20-34 year-olds (students and non-students), by gender

Reading the first row, first column of this table: In Australia, 16% of 20-34 year-olds whose parents have below upper secondary education are students enrolled in tertiary education. Given the survey method, there is a sampling uncertainty in the percentages (%) of twice the standard error (S.E.). For more information, see the Reader's Guide.

	Percentage of students in tertiary education by parents' educational attainment							Parents' educational attainment in the total population (students and non-students)						
	Below upper secondary education		Upper secondary or post-secondary non-tertiary education		Tertiary education		Total	Below upper secondary education		Upper secondary or post-secondary non-tertiary education		Tertiary education		Total
	%	S.E.	%	S.E.	%	S.E.	%	%	S.E.	%	S.E.	%	S.E.	%
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
OECD														
National entities														
Australia	16	(2.7)	24	(3.7)	59	(3.6)	100	28	(1.4)	30	(1.5)	42	(1.4)	100
Austria	3	(1.1)	43	(2.8)	55	(3.0)	100	14	(0.9)	59	(1.4)	28	(1.2)	100
Canada	3	(0.6)	24	(1.7)	73	(1.7)	100	9	(0.5)	35	(1.0)	56	(1.1)	100
Czech Republic	c	c	62	(2.7)	38	(2.6)	100	3	(0.5)	75	(1.4)	22	(1.4)	100
Denmark	7	(1.3)	30	(2.4)	63	(2.5)	100	15	(0.9)	38	(1.3)	47	(1.4)	100
Estonia	2	(0.6)	31	(2.3)	67	(2.3)	100	7	(0.5)	44	(0.9)	50	(0.9)	100
Finland	5	(1.1)	39	(2.4)	56	(2.5)	100	13	(0.9)	51	(1.2)	36	(1.2)	100
France	10	(1.8)	41	(2.7)	50	(2.5)	100	24	(1.0)	48	(1.4)	28	(1.1)	100
Germany	2	(0.9)	32	(2.8)	65	(2.8)	100	6	(0.8)	48	(1.7)	46	(1.7)	100
Ireland	16	(2.6)	33	(3.5)	51	(3.7)	100	33	(1.3)	35	(1.4)	32	(1.2)	100
Italy	24	(3.7)	48	(4.3)	28	(3.6)	100	55	(1.8)	35	(1.7)	10	(1.0)	100
Japan	2	(1.1)	22	(3.1)	76	(3.2)	100	4	(0.7)	44	(1.6)	51	(1.5)	100
Korea	10	(1.7)	43	(3.3)	47	(3.6)	100	26	(1.0)	46	(1.4)	28	(1.2)	100
Netherlands	13	(2.0)	25	(2.3)	61	(2.7)	100	31	(1.4)	31	(1.3)	38	(1.6)	100
Norway	6	(1.2)	21	(2.3)	73	(2.4)	100	10	(0.9)	38	(1.4)	51	(1.4)	100
Poland	1	(0.3)	59	(1.7)	39	(1.7)	100	7	(0.7)	72	(0.9)	21	(0.8)	100
Slovak Republic	2	(1.0)	59	(2.5)	39	(2.6)	100	13	(1.0)	69	(1.2)	19	(1.1)	100
Spain	33	(3.0)	30	(3.1)	37	(2.8)	100	56	(1.3)	25	(1.2)	19	(1.0)	100
Sweden	6	(1.4)	26	(3.0)	68	(3.2)	100	14	(0.9)	34	(1.5)	53	(1.7)	100
United States	8	(1.9)	34	(3.0)	58	(3.1)	100	12	(0.9)	40	(1.4)	48	(1.5)	100
Sub-national entities														
Flanders (Belgium)	6	(1.4)	36	(2.9)	59	(3.0)	100	18	(1.0)	42	(1.3)	40	(1.2)	100
England (UK)	3	(1.6)	41	(5.0)	56	(5.0)	100	14	(1.2)	49	(1.7)	37	(1.8)	100
Northern Ireland (UK)	13	(3.4)	42	(5.3)	46	(5.0)	100	22	(1.4)	52	(1.8)	26	(1.7)	100
England/N. Ireland (UK)	4	(1.5)	41	(4.9)	55	(4.9)	100	14	(1.2)	49	(1.6)	37	(1.7)	100
Average	9	(0.4)	37	(0.6)	55	(0.6)	100	19	(0.2)	45	(0.3)	36	(0.3)	100
Partners														
Russian Federation*	6	(1.7)	38	(3.3)	56	(2.9)	100	12	(2.5)	44	(2.3)	44	(2.8)	100

* See note on data for the Russian Federation in the *Methodology* section.

Note: Rows showing data for men and women separately are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933115540

Table A4.1b. Likelihood of participating in tertiary education, by parents' educational attainment and gender (2012)

20-34 year-olds; odds ratio

The "odds ratio" reflects the relative likelihood of participating in tertiary education of individuals whose parents have upper secondary or tertiary education compared with that of people whose parents have only below upper secondary education. The latter group are taken as the reference category for the interpretation of the relative likelihood and therefore their odds ratio are set to equal 1. Differences between the groups are statistically significant at 95% if the "p-value" associated with the odds ratio is below 0.5.

Reading the first row: In Australia, a person whose parents have upper secondary education as their highest level of education is almost twice (1.8) as likely to participate in tertiary education as someone whose parents have only below upper secondary education. A person whose parents have tertiary education is about four times (4.3) as likely to participate in tertiary education as someone whose parents have only below upper secondary education.

		Below upper secondary education		Upper secondary or post-secondary non-tertiary education		Tertiary education or advanced research programmes	
		Odds ratio	p-value	Odds ratio	p-value	Odds ratio	p-value
		(1)	(2)	(3)	(4)	(5)	(6)
OECD	**National entities**						
	Australia	1	(0.0)	1.8	(0.0)	4.3	(0.0)
	Austria	1	(0.0)	2.1	(0.0)	5.1	(0.0)
	Canada	1	(0.0)	1.6	(0.0)	2.6	(0.0)
	Czech Republic	c	c	c	c	c	c
	Denmark	1	(0.0)	1.6	(0.0)	3.0	(0.0)
	Estonia	1	(0.0)	2.7	(0.0)	4.7	(0.0)
	Finland	1	(0.0)	1.2	(0.4)	1.4	(0.0)
	France	1	(0.0)	1.8	(0.0)	6.0	(0.0)
	Germany	1	(0.0)	2.4	(0.0)	5.1	(0.0)
	Ireland	1	(0.0)	2.0	(0.0)	3.3	(0.0)
	Italy	1	(0.0)	4.6	(0.0)	9.5	(0.0)
	Japan	1	(0.0)	2.0	(0.1)	5.1	(0.0)
	Korea	1	(0.0)	1.0	(1.0)	1.1	(0.7)
	Netherlands	1	(0.0)	1.3	(0.1)	2.8	(0.0)
	Norway	1	(0.0)	1.0	(0.9)	2.0	(0.0)
	Poland	1	(0.0)	3.1	(0.0)	9.5	(0.0)
	Slovak Republic	c	c	c	c	c	(0.0)
	Spain	1	(0.0)	2.0	(0.0)	3.9	(0.0)
	Sweden	1	(0.0)	1.0	(1.0)	2.3	(0.0)
	United States	1	(0.0)	2.9	(0.0)	6.8	(0.0)
	Sub-national entities						
	Flanders (Belgium)	1	(0.0)	2.1	(0.0)	5.7	(0.0)
	England (UK)	1	(0.0)	2.1	(0.0)	6.3	(0.0)
	Northern Ireland (UK)	1	(0.0)	2.9	(0.0)	6.1	(0.0)
	England/N. Ireland (UK)	1	(0.0)	2.2	(0.0)	6.4	(0.0)
	Average	1	(0.0)	2.0	(0.1)	4.5	(0.0)
Partners	Russian Federation*	1	(0.0)	1.6	(0.1)	2.6	(0.0)

* See note on data for the Russian Federation in the *Methodology* section.

Note: Rows showing data for men and women separately are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933115559

A4

Table A4.2. [1/4] Educational attainment of non-students, by age group and parents' educational attainment (2012)

25-34 year-olds

This table shows, for each country, the highest qualification attained by 25-34 year-old non-students compared to the educational attainment of their parents. For example, among 25-34 year-old Canadian women who are not students and who have at least one parent who attained a tertiary education, 3% have below upper secondary education, 25% have upper secondary or post-secondary non-tertiary education, and 73% have also attained tertiary education.

		Parents with educational attainment **below upper secondary education**						Parents with **upper secondary or post-secondary non-tertiary education** as highest level of attainment					
		Men		Women		M+W		Men		Women		M+W	
	Educational attainment	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
		(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
OECD **National entities**													
Australia	Below upper secondary	27	(4.8)	20	(3.6)	23	(2.8)	17	(4.1)	14	(3.9)	16	(2.8)
	Upper secondary or post-secondary non-tertiary	52	(5.7)	47	(5.8)	50	(3.8)	55	(4.6)	38	(5.0)	47	(3.3)
	Tertiary	21	(3.5)	33	(5.3)	27	(2.8)	28	(4.3)	48	(5.4)	38	(3.4)
Austria	Below upper secondary	c	c	c	c	34	(3.5)	9	(1.6)	11	(2.0)	10	(1.3)
	Upper secondary or post-secondary non-tertiary	c	c	c	c	58	(3.9)	75	(2.4)	73	(2.5)	74	(1.8)
	Tertiary	c	c	c	c	8	(2.2)	16	(2.0)	16	(1.8)	16	(1.4)
Canada	Below upper secondary	21	(5.0)	26	(4.7)	24	(3.3)	12	(2.3)	5	(1.1)	9	(1.3)
	Upper secondary or post-secondary non-tertiary	48	(6.5)	34	(4.9)	40	(3.9)	46	(3.6)	39	(2.9)	43	(2.4)
	Tertiary	31	(5.8)	40	(5.3)	36	(3.9)	42	(3.3)	56	(2.8)	49	(2.2)
Czech Republic	Below upper secondary	c	c	c	c	c	c	8	(1.7)	6	(1.8)	7	(1.2)
	Upper secondary or post-secondary non-tertiary	c	c	c	c	c	c	80	(2.2)	65	(3.0)	73	(1.8)
	Tertiary	c	c	c	c	c	c	12	(1.7)	28	(2.4)	19	(1.3)
Denmark	Below upper secondary	c	c	c	c	33	(4.6)	12	(3.1)	12	(3.0)	12	(2.3)
	Upper secondary or post-secondary non-tertiary	c	c	c	c	43	(4.7)	59	(4.6)	33	(3.7)	48	(3.1)
	Tertiary	c	c	c	c	25	(3.7)	30	(3.5)	56	(4.1)	41	(2.5)
Estonia	Below upper secondary	c	c	c	c	38	(5.8)	19	(2.5)	12	(2.2)	15	(1.7)
	Upper secondary or post-secondary non-tertiary	c	c	c	c	44	(4.8)	52	(3.4)	39	(3.0)	46	(2.2)
	Tertiary	c	c	c	c	18	(4.0)	29	(3.0)	49	(2.7)	39	(2.1)
Finland	Below upper secondary	c	c	c	c	7	(2.8)	12	(2.7)	7	(1.9)	9	(1.6)
	Upper secondary or post-secondary non-tertiary	c	c	c	c	58	(4.4)	56	(3.4)	38	(3.2)	47	(2.2)
	Tertiary	c	c	c	c	34	(4.5)	32	(3.1)	55	(3.2)	43	(2.2)
France	Below upper secondary	28	(3.7)	25	(3.3)	26	(2.4)	12	(2.2)	6	(1.5)	9	(1.3)
	Upper secondary or post-secondary non-tertiary	48	(3.9)	49	(4.2)	48	(2.5)	55	(3.4)	45	(3.2)	50	(2.2)
	Tertiary	24	(3.8)	26	(3.5)	25	(2.3)	33	(3.3)	48	(3.3)	41	(2.2)
Germany	Below upper secondary	c	c	c	c	c	c	7	(2.0)	10	(2.4)	8	(1.6)
	Upper secondary or post-secondary non-tertiary	c	c	c	c	c	c	66	(4.3)	65	(3.7)	66	(2.9)
	Tertiary	c	c	c	c	c	c	27	(3.9)	25	(3.1)	26	(2.6)
Ireland	Below upper secondary	25	(3.0)	22	(2.7)	24	(1.9)	11	(2.3)	5	(1.4)	8	(1.3)
	Upper secondary or post-secondary non-tertiary	44	(3.7)	48	(3.0)	46	(2.1)	51	(4.6)	41	(3.7)	46	(2.7)
	Tertiary	31	(3.3)	29	(2.5)	30	(1.7)	38	(4.5)	54	(3.7)	46	(2.8)
Italy	Below upper secondary	49	(3.9)	40	(3.7)	45	(2.6)	c	c	6	(2.6)	10	(2.7)
	Upper secondary or post-secondary non-tertiary	44	(4.0)	49	(3.7)	46	(2.7)	c	c	52	(5.4)	54	(3.5)
	Tertiary	8	(2.1)	11	(2.1)	9	(1.5)	c	c	42	(4.8)	36	(3.3)
Japan	Below upper secondary	c	c	c	c	c	c	9	(2.2)	9	(2.8)	9	(1.6)
	Upper secondary or post-secondary non-tertiary	c	c	c	c	c	c	47	(3.4)	43	(3.6)	45	(2.4)
	Tertiary	c	c	c	c	c	c	44	(3.7)	47	(3.5)	45	(2.6)
Korea	Below upper secondary	6	(1.7)	6	(1.9)	6	(1.2)	1	(0.8)	c	c	1	(0.5)
	Upper secondary or post-secondary non-tertiary	42	(3.0)	40	(3.7)	41	(2.1)	40	(3.0)	31	(2.8)	35	(1.9)
	Tertiary	52	(3.2)	54	(3.4)	53	(2.0)	59	(2.9)	68	(2.9)	64	(1.9)
Netherlands	Below upper secondary	36	(5.3)	19	(3.3)	27	(3.2)	15	(2.6)	14	(3.3)	14	(2.0)
	Upper secondary or post-secondary non-tertiary	41	(5.1)	47	(4.4)	44	(3.3)	49	(5.3)	47	(4.8)	48	(3.2)
	Tertiary	23	(4.7)	34	(4.1)	29	(3.0)	36	(5.7)	39	(4.4)	37	(3.3)
Norway	Below upper secondary	c	c	c	c	c	c	24	(3.5)	17	(3.1)	21	(2.4)
	Upper secondary or post-secondary non-tertiary	c	c	c	c	c	c	50	(3.7)	40	(4.8)	45	(2.8)
	Tertiary	c	c	c	c	c	c	26	(3.5)	43	(4.1)	34	(2.6)
Poland	Below upper secondary	c	c	c	c	18	(4.3)	6	(1.3)	4	(1.2)	5	(0.9)
	Upper secondary or post-secondary non-tertiary	c	c	c	c	67	(5.2)	63	(2.6)	49	(2.7)	56	(2.0)
	Tertiary	c	c	c	c	16	(4.7)	32	(2.6)	47	(2.8)	39	(1.9)
Slovak Republic	Below upper secondary	60	(5.8)	57	(5.8)	58	(4.6)	7	(1.2)	5	(0.9)	6	(0.7)
	Upper secondary or post-secondary non-tertiary	40	(5.8)	39	(5.7)	40	(4.4)	73	(2.5)	67	(2.9)	70	(2.1)
	Tertiary	c	c	4	(2.3)	2	(1.2)	20	(2.6)	28	(2.7)	24	(2.0)
Spain	Below upper secondary	56	(3.1)	45	(3.2)	51	(2.2)	30	(4.5)	14	(3.1)	22	(2.9)
	Upper secondary or post-secondary non-tertiary	25	(2.6)	23	(2.8)	24	(1.7)	37	(5.3)	28	(4.7)	32	(3.7)
	Tertiary	19	(2.2)	32	(2.9)	25	(1.9)	33	(4.2)	58	(5.1)	46	(3.6)
Sweden	Below upper secondary	c	c	c	c	25	(4.5)	19	(4.4)	11	(3.2)	15	(2.8)
	Upper secondary or post-secondary non-tertiary	c	c	c	c	48	(4.2)	57	(5.4)	51	(4.8)	54	(3.9)
	Tertiary	c	c	c	c	27	(3.7)	23	(3.7)	38	(4.6)	31	(3.2)
United States	Below upper secondary	c	c	c	c	35	(4.6)	11	(2.7)	5	(1.5)	8	(1.7)
	Upper secondary or post-secondary non-tertiary	c	c	c	c	61	(4.7)	59	(4.2)	52	(3.7)	56	(2.7)
	Tertiary	c	c	c	c	5	(1.4)	30	(4.1)	43	(3.5)	36	(2.9)

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for other age breakdowns and for all levels of education of the parents combined are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies.
See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table A4.2. [2/4] Educational attainment of non-students, by age group and parents' educational attainment (2012)

25-34 year-olds

This table shows, for each country, the highest qualification attained by 25-34 year-old non-students compared to the educational attainment of their parents. For example, among 25-34 year-old Canadian women who are not students and who have at least one parent who attained a tertiary education, 3% have below upper secondary education, 25% have upper secondary or post-secondary non-tertiary education, and 73% have also attained tertiary education.

			Parents with educational attainment **below upper secondary education**						Parents with **upper secondary or post-secondary non-tertiary education** as highest level of attainment					
			Men		Women		M+W		Men		Women		M+W	
			%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
		Educational attainment	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)
OECD	**Sub-national entities**													
	Flanders (Belgium)	Below upper secondary	c	c	17	(4.0)	17	(3.3)	8	(2.1)	6	(2.0)	7	(1.4)
		Upper secondary or post-secondary non-tertiary	c	c	54	(5.6)	61	(4.2)	59	(3.9)	47	(3.8)	53	(2.5)
		Tertiary	c	c	29	(4.9)	22	(3.6)	33	(3.5)	47	(3.7)	40	(2.3)
	England (UK)	Below upper secondary	c	c	c	c	36	(4.6)	16	(3.1)	12	(2.4)	14	(1.8)
		Upper secondary or post-secondary non-tertiary	c	c	c	c	40	(4.9)	39	(4.7)	41	(3.6)	40	(3.1)
		Tertiary	c	c	c	c	24	(4.8)	45	(4.2)	47	(3.5)	46	(2.7)
	Northern Ireland (UK)	Below upper secondary	c	c	40	(6.8)	44	(4.6)	17	(4.4)	12	(3.0)	15	(2.6)
		Upper secondary or post-secondary non-tertiary	c	c	34	(5.1)	36	(4.2)	42	(4.6)	45	(3.9)	44	(2.8)
		Tertiary	c	c	26	(5.0)	20	(3.2)	40	(5.4)	43	(4.3)	42	(2.8)
	England/N. Ireland (UK)	Below upper secondary	37	(7.3)	36	(5.3)	36	(4.3)	16	(3.0)	12	(2.3)	14	(1.7)
		Upper secondary or post-secondary non-tertiary	38	(6.7)	41	(5.8)	40	(4.6)	39	(4.5)	41	(3.4)	40	(2.9)
		Tertiary	25	(7.5)	22	(5.2)	24	(4.5)	44	(4.1)	47	(3.4)	46	(2.6)
	Average	Below upper secondary	35	(1.5)	29	(1.2)	29	(0.9)	13	(0.6)	9	(0.5)	11	(0.4)
		Upper secondary or post-secondary non-tertiary	42	(1.5)	43	(1.4)	48	(0.9)	56	(0.9)	47	(0.8)	51	(0.6)
		Tertiary	26	(1.4)	29	(1.2)	23	(0.7)	32	(0.8)	45	(0.8)	38	(0.5)
Partners	Russian Federation*	Below upper secondary	c	c	c	c	c	c	14	(3.2)	2	(1.2)	8	(1.5)
		Upper secondary or post-secondary non-tertiary	c	c	c	c	c	c	22	(4.2)	32	(2.6)	27	(2.9)
		Tertiary	c	c	c	c	c	c	64	(5.2)	65	(3.0)	65	(2.9)

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for other age breakdowns and for all levels of education of the parents combined are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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A4

Table A4.2. [3/4] Educational attainment of non-students, by age group and parents' educational attainment (2012)

25-34 year-olds

This table shows, for each country, the highest qualification attained by 25-34 year-old non-students compared to the educational attainment of their parents. For example, among 25-34 year-old Canadian women who are not students and who have at least one parent who attained a tertiary education, 3% have below upper secondary education, 25% have upper secondary or post-secondary non-tertiary education, and 73% have also attained tertiary education.

		Parents with **tertiary education**						All levels of education of parents					
		Men		Women		M+W		Men		Women		M+W	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
	Educational attainment	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)	(47)	(48)
OECD **National entities**													
Australia	Below upper secondary	4	(1.3)	5	(1.7)	4	(1.1)	15	(1.9)	12	(1.4)	14	(1.1)
	Upper secondary or post-secondary non-tertiary	36	(3.9)	16	(2.5)	26	(2.4)	47	(2.6)	32	(2.8)	40	(1.7)
	Tertiary	60	(4.1)	79	(2.8)	70	(2.6)	38	(2.3)	56	(2.7)	47	(1.6)
Austria	Below upper secondary	4	(2.6)	8	(3.1)	6	(2.2)	11	(0.9)	15	(1.2)	13	(0.8)
	Upper secondary or post-secondary non-tertiary	66	(4.5)	55	(4.5)	60	(3.4)	71	(1.5)	65	(1.4)	68	(1.0)
	Tertiary	29	(3.9)	37	(3.6)	34	(2.7)	18	(1.2)	19	(1.0)	19	(0.8)
Canada	Below upper secondary	3	(1.0)	3	(0.8)	3	(0.6)	9	(1.2)	7	(0.8)	8	(0.7)
	Upper secondary or post-secondary non-tertiary	29	(2.6)	25	(2.5)	27	(1.8)	38	(2.1)	31	(1.4)	35	(1.3)
	Tertiary	67	(2.6)	73	(2.5)	70	(1.9)	53	(1.8)	62	(1.5)	58	(1.1)
Czech Republic	Below upper secondary	c	c	c	c	3	(0.9)	8	(1.4)	5	(1.5)	7	(1.0)
	Upper secondary or post-secondary non-tertiary	35	(6.5)	22	(7.0)	29	(4.2)	71	(2.2)	58	(2.5)	65	(1.7)
	Tertiary	60	(6.7)	78	(7.0)	69	(4.1)	21	(1.9)	37	(2.1)	28	(1.2)
Denmark	Below upper secondary	8	(2.5)	9	(3.4)	9	(2.0)	14	(2.1)	14	(2.1)	14	(1.5)
	Upper secondary or post-secondary non-tertiary	31	(4.4)	14	(3.1)	22	(2.5)	46	(3.0)	26	(2.4)	36	(1.9)
	Tertiary	61	(4.3)	76	(3.9)	69	(2.7)	40	(2.7)	60	(2.6)	50	(1.7)
Estonia	Below upper secondary	10	(2.0)	6	(1.6)	8	(1.2)	16	(1.6)	11	(1.5)	14	(1.1)
	Upper secondary or post-secondary non-tertiary	46	(3.1)	25	(2.9)	36	(2.2)	48	(2.3)	34	(2.2)	41	(1.5)
	Tertiary	44	(3.5)	70	(3.2)	56	(2.4)	35	(2.1)	55	(2.1)	45	(1.6)
Finland	Below upper secondary	5	(2.3)	4	(2.2)	4	(1.6)	10	(1.9)	5	(1.3)	8	(1.1)
	Upper secondary or post-secondary non-tertiary	44	(4.8)	18	(3.6)	31	(2.9)	55	(2.4)	34	(2.4)	44	(1.6)
	Tertiary	51	(4.9)	79	(4.1)	65	(3.2)	35	(2.3)	61	(2.4)	48	(1.6)
France	Below upper secondary	4	(1.5)	4	(2.2)	4	(1.3)	14	(1.4)	12	(1.5)	13	(1.1)
	Upper secondary or post-secondary non-tertiary	26	(4.0)	13	(2.5)	20	(2.5)	45	(2.0)	39	(2.4)	42	(1.4)
	Tertiary	70	(4.2)	83	(3.2)	76	(2.7)	41	(2.2)	49	(2.3)	45	(1.3)
Germany	Below upper secondary	8	(2.8)	8	(3.5)	8	(2.2)	9	(1.8)	10	(2.0)	10	(1.3)
	Upper secondary or post-secondary non-tertiary	48	(4.4)	34	(4.3)	41	(3.1)	58	(3.2)	52	(2.9)	55	(2.1)
	Tertiary	44	(3.8)	59	(4.4)	51	(3.0)	33	(2.7)	38	(2.6)	35	(1.9)
Ireland	Below upper secondary	6	(1.9)	2	(1.4)	4	(1.2)	15	(1.0)	11	(1.1)	13	(0.5)
	Upper secondary or post-secondary non-tertiary	33	(3.9)	24	(4.0)	28	(2.7)	44	(2.2)	39	(1.8)	41	(1.2)
	Tertiary	61	(3.9)	74	(4.1)	68	(2.8)	41	(2.2)	51	(1.8)	46	(1.1)
Italy	Below upper secondary	c	c	c	c	c	c	36	(3.3)	26	(2.7)	31	(2.0)
	Upper secondary or post-secondary non-tertiary	c	c	c	c	c	c	46	(3.2)	48	(2.8)	47	(1.9)
	Tertiary	c	c	c	c	c	c	17	(2.1)	26	(2.2)	22	(1.4)
Japan	Below upper secondary	4	(1.7)	4	(1.5)	4	(1.1)	8	(1.5)	7	(1.6)	8	(1.0)
	Upper secondary or post-secondary non-tertiary	26	(3.4)	21	(3.2)	23	(2.3)	37	(2.2)	32	(2.4)	35	(1.8)
	Tertiary	70	(3.7)	75	(3.3)	73	(2.4)	55	(2.2)	60	(2.2)	58	(1.7)
Korea	Below upper secondary	c	c	c	c	c	c	3	(0.6)	2	(0.7)	3	(0.5)
	Upper secondary or post-secondary non-tertiary	17	(4.1)	12	(3.3)	15	(2.6)	36	(1.5)	30	(1.9)	33	(0.8)
	Tertiary	83	(4.1)	87	(3.5)	85	(2.6)	61	(1.5)	68	(1.9)	64	(0.7)
Netherlands	Below upper secondary	12	(3.5)	11	(3.4)	12	(2.3)	21	(2.4)	15	(2.1)	18	(1.5)
	Upper secondary or post-secondary non-tertiary	28	(4.7)	25	(4.3)	27	(3.1)	39	(2.8)	40	(2.9)	40	(2.0)
	Tertiary	60	(4.8)	64	(5.1)	62	(3.4)	40	(3.1)	45	(2.8)	42	(1.9)
Norway	Below upper secondary	14	(3.3)	4	(1.7)	9	(1.9)	20	(2.2)	13	(1.7)	17	(1.4)
	Upper secondary or post-secondary non-tertiary	36	(3.9)	25	(3.6)	30	(3.0)	43	(2.5)	31	(2.5)	37	(1.8)
	Tertiary	50	(4.3)	71	(3.7)	61	(3.1)	37	(2.4)	55	(2.2)	46	(1.6)
Poland	Below upper secondary	2	(1.5)	c	c	1	(0.8)	7	(1.3)	4	(1.0)	5	(0.8)
	Upper secondary or post-secondary non-tertiary	19	(3.8)	16	(4.6)	18	(3.3)	54	(2.0)	46	(2.4)	50	(1.7)
	Tertiary	79	(4.0)	83	(4.6)	81	(3.3)	39	(2.2)	51	(2.5)	45	(1.7)
Slovak Republic	Below upper secondary	c	c	c	c	c	c	13	(1.2)	12	(1.5)	13	(1.0)
	Upper secondary or post-secondary non-tertiary	c	c	c	c	37	(3.7)	64	(2.0)	57	(2.3)	60	(1.6)
	Tertiary	c	c	c	c	63	(3.7)	23	(1.8)	31	(2.2)	27	(1.6)
Spain	Below upper secondary	c	c	c	c	11	(2.3)	43	(2.2)	32	(2.1)	38	(1.5)
	Upper secondary or post-secondary non-tertiary	c	c	c	c	22	(3.4)	27	(2.3)	25	(2.0)	26	(1.4)
	Tertiary	c	c	c	c	67	(3.6)	30	(1.8)	43	(2.1)	36	(1.2)
Sweden	Below upper secondary	10	(2.8)	4	(1.9)	7	(1.7)	15	(2.2)	12	(2.1)	13	(1.5)
	Upper secondary or post-secondary non-tertiary	48	(3.5)	33	(3.8)	41	(2.5)	51	(2.6)	42	(2.3)	47	(1.6)
	Tertiary	42	(2.7)	63	(3.9)	51	(2.4)	34	(1.7)	46	(2.2)	40	(1.4)
United States	Below upper secondary	8	(2.7)	2	(0.9)	5	(1.4)	12	(2.1)	8	(1.2)	10	(1.1)
	Upper secondary or post-secondary non-tertiary	45	(3.1)	31	(4.6)	38	(2.8)	53	(2.4)	44	(2.5)	48	(1.5)
	Tertiary	47	(3.7)	67	(4.7)	57	(3.1)	35	(2.3)	48	(2.3)	42	(1.6)

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for other age breakdowns and for all levels of education of the parents combined are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies.
See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table A4.2. [4/4] Educational attainment of non-students, by age group and parents' educational attainment (2012)

25-34 year-olds

This table shows, for each country, the highest qualification attained by 25-34 year-old non-students compared to the educational attainment of their parents. For example, among 25-34 year-old Canadian women who are not students and who have at least one parent who attained a tertiary education, 3% have below upper secondary education, 25% have upper secondary or post-secondary non-tertiary education, and 73% have also attained tertiary education.

			Parents with **tertiary education**						All levels of education of parents					
			Men		Women		M+W		Men		Women		M+W	
			%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
		Educational attainment	(37)	(38)	(39)	(40)	(41)	(42)	(43)	(44)	(45)	(46)	(47)	(48)
OECD	**Sub-national entities**													
	Flanders (Belgium)	Below upper secondary	2	(1.4)	2	(1.1)	2	(0.9)	7	(1.4)	7	(1.3)	7	(1.0)
		Upper secondary or post-secondary non-tertiary	36	(4.6)	16	(3.1)	26	(2.8)	53	(2.8)	37	(2.6)	45	(1.8)
		Tertiary	62	(4.8)	82	(3.3)	72	(2.9)	40	(2.6)	55	(2.6)	48	(1.8)
	England (UK)	Below upper secondary	4	(2.4)	6	(2.4)	5	(1.7)	15	(2.2)	14	(1.8)	14	(1.3)
		Upper secondary or post-secondary non-tertiary	20	(3.8)	20	(3.9)	20	(2.5)	32	(2.8)	34	(2.5)	33	(1.8)
		Tertiary	76	(4.5)	74	(4.7)	75	(3.0)	53	(2.7)	52	(2.4)	53	(1.5)
	Northern Ireland (UK)	Below upper secondary	c	c	c	c	c	c	22	(3.1)	16	(2.3)	19	(1.9)
		Upper secondary or post-secondary non-tertiary	c	c	c	c	22	(5.2)	37	(3.4)	37	(2.7)	37	(2.0)
		Tertiary	c	c	c	c	76	(5.3)	41	(3.3)	48	(2.9)	44	(1.9)
	England/N. Ireland (UK)	Below upper secondary	4	(2.3)	6	(2.3)	5	(1.7)	15	(2.2)	14	(1.7)	15	(1.3)
		Upper secondary or post-secondary non-tertiary	20	(3.7)	20	(3.8)	20	(2.4)	32	(2.7)	34	(2.3)	33	(1.7)
		Tertiary	76	(4.3)	74	(4.6)	75	(3.0)	53	(2.6)	52	(2.3)	52	(1.4)
	Average	Below upper secondary	6	(0.6)	5	(0.6)	6	(0.4)	15	(0.4)	12	(0.3)	13	(0.3)
		Upper secondary or post-secondary non-tertiary	35	(0.9)	23	(0.9)	29	(0.6)	48	(0.5)	40	(0.5)	44	(0.3)
		Tertiary	59	(1.0)	72	(0.9)	65	(0.7)	37	(0.5)	49	(0.5)	43	(0.3)
Partners	Russian Federation*	Below upper secondary	n	n	3	(2.6)	2	(1.3)	9	(2.4)	4	(1.3)	7	(1.0)
		Upper secondary or post-secondary non-tertiary	26	(6.5)	6	(2.6)	16	(3.7)	24	(3.3)	25	(2.1)	25	(1.5)
		Tertiary	74	(6.5)	90	(4.0)	82	(4.6)	67	(4.5)	71	(2.2)	69	(2.3)

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for other age breakdowns and for all levels of education of the parents combined are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies.See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933115578

A4

Table A4.3 (L). [1/2] Literacy proficiency level among non-students, by age group, gender and parents' educational attainment (2012)

Literacy proficiency in the Survey of Adult Skills, 25-34 year-olds

	Proficiency level	Parents with educational attainment **below upper secondary education**			Parents with **upper secondary or post-secondary non-tertiary education** as highest level of attainment			Parents with **tertiary education**			All levels of education of parents		
		Men	Women	M+W	Men	Women	M+W	Men	Women	M+W	Men	Women	M+W
		% S.E.	% S.E.	% S.E.	% S.E.	% S.E.	% S.E.	% S.E.	% S.E.	% S.E.	% S.E.	% S.E.	% S.E.
		(25) (26)	(27) (28)	(29) (30)	(31) (32)	(33) (34)	(35) (36)	(37) (38)	(39) (40)	(41) (42)	(43) (44)	(45) (46)	(47) (48)
OECD National entities													
Australia	0/1	18 (4.8)	14 (3.9)	16 (3.0)	11 (3.0)	12 (4.2)	11 (2.7)	3 (1.9)	4 (1.8)	4 (1.3)	10 (1.8)	9 (1.7)	10 (1.2)
	2	32 (5.6)	35 (5.9)	34 (4.2)	28 (5.0)	24 (5.5)	26 (3.9)	19 (4.5)	18 (3.7)	18 (2.8)	26 (2.8)	25 (2.9)	26 (2.2)
	3	39 (5.9)	37 (6.2)	38 (4.6)	44 (5.8)	47 (6.5)	45 (4.7)	48 (5.9)	43 (4.0)	45 (3.4)	44 (3.7)	42 (3.5)	43 (2.8)
	4/5	10 (2.8)	14 (3.5)	12 (2.2)	17 (4.6)	18 (5.7)	18 (4.1)	29 (4.4)	35 (3.9)	32 (2.9)	19 (2.3)	23 (2.7)	21 (1.9)
Austria	0/1	c c	c c	29 (4.5)	8 (2.8)	9 (2.6)	9 (2.1)	c c	c c	7 (2.7)	11 (2.4)	12 (2.1)	12 (1.5)
	2	c c	c c	44 (5.6)	35 (4.8)	37 (4.2)	36 (3.2)	c c	c c	19 (4.0)	33 (3.5)	33 (3.1)	33 (2.2)
	3	c c	c c	23 (5.1)	46 (4.0)	46 (4.5)	46 (3.0)	c c	c c	54 (5.2)	44 (3.2)	44 (3.1)	44 (2.2)
	4/5	c c	c c	4 (2.0)	10 (2.2)	9 (2.2)	9 (1.6)	c c	c c	20 (3.4)	12 (1.8)	10 (1.7)	11 (1.2)
Canada	0/1	24 (4.5)	28 (5.6)	26 (3.7)	14 (2.9)	14 (2.4)	14 (1.8)	7 (1.8)	6 (1.3)	7 (1.1)	12 (1.5)	12 (1.4)	12 (1.0)
	2	40 (7.0)	31 (6.2)	35 (4.8)	33 (4.5)	31 (3.5)	32 (2.9)	24 (3.3)	27 (3.3)	26 (2.3)	29 (2.3)	29 (2.5)	29 (1.8)
	3	32 (7.9)	32 (6.4)	32 (5.0)	36 (4.7)	40 (3.3)	38 (3.1)	42 (3.5)	43 (4.2)	42 (3.1)	39 (3.0)	40 (2.7)	39 (2.3)
	4/5	4 (4.0)	9 (3.5)	7 (2.6)	17 (3.1)	15 (2.4)	16 (2.0)	27 (3.4)	24 (2.7)	25 (2.3)	20 (2.2)	19 (1.6)	20 (1.5)
Czech Republic	0/1	c c	c c	c c	9 (2.8)	8 (2.3)	8 (1.8)	c c	c c	2 (1.9)	8 (2.2)	7 (1.8)	7 (1.4)
	2	c c	c c	c c	33 (4.3)	31 (4.4)	32 (3.4)	c c	13 (7.3)	16 (5.2)	30 (3.8)	29 (3.6)	30 (3.0)
	3	c c	c c	c c	47 (4.3)	49 (5.2)	48 (3.3)	c c	56 (9.9)	57 (6.6)	49 (4.1)	49 (4.5)	49 (3.0)
	4/5	c c	c c	c c	11 (2.7)	12 (3.1)	12 (2.1)	c c	29 (9.4)	26 (5.7)	13 (2.5)	15 (3.0)	14 (1.8)
Denmark	0/1	c c	c c	29 (4.8)	12 (3.3)	11 (3.0)	12 (2.3)	8 (2.3)	7 (2.3)	8 (1.7)	14 (2.1)	13 (2.0)	13 (1.4)
	2	c c	c c	37 (6.2)	30 (4.5)	32 (6.0)	31 (3.9)	19 (3.8)	23 (4.6)	21 (3.1)	26 (2.8)	29 (3.6)	28 (2.3)
	3	c c	c c	27 (4.9)	47 (5.0)	47 (6.6)	47 (4.2)	47 (4.7)	47 (4.9)	47 (3.5)	43 (3.3)	44 (3.5)	43 (2.5)
	4/5	c c	c c	7 (2.7)	11 (3.1)	10 (3.8)	11 (2.5)	27 (4.4)	22 (4.2)	24 (2.9)	17 (2.3)	15 (2.8)	16 (1.9)
Estonia	0/1	c c	c c	c c	10 (2.3)	12 (2.4)	11 (1.7)	8 (2.4)	7 (2.0)	8 (1.5)	10 (1.7)	10 (1.5)	10 (1.2)
	2	c c	c c	c c	35 (3.8)	33 (4.3)	34 (3.0)	26 (3.2)	20 (3.8)	24 (2.4)	31 (2.5)	29 (2.9)	30 (1.8)
	3	c c	c c	c c	46 (3.7)	46 (4.5)	46 (2.9)	43 (4.0)	48 (4.7)	45 (3.2)	44 (2.5)	46 (3.3)	45 (2.1)
	4/5	c c	c c	c c	10 (2.7)	9 (3.1)	10 (2.3)	23 (3.0)	24 (3.3)	23 (2.4)	15 (2.1)	15 (2.2)	15 (1.7)
Finland	0/1	c c	c c	9 (3.3)	5 (2.1)	2 (1.1)	3 (1.2)	c c	c c	4 (1.9)	7 (1.8)	2 (1.1)	5 (1.1)
	2	c c	c c	21 (5.1)	24 (3.6)	14 (3.2)	19 (2.6)	c c	c c	9 (2.8)	20 (2.7)	13 (2.6)	17 (2.0)
	3	c c	c c	44 (5.3)	43 (4.5)	49 (4.6)	46 (3.4)	c c	c c	38 (4.4)	40 (3.0)	47 (3.3)	43 (2.3)
	4/5	c c	c c	26 (4.7)	27 (3.7)	35 (4.2)	31 (3.0)	c c	c c	49 (4.0)	33 (2.6)	37 (2.9)	35 (2.0)
France	0/1	c c	21 (3.6)	21 (2.5)	10 (2.3)	6 (1.7)	8 (1.5)	5 (1.9)	c c	5 (1.6)	11 (1.6)	11 (1.6)	11 (1.2)
	2	c c	39 (4.3)	39 (3.8)	34 (3.9)	33 (3.8)	34 (2.9)	14 (3.7)	c c	15 (2.9)	30 (2.5)	31 (2.2)	30 (1.8)
	3	c c	34 (4.2)	34 (4.3)	44 (4.2)	48 (4.0)	46 (2.8)	50 (5.2)	c c	52 (3.9)	43 (3.3)	45 (2.6)	44 (2.2)
	4/5	c c	5 (2.0)	6 (1.8)	12 (3.1)	12 (2.6)	12 (1.7)	32 (4.7)	c c	28 (3.5)	16 (2.1)	13 (1.8)	14 (1.2)
Germany	0/1	c c	c c	c c	14 (3.9)	17 (3.6)	15 (2.5)	8 (2.9)	7 (2.9)	7 (1.9)	13 (2.5)	14 (2.3)	14 (1.6)
	2	c c	c c	c c	32 (4.9)	30 (4.8)	31 (3.5)	24 (4.3)	20 (3.9)	22 (2.7)	30 (2.9)	28 (2.8)	29 (2.0)
	3	c c	c c	c c	42 (5.1)	43 (4.7)	42 (3.3)	45 (5.3)	51 (5.3)	48 (3.5)	41 (3.7)	44 (3.3)	42 (2.3)
	4/5	c c	c c	c c	12 (3.3)	9 (2.9)	11 (1.9)	23 (4.6)	22 (4.2)	23 (3.2)	16 (2.7)	14 (2.3)	15 (1.7)
Ireland	0/1	20 (3.8)	17 (2.8)	18 (2.5)	10 (3.5)	10 (2.4)	10 (2.2)	8 (3.0)	6 (2.9)	7 (2.1)	13 (2.0)	11 (1.5)	12 (1.3)
	2	36 (4.5)	46 (4.7)	41 (3.3)	35 (5.2)	39 (4.9)	37 (3.4)	29 (5.1)	30 (4.3)	29 (3.1)	34 (2.6)	39 (2.4)	36 (1.7)
	3	35 (4.6)	33 (5.2)	34 (3.2)	39 (4.8)	41 (4.3)	40 (3.0)	44 (5.3)	47 (5.4)	46 (3.8)	39 (3.0)	40 (3.0)	39 (2.0)
	4/5	10 (3.3)	4 (1.7)	7 (1.5)	15 (3.6)	10 (3.0)	13 (2.6)	19 (4.6)	17 (4.2)	18 (3.3)	14 (2.5)	10 (2.0)	12 (1.5)
Italy	0/1	30 (3.8)	30 (4.6)	30 (3.1)	c c	c c	16 (3.4)	c c	c c	c c	25 (2.9)	24 (3.7)	24 (2.5)
	2	45 (4.9)	40 (4.9)	42 (3.4)	c c	c c	35 (4.2)	c c	c c	c c	38 (3.5)	40 (3.6)	39 (2.6)
	3	22 (4.2)	27 (4.1)	24 (3.1)	c c	c c	42 (4.5)	c c	c c	c c	31 (3.5)	33 (3.4)	32 (2.5)
	4/5	3 (1.5)	3 (1.7)	3 (1.1)	c c	c c	7 (3.1)	c c	c c	c c	6 (2.1)	4 (1.5)	5 (1.2)
Japan	0/1	c c	c c	c c	3 (1.4)	2 (1.5)	3 (1.0)	c c	c c	1 (0.6)	2 (0.9)	2 (0.8)	2 (0.6)
	2	c c	c c	c c	13 (3.1)	17 (3.4)	15 (2.5)	10 (2.7)	11 (2.6)	10 (1.9)	12 (1.9)	14 (2.3)	13 (1.7)
	3	c c	c c	c c	55 (4.9)	53 (4.7)	54 (3.3)	48 (5.0)	52 (4.2)	50 (3.2)	52 (3.0)	52 (3.3)	52 (1.9)
	4/5	c c	c c	c c	29 (4.2)	28 (4.5)	29 (2.9)	40 (5.0)	36 (3.8)	38 (3.3)	33 (3.1)	32 (3.2)	33 (1.9)
Korea	0/1	9 (2.6)	7 (2.3)	8 (1.7)	3 (1.5)	3 (1.2)	3 (0.9)	c c	c c	c c	5 (1.2)	4 (0.9)	4 (0.7)
	2	35 (4.8)	36 (5.4)	36 (3.4)	28 (3.9)	29 (4.6)	29 (2.8)	c c	19 (3.9)	17 (2.7)	28 (2.5)	29 (3.0)	29 (1.8)
	3	48 (5.2)	50 (5.5)	49 (3.8)	53 (4.6)	55 (4.3)	54 (3.1)	c c	62 (5.6)	60 (4.3)	52 (2.9)	55 (3.0)	53 (1.9)
	4/5	8 (2.8)	7 (2.3)	7 (1.9)	16 (3.0)	13 (2.7)	14 (2.2)	c c	17 (4.4)	22 (3.6)	15 (1.9)	12 (1.7)	13 (1.4)
Netherlands	0/1	c c	14 (4.0)	16 (3.3)	c c	c c	4 (1.7)	c c	c c	4 (1.8)	8 (2.0)	8 (1.9)	8 (1.4)
	2	c c	24 (5.3)	24 (3.4)	c c	c c	24 (3.2)	c c	c c	12 (2.8)	19 (2.8)	21 (3.1)	20 (1.7)
	3	c c	46 (5.7)	44 (4.2)	c c	c c	45 (4.6)	c c	c c	47 (4.6)	45 (3.4)	46 (3.8)	45 (2.5)
	4/5	c c	15 (4.0)	16 (3.0)	c c	c c	27 (3.7)	c c	c c	37 (4.5)	28 (3.1)	25 (3.2)	26 (2.3)

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for other age breakdowns are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table A4.3 (L). [2/2] Literacy proficiency level among non-students, by age group, gender and parents' educational attainment (2012)

Literacy proficiency in the Survey of Adult Skills, 25-34 year-olds

		Proficiency level	Parents with educational attainment **below upper secondary education**			Parents with **upper secondary or post-secondary non-tertiary education** as highest level of attainment			Parents with **tertiary education**			All levels of education of parents		
			Men	Women	M+W	Men	Women	M+W	Men	Women	M+W	Men	Women	M+W
			% S.E.	% S.E.	% S.E.	% S.E.	% S.E.	% S.E.	% S.E.	% S.E.	% S.E.	% S.E.	% S.E.	% S.E.
			(25) (26)	(27) (28)	(29) (30)	(31) (32)	(33) (34)	(35) (36)	(37) (38)	(39) (40)	(41) (42)	(43) (44)	(45) (46)	(47) (48)
OECD	**National entities**													
	Norway	0/1	c c	c c	c c	10 (2.9)	11 (3.2)	10 (2.2)	7 (2.3)	5 (2.0)	6 (1.5)	13 (1.8)	10 (2.0)	11 (1.4)
		2	c c	c c	c c	25 (4.5)	28 (4.3)	27 (3.0)	17 (3.5)	16 (3.3)	17 (2.4)	21 (2.6)	22 (2.6)	22 (1.9)
		3	c c	c c	c c	47 (5.3)	49 (4.9)	48 (3.6)	45 (4.8)	51 (5.2)	48 (3.9)	44 (3.3)	48 (3.4)	46 (2.6)
		4/5	c c	c c	c c	19 (4.0)	12 (3.1)	15 (2.7)	31 (4.1)	28 (3.8)	29 (2.9)	23 (2.8)	20 (2.5)	21 (2.0)
	Poland	0/1	c c	c c	c c	17 (2.4)	13 (2.4)	15 (1.8)	3 (1.9)	7 (4.3)	5 (2.2)	15 (2.0)	13 (1.9)	14 (1.5)
		2	c c	c c	c c	39 (3.9)	34 (3.2)	37 (2.6)	21 (5.1)	24 (6.7)	22 (3.9)	37 (3.6)	33 (2.3)	35 (2.2)
		3	c c	c c	c c	37 (3.8)	39 (3.2)	38 (2.6)	45 (7.3)	44 (6.2)	44 (4.8)	37 (3.3)	39 (2.7)	38 (2.2)
		4/5	c c	c c	c c	7 (2.0)	14 (2.4)	11 (1.5)	32 (6.8)	25 (5.9)	29 (4.4)	12 (1.9)	15 (2.1)	13 (1.4)
	Slovak Republic	0/1	c c	c c	40 (5.0)	7 (1.7)	8 (1.7)	7 (1.2)	c c	c c	c c	12 (1.4)	11 (1.8)	11 (1.2)
		2	c c	c c	40 (4.7)	35 (3.4)	32 (2.6)	34 (2.1)	c c	c c	20 (4.7)	34 (2.6)	31 (2.2)	33 (1.7)
		3	c c	c c	18 (3.2)	49 (3.6)	50 (2.9)	49 (2.4)	c c	c c	59 (5.6)	44 (2.6)	48 (2.5)	46 (1.8)
		4/5	c c	c c	c c	9 (2.2)	10 (1.9)	10 (1.5)	c c	c c	19 (4.3)	10 (1.7)	10 (1.8)	10 (1.2)
	Spain	0/1	26 (3.0)	29 (3.5)	28 (2.4)	c c	14 (4.4)	14 (3.3)	c c	c c	9 (3.3)	21 (2.3)	22 (2.6)	22 (1.8)
		2	47 (3.9)	44 (4.1)	46 (2.9)	c c	44 (6.6)	43 (4.3)	c c	c c	34 (5.7)	43 (3.1)	43 (3.6)	43 (2.2)
		3	25 (3.1)	24 (3.1)	25 (2.1)	c c	37 (5.1)	37 (4.2)	c c	c c	47 (4.7)	31 (2.9)	31 (2.8)	31 (1.9)
		4/5	2 (1.2)	2 (1.3)	2 (1.0)	c c	5 (2.5)	6 (1.9)	c c	c c	10 (3.4)	5 (1.4)	4 (1.0)	4 (0.9)
	Sweden	0/1	c c	c c	c c	c c	c c	8 (2.3)	6 (2.0)	5 (2.1)	6 (1.5)	8 (1.8)	12 (1.9)	10 (1.3)
		2	c c	c c	c c	c c	c c	22 (3.7)	17 (4.0)	17 (4.0)	17 (2.7)	20 (2.9)	19 (3.1)	20 (2.0)
		3	c c	c c	c c	c c	c c	48 (3.9)	46 (4.9)	46 (5.3)	46 (3.6)	46 (3.7)	45 (3.3)	46 (2.4)
		4/5	c c	c c	c c	c c	c c	22 (3.3)	32 (4.5)	32 (4.7)	32 (3.3)	26 (2.7)	24 (2.8)	25 (2.0)
	United States	0/1	c c	c c	c c	22 (5.1)	11 (3.7)	17 (3.0)	10 (3.5)	4 (1.9)	7 (2.0)	21 (2.9)	13 (2.3)	17 (1.8)
		2	c c	c c	c c	36 (5.3)	41 (5.9)	38 (3.7)	26 (5.3)	26 (3.7)	26 (3.4)	30 (3.5)	34 (3.1)	32 (2.3)
		3	c c	c c	c c	33 (4.8)	35 (6.0)	34 (3.6)	41 (5.7)	49 (4.7)	45 (3.7)	35 (2.9)	38 (3.1)	37 (2.2)
		4/5	c c	c c	c c	10 (3.2)	13 (3.2)	11 (2.5)	23 (4.3)	21 (4.1)	22 (2.9)	15 (2.2)	14 (2.2)	15 (1.6)
	Sub-national entities													
	Flanders (Belgium)	0/1	c c	c c	22 (3.9)	4 (1.6)	6 (1.9)	5 (1.3)	4 (1.9)	3 (1.8)	3 (1.3)	8 (1.7)	8 (1.5)	8 (1.1)
		2	c c	c c	36 (5.1)	28 (4.3)	27 (4.6)	27 (2.8)	12 (3.9)	13 (3.9)	13 (2.4)	24 (2.9)	23 (3.3)	24 (1.9)
		3	c c	c c	32 (5.5)	49 (5.1)	53 (4.6)	51 (3.4)	48 (7.0)	53 (6.6)	51 (4.1)	44 (4.1)	50 (3.5)	47 (2.5)
		4/5	c c	c c	11 (3.7)	19 (3.8)	14 (3.7)	17 (2.6)	36 (5.9)	31 (5.8)	33 (4.2)	24 (2.9)	20 (2.9)	22 (2.1)
	England (UK)	0/1	c c	c c	34 (5.9)	10 (3.0)	10 (2.7)	10 (2.2)	c c	6 (2.8)	6 (2.3)	12 (2.5)	13 (2.3)	13 (1.7)
		2	c c	c c	42 (8.2)	32 (4.9)	25 (4.0)	28 (3.3)	c c	21 (5.0)	19 (3.6)	28 (3.6)	27 (2.8)	27 (2.4)
		3	c c	c c	21 (5.1)	42 (5.4)	46 (4.9)	44 (3.8)	c c	48 (5.6)	44 (4.1)	39 (3.6)	42 (3.4)	40 (2.4)
		4/5	c c	c c	3 (2.0)	16 (4.1)	19 (3.6)	18 (2.8)	c c	25 (5.3)	31 (3.6)	21 (3.0)	18 (2.7)	20 (1.9)
	Northern Ireland (UK)	0/1	c c	c c	32 (5.5)	c c	12 (3.6)	11 (2.9)	c c	c c	4 (3.4)	13 (3.4)	15 (2.8)	14 (2.2)
		2	c c	c c	35 (6.0)	c c	34 (4.9)	31 (4.5)	c c	c c	24 (6.6)	29 (5.1)	32 (3.5)	31 (3.0)
		3	c c	c c	27 (5.8)	c c	42 (5.2)	43 (4.4)	c c	c c	50 (6.7)	41 (5.1)	40 (3.5)	41 (3.4)
		4/5	c c	c c	5 (3.3)	c c	12 (3.3)	15 (3.0)	c c	c c	21 (4.2)	16 (3.6)	12 (2.1)	14 (2.0)
	England/N. Ireland (UK)	0/1	c c	34 (6.6)	34 (5.6)	10 (2.9)	10 (2.6)	10 (2.1)	6 (3.3)	6 (2.8)	6 (2.3)	12 (2.4)	13 (2.2)	13 (1.7)
		2	c c	42 (6.5)	41 (7.7)	31 (4.7)	25 (3.9)	28 (3.2)	17 (5.0)	21 (4.8)	19 (3.6)	28 (3.5)	27 (2.7)	27 (2.3)
		3	c c	20 (5.6)	22 (4.8)	42 (5.2)	46 (4.7)	44 (3.7)	41 (7.0)	48 (5.5)	44 (4.0)	39 (3.5)	42 (3.3)	40 (2.4)
		4/5	c c	4 (2.4)	3 (1.9)	16 (4.0)	19 (3.4)	18 (2.7)	36 (5.8)	25 (5.2)	31 (3.6)	21 (2.9)	18 (2.6)	20 (1.9)
	Average	0/1	c c	c c	23 (1.0)	10 (0.7)	9 (0.6)	10 (0.5)	6 (0.7)	6 (0.7)	5 (0.4)	12 (0.4)	11 (0.4)	11 (0.3)
		2	c c	c c	37 (1.3)	31 (1.0)	31 (1.0)	30 (0.7)	20 (1.1)	20 (1.1)	19 (0.7)	28 (0.6)	28 (0.6)	28 (0.4)
		3	c c	c c	32 (1.2)	44 (1.1)	46 (1.1)	45 (0.8)	45 (1.5)	49 (1.5)	48 (0.9)	42 (0.7)	44 (0.7)	43 (0.5)
		4/5	c c	c c	8 (0.7)	15 (0.8)	14 (0.8)	15 (0.5)	29 (1.3)	26 (1.3)	27 (0.8)	18 (0.5)	17 (0.5)	17 (0.4)
Partners	Russian Federation*	0/1	c c	c c	c c	c c	14 (5.3)	17 (4.8)	c c	10 (2.7)	11 (2.4)	19 (3.8)	11 (3.1)	15 (2.7)
		2	c c	c c	c c	c c	37 (5.6)	37 (4.0)	c c	27 (5.3)	32 (4.6)	36 (4.5)	34 (3.8)	35 (3.3)
		3	c c	c c	c c	c c	38 (6.8)	38 (6.1)	c c	48 (4.8)	43 (4.3)	36 (5.2)	42 (4.1)	39 (3.9)
		4/5	c c	c c	c c	c c	11 (3.6)	9 (2.6)	c c	15 (3.7)	14 (4.0)	9 (3.1)	12 (2.5)	11 (2.3)

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for other age breakdowns are available for consultation on line (see *StatLink* below)

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933115597

A4

Table A4.4. Educational mobility among non-students, by age group and parents' educational attainment (2012)

25-34 year-olds, non-students whose educational attainment is lower than (downward mobility), higher than (upward mobility), or the same as (status quo) that of their parents

Reading the rows relating to 25-34 year-old women who are not students: in Denmark, 15% of these women have lower educational attainment than their parents, 33% have higher educational attainment than their parents, and the remainder have attained the same level of education as their parents – 5% have attained below upper secondary education, as their parents have, 11% have attained upper secondary or post-secondary non-tertiary education, as their parents have, and 35% have attained tertiary education, as their parents have.

			Downward mobility		Upward mobility		Status quo: Below upper secondary education		Status quo: Upper secondary or post-secondary non-tertiary education		Status quo: Tertiary education		Status quo: All levels of education	
			%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
			(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)
OECD	**National entities**													
	Australia	Men	20	(2.2)	33	(2.7)	9	(1.7)	16	(2.0)	22	(1.9)	47	(2.8)
		Women	12	(1.5)	39	(2.7)	6	(1.3)	11	(1.4)	31	(2.2)	49	(2.6)
	Austria	Men	21	(1.9)	21	(2.0)	5	(0.9)	46	(2.6)	7	(1.0)	58	(2.6)
		Women	21	(2.2)	21	(1.9)	7	(1.0)	41	(2.3)	9	(1.0)	57	(2.5)
	Canada	Men	21	(1.6)	24	(2.0)	2	(0.6)	18	(1.8)	34	(1.9)	54	(2.1)
		Women	16	(1.4)	30	(1.8)	3	(0.7)	15	(1.3)	36	(1.8)	54	(2.0)
	Czech Republic	Men	14	(2.2)	10	(1.4)	1	(0.5)	63	(2.4)	12	(1.8)	76	(2.3)
		Women	9	(2.1)	25	(2.0)	1	(0.4)	50	(3.1)	15	(1.8)	66	(3.0)
	Denmark	Men	20	(2.4)	23	(2.0)	6	(1.5)	27	(2.7)	24	(2.2)	56	(2.9)
		Women	15	(2.2)	33	(2.2)	5	(1.2)	11	(1.7)	35	(2.4)	52	(2.3)
	Estonia	Men	35	(2.0)	17	(1.7)	3	(0.7)	25	(1.9)	21	(1.9)	48	(2.3)
		Women	18	(1.7)	30	(1.7)	3	(0.8)	19	(1.8)	29	(1.9)	51	(2.0)
	Finland	Men	20	(2.4)	33	(2.4)	2	(0.9)	31	(2.3)	14	(1.6)	47	(2.6)
		Women	10	(1.7)	46	(2.8)	c	c	21	(1.9)	22	(2.0)	44	(2.7)
	France	Men	14	(1.7)	34	(2.2)	7	(1.1)	26	(2.1)	19	(1.7)	52	(2.4)
		Women	7	(1.1)	46	(2.0)	8	(1.2)	20	(1.9)	19	(1.7)	47	(1.9)
	Germany	Men	26	(2.6)	20	(2.4)	2	(1.0)	34	(3.2)	18	(1.9)	54	(2.9)
		Women	22	(2.6)	18	(2.3)	2	(0.9)	34	(2.6)	24	(2.1)	60	(2.9)
	Ireland	Men	14	(1.4)	42	(2.6)	9	(1.3)	19	(2.1)	16	(1.6)	44	(2.6)
		Women	9	(1.5)	47	(2.0)	8	(1.1)	14	(1.6)	21	(1.4)	44	(1.9)
	Italy	Men	8	(2.0)	41	(2.9)	32	(3.2)	15	(1.9)	5	(1.3)	51	(3.1)
		Women	3	(1.3)	50	(2.9)	24	(2.6)	18	(2.4)	5	(1.4)	47	(3.0)
	Japan	Men	19	(2.0)	24	(2.5)	2	(1.0)	23	(1.9)	33	(2.5)	58	(2.8)
		Women	17	(2.0)	25	(1.9)	1	(0.6)	19	(2.0)	38	(2.3)	58	(2.4)
	Korea	Men	4	(0.9)	59	(2.2)	2	(0.6)	17	(1.7)	17	(1.7)	36	(2.3)
		Women	3	(0.7)	63	(2.2)	2	(0.6)	15	(1.7)	17	(1.6)	34	(2.2)
	Netherlands	Men	18	(2.1)	33	(3.2)	12	(2.2)	16	(2.4)	20	(2.4)	48	(3.1)
		Women	16	(2.1)	43	(2.8)	7	(1.4)	14	(1.9)	20	(2.2)	41	(2.8)
	Norway	Men	32	(2.4)	21	(1.9)	4	(1.3)	20	(2.0)	22	(2.2)	47	(2.9)
		Women	21	(2.4)	24	(2.1)	4	(1.0)	16	(2.2)	34	(2.3)	55	(3.2)
	Poland	Men	8	(1.3)	30	(2.4)	2	(0.7)	45	(2.1)	15	(1.8)	62	(2.5)
		Women	6	(1.3)	43	(2.5)	1	(0.4)	37	(2.1)	14	(1.5)	52	(2.4)
	Slovak Republic	Men	13	(1.3)	19	(2.0)	9	(1.1)	50	(2.1)	9	(1.1)	68	(2.1)
		Women	7	(1.0)	27	(2.4)	9	(1.3)	47	(2.4)	10	(1.7)	66	(2.5)
	Spain	Men	13	(1.6)	34	(2.3)	34	(2.3)	8	(1.5)	11	(1.4)	53	(2.5)
		Women	8	(1.2)	48	(2.5)	27	(2.1)	7	(1.4)	9	(1.4)	44	(2.3)
	Sweden	Men	36	(2.5)	19	(2.2)	4	(1.2)	19	(2.4)	22	(1.5)	44	(2.6)
		Women	20	(2.1)	30	(2.9)	6	(1.6)	17	(2.1)	27	(2.4)	50	(3.1)
	United States	Men	29	(2.3)	20	(2.4)	4	(1.5)	25	(2.3)	22	(1.9)	51	(2.7)
		Women	17	(2.6)	27	(2.3)	6	(1.1)	20	(1.9)	31	(2.3)	56	(3.0)
	Sub-national entities													
	Flanders (Belgium)	Men	18	(2.3)	30	(2.3)	3	(0.9)	27	(2.3)	22	(2.1)	52	(2.8)
		Women	9	(1.5)	39	(2.2)	4	(1.0)	19	(1.9)	29	(2.2)	52	(2.4)
	England (UK)	Men	16	(2.1)	31	(2.9)	6	(1.5)	18	(2.4)	28	(3.0)	52	(3.3)
		Women	16	(1.8)	34	(2.7)	6	(1.1)	20	(2.1)	24	(2.5)	50	(2.8)
	Northern Ireland (UK)	Men	15	(2.9)	35	(3.6)	12	(2.4)	21	(2.8)	16	(2.9)	50	(3.8)
		Women	11	(2.0)	37	(3.1)	9	(1.7)	25	(2.4)	18	(2.1)	52	(3.1)
	England/N. Ireland (UK)	Men	16	(2.0)	31	(2.8)	6	(1.5)	18	(2.3)	28	(3.0)	52	(3.2)
		Women	16	(1.8)	34	(2.6)	6	(1.0)	20	(2.0)	24	(2.4)	50	(2.7)
	Average	Men	19	(0.4)	28	(0.5)	7	(0.3)	27	(0.5)	19	(0.4)	53	(0.6)
		Women	13	(0.4)	36	(0.5)	7	(0.3)	22	(0.4)	23	(0.4)	51	(0.5)
Partners	Russian Federation*	Men	17	(3.8)	41	(6.2)	2	(1.2)	11	(1.8)	29	(4.3)	42	(5.1)
		Women	5	(1.3)	46	(2.7)	2	(0.8)	14	(1.8)	33	(2.4)	49	(3.4)

* See note on data for the Russian Federation in the *Methodology* section.

Note: Rows showing data for both genders together (i.e. men plus women) and columns showing other age breakdowns are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

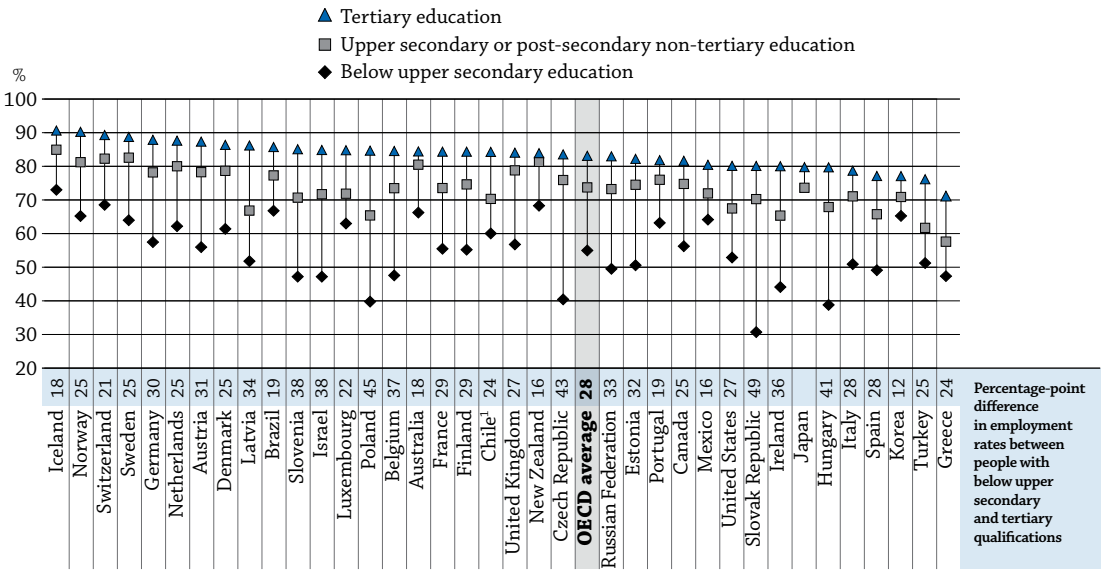
Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933115616

HOW DOES EDUCATIONAL ATTAINMENT AFFECT PARTICIPATION IN THE LABOUR MARKET?

- On average, over 80% of tertiary-educated people are employed compared with over 70% of people with an upper secondary or post-secondary non-tertiary education and less than 60% of people with below upper secondary education.
- Tertiary-educated younger adults have higher unemployment rates than tertiary-educated older adults: about 7% and 4%, respectively.
- Among employed adults, 74% of those with a tertiary degree work full time, compared with 71% of those with an upper secondary education. Some 64% of employed adults without an upper secondary education work full time.

Chart A5.1. Employment rates among 25-64 year-olds, by educational attainment (2012)



1. Year of reference 2011.

Countries are ranked in descending order of the employment rate of tertiary-educated 25-64 year-olds.

Source: OECD. Table A5.3a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933115958

Context

The economies of OECD countries depend upon a sufficient supply of high-skilled workers. Educational qualifications are frequently used to measure human capital and the level of an individual's skills. In most OECD countries people with high qualifications have the highest employment rates. At the same time, people with the lowest educational qualifications are at greater risk of being unemployed. Given the technological advances that have been transforming the needs of the global labour market, people with higher or specific skills are in strong demand.

For the first time, this indicator draws from both the Survey of Adult Skills, a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC), and the OECD data collections to show how well the supply of people with certain education qualifications and basic skills matches the demands of the labour market. While qualifications are used as a proxy for certain sets of skills that workers are expected to have, proficiency in basic skills, like literacy and numeracy, has been measured separately.

Even if these basic skills are generally acquired through schooling, they are not developed through formal education alone. Indeed, basic skills are well developed in education and maintained throughout a lifetime when they are used, notably in the workplace.

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Still, as shown in Indicator A1, schooling does have a significant impact on individuals' proficiency in foundation skills: people with low levels of education tend to have lower scores in literacy or numeracy, as measured by the Survey of Adult Skills, than people with high levels of education. Thus, education qualifications and proficiency in certain skills are considered together in analysing labour market outcomes.

Other findings

- **On average across countries, 87% of people who perform at the highest levels of literacy proficiency – Level 4 or 5 – in the Survey of Adult Skills are employed**, 3.5% are unemployed and 10% are inactive in the labour market. In Estonia, Flanders (Belgium), Germany, the Netherlands, Norway and Sweden, 90% or more of high-skilled people are employed.
- In Austria, Belgium, the Czech Republic, Estonia, Germany, Hungary, Ireland, Israel, Poland, the Russian Federation, the Slovak Republic and Slovenia**, employment rates among tertiary-educated adults are at least 30 percentage points higher than the rates among adults with only below upper secondary education**.
- **Unemployment rates are generally lower among individuals with vocational upper secondary or post-secondary non-tertiary education (8%) than those for adults with a general upper secondary education (9%)**.

Trends

Data on employment and unemployment rates over time provide a basis for assessing the long-term trends and variations in labour-market risks among men and women with different levels of education and at different ages. Over the past 15 years, employment rates across OECD countries have been consistently higher for people with a tertiary education than for those without that level of education. Conversely, unemployment rates among lower-educated men and women have been higher than among those who have attained a tertiary education. Overall, younger adults struggle the most, and unemployment rates are highest among those who have only below upper secondary education; in 2012, about 20% of young adults in OECD countries were unemployed, the highest rate registered in more than a decade.

Analysis

Labour market outcomes, by educational attainment, age group and gender

Employment, by educational attainment and age group

Skills are one of the major drivers of economic growth, and labour markets reward highly skilled workers (see Indicator A6). Thus, having a tertiary education increases the likelihood of being employed. As shown in Chart A5.1, this finding holds true across all OECD and G20 countries for which data are available. On average, over 80% of tertiary-educated people are employed compared with over 70% of people with an upper secondary or post-secondary non-tertiary education and less than 60% of people with below upper secondary education. In some countries, the gap in employment rates between people who hold a tertiary qualification and those whose highest qualification is below upper secondary education is large. In Austria, Belgium, the Czech Republic, Estonia, Germany, Hungary, Ireland, Israel, Poland, the Russian Federation, the Slovak Republic and Slovenia, for example, there is a difference in employment rates between these two groups of at least 30 percentage points (Table A5.3a).

There are also significant differences in employment rates between younger and older adults. Not only are younger adults attaining higher levels of education than older adults (see Indicator A1), they are also more likely to be employed. The proportion of 25-34 year-olds with upper secondary or post-secondary non-tertiary education who are employed is, on average, 20 percentage points larger than that of 55-64 year-olds who have attained the same level of education (75% and 55%, respectively). Some 60% of younger adults with below upper secondary education are employed compared to only about 40% of older adults with that same level of education; while among tertiary-educated adults, more than 80% of younger adults are employed compared to less than 70% of older adults (Table A5.3a).

The largest gap between age groups and educational attainment are seen in Austria, Luxembourg, the Russian Federation, Slovenia and Turkey. In Slovenia, for example, 80% of younger adults with upper secondary or post-secondary non-tertiary education are employed while only 30% of older adults with the same level of education are (Table A5.3a).

Employment, by gender

Across all OECD countries and education levels, gender differences in employment persist. Only 65% of women are employed compared with 80% of men. The gender gap in employment rates is the largest among those adults with the least education: the gap is around 20 percentage points between men and women with lower secondary education (68% for men and 48% for women); around 15 percentage points among men and women with an upper secondary education (80% for men and 64% for women at ISCED 3C (long programme)/3B level; 80% for men and 65% for women at ISCED 3A level); and around 10 percentage points between men and women with a tertiary education (86% for men and 76% for women at ISCED 5B level; 89% for men and 80% for women at ISCED 5A/6 level). Although the gap between men's and women's employment rates narrows as educational attainment increases, the employment rate among tertiary-educated women across OECD countries is still considerably lower than that of men – despite the fact that in 2012 a slightly higher proportion of women (34%) than men (31%) in OECD countries had a tertiary education (Table A5.1b, and see Table A1.1b, available on line).

The difference in employment rates between men and women with a tertiary-type A qualification or an advanced research degree is particularly large in the Czech Republic, Japan, Korea, Mexico and Turkey, where it exceeds 15 percentage points. In Iceland, Norway, Portugal and Sweden, the difference in employment rates between the genders is less than 3 percentage points (Table A5.1b).

Unemployment, by educational attainment and age group

The risk of being unemployed is also closely related to educational attainment: those with higher educational attainment are less likely to be unemployed. As shown in Chart A5.2, across OECD countries, an average of 14% of adults with below upper secondary education were unemployed in 2012. This proportion remained largely unchanged between 2005 and 2012 (11% in 2005 and 14% in 2012). However, some countries reported significant changes. In Greece, Hungary, Ireland and Spain unemployment rates for people with low attainment increased considerably – by more than 10 percentage points – during this period. Between 2010 and 2012, unemployment rates dropped significantly in Canada, Estonia, Germany, Turkey and the United States (Table A5.4a).

Some 8% of adults who have attained upper secondary or post-secondary non-tertiary education were unemployed across OECD countries in 2012. Unemployment rates among adults with this level of education vary considerably by country, ranging from only 2% in Norway to about 24% in Greece. Across OECD countries, 5% of adults with a tertiary education were unemployed; only in Greece, Portugal and Spain did unemployment rates among tertiary-educated adults exceed 10% (Chart A5.2).

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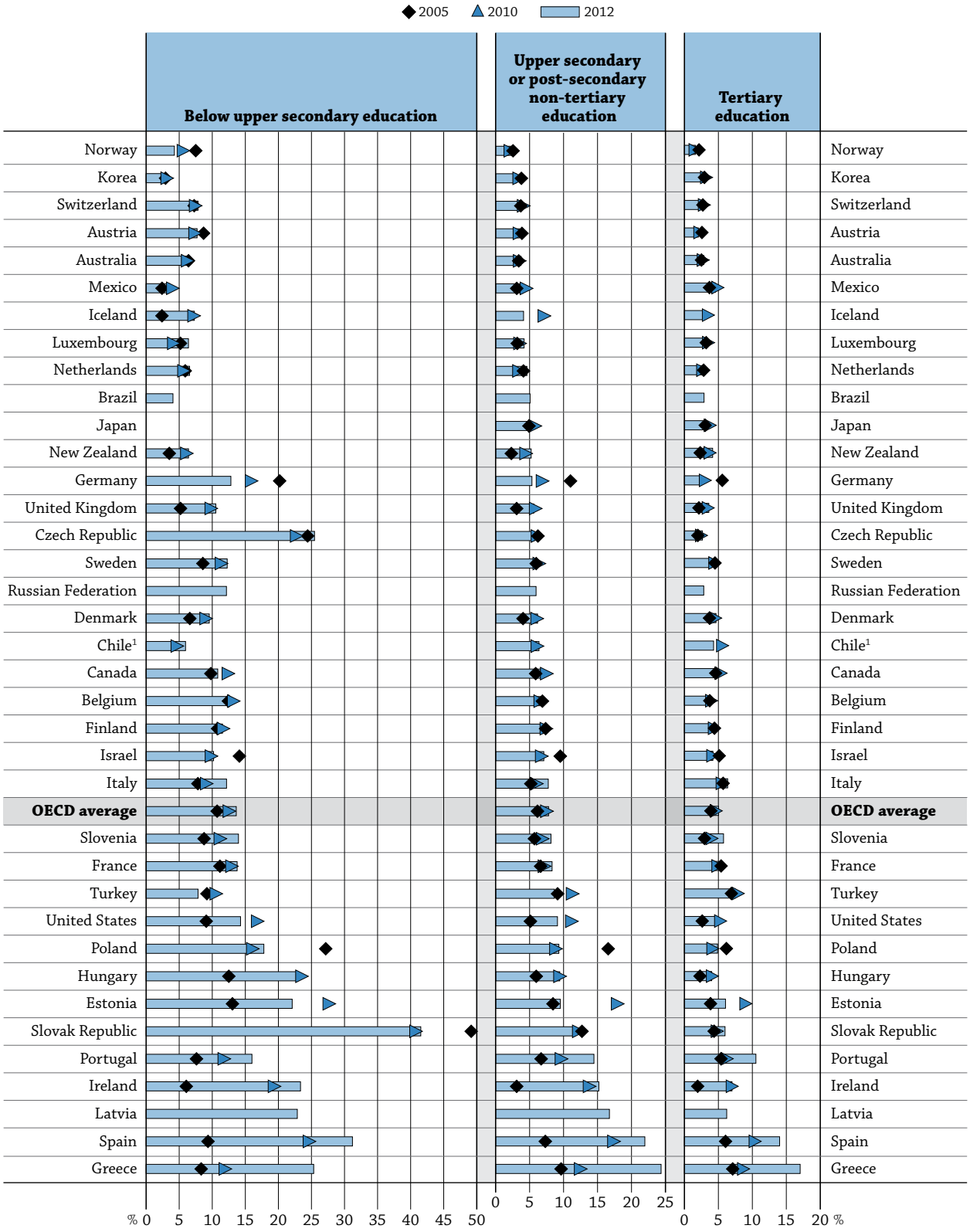
Chart A5.2. Unemployment rates among 25-64 year-olds, by educational attainment (2005, 2010 and 2012)



1. Year of reference 2011.

Countries are ranked in ascending order of 2012 unemployment rates among 25-64 year-olds with upper secondary or post-secondary non-tertiary education.

Source: OECD. Table A5.4a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933115977

In some countries, the difference in unemployment rates between adults with high and low levels of education is narrow or even inverted. In Brazil, Korea, Mexico and Turkey, for example, unemployment rates are higher among people with an upper secondary or post-secondary non-tertiary education than for people with below upper secondary education. In Mexico, unemployment rates among adults who do not have an upper secondary or post-secondary non-tertiary education are lower than those among tertiary-educated adults (Table A5.4a).

Unemployment seems to hit the younger generations hardest. Unemployment rates are higher among younger adults than among older adults at all levels of education. On average across OECD countries, about 10% of older adults who have not attained upper secondary education are unemployed compared with an unemployment rate of 20% among younger adults with a similar level of education. Similarly, 10% of younger adults with an upper secondary or post-secondary non-tertiary education are unemployed, compared to 7% of older adults with similar education. The gap between the two age groups is smallest among tertiary-educated adults: 7% of younger adults in this group are unemployed compared to 4% of older adults. This indicates the growing importance of attaining a tertiary education. The fact that younger adults have both higher unemployment rates and higher employment rates than older adults is closely related to the higher inactivity rates among older adults (Table A5.4a).

Unemployment, by gender

Gender differences in unemployment rates are, on average, less pronounced than they are in employment rates. Among adults with below upper secondary education, unemployment rates are very similar for women and men (13% for women and 14% for men). Among adults who have an upper secondary or post-secondary non-tertiary education, unemployment rates are higher among women than among men (9% for women and 7% for men). This is true, too, among tertiary-educated adults, where the unemployment rate is about 5% among both women and men (Tables A5.4b and c, available on line).

Gender differences in unemployment rates are particularly large in Greece and Turkey. For instance, in Turkey, 11% of tertiary-educated women were unemployed in 2012 compared to only 6% of tertiary-educated men (in Greece, 20% and 14%, respectively). These differences were even more pronounced among adults with upper secondary education: 17% of women were unemployed compared with 7% of men (in Greece, 30% and 21%, respectively) (Tables A5.4b and c, available on line).

Unemployment, by field of education at the tertiary level

Even if tertiary-educated workers have lower unemployment rates compared to workers with less than tertiary education, this does not mean that all tertiary-educated individuals enjoy this advantage, or that the lower unemployment rates are consistently observed for graduates from all types of tertiary programmes. In the United States and other countries, a considerable range of employment outcomes has been observed for workers who completed ISCED 5A first degrees in various tertiary programmes. For example, in the United States, the earnings data for 25-29 year-olds show relatively high earnings for graduates in engineering and computer fields, and lower earnings for graduates in education and social services.

However, the US unemployment rate data did not show consistently low unemployment rates that might be associated with high-demand, highly paid fields of study. For example, the unemployment rate among graduates from the high-paying field of computer and information systems (5%) was higher than the unemployment rates among graduates of the relatively low-paying secondary teaching programmes (2%), which had one of the lowest unemployment figures of any programme. Moreover, a study of 2005 tertiary graduates in Canada found that the 2007 unemployment rates for ISCED 5A graduates ranged from 3% for those in agriculture, health, and engineering, to 8% for those in education. These findings illustrate the complexity and diversity in outcomes for tertiary graduates entering the labour force (see Box A5.1 in OECD, 2013a).

Labour force status, by programme orientation (vocational or general)

The International Standard Classification of Education (ISCED-97) defines vocational education and training (VET) as "education which is mainly designed to lead participants to acquire the practical skills, know-how and understanding necessary for employment in a particular occupation or trade or class of occupations or trades. Successful completion of such programmes leads to a labour-market relevant vocational qualification recognised by the competent authorities in the country in which it is obtained" (UNESCO, 1997).

Vocational education and training is generally geared towards students with upper secondary or post-secondary non-tertiary education. In some countries, reforms have it made easier for VET graduates to directly access tertiary education; in others, VET programmes are also offered at the tertiary level.

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In some systems, school-based learning is widely combined with workplace learning. Examples of this type of "dual system" can be found in Austria, Germany, Luxembourg, the Netherlands and Switzerland. One of the strengths of this practice is that it forms a series of public-private partnerships, allowing social partners and employers to get involved in the development of VET programmes, often including the definition of curricular frameworks. In many of these systems, employers invest significantly in VET programmes by financing apprenticeships, assuming the costs of instructors, materials and/or equipment.

Among other positive effects, combining school-based and workplace learning in an integrated formal education supports the incorporation of VET students into the labour market. Research has shown that VET can yield good economic returns on public investment, and some countries with strong VET systems, like Germany, have been relatively successful in tackling the problem of youth unemployment (CEDEFOP, 2011).

Across OECD countries for which data are available, 75% of individuals with a vocational upper secondary or post-secondary non-tertiary qualification are employed – a rate that is 5 percentage points higher than that among individuals with a general upper secondary education as their highest qualification.

Unemployment rates are generally lower among individuals with vocational upper secondary or post-secondary non-tertiary education: 8% on average compared with 9% among adults with a general upper secondary education. In Denmark and Slovenia, unemployment rates among individuals with vocational upper secondary or post-secondary non-tertiary education are at least 3 percentage points lower than those of individuals with a general upper secondary or post-secondary non-tertiary degree. The opposite pattern is observed in Greece and Ireland (Table A5.5a).

A potential drawback is that the skills that individuals acquire through VET might be of limited use in a rapidly changing labour market. Likewise, VET graduates usually face other disadvantages. As shown in Indicator A1, people with upper secondary VET qualifications generally have lower levels of literacy proficiency, as measured in the Survey of Adult Skills, than people with general upper secondary education. This is not surprising, given that the survey measures skills that are emphasised more in general programmes than in VET programmes, while VET-specific skills are not measured. Yet this finding signals the importance of fostering information-processing skills, like literacy and numeracy, to increase the adaptability of VET graduates in the labour market (OECD, 2013b).

Full-time earners among tertiary-educated adults

Not only does the likelihood of being employed rise with educational attainment, so does the likelihood of being employed full time. Across OECD countries, 70% of earners at all education levels work full time. Among employed adults, 71% of those with upper secondary education work full time, compared with 74% of those with a tertiary degree. Some 64% of those with below upper secondary education are employed full time (Table A5.6). The definition of full time varies among countries: in some countries the term is defined by the respondent; in others, there is an official minimum number of hours. The minimum number of hours ranges from 30 hours per week in the Czech Republic, Greece and New Zealand, to 44 hours per week in Chile. For further information on the specific definitions, see the *Definitions* section in Indicator A6 and Annex 3 (*www.oecd.org/edu/eag.htm*).

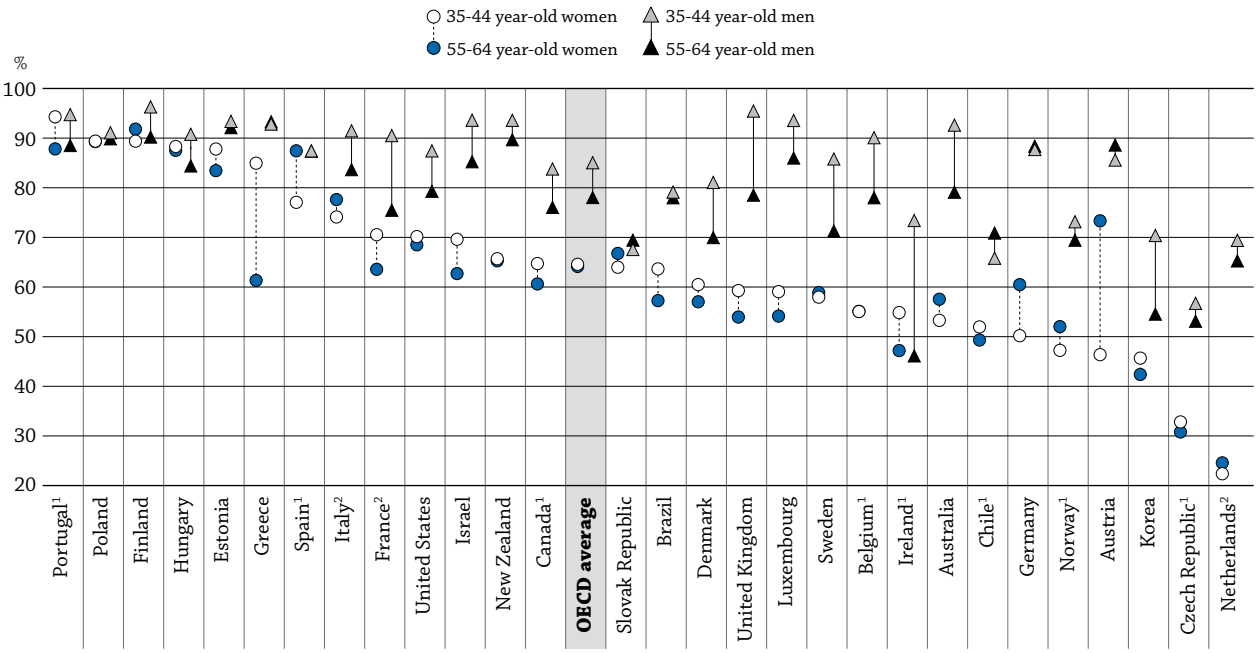
In most OECD countries, the share of 35-44 year-old men who work full time is considerably larger than the share of 55-64 year-old men who do so. No such pattern is evident among women. In fact, the share of 55-64 year-old women working full time is similar to that of 35-44 year-old women with the same educational attainment, at each level of education (Table A5.6).

Chart A5.3 shows the proportion of full-time earners among tertiary-educated men and women aged 35-44 and 55-64. The length of the black lines indicates the difference in the share of men from the two age groups who work full time; the length of the dashed lines indicates the difference in the share of women from the two age groups who work full time.

Many women aged 35-44 have young children and often work part time. In Austria, Germany and Spain, for example, the share of tertiary-educated older women who work full time is significantly larger than the share of tertiary-educated younger women who do. In other countries, like France, Greece, Ireland, Israel, Luxembourg, Portugal and the United Kingdom, a larger share of younger women than older women works full time. The difference between the two age groups in the share of women who work full time is minimal in Belgium, the Czech Republic, Finland, Hungary, the Netherlands, New Zealand, Poland, Sweden and the United States. Still, in all OECD countries, the proportion of tertiary-educated women who work full time is considerably smaller than the share of men with the same level of education who do, although in Estonia, Finland, Hungary, Poland and Portugal, more than 80% of tertiary-educated women and men of both age groups work full time (Table A5.6).

Chart A5.3. Tertiary-educated workers, by gender and age group (2012)

Percentage of full-time, full-year earners



1. Year of reference 2011.
2. Year of reference 2010.

Countries are ranked in descending order of the proportion of full-time earners among tertiary-educated 35-44 year-old women.

Source: OECD. Table A5.6. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Moreover, students and parents of young children typically have to choose between working part time or not working at all. As shown in Indicator A6, an average of 10% of tertiary-educated adults (tertiary-type A or advanced research programmes) do not have earnings from employment, and this proportion is higher among women (12%) than among men (7%) (see Indicator A6, Table A6.4, available on line).

Labour market outcomes and literacy and numeracy skills

Assessing the relationship between individuals' skills and their labour force status is one of the central objectives of the Survey of Adult Skills (OECD, 2013c). Nevertheless, even if literacy, numeracy and problem-solving competencies – the skills that are explicitly tested in the survey – are important elements of people's overall skills set, they represent only some of the abilities that workers bring to the workplace (OECD, 2013b).

On average across countries, 87% of people who perform at Level 4 or 5 in literacy, the highest levels, as measured by the Survey of Adult Skills, are employed, 3.5% are unemployed and 10% are inactive. In Estonia, Flanders (Belgium), Germany, the Netherlands, Norway and Sweden, 90% of high-skilled people are employed (Table A5.9a [L]).

Employment and literacy skills

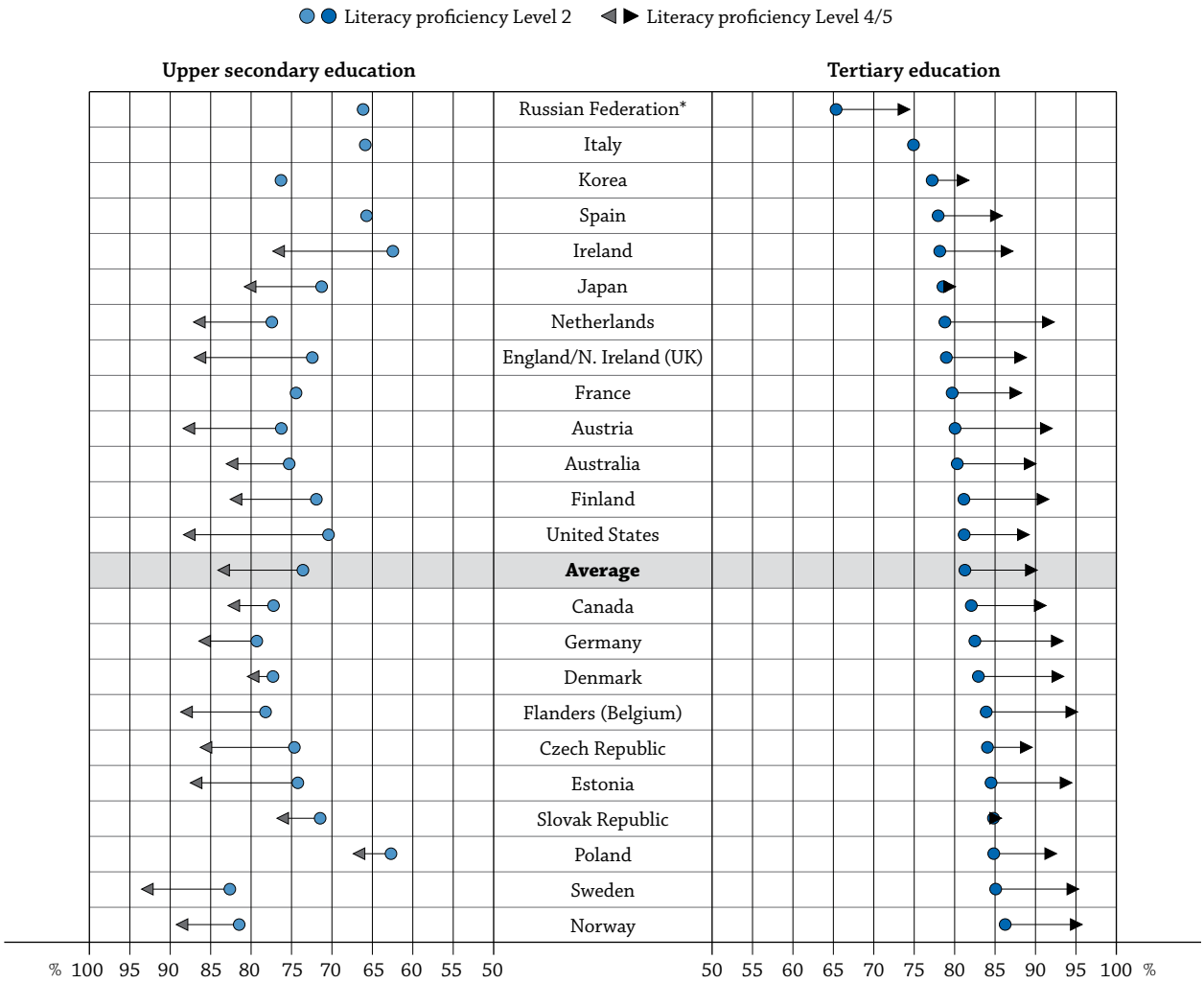
As shown in Chart A5.4, higher proficiency levels (triangles) are associated with higher employment rates in almost all countries where information is available. This is as true among people with tertiary education as among those with upper secondary qualifications (Table A5.7a [L]).

As shown in Indicator A1, the proportion of people who hold an upper secondary qualification and perform at literacy proficiency Level 4 or 5 in the Survey of Adult Skills is very small (below 5% in France, Italy, Korea, Poland and Spain). Among tertiary-educated adults, these proportions are larger than 10% on average (see Indicator A1).

This analysis indicates that the labour market rewards people with high levels of proficiency in literacy, which is generally associated with the attainment of higher levels of formal education – even in countries like Australia, Finland, Japan, the Netherlands and Sweden, where about one in three adults with a tertiary education performs at Level 4 or 5 in literacy (see Table A1.6a [L]).

Chart A5.4. Employed adults at literacy proficiency Level 2 or Level 4/5, by educational attainment (2012)

Survey of Adult Skills, percentage of 25-64 year-olds



* See note on data for the Russian Federation in the *Methodology* section.

Countries are ranked in ascending order of the proportion of employed adults with tertiary education who score at literacy proficiency Level 2.

Source: OECD. Table A5.7a (L). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933116015

Chart A5.4 also shows that in Austria, Finland, Flanders (Belgium) and Sweden, employment rates are more than 10 percentage points higher among individuals scoring at literacy proficiency Level 4 or 5 in the Survey of Adult Skills than among those scoring at Level 2, regardless of their educational attainment. However, labour markets in different countries seem to give different weight to qualifications and skills. In some contexts, educational qualifications have more of an impact on employment than skills proficiency does. For example, among tertiary-educated adults in Japan, Korea and the Slovak Republic, or among adults with upper secondary or post-secondary non-tertiary education (including VET qualifications) in Denmark and Poland, differences in employment rates related to literacy proficiency levels are very small (Table A5.7a [L]).

Unemployment and inactivity, and literacy skills

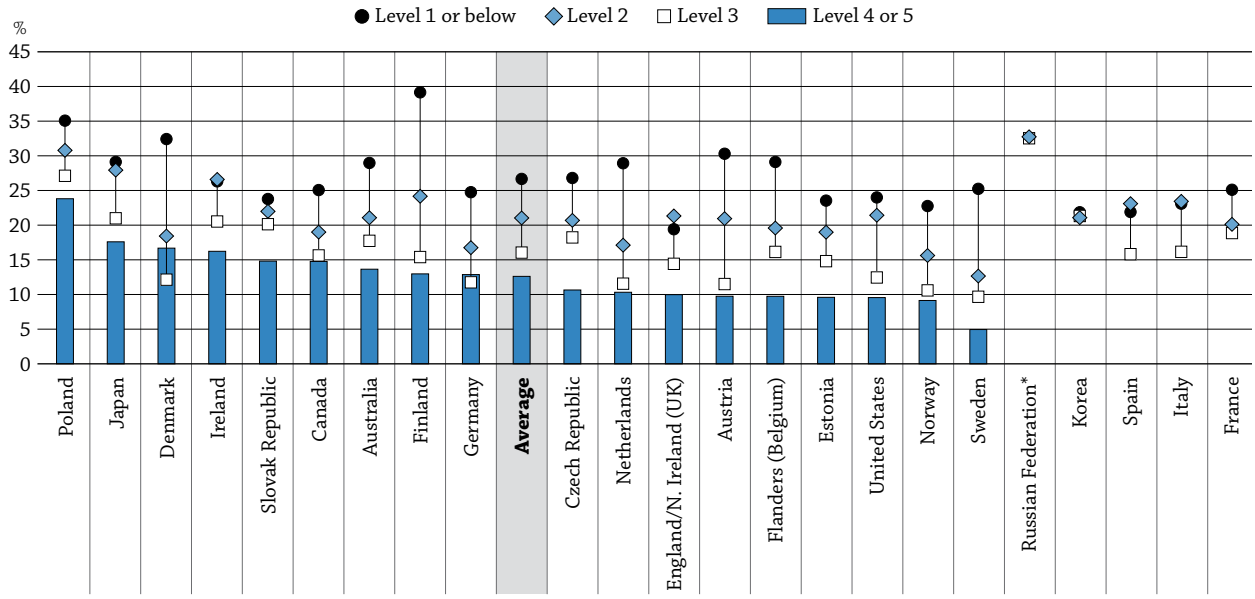
Overall, there is a relatively large pool of skilled individuals who are either unemployed or inactive. There may be several reasons for this. While some unemployed individuals may have scores in literacy, numeracy and problem solving in technology-rich environments that are similar to those of employed individuals, they may lack other key skills needed to get a job, such as job-specific skills or generic skills frequently required at work.

Some inactivity might be voluntary and/or temporary, such as among young people who are still engaged in full-time education or people taking care of family members. At the same time, to the extent that literacy is a proxy for a more comprehensive set of competencies, the relatively high proficiency found among unemployed individuals is important for labour market policy. Mismatches between people's skills and the skill requirements of jobs, in addition to various institutional constraints, are likely to be preventing skilled people from engaging in employment or looking for work (OECD, 2013b).

Across OECD countries, 20% of adults who have upper secondary or post-secondary non-tertiary education as their highest level of attainment, regardless of the orientation of the programme, were inactive and some 8% were unemployed in 2012 (Table A5.5a). Data show that the lower the level of skills proficiency, the higher the unemployment and inactivity rates. However, as shown in Chart A5.5, in most countries there is a large pool of skilled adults that is not being tapped. This is shown in the large proportions of inactive people with high levels of proficiency, particularly people who have already completed compulsory education and who hold an upper secondary or post-secondary non-tertiary qualification. In Denmark, Ireland, Japan and Poland, more than 15% of adults with an upper secondary qualification and who perform at Level 4 or 5 in literacy are inactive (Table A5.7a [L]).

Chart A5.5. Inactive adults with lower than tertiary education, by literacy proficiency level (2012)

Survey of Adult Skills, percentage of 25-64 year-olds with upper secondary or post-secondary non-tertiary education as the highest level of attainment



* See note on data for the Russian Federation in the *Methodology* section.

Countries are ranked in descending order of the percentage of adults with upper secondary education and who perform at literacy proficiency Level 4 or 5 who are inactive.

Source: OECD. Table A5.7a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Definitions

Active population (labour force) is the total number of employed and unemployed persons, in accordance with the definition in the Labour Force Survey.

Age groups: Adults refers to 25-64 year-olds; **younger adults** refers to 25-34 year-olds; and **older adults** refers to 55-64 year-olds. The **working-age population** is the total population aged 25-64.

Employed individuals are those who, during the survey reference week: *i)* work for pay (employees) or profit (self-employed and unpaid family workers) for at least one hour; or *ii)* have a job but are temporarily not at work (through injury, illness, holiday, strike or lock-out, educational or training leave, maternity or parental leave, etc.).

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The **employment rate** refers to the number of persons in employment as a percentage of the working-age population (the number of employed people is divided by the number of all working-age people). Employment rates by gender, age, educational attainment, programme orientation and age groups are calculated within each of these categories; for example the employment rate among women is calculated by dividing the number of employed women by the total number of working-age women.

Full-time basis refers to people who have worked all year long and at least 30 hours per week. The length of the reference period varies from one week to one year. Self-employed people are excluded in some countries. Data for Table A5.10 are taken from the Survey of Adult Skills. A person is considered to be working full time if the working hours per week are equal to or greater than 30. For national definitions of full-time employment, see the *Methodology* section in Indicator A6 and Annex 3 (*www.oecd.org/edu/eag.htm*).

Inactive individuals are those who are, during the survey reference week, neither employed nor unemployed, i.e. individuals who are not looking for a job. The number of inactive individuals is calculated by subtracting the number of active people (labour force) from the number of all working-age people.

The **inactive rate** refers to inactive persons as a percentage of the population (i.e. the number of inactive people is divided by the number of all working-age people). Inactive rates by gender, age, educational attainment, programme orientation and age groups are calculated within each of these categories; for example, the inactive rate among individuals with a tertiary education degree is calculated by dividing the number of inactive individuals with tertiary education by the total number of working-age people with tertiary education.

Levels of education: Below upper secondary education level corresponds to ISCED levels 0, 1, 2 and 3C short programmes. **Upper secondary or post-secondary non-tertiary** education level corresponds to ISCED levels 3C long programmes, and levels 3B, 3A and 4. **Tertiary education** corresponds to ISCED levels 5B, 5A and 6. See the Reader's Guide at the beginning of the book for a presentation of all ISCED levels.

The **unemployment rate** refers to unemployed persons as a percentage of the labour force (i.e. the number of unemployed people is divided by the sum of employed and unemployed people). Unemployment rates by gender, age, educational attainment, programme orientation and age groups are calculated within each of these categories; for example, the unemployment rate among women is calculated by dividing the number of unemployed women by the total number of women who are active in the labour force.

Unemployed individuals are those who are, during the survey reference week, without work (i.e. neither had a job nor were at work for one hour or more in paid employment or self-employment), actively seeking employment (i.e. had taken specific steps during the four weeks prior to the reference week to seek paid employment or self-employment), and currently available to start work (i.e. were available for paid employment or self-employment before the end of the two weeks following the reference week).

Methodology

Data on population, educational attainment and labour-market status for most countries are taken from OECD and Eurostat databases, which are compiled from National Labour Force Surveys by the OECD LSO (Labour Market and Social Outcomes of Learning) Network. Data on educational attainment for Argentina, China, Colombia, Indonesia, Saudi Arabia and South Africa are taken from the UNESCO Institute of Statistics (UIS) database on educational attainment of the population aged 25 and older. Data on earnings are taken from a special data collection carried out by the OECD LSO Network on the earnings of those working full time and full year. For national definitions of full-time employment, see the *Methodology* section in Indicator A6. Data on proficiency levels and mean scores are based on the Survey of Adult Skills (PIAAC) (2012). PIAAC is the OECD Programme for the International Assessment of Adult Competencies. See *About the Survey of Adult Skills* at the beginning of this publication and Annex 3 (*www.oecd.org/edu/eag.htm*) for additional information.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Note regarding data from the Russian Federation in the Survey of Adult Skills (PIAAC)

Readers should note that the sample for the Russian Federation does not include the population of the Moscow municipal area. The data published, therefore, do not represent the entire resident population aged 16-65 in Russia but rather the population of Russia *excluding* the population residing in the Moscow municipal area. More detailed information regarding the data from the Russian Federation as well as that of other countries can be found in the *Technical Report of the Survey of Adult Skills* (OECD, forthcoming).

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Tables of Indicator A5

StatLink http://dx.doi.org/10.1787/888933115711

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WEB	Table A5.7b (N)	Labour market status, by educational attainment, numeracy proficiency level and gender (2012)
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WEB	Table A5.7c (N)	Labour market status, by educational attainment, numeracy proficiency level and age group (2012)

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	Table A5.8 (L)	Mean literacy score among adults with upper secondary or post-secondary non-tertiary education, by labour market status and programme orientation (2012)
WEB	Table A5.8 (N)	Mean numeracy score among adults with upper secondary or post-secondary non-tertiary education, by labour market status and programme orientation (2012)
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A5

Table A5.1a. Employment rates, by educational attainment (2012)

Percentage of employed 25-64 year-olds among all 25-64 year-olds

		Pre-primary and primary education	Lower secondary education	ISCED 3C (short programme)	Upper secondary education: ISCED 3C (long programme)/ 3B	Upper secondary education: ISCED 3A	Post-secondary non-tertiary education	Tertiary education: Type B	Tertiary education: Type A or advanced research programmes	All levels of education
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OECD	Australia	52	71	a	83	76	86	82	86	79
	Austria	x(2)	55	67	77	76	84	85	89	76
	Belgium	36	56	a	71	74	82	84	85	70
	Canada	44	61	a	x(5)	73	79	81	83	76
	Chile[1]	52	66	a	x(5)	70	a	80	86	68
	Czech Republic	c	41	a	73	79	x(5)	x(8)	84	75
	Denmark	47	61	74	80	74	c	85	87	78
	Estonia	28r	52	a	73	75	76	78	84	75
	Finland	41	63	a	a	74	92	82	85	76
	France	42	63	a	73	74	c	85	84	72
	Germany	48	60	a	78	62	84	88	88	78
	Greece	43	55	x(4)	64	55	60	66	74	58
	Hungary	14	41	a	66	70	71	79	80	65
	Iceland	72	76	77	88	76	91	87	91	83
	Ireland	32	51	60	x(5)	66	65	75	83	66
	Israel	39	60	a	78	70	a	81	87	74
	Italy	29	57	62	69	71	73	71	79	64
	Japan	x(5)	x(5)	x(5)	x(5)	74	a	74	85	76
	Korea	61	68	a	x(5)	71	a	75	78	72
	Luxembourg	62	61	68	69	73	76	80	87	75
	Mexico	61	69	a	66	74	a	78	81	69
	Netherlands	51	67	x(4)	77	83	81	80	88	78
	New Zealand	x(2)	65	77	77	81	88	81	86	79
	Norway	c	66	a	82	78	86	93	90	82
	Poland	x(2)	40	a	62	69	69	x(8)	85	67
	Portugal	59	72	x(5)	x(5)	76	67	x(8)	82	69
	Slovak Republic	c	32	x(4)	65	75	x(5)	76	80	69
	Slovenia	18	50	a	68	73	a	82	88	71
	Spain	37	56	a	66	66	67	73	79	62
	Sweden	48	70	a	x(5)	83	83	85	90	82
	Switzerland	66	69	69	83	75	86	92	88	83
	Turkey	49	60	a	65	59	a	x(8)	76	57
	United Kingdom	c	44	66	79	78	a	82	85	76
	United States	55	52	x(5)	x(5)	67	x(5)	76	82	71
	OECD average	46	59	m	73	73	78	81	84	73
	EU21 average	40	55	m	71	73	75	80	84	72
Partners	Argentina	m	m	m	m	m	m	m	m	m
	Brazil	65	72	x(5)	x(5)	77	a	x(8)	86	73
	China	m	m	m	m	m	m	m	m	m
	Colombia	m	m	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m	m	m
	Indonesia	m	m	m	m	m	m	m	m	m
	Latvia	24	53	x(4)	66	66	x(4)	92	86	71
	Russian Federation	26	53	x(4)	78	69	x(4)	79	87	77
	Saudi Arabia	m	m	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m	m	m
	G20 average	m	m	m	m	m	m	m	m	m

1. Year of reference 2011.

Source: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data and the "r" symbol next to some figures.

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Table A5.1b. [1/2] **Employment rates, by educational attainment and gender (2012)**

Percentage of employed 25-64 year-olds among all 25-64 year-olds

		Pre-primary and primary education	Lower secondary education	ISCED 3C (short programme)	Upper secondary education: ISCED 3C (long programme)/ 3B	Upper secondary education: ISCED 3A	Post-secondary non-tertiary education	Tertiary education: Type B	Tertiary education: Type A or advanced research programmes	All levels of education
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OECD Australia	Men	67	81	a	88	86	92	90	91	87
	Women	39	62	a	71	68	80	76	81	71
Austria	Men	x(2)	63	86	81	81	88	88	92	82
	Women	x(2)	50	60	72	72	81	81	85	71
Belgium	Men	46	65	a	78	80	88	86	88	76
	Women	27	46	a	64	67	74	82	83	64
Canada	Men	54	68	a	x(5)	79	82	84	86	80
	Women	34	50	a	x(5)	67	73	78	80	72
Chile[1]	Men	77	88	a	x(5)	86	a	90	92	86
	Women	33	45	a	x(5)	56	a	72	81	53
Czech Republic	Men	c	51	a	81	89	x(5)	x(8)	91	84
	Women	c	36	a	62	71	x(5)	x(8)	76	66
Denmark	Men	51[r]	67	74	82	78	c	88	90	81
	Women	45	54	74	76	69	c	81	85	74
Estonia	Men	c	57	a	76	81	83	79	90	78
	Women	c	45	a	67	69	72	78	81	72
Finland	Men	43	68	a	a	77	92	81	89	77
	Women	40	56	a	a	71	91	83	82	74
France	Men	49	71	a	77	79	c	89	87	77
	Women	36	56	a	68	71	c	82	81	67
Germany	Men	60	70	a	83	67	87	91	92	84
	Women	38	54	a	73	56	82	84	84	73
Greece	Men	56	68	x(4)	70	69	71	71	78	68
	Women	31	40	x(4)	47	44	51	60	69	47
Hungary	Men	22	50	a	70	77	80	90	86	72
	Women	c	34	a	57	65	61	75	75	59
Iceland	Men	77	80	c	90	80	91	91	92	87
	Women	67	73	66	82	74	91	86	90	80
Ireland	Men	39	61	66	x(5)	73	71	81	86	71
	Women	25	38	55	x(5)	58	59	71	80	61
Israel	Men	56	72	a	84	75	a	88	90	80
	Women	24	42	a	68	65	a	75	84	69
Italy	Men	47	71	76	80	80	82	81	84	75
	Women	16	41	55	58	62	68	64	75	53
Japan	Men	x(5)	x(5)	x(5)	x(5)	85	a	92	92	88
	Women	x(5)	x(5)	x(5)	x(5)	62	a	67	69	64
Korea	Men	71	81	a	x(5)	84	a	91	90	86
	Women	56	59	a	x(5)	57	a	60	62	59
Luxembourg	Men	68	76	77	79	80	78	87	91	83
	Women	57	49	60	58	68	74	74	82	67
Mexico	Men	87	91	a	90	91	a	89	88	89
	Women	41	49	a	58	55	a	73	72	51
Netherlands	Men	64	78	x(4)	82	87	85	84	90	84
	Women	40	56	x(4)	72	79	76	76	86	72
New Zealand	Men	x(2)	74	86	84	88	91	88	90	86
	Women	x(2)	56	71	71	75	74	76	82	73
Norway	Men	c	70	a	86	83	88	94	91	85
	Women	c	61	a	77	73	82	91	89	79

1. Year of reference 2011.

Source: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Table A5.1b. [2/2] Employment rates, by educational attainment and gender (2012)

Percentage of employed 25-64 year-olds among all 25-64 year-olds

			Pre-primary and primary education	Lower secondary education	ISCED 3C (short programme)	Upper secondary education: ISCED 3C (long programme)/ 3B	Upper secondary education: ISCED 3A	Post-secondary non-tertiary education	Tertiary education: Type B	Tertiary education: Type A or advanced research programmes	All levels of education
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OECD	Poland	Men	x(2)	50	a	70	80	81	x(8)	89	75
		Women	x(2)	30	a	50	58	64	x(8)	82	60
	Portugal	Men	66	76	x(5)	x(5)	78	67	x(8)	82	73
		Women	51	68	x(5)	x(5)	74	68	x(8)	82	66
	Slovak Republic	Men	c	38	x(4)	73	85	x(5)	79	86	77
		Women	c	28	x(4)	54	67	x(5)	75	76	61
	Slovenia	Men	22	59	a	72	77	a	84	90	75
		Women	14	41	a	61	69	a	80	86	67
	Spain	Men	45	63	a	72	71	c	78	82	68
		Women	29	48	a	60	60	c	67	76	56
	Sweden	Men	58	77	a	x(5)	86	86	86	91	85
		Women	38	60	a	x(5)	79	78	83	90	80
	Switzerland	Men	76	78	77	90	78	90	95	93	90
		Women	58	62	67	76	73	83	87	82	76
	Turkey	Men	74	79	a	83	79	a	x(8)	84	78
		Women	27	25	a	32	30	a	x(8)	65	33
	United Kingdom	Men	c	54	76	84	83	a	88	89	82
		Women	c	35	59	73	73	a	76	80	70
	United States	Men	68	60	x(5)	x(5)	73	x(5)	79	87	77
		Women	40	42	x(5)	x(5)	62	x(5)	73	77	66
	OECD average	Men	58	68	m	80	80	84	86	89	80
		Women	38	48	m	64	65	74	76	80	65
	EU21 average	Men	51	64	m	78	79	82	85	88	78
		Women	36	47	m	64	67	72	77	81	66
Partners	Argentina		m	m	m	m	m	m	m	m	m
	Brazil	Men	82	87	x(5)	x(5)	89	a	x(8)	92	86
		Women	48	57	x(5)	x(5)	67	a	x(8)	81	60
	China		m	m	m	m	m	m	m	m	m
	Colombia		m	m	m	m	m	m	m	m	m
	India		m	m	m	m	m	m	m	m	m
	Indonesia		m	m	m	m	m	m	m	m	m
	Latvia	Men	34	60	x(4)	63	71	x(4)	94	87	73
		Women	c	42	x(4)	72	61	x(4)	91	85	69
	Russian Federation	Men	c	61	x(4)	83	77	x(4)	86	91	83
		Women	c	43	x(4)	71	60	x(4)	75	83	72
	Saudi Arabia		m	m	m	m	m	m	m	m	m
	South Africa		m	m	m	m	m	m	m	m	m
	G20 average		m	m	m	m	m	m	m	m	m

1. Year of reference 2011.

Source: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Table A5.2a. Unemployment rates, by educational attainment (2012)

Percentage of unemployed 25-64 year-olds among 25-64 year-olds in the labour force

		Pre-primary and primary education	Lower secondary education	ISCED 3C (short programme)	Upper secondary education: ISCED 3C (long programme)/ 3B	Upper secondary education: ISCED 3A	Post-secondary non-tertiary education	Tertiary education: Type B	Tertiary education: Type A or advanced research programmes	All levels of education
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OECD	Australia	8.5	5.7	a	3.7	3.9	3.3	3.3	2.7	3.9
	Austria	x(2)	8.2	c	3.4	4.7	3.1	c	2.6	3.7
	Belgium	14.6	10.8	a	7.7	6.4	5.7r	3.0	3.8	6.5
	Canada	12.6	10.4	a	x(5)	6.7	6.3	5.2	4.8	6.1
	Chile[1]	5.9	6.0	a	x(5)	6.4	a	4.6	4.2	5.8
	Czech Republic	c	25.5	a	7.3	4.0	x(5)	x(8)	2.6	6.1
	Denmark	c	9.8	c	5.8	8.4	c	5.1	4.6	6.2
	Estonia	c	21.6	a	11.9	8.6	8.9	8.6	4.8	9.1
	Finland	10.9	11.8	a	a	7.2	c	3.8	4.0	6.2
	France	14.6	13.4	a	8.3	8.2	c	4.8	5.2	8.4
	Germany	16.7	11.8	a	5.5	7.0	3.7	2.0	2.6	5.2
	Greece	24.9	26.0	x(4)	25.9	23.0	26.9	21.1	15.1	22.4
	Hungary	44.5	21.9	a	11.3	7.6	9.6	c	3.9	9.7
	Iceland	8.0	c	c	4.4	c	c	c	2.9	4.5
	Ireland	26.4	22.4	19.1	x(5)	13.5	17.8	9.1	5.8	13.1
	Israel	11.0	9.3	a	6.6	7.2	a	4.9	3.9	5.9
	Italy	16.2	11.5	14.4	7.6	7.7	10.9	9.2	6.3	9.0
	Japan	x(5)	x(5)	x(5)	x(5)	5.1	a	3.7	2.8	4.2
	Korea	2.4	2.7	a	x(5)	3.0	a	3.2	2.7	2.9
	Luxembourg	7.5r	4.9r	7.1r	5.1	3.8	c	3.4r	3.4	4.2
	Mexico	3.3	3.8	a	2.8	4.4	a	3.7	4.6	3.8
	Netherlands	7.7	6.2	x(4)	4.8	4.3	3.7	5.0	2.9	4.4
	New Zealand	m	7.2	4.5	7.6	4.3	3.2	6.0	3.1	5.0
	Norway	c	4.1	a	2.0	2.9	c	c	1.7	2.3
	Poland	m	17.8	a	10.9	7.8	9.5	x(8)	4.9	8.6
	Portugal	16.1	15.8	x(5)	x(5)	14.2	24.4	x(8)	10.5	14.5
	Slovak Republic	2.0	40.9	x(4)	15.2	8.8	a	c	6.1	12.2
	Slovenia	30.5r	13.4	a	8.5	7.9	a	6.4	5.3	8.1
	Spain	35.8	29.3	a	22.8	21.5	c	17.6	12.5	22.8
	Sweden	19.8	10.0	a	m	5.6	6.3	5.0	3.7	5.8
	Switzerland	7.2	8.1	7.5r	3.2	5.4	2.7	2.0	3.0	3.6
	Turkey	7.3	9.8	a	7.6	9.6	a	x(8)	7.5	7.9
	United Kingdom	c	13.7	8.9	5.7	5.1	a	3.6	3.6	5.6
	United States	11.2	16.2	x(5)	x(5)	9.1	x(5)	6.5	4.1	7.4
	OECD average	14.6	13.4	m	8.2	7.7	9.1	6.0	4.8	7.5
	EU21 average	19.2	16.5	m	9.9	8.8	10.9	7.2	5.4	9.1
Partners	Argentina	m	m	m	m	m	m	m	m	m
	Brazil	3.7	4.9	x(5)	x(5)	5.1	a	x(8)	2.9	4.2
	China	m	m	m	m	m	m	m	m	m
	Colombia	m	m	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m	m	m
	Indonesia	m	m	m	m	m	m	m	m	m
	Latvia	42.1	22.2	x(4)	14.9	17.5	x(4)	c	6.4	13.9
	Russian Federation	c	11.7	x(4)	5.1	6.8	x(4)	3.4	2.3	4.4
	Saudi Arabia	m	m	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m	m	m
	G20 average	m	m	m	m	m	m	m	m	m

1. Year of reference 2011.

Source: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Table A5.2b. [1/2] Unemployment rates, by educational attainment and gender (2012)

Percentage of unemployed 25-64 year-olds among 25-64 year-olds in the labour force

		Pre-primary and primary education	Lower secondary education	ISCED 3C (short programme)	Upper secondary education: ISCED 3C (long programme)/ 3B	Upper secondary education: ISCED 3A	Post-secondary non-tertiary education	Tertiary education: Type B	Tertiary education: Type A or advanced research programmes	All levels of education
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OECD Australia	Men	7.7	5.8	a	3.5	3.3	2.0r	2.7	2.4	3.5
	Women	9.8	5.6	a	4.3	4.6	4.7	3.9	3.0	4.2
Austria	Men	x(2)	10.0	c	3.5	4.3r	3.5	c	2.3	3.7
	Women	x(2)	6.8	c	3.4	5.0r	2.7	c	3.0	3.7
Belgium	Men	15.0	10.3	a	7.6	5.5	c	3.1	3.9	6.5
	Women	13.8	11.7	a	7.9	7.6	c	3.0	3.7	6.4
Canada	Men	12.0	10.4	a	x(5)	6.9	6.3	5.4	4.9	6.3
	Women	13.4	10.2	a	x(5)	6.5	6.4	5.0	4.7	5.8
Chile[1]	Men	4.9	4.5	a	x(5)	4.8	a	4.7	4.2	4.7
	Women	7.8	8.5	a	x(5)	8.4	a	4.4	4.1	7.3
Czech Republic	Men	n	26.8	a	5.7	2.9	x(5)	x(8)	2.3	4.9
	Women	c	24.5	a	10.3	5.1	x(5)	x(8)	3.1	7.5
Denmark	Men	c	10.0	c	5.8	7.6	c	4.0r	4.3	6.3
	Women	c	9.6	c	5.8	9.4	n	6.5	4.7	6.1
Estonia	Men	c	23.3	a	11.2	8.3	8.7r	9.5	4.0	9.7
	Women	c	18.2	a	13.2	9.0	9.0r	8.0	5.4	8.6
Finland	Men	10.4	10.9	a	a	7.6	c	5.7	4.0	6.9
	Women	11.5r	13.4	a	a	6.5	c	2.6	3.9	5.5
France	Men	14.6	13.1	a	7.6	8.0	c	4.8	5.1	8.2
	Women	14.7	13.8	a	9.3	8.3	c	4.9	5.3	8.6
Germany	Men	17.8	13.4	a	5.8	7.2	4.3	1.8	2.4	5.4
	Women	15.0	10.4	a	5.3	6.7	3.1	2.1	2.9	5.0
Greece	Men	25.3	22.9	x(4)	22.1	19.5	21.9	17.7	12.5	19.9
	Women	24.2	31.8	x(4)	39.0	27.3	31.9	25.1	17.9	25.7
Hungary	Men	c	21.9	a	11.0	7.9	c	c	3.9	10.0
	Women	c	22.0	a	11.9	7.3	13.5	c	3.9	9.4
Iceland	Men	7.7	c	n	c	c	c	c	3.8	4.7
	Women	c	c	c	c	c	c	c	2.2	4.3
Ireland	Men	31.6	25.2	23.1	x(5)	16.1	20.1	10.2	6.3	16.0
	Women	14.4	15.8	c	x(5)	10.0	14.5	8.2	5.4	9.4
Israel	Men	11.5	8.9	a	6.0	6.9	a	4.2	3.8	5.9
	Women	10.1	10.2	a	7.9	7.6	a	5.6	4.0	5.9
Italy	Men	16.0	10.3	13.2	6.3	6.7	8.8	8.9	5.2	8.3
	Women	16.8	13.8	15.2	9.1	9.0	12.4	9.5	7.2	10.1
Japan	Men	x(5)	x(5)	x(5)	x(5)	5.5	a	4.2	2.9	4.4
	Women	x(5)	x(5)	x(5)	x(5)	4.5	a	3.4	2.7	3.9
Korea	Men	3.8	3.3	a	x(5)	3.4	a	3.2	2.7	3.2
	Women	1.3	2.1	a	x(5)	2.5	a	3.1	2.7	2.5
Luxembourg	Men	8.3r	c	c	3.1r	3.4r	c	3.3r	2.8r	3.6
	Women	6.6r	8.1r	c	8.2r	4.2r	c	3.4r	4.2r	5.0
Mexico	Men	3.5	3.4	a	2.4	4.2	a	3.7	4.6	3.8
	Women	3.0	4.4	a	3.0	4.7	a	3.7	4.7	3.9
Netherlands	Men	8.6	6.2	x(4)	5.1	4.5	3.3r	4.7	3.0	4.6
	Women	6.5	6.1	x(4)	4.5	4.2	4.1r	5.2	2.7	4.1
New Zealand	Men	x(2)	6.8	4.6	7.1	4.5	3.1	5.4	2.9	4.7
	Women	x(2)	7.8	4.4	8.0	4.1	4.3	6.4	3.3	5.5
Norway	Men	c	4.4	a	2.2	c	c	n	2.3	2.6
	Women	n	3.9	a	c	c	c	c	1.2	1.9

1. Year of reference 2011.

Source: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data and the "r" symbol next to some figures.

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Table A5.2b. [2/2] Unemployment rates, by educational attainment and gender (2012)

Percentage of unemployed 25-64 year-olds among 25-64 year-olds in the labour force

			Pre-primary and primary education	Lower secondary education	ISCED 3C (short programme)	Upper secondary education: ISCED 3C (long programme)/ 3B	Upper secondary education: ISCED 3A	Post-secondary non-tertiary education	Tertiary education: Type B	Tertiary education: Type A or advanced research programmes	All levels of education
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OECD	Poland	Men	x(2)	17.2	a	9.9	6.1	8.1	x(8)	4.3	8.0
		Women	x(2)	18.7	a	12.9	9.8	10.2	x(8)	5.3	9.3
	Portugal	Men	17.0	15.2	x(5)	x(5)	12.6	c	x(8)	10.8	14.8
		Women	14.9	16.6	x(5)	x(5)	15.8	c	x(8)	10.3	14.3
	Slovak Republic	Men	c	43.6	x(4)	13.9	7.3	a	c	5.3	11.4
		Women	c	38.4	x(4)	17.8	10.3	a	c	6.9	13.2
	Slovenia	Men	32.6	13.1	a	7.5	7.5	a	5.1	3.9	7.5
		Women	26.4	13.8	a	10.8	8.3	a	7.3	6.3	8.7
	Spain	Men	36.0	28.4	a	21.4	20.2	c	15.3	11.2	22.5
		Women	35.7	30.5	a	24.2	23.0	c	20.9	13.5	23.2
	Sweden	Men	18.5	9.4	a	x(5)	5.6	5.8	5.9	4.2	6.0
		Women	21.4	11.3	a	x(5)	5.7	7.1	4.3	3.4	5.5
	Switzerland	Men	5.6[r]	8.2	11.1[r]	3.1	6.2[r]	2.8[r]	1.9	2.6	3.3
		Women	8.7[r]	8.1	6.1[r]	3.3	4.8[r]	2.6[r]	2.2[r]	3.8	4.0
	Turkey	Men	7.8	8.7	a	5.6	7.4	a	x(8)	5.6	7.3
		Women	6.3	15.7	a	16.0	16.9	a	x(8)	10.8	9.8
	United Kingdom	Men	c	14.3	9.2	5.6	5.1	a	3.2	3.7	5.6
		Women	c	12.9	8.6	5.9	5.0	a	3.9	3.5	5.5
	United States	Men	10.2	15.8	x(5)	x(5)	9.7	x(5)	6.9	4.3	8.0
		Women	12.9	16.7	x(5)	x(5)	8.4	x(5)	6.1	3.8	6.8
	OECD average	Men	13.6	13.7	m	7.6	7.4	7.6	5.6	4.5	7.0
		Women	12.8	13.8	m	10.5	8.5	8.4	6.3	5.1	7.2
	EU21 average	Men	17.1	16.8	m	8.7	8.2	8.7	6.6	4.9	8.8
		Women	16.5	16.2	m	11.3	9.2	9.3	7.3	5.7	9.0
Partners	Argentina		m	m	m	m	m	m	m	m	m
	Brazil	Men	2.8	3.4	x(5)	x(5)	3.4	a	x(8)	2.2	3.0
		Women	5.3	7.1	x(5)	x(5)	7.0	a	x(8)	3.5	5.8
	China		m	m	m	m	m	m	m	m	m
	Colombia		m	m	m	m	m	m	m	m	m
	India		m	m	m	m	m	m	m	m	m
	Indonesia		m	m	m	m	m	m	m	m	m
	Latvia	Men	c	19.2	x(4)	17.9	17.4	x(4)	c	7.4	15.0
		Women	c	28.6	x(4)	c	17.6	x(4)	c	5.8	12.8
	Russian Federation	Men	c	12.2	x(4)	5.0	6.6	x(4)	3.6	2.4	4.7
		Women	c	11.0	x(4)	5.2	7.1	x(4)	3.3	2.3	4.1
	Saudi Arabia		m	m	m	m	m	m	m	m	m
	South Africa		m	m	m	m	m	m	m	m	m
	G20 average		m	m	m	m	m	m	m	m	m

1. Year of reference 2011.

Source: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data and the "r" symbol next to some figures.

StatLink http://dx.doi.org/10.1787/888933115787

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Table A5.3a. [1/2] **Trends in employment rates, by educational attainment and age group (2000, 2005-12)**

Percentage of employed 25-64 year-olds/25-34 year-olds/55-64 year-olds among all 25-64 year-olds/25-34 year-olds/55-64 year-olds

		Employment rates of 25-64 year-olds				Employment rates of 25-34 year-olds				Employment rates of 55-64 year-olds			
		2000	2005	2010	2012	2000	2005	2010	2012	2000	2005	2010	2012
	Educational attainment	(1)	(2)	(7)	(9)	(11)	(12)	(17)	(19)	(41)	(42)	(47)	(49)
OECD Australia	Below upper secondary	61	63	65	**66**	64	64	61	**62**	39	46	53	**56**
	Upper secondary or post-secondary non-tertiary	77	80	80	**80**	80	81	78	**81**	53	62	71	**72**
	Tertiary	83	84	84	**84**	84	85	85	**84**	65	69	75	**76**
Austria	Below upper secondary	54	53	56	**56**	70	61	61	**65**	19	24	31	**30**
	Upper secondary or post-secondary non-tertiary	75	74	78	**78**	84	84	84	**86**	29	31	41	**42**
	Tertiary	87	85	86	**87**	92	87	87	**89**	59	54	64	**67**
Belgium	Below upper secondary	51	49	49	**48**	64	57	56	**54**	19	21	26	**26**
	Upper secondary or post-secondary non-tertiary	75	74	74	**73**	84	81	80	**78**	31	38	41	**44**
	Tertiary	85	84	84	**85**	92	90	89	**89**	46	49	53	**57**
Canada	Below upper secondary	55	56	55	**56**	60	62	58	**59**	37	41	43	**44**
	Upper secondary or post-secondary non-tertiary	76	76	74	**75**	79	80	77	**79**	52	57	58	**60**
	Tertiary	83	82	81	**82**	86	85	84	**84**	57	62	65	**65**
Chile	Below upper secondary	m	m	62	**m**	m	m	59	**m**	m	m	55	**m**
	Upper secondary or post-secondary non-tertiary	m	m	72	**m**	m	m	74	**m**	m	m	59	**m**
	Tertiary	m	m	79	**m**	m	m	75	**m**	m	m	74	**m**
Czech Republic	Below upper secondary	47	41	43	**40**	51	43	47	**43**	17	20	26	**27**
	Upper secondary or post-secondary non-tertiary	76	75	74	**76**	77	78	76	**77**	39	47	46	**49**
	Tertiary	87	86	83	**84**	83	81	77	**75**	66	69	71	**76**
Denmark	Below upper secondary	62	62	63	**61**	70	64	65	**62**	41	42	46	**47**
	Upper secondary or post-secondary non-tertiary	81	80	79	**79**	85	83	82	**79**	57	61	59	**63**
	Tertiary	88	86	86	**86**	88	87	86	**85**	73	73	71	**73**
Estonia[1]	Below upper secondary	42	50	45	**51**	53	60	51	**57**	24	36	30	**34**
	Upper secondary or post-secondary non-tertiary	70	74	69	**75**	74	77	70	**77**	46	53	54	**58**
	Tertiary	83	84	80	**82**	85	84	81	**79**	62	74	66	**73**
Finland	Below upper secondary	60	58	55	**55**	69	63	59	**56**	33	43	44	**44**
	Upper secondary or post-secondary non-tertiary	75	75	74	**75**	76	77	76	**76**	42	53	55	**58**
	Tertiary	84	84	84	**84**	84	86	84	**83**	60	66	70	**70**
France	Below upper secondary	56	59	55	**55**	61	63	57	**56**	24	32	32	**36**
	Upper secondary or post-secondary non-tertiary	75	76	74	**74**	80	80	79	**77**	31	40	41	**45**
	Tertiary	83	83	84	**84**	85	86	87	**86**	50	56	55	**61**
Germany	Below upper secondary	51	52	55	**57**	60	52	55	**56**	26	32	40	**44**
	Upper secondary or post-secondary non-tertiary	70	71	76	**78**	79	74	78	**81**	37	43	56	**60**
	Tertiary	83	83	87	**88**	89	85	88	**89**	58	63	73	**75**
Greece	Below upper secondary	58	59	57	**47**	67	72	64	**51**	39	39	40	**33**
	Upper secondary or post-secondary non-tertiary	65	69	67	**58**	69	73	71	**58**	31	38	37	**33**
	Tertiary	81	82	80	**71**	79	79	77	**65**	50	59	57	**50**
Hungary	Below upper secondary	36	38	38	**39**	50	49	40	**43**	12	16	20	**21**
	Upper secondary or post-secondary non-tertiary	72	70	66	**68**	75	75	71	**72**	29	39	35	**38**
	Tertiary	82	83	79	**80**	83	83	79	**79**	52	60	54	**57**
Iceland	Below upper secondary	89	83	76	**73**	89	81	68	**72**	83	82	75	**70**
	Upper secondary or post-secondary non-tertiary	89	88	82	**85**	82	81	71	**77**	89	86	82	**84**
	Tertiary	97	92	89	**91**	96	92	86	**87**	92	89	88	**89**
Ireland	Below upper secondary	56	58	48	**44**	68	64	44	**40**	39	45	41	**38**
	Upper secondary or post-secondary non-tertiary	77	77	66	**65**	85	83	67	**65**	48	56	55	**56**
	Tertiary	88	87	81	**80**	91	89	83	**83**	67	70	66	**61**
Israel	Below upper secondary	m	41	45	**47**	m	43	45	**50**	m	32	38	**41**
	Upper secondary or post-secondary non-tertiary	m	67	70	**72**	m	65	68	**70**	m	52	62	**65**
	Tertiary	m	80	82	**85**	m	80	82	**86**	m	68	71	**73**
Italy	Below upper secondary	49	52	50	**51**	60	65	57	**56**	23	24	26	**29**
	Upper secondary or post-secondary non-tertiary	71	74	73	**71**	68	72	69	**67**	40	44	48	**51**
	Tertiary	82	80	78	**79**	73	69	67	**67**	58	67	67	**70**
Japan	Below upper secondary	67	m	m	**m**	70	m	m	**m**	59	m	m	**m**
	Upper secondary or post-secondary non-tertiary	74	72	73	**74**	74	76	76	**76**	61	62	64	**63**
	Tertiary	79	79	80	**80**	78	78	81	**81**	72	72	70	**70**
Korea	Below upper secondary	68	66	65	**65**	65	62	57	**59**	59	58	59	**61**
	Upper secondary or post-secondary non-tertiary	69	70	71	**71**	64	64	64	**63**	53	59	62	**64**
	Tertiary	75	77	76	**77**	74	74	74	**75**	57	61	64	**68**
Luxembourg	Below upper secondary	58	62	62	**63**	78	79	78	**78**	15	22	25	**29**
	Upper secondary or post-secondary non-tertiary	73	72	72	**72**	85	82	83	**80**	32	30	35	**35**
	Tertiary	84	84	85	**85**	83	87	87	**87**	65	60	67	**65**
Mexico	Below upper secondary	61	62	63	**64**	63	63	63	**65**	51	52	53	**54**
	Upper secondary or post-secondary non-tertiary	71	71	72	**72**	71	71	73	**72**	48	46	50	**53**
	Tertiary	82	82	81	**80**	80	79	80	**79**	69	68	67	**66**
Netherlands	Below upper secondary	58	60	61	**62**	73	70	70	**69**	27	35	42	**47**
	Upper secondary or post-secondary non-tertiary	79	78	80	**80**	88	86	87	**85**	43	49	57	**60**
	Tertiary	86	86	87	**88**	94	92	92	**91**	54	62	68	**73**

Note: Columns showing additional years and additional age groups are available for consultation on line (see *StatLink* below).

1. Figures for 2012 for Estonia and Slovenia in this table may differ from figures in other tables of Indicator A5 because the source of the figures is different. This table uses EU-LFS for all years.

2. Figures for 2000 are not comparable with more recent years as in 2000 the former classification of educational attainment was used.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table A5.3a. [2/2] **Trends in employment rates, by educational attainment and age group (2000, 2005-12)**

Percentage of employed 25-64 year-olds/25-34 year-olds/55-64 year-olds among all 25-64 year-olds/25-34 year-olds/55-64 year-olds

		Educational attainment	Employment rates of 25-64 year-olds				Employment rates of 25-34 year-olds				Employment rates of 55-64 year-olds			
			2000	2005	2010	2012	2000	2005	2010	2012	2000	2005	2010	2012
			(1)	(2)	(7)	(9)	(11)	(12)	(17)	(19)	(41)	(42)	(47)	(49)
OECD	New Zealand	Below upper secondary	65	70	68	**68**	63	68	64	**63**	49	61	64	**65**
		Upper secondary or post-secondary non-tertiary	80	84	82	**81**	78	82	77	**77**	65	75	78	**80**
		Tertiary	82	84	84	**84**	82	81	81	**82**	67	78	82	**81**
	Norway[2]	Below upper secondary	65	64	64	**65**	67	66	64	**67**	53	48	51	**53**
		Upper secondary or post-secondary non-tertiary	83	82	82	**81**	84	84	85	**82**	68	70	68	**69**
		Tertiary	90	89	90	**90**	87	86	89	**89**	86	85	84	**85**
	Poland	Below upper secondary	43	38	40	**40**	50	45	49	**47**	24	21	22	**24**
		Upper secondary or post-secondary non-tertiary	67	62	65	**65**	71	68	74	**73**	28	28	34	**38**
		Tertiary	85	83	85	**85**	87	83	86	**84**	51	55	56	**62**
	Portugal	Below upper secondary	73	71	68	**63**	83	81	75	**71**	50	50	48	**44**
		Upper secondary or post-secondary non-tertiary	83	79	80	**76**	83	78	80	**75**	51	48	51	**52**
		Tertiary	91	87	85	**82**	91	87	85	**78**	69	61	58	**62**
	Slovak Republic	Below upper secondary	31	26	30	**31**	29	16	21	**30**	7	9	21	**20**
		Upper secondary or post-secondary non-tertiary	71	71	70	**70**	72	73	72	**72**	27	34	41	**43**
		Tertiary	86	84	82	**80**	83	84	78	**75**	54	54	66	**65**
	Slovenia[1]	Below upper secondary	53	56	51	**47**	75	70	60	**52**	20	27	28	**25**
		Upper secondary or post-secondary non-tertiary	74	75	73	**71**	86	84	81	**80**	18	27	32	**30**
		Tertiary	86	87	87	**85**	92	91	88	**84**	48	51	57	**55**
	Spain	Below upper secondary	54	59	53	**49**	65	71	58	**53**	33	38	36	**36**
		Upper secondary or post-secondary non-tertiary	72	75	69	**66**	73	77	68	**63**	51	51	53	**53**
		Tertiary	80	82	80	**77**	75	81	78	**73**	64	65	64	**65**
	Sweden	Below upper secondary	68	66	63	**64**	67	65	60	**59**	56	59	60	**61**
		Upper secondary or post-secondary non-tertiary	82	81	81	**83**	83	81	80	**80**	66	69	70	**73**
		Tertiary	87	87	88	**89**	82	84	85	**86**	79	83	81	**83**
	Switzerland	Below upper secondary	64	65	69	**69**	68	68	70	**69**	47	51	54	**54**
		Upper secondary or post-secondary non-tertiary	81	80	81	**82**	84	83	84	**84**	66	65	67	**70**
		Tertiary	90	90	88	**89**	91	91	87	**89**	78	79	79	**81**
	Turkey	Below upper secondary	53	47	49	**51**	55	49	51	**54**	38	30	31	**34**
		Upper secondary or post-secondary non-tertiary	64	62	60	**62**	67	64	64	**65**	20	24	24	**27**
		Tertiary	78	75	76	**76**	83	79	77	**77**	37	34	38	**40**
	United Kingdom	Below upper secondary	65	65	56	**57**	66	64	56	**56**	51	56	44	**44**
		Upper secondary or post-secondary non-tertiary	81	82	78	**79**	83	81	79	**80**	65	69	63	**65**
		Tertiary	88	88	84	**84**	91	90	87	**86**	66	72	65	**66**
	United States	Below upper secondary	58	57	52	**53**	64	62	55	**56**	40	39	40	**39**
		Upper secondary or post-secondary non-tertiary	77	73	68	**67**	80	74	68	**68**	58	58	57	**57**
		Tertiary	85	82	80	**80**	87	83	82	**82**	70	72	70	**71**
	OECD average	Below upper secondary	57	57	56	**55**	64	61	58	**57**	36	38	41	**41**
		Upper secondary or post-secondary non-tertiary	75	75	74	**74**	78	77	75	**75**	46	50	53	**55**
		Tertiary	85	84	83	**83**	85	84	83	**82**	63	66	67	**68**
	OECD average for countries with data available for all reference years	Below upper secondary	57	57	56	**55**	64	62	58	**57**	35	39	40	**41**
		Upper secondary or post-secondary non-tertiary	75	75	74	**74**	78	78	76	**75**	46	50	52	**54**
		Tertiary education	85	84	83	**83**	86	85	83	**82**	62	65	67	**68**
	EU21 average	Below upper secondary	53	54	52	**51**	63	61	56	**55**	29	33	35	**35**
		Upper secondary or post-secondary non-tertiary	74	74	73	**73**	79	78	77	**75**	40	45	48	**50**
		Tertiary education	85	85	84	**83**	86	85	83	**82**	60	63	64	**66**
Partners	Argentina		m	m	m	**m**	m	m	m	**m**	m	m	m	**m**
	Brazil	Below upper secondary	m	m	m	**67**	m	m	m	**71**	m	m	m	**50**
		Upper secondary or post-secondary non-tertiary	m	m	m	**77**	m	m	m	**79**	m	m	m	**55**
		Tertiary education	m	m	m	**86**	m	m	m	**89**	m	m	m	**65**
	China		m	m	m	**m**	m	m	m	**m**	m	m	m	**m**
	Colombia		m	m	m	**m**	m	m	m	**m**	m	m	m	**m**
	India		m	m	m	**m**	m	m	m	**m**	m	m	m	**m**
	Indonesia		m	m	m	**m**	m	m	m	**m**	m	m	m	**m**
	Latvia	Below upper secondary	m	m	m	**52**	m	m	m	**56**	m	m	m	**33**
		Upper secondary or post-secondary non-tertiary	m	m	m	**67**	m	m	m	**72**	m	m	m	**50**
		Tertiary education	m	m	m	**86**	m	m	m	**87**	m	m	m	**73**
	Russian Federation	Below upper secondary	m	m	m	**50**	m	m	m	**59**	m	m	m	**28**
		Upper secondary or post-secondary non-tertiary	m	m	m	**73**	m	m	m	**80**	m	m	m	**44**
		Tertiary education	m	m	m	**83**	m	m	m	**89**	m	m	m	**53**
	Saudi Arabia		m	m	m	**m**	m	m	m	**m**	m	m	m	**m**
	South Africa		m	m	m	**m**	m	m	m	**m**	m	m	m	**m**
	G20 average	Below upper secondary	m	m	m	**m**	m	m	m	**m**	m	m	m	**m**

Note: Columns showing additional years and additional age groups are available for consultation on line (see *StatLink* below).

1. Figures for 2012 for Estonia and Slovenia in this table may differ from figures in other tables of Indicator A5 because the source of the figures is different. This table uses EU-LFS for all years.

2. Figures for 2000 are not comparable with more recent years as in 2000 the former classification of educational attainment was used.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933115806

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Table A5.4a. [1/2] Trends in unemployment rates, by educational attainment and age group (2000, 2005-12)

Percentage of unemployed 25-64 year-olds/25-34 year-olds/55-64 year-olds among 25-64 year-olds/25-34 year-olds/55-64 year-olds in the labour force

		Unemployment rates of 25-64 year-olds				Unemployment rates of 25-34 year-olds				Unemployment rates of 55-64 year-olds			
		2000	2005	2010	2012	2000	2005	2010	2012	2000	2005	2010	2012
	Educational attainment	(1)	(2)	(7)	(9)	(11)	(12)	(17)	(19)	(41)	(42)	(47)	(49)
OECD Australia	Below upper secondary	7.5	6.3	6.2	**6.2**	11.4	12.3	14.3	**10.6**	4.9	3.7	3.8	**3.9**
	Upper secondary or post-secondary non-tertiary	4.5	3.4	3.6	**3.7**	5.3	4.0	5.0	**4.1**	4.1	3.4	2.5	**3.3**
	Tertiary	3.6	2.5	2.8	**2.8**	3.8	2.8	3.1	**3.7**	3.5	2.6	1.8	**2.1**
Austria	Below upper secondary	6.2	8.6	7.3	**7.7**	8.1	14.9	14.1	**14.0**	6.4	5.0	2.7r	**c**
	Upper secondary or post-secondary non-tertiary	2.9	3.9	3.5	**3.5**	2.7	4.5	5.0	**4.3**	6.0	3.8	2.5	**3.4**
	Tertiary	1.5	2.6	2.3	**2.1**	c	3.9	3.4	**2.7**	c	c	c	**c**
Belgium	Below upper secondary	9.8	12.4	13.2	**12.1**	17.5	23.0	23.4	**22.1**	3.8r	6.1	6.4	**6.6**
	Upper secondary or post-secondary non-tertiary	5.3	6.9	6.6	**6.7**	6.7	9.4	10.2	**10.9**	3.5r	4.1	4.1	**4.0r**
	Tertiary	2.7	3.7	4.0	**3.4**	3.3	4.9	5.1	**4.3**	c	2.8r	3.5	**3.2r**
Canada	Below upper secondary	10.2	9.7	12.4	**10.8**	15.0	13.3	17.5	**15.4**	7.2	7.9	10.1	**8.7**
	Upper secondary or post-secondary non-tertiary	5.9	5.9	7.5	**6.6**	6.8	6.7	9.1	**7.7**	5.5	5.3	7.1	**6.7**
	Tertiary	4.1	4.6	5.4	**5.0**	4.5	5.2	5.9	**5.5**	4.0	4.2	5.3	**5.3**
Chile	Below upper secondary	m	m	4.6	**m**	m	m	8.0	**m**	m	m	3.5	**m**
	Upper secondary or post-secondary non-tertiary	m	m	6.2	**m**	m	m	8.1	**m**	m	m	4.3	**m**
	Tertiary	m	m	5.6	**m**	m	m	9.5	**m**	m	m	3.1	**m**
Czech Republic	Below upper secondary	19.3	24.4	22.7	**25.5**	28.3	35.5	28.9	**32.8**	8.1	13.7	14.7	**14.7**
	Upper secondary or post-secondary non-tertiary	6.7	6.2	6.2	**5.7**	8.7	7.0	7.4	**7.2**	5.3	4.9	6.5	**5.7**
	Tertiary	2.5	2.0	2.5	**2.6**	3.4	2.4	3.9	**4.0**	2.2	2.3	2.3	**2.5**
Denmark	Below upper secondary	6.3	6.5	9.0	**9.6**	10.6	9.7	14.0	**14.8**	3.1	6.5	6.5	**8.1**
	Upper secondary or post-secondary non-tertiary	3.9	4.0	6.1	**6.2**	3.9	4.3	7.6	**8.7**	4.9	5.7	6.3	**4.8**
	Tertiary	2.6	3.7	4.6	**4.7**	4.2	5.0	7.2	**7.7**	2.9	3.6	3.5	**4.3**
Estonia[1]	Below upper secondary	21.8	13.0	27.7	**22.1**	29.0	17.0	33.6	**25.8**	23.4	c	17.5r	**c**
	Upper secondary or post-secondary non-tertiary	14.5	8.4	18.0	**9.5**	15.4	7.2	19.4	**10.6**	3.9r	5.9	17.3	**7.8**
	Tertiary	4.6	3.8	9.1	**6.1**	4.1r	3.1r	5.3	**6.6**	3.7	c	14.4	**5.3r**
Finland	Below upper secondary	11.9	10.7	11.6	**11.6**	16.4	17.4	16.4	**16.6**	11.5	9.0	8.5	**9.2**
	Upper secondary or post-secondary non-tertiary	8.8	7.4	7.5	**7.1**	10.4	8.0	8.1	**8.7**	9.7	7.0	7.5	**7.0**
	Tertiary	4.9	4.4	4.4	**3.9**	6.7	4.8	5.6	**4.5**	6.5	4.6	4.1	**4.8**
France	Below upper secondary	13.8	11.1	12.9	**13.8**	21.7	18.8	23.8	**23.2**	8.5	6.3	8.3	**9.5**
	Upper secondary or post-secondary non-tertiary	8.0	6.6	7.2	**8.3**	10.3	9.3	10.8	**12.4**	7.7	4.6	6.4	**7.0**
	Tertiary	5.1	5.4	4.9	**5.1**	6.6	6.4	6.3	**6.8**	4.3	4.3	4.5	**4.1**
Germany	Below upper secondary	13.7	20.1	15.9	**12.8**	14.6	25.6	21.7	**18.8**	15.8	18.3	13.4	**10.2**
	Upper secondary or post-secondary non-tertiary	7.8	11.0	6.9	**5.3**	6.2	10.9	7.4	**5.4**	13.7	13.9	8.4	**6.6**
	Tertiary	4.0	5.6	3.1	**2.4**	2.7	5.9	3.5	**2.8**	7.5	7.8	4.3	**3.1**
Greece	Below upper secondary	8.2	8.3	11.9	**25.3**	14.0	11.1	17.2	**35.7**	4.0	4.5	7.0	**16.6**
	Upper secondary or post-secondary non-tertiary	11.2	9.6	12.5	**24.4**	15.6	13.1	16.3	**32.4**	5.0	c	7.5	**14.9**
	Tertiary	7.5	7.1	8.7	**17.0**	13.7	13.3	16.9	**30.0**	c	c	c	**6.7**
Hungary	Below upper secondary	9.9	12.4	23.5	**22.8**	14.1	16.7	32.6	**27.9**	3.9	6.4	16.2	**15.2**
	Upper secondary or post-secondary non-tertiary	5.3	6.0	9.5	**9.4**	6.8	7.3	11.4	**12.7**	3.6	4.0	7.9	**7.4**
	Tertiary	1.3	2.3	4.1	**4.0**	1.6	3.1	6.3	**5.7**	c	1.8	2.0	**4.1**
Iceland	Below upper secondary	2.0	2.3	7.2	**7.3**	c	c	15.6	**c**	c	c	c	**c**
	Upper secondary or post-secondary non-tertiary	c	c	7.2	**4.1**	c	c	12.5	**c**	c	c	c	**c**
	Tertiary	c	c	3.5	**2.9**	c	c	c	**c**	0.0	c	c	**c**
Ireland	Below upper secondary	7.1	6.0	19.4	**23.3**	9.8	10.4	32.0	**37.3**	3.0	3.1	11.4	**14.7**
	Upper secondary or post-secondary non-tertiary	2.6	3.1	13.8	**15.2**	2.7	3.7	18.7	**20.4**	c	c	8.6	**9.4**
	Tertiary	1.6	2.0	7.0	**7.0**	2.0	2.4	8.2	**7.9**	c	c	4.5	**6.3**
Israel	Below upper secondary	m	14.0	9.8	**10.2**	m	14.2	12.2	**13.8**	m	10.3	8.0	**8.4**
	Upper secondary or post-secondary non-tertiary	m	9.5	6.8	**7.1**	m	10.9	8.0	**9.0**	m	10.0	5.2	**5.5**
	Tertiary	m	5.1	4.2	**4.2**	m	5.7	5.6	**5.5**	m	5.1	3.6	**3.4**
Italy	Below upper secondary	9.8	7.8	9.1	**12.2**	15.1	11.8	15.0	**19.0**	5.8	4.8	5.6	**8.5**
	Upper secondary or post-secondary non-tertiary	7.4	5.2	6.1	**7.7**	12.3	8.1	10.1	**13.3**	1.8	2.4	2.5	**3.7**
	Tertiary	5.9	5.7	5.6	**6.4**	15.5	13.8	12.8	**13.7**	0.7	1.0	0.8	**1.2**
Japan	Below upper secondary	6.0	m	m	**m**	9.6	m	m	**m**	6.5	m	m	**m**
	Upper secondary or post-secondary non-tertiary	4.7	4.9	5.8	**5.1**	6.6	7.0	7.8	**7.4**	5.5	4.5	5.5	**4.5**
	Tertiary	3.5	3.1	3.8	**3.2**	4.4	4.6	5.0	**4.1**	4.8	2.4	3.9	**3.2**
Korea	Below upper secondary	3.7	2.9	3.1	**2.6**	7.3	8.1	9.4	**6.5**	2.7	2.3	3.2	**2.5**
	Upper secondary or post-secondary non-tertiary	4.1	3.8	3.5	**3.0**	5.0	5.7	6.2	**5.4**	3.7	3.3	2.7	**2.6**
	Tertiary	3.6	2.9	3.3	**2.9**	4.6	4.2	5.0	**4.4**	3.1	1.8	2.2	**2.3**
Luxembourg	Below upper secondary	3.1	5.1	4.1	**6.4**	5.4r	8.1r	7.6r	**11.3r**	c	c	c	**c**
	Upper secondary or post-secondary non-tertiary	1.6r	3.2	3.6	**4.2**	2.2r	4.0r	4.8r	**6.4r**	c	c	c	**c**
	Tertiary	c	3.2	3.6	**3.4**	c	2.7r	4.1r	**4.5**	c	c	c	**c**
Mexico	Below upper secondary	1.5	2.3	4.0	**3.5**	1.8	2.8	5.5	**4.5**	1.2	1.9	2.8	**2.7**
	Upper secondary or post-secondary non-tertiary	2.2	3.1	4.6	**4.0**	2.5	4.1	5.8	**5.6**	2.6	2.4	4.0	**2.7**
	Tertiary	2.4	3.7	4.9	**4.6**	3.5	5.5	6.7	**6.7**	2.2	3.1	4.4	**2.9**
Netherlands	Below upper secondary	3.4	5.8	5.7	**6.6**	4.5	8.7	9.1	**9.4**	c	4.5	4.6	**5.1**
	Upper secondary or post-secondary non-tertiary	1.9	4.1	3.4	**4.6**	1.6	3.9	3.7	**5.1**	1.9	4.6	4.0	**5.6**
	Tertiary	1.7	2.8	2.7	**3.0**	1.5	2.6	2.5	**3.3**	c	3.1	3.6	**3.5**

Note: Columns showing additional years and additional age groups are available for consultation on line (see *StatLink* below).

1. Figures for 2012 for Estonia and Slovenia in this table may differ from figures in other tables of Indicator A5 because the source of the figures is different. This table uses EU-LFS for all years.

2. Figures for 2000 are not comparable with more recent years as in 2000 the former classification of educational attainment was used.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data and the "r" symbol next to some figures.

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Table A5.4a. [2/2] Trends in unemployment rates, by educational attainment and age group (2000, 2005-12)

Percentage of unemployed 25-64 year-olds/25-34 year-olds/55-64 year-olds among 25-64 year-olds/25-34 year-olds/55-64 year-olds in the labour force

		Educational attainment	Unemployment rates of 25-64 year-olds				Unemployment rates of 25-34 year-olds				Unemployment rates of 55-64 year-olds			
			2000	2005	2010	2012	2000	2005	2010	2012	2000	2005	2010	2012
			(1)	(2)	(7)	(9)	(11)	(12)	(17)	(19)	(41)	(42)	(47)	(49)
OECD	New Zealand	Below upper secondary	6.6	3.4	6.1	**6.4**	9.0	5.5	8.9	**10.7**	5.4	1.8	4.0	**4.5**
		Upper secondary or post-secondary non-tertiary	3.9	2.3	4.5	**5.2**	4.7	3.0	7.2	**7.5**	3.8	1.7	3.4	**3.6**
		Tertiary	3.3	2.3	3.8	**4.2**	3.6	3.3	5.5	**4.8**	3.9	1.9	2.7	**3.6**
	Norway[2]	Below upper secondary	2.2	7.4	5.6	**4.3**	c	14.4	12.3	**6.7r**	c	c	c	**c**
		Upper secondary or post-secondary non-tertiary	2.6	2.6	2.2	**2.3**	3.7	4.1	3.8	**3.2**	c	c	c	**c**
		Tertiary	1.9	2.1	1.6	**1.6**	2.7	3.1	2.3	**2.6**	c	c	c	**c**
	Poland	Below upper secondary	20.6	27.1	16.1	**17.8**	32.4	38.3	22.6	**25.4**	7.7	13.6	11.4	**12.2**
		Upper secondary or post-secondary non-tertiary	13.9	16.6	8.9	**9.3**	16.8	19.9	11.5	**12.2**	11.6	13.0	7.8	**8.0**
		Tertiary	4.3	6.2	4.2	**4.9**	7.4	9.8	6.5	**7.6**	6.7	4.5	2.0r	**2.4r**
	Portugal	Below upper secondary	3.6	7.5	11.8	**16.0**	4.2	9.0	15.3	**19.9**	3.3	6.4	9.7	**14.2**
		Upper secondary or post-secondary non-tertiary	3.5	6.7	9.7	**14.5**	3.5	8.3	11.5	**16.8**	c	c	7.1	**13.6**
		Tertiary	2.7	5.4	6.3	**10.5**	4.3	9.2	9.4	**17.1**	c	c	3.4	**c**
	Slovak Republic	Below upper secondary	36.3	49.2	40.8	**41.5**	55.7	73.8	63.8	**53.3**	30.6	36.5	22.8	**30.8**
		Upper secondary or post-secondary non-tertiary	14.3	12.7	12.3	**11.7**	17.7	13.8	14.6	**15.4**	10.1	11.6	9.9	**11.0**
		Tertiary	4.6	4.4	4.8	**6.0**	7.0	5.3	6.3	**9.5**	6.2	7.7	4.3	**3.2**
	Slovenia[1]	Below upper secondary	9.8	8.7	11.2	**14.0**	11.3	16.1	18.9	**c**	c	2.9	4.2	**5.6**
		Upper secondary or post-secondary non-tertiary	5.7	5.7	6.9	**8.1**	5.8	6.7	10.2	**10.8**	10.9	6.3	5.0	**7.3**
		Tertiary	2.1	3.0	4.1	**5.8**	3.8	5.1	7.9	**11.0**	c	c	c	**4.3**
	Spain	Below upper secondary	13.7	9.3	24.7	**31.2**	17.8	11.4	31.7	**38.4**	10.8	6.9	18.3	**23.2**
		Upper secondary or post-secondary non-tertiary	10.9	7.3	17.4	**22.0**	12.9	9.0	22.0	**27.9**	6.4	6.6	11.5	**14.8**
		Tertiary	9.5	6.1	10.4	**14.0**	14.5	8.5	14.2	**19.8**	4.1	3.5	5.4	**8.1**
	Sweden	Below upper secondary	8.0	8.5	11.3	**12.3**	13.1	17.8	19.6	**21.4**	8.1	5.2	7.7	**7.8**
		Upper secondary or post-secondary non-tertiary	5.3	6.0	6.4	**5.7**	5.6	8.5	8.4	**8.1**	6.6	5.4	6.3	**5.6**
		Tertiary	3.0	4.5	4.5	**4.0**	3.2	7.1	5.8	**5.4**	2.9	2.3	3.5	**3.2**
	Switzerland	Below upper secondary	4.8	7.2	7.4	**7.9**	c	11.8	13.3	**14.4**	7.0	6.0	5.4	**5.8**
		Upper secondary or post-secondary non-tertiary	2.2	3.7	4.1	**3.3**	2.8	4.7	5.4	**4.3**	1.8	3.7	3.6	**2.9**
		Tertiary	1.4	2.7	2.9	**2.7**	c	3.4	4.0	**3.7**	c	2.3	2.4	**2.1r**
	Turkey	Below upper secondary	4.6	9.1	10.6	**7.9**	5.7	11.3	12.6	**9.7**	2.4	4.2	6.4	**4.9**
		Upper secondary or post-secondary non-tertiary	5.5	9.1	11.3	**8.6**	7.1	11.9	13.3	**10.3**	0.0	4.5	10.7	**7.1**
		Tertiary	3.9	6.9	7.9	**7.5**	6.5	10.9	11.9	**11.1**	3.3	4.3	3.8	**4.5**
	United Kingdom	Below upper secondary	6.6	5.1	9.8	**10.5**	9.1	7.8	15.5	**17.2**	5.6	3.2	5.0	**6.9**
		Upper secondary or post-secondary non-tertiary	4.0	3.1	5.9	**5.6**	4.7	4.1	8.1	**7.8**	4.0	2.4	5.0	**4.8**
		Tertiary	2.1	2.1	3.5	**3.6**	2.0	2.4	4.1	**4.2**	3.7	2.8	3.8	**3.4**
	United States	Below upper secondary	7.9	9.0	16.8	**14.3**	10.3	11.7	20.3	**16.8**	5.2	7.5	10.1	**11.5**
		Upper secondary or post-secondary non-tertiary	3.6	5.1	11.2	**9.1**	4.4	6.9	14.3	**12.2**	3.1	4.2	8.8	**7.3**
		Tertiary	1.8	2.6	5.3	**4.6**	2.0	3.0	5.3	**4.9**	1.5	2.3	5.5	**5.1**
	OECD average	Below upper secondary	9.4	10.7	12.5	**13.6**	14.6	16.4	19.0	**19.8**	7.6	7.5	8.6	**10.1**
		Upper secondary or post-secondary non-tertiary	5.9	6.2	7.6	**7.8**	7.1	7.5	9.8	**10.4**	5.4	5.5	6.4	**6.6**
		Tertiary	3.5	3.9	4.7	**5.0**	5.1	5.4	6.5	**7.4**	3.7	3.4	3.9	**3.9**
	OECD average for countries with data available for all reference years	Below upper secondary	9.5	10.6	12.9	**13.7**	14.7	16.5	19.6	**20.0**	7.7	7.3	8.8	**10.1**
		Upper secondary or post-secondary non-tertiary	6.0	6.1	7.7	**7.9**	7.2	7.4	10.0	**10.6**	5.4	5.4	6.6	**6.7**
		Tertiary education	3.4	3.9	4.7	**5.1**	5.1	5.4	6.5	**7.5**	3.6	3.4	3.9	**3.9**
	EU21 average	Below upper secondary	11.6	12.8	15.2	**16.9**	16.8	19.2	22.7	**24.2**	9.1	8.6	10.1	**12.2**
		Upper secondary or post-secondary non-tertiary	6.9	6.8	8.5	**9.3**	8.2	8.1	10.8	**12.3**	6.5	6.3	7.1	**7.6**
		Tertiary education	3.7	4.1	5.0	**5.7**	5.7	5.8	6.9	**8.5**	4.3	3.7	4.1	**4.1**
Partners	Argentina		m	m	m	**m**	m	m	m	**m**	m	m	m	**m**
	Brazil	Below upper secondary	m	m	m	**4.1**	m	m	m	**6.5**	m	m	m	**2.3**
		Upper secondary or post-secondary non-tertiary	m	m	m	**5.1**	m	m	m	**6.9**	m	m	m	**2.8**
		Tertiary education	m	m	m	**2.9**	m	m	m	**4.0**	m	m	m	**1.7**
	China		m	m	m	**m**	m	m	m	**m**	m	m	m	**m**
	Colombia		m	m	m	**m**	m	m	m	**m**	m	m	m	**m**
	India		m	m	m	**m**	m	m	m	**m**	m	m	m	**m**
	Indonesia		m	m	m	**m**	m	m	m	**m**	m	m	m	**m**
	Latvia	Below upper secondary	m	m	m	**23**	m	m	m	**24**	m	m	m	**23**
		Upper secondary or post-secondary non-tertiary	m	m	m	**12.2**	m	m	m	**15.5**	m	m	m	**c**
		Tertiary education	m	m	m	**5.9**	m	m	m	**7.4**	m	m	m	**4.0**
	Russian Federation	Below upper secondary	m	m	m	**2.8**	m	m	m	**3.5**	m	m	m	**2.6**
		Upper secondary or post-secondary non-tertiary	m	m	m	**m**	m	m	m	**m**	m	m	m	**m**
		Tertiary education	m	m	m	**m**	m	m	m	**m**	m	m	m	**m**
	Saudi Arabia		m	m	m	**m**	m	m	m	**m**	m	m	m	**m**
	South Africa		m	m	m	**m**	m	m	m	**m**	m	m	m	**m**
	G20 average	Below upper secondary	m	m	m	**m**	m	m	m	**m**	m	m	m	**m**

Note: Columns showing additional years and additional age groups are available for consultation on line (see *StatLink* below).

1. Figures for 2011 for Estonia and Slovenia in this table may differ from figures in other tables of Indicator A5 because the source of the figures is different. This table uses EU-LFS for all years.

2. Figures for 2000 are not comparable with more recent years as in 2000 the former classification of educational attainment was used.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data and the "r" symbol next to some figures.

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Table A5.5a. Distribution of adults with upper secondary or post-secondary non-tertiary education, by labour market status and programme orientation (2012)

25-64 year-olds with upper secondary or post-secondary non-tertiary education as the highest level of attainment

	Employment rate			Unemployment rate			Inactivity rate		
	Vocational	General	Total[1]	Vocational	General	Total[1]	Vocational	General	Total[1]
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OECD									
Australia	84	76	80	3.6	3.9	3.7	13	20	16
Austria	78	76	78	3.4	4.7	3.5	19	20	19
Belgium	76	69	73	5.9	8.7	6.7	20	25	21
Canada	79	73	75	6.3	6.7	6.6	16	22	20
Chile[2]	74	69	70	6.9	6.2	6.4	20	26	25
Czech Republic	76	72	76	5.7	c	5.7	19	c	19
Denmark	79	61	79	5.9	12.5	6.2	16	30	16
Estonia	76	72	75	9.1	10.1	9.5	17	19	18
Finland	75	73	75	6.8	8.2	7.1	20	21	20
France	73	74	74	8.3	8.3	8.3	20	19	20
Germany	79	62	78	5.3	7.0	5.3	17	34	17
Greece	62	55	58	26.4	23.0	24.4	16	28	24
Hungary	69	63	68	9.4	9.4	9.4	24	30	25
Iceland	88	76	85	3.7	c	4.1	9	19	11
Ireland	66	65	65	17.8	13.9	15.2	20	25	23
Israel	79	69	72	6.2	7.4	7.1	16	25	23
Italy	74	63	71	7.4	8.9	7.7	21	31	23
Japan	x(3)	x(3)	74	x(6)	x(6)	5,1	x(9)	x(9)	22
Korea	x(3)	x(3)	71	x(6)	x(6)	3,0	x(9)	x(9)	27
Luxembourg	72	67	72	4.5	c	4.2	25	30	25
Mexico	x(3)	x(3)	72	x(6)	x(6)	4,0	x(9)	x(9)	25
Netherlands	81	77	80	4.3	5.3	4.6	15	18	16
New Zealand	82	81	81	5.5	4.3	5.2	14	16	14
Norway	x(3)	x(3)	81	x(6)	x(6)	2,3	x(9)	x(9)	17
Poland	x(3)	x(3)	65	x(6)	x(6)	9,3	x(9)	x(9)	28
Portugal	x(3)	x(3)	76	x(6)	x(6)	14,5	x(9)	x(9)	11
Slovak Republic	71	66	70	11.6	13.9	11.7	20	24	20
Slovenia	71	66	71	7.9	11.0	8.1	23	25	23
Spain	66	66	66	22.8	21.5	22.0	15	16	16
Sweden	84	87	83	5.1	3.5	5.7	11	9	12
Switzerland	83	76	82	3.2	5.1	3.3	15	20	15
Turkey	65	59	62	7.6	9.6	8.6	29	35	32
United Kingdom	x(3)	x(3)	79	x(6)	x(6)	5,6	x(9)	x(9)	17
United States	x(3)	x(3)	67	x(6)	x(6)	9,1	x(9)	x(9)	26
OECD average	75	70	74	8.1	9.3	7.7	18	24	20
EU21 average	76	70	74	8.8	10.0	8.7	17	23	19
Partners									
Argentina	m	m	m	m	m	m	m	m	m
Brazil	x(3)	x(3)	77	x(6)	x(6)	5,1	x(9)	x(9)	19
China	m	m	m	m	m	m	m	m	m
Colombia	m	m	m	m	m	m	m	m	m
India	m	m	m	m	m	m	m	m	m
Indonesia	m	m	m	m	m	m	m	m	m
Latvia	69	64	67	15.0	19.3	16.7	19	21	20
Russian Federation	78	69	73	5.1	6.8	5.9	18	26	22
Saudi Arabia	m	m	m	m	m	m	m	m	m
South Africa	m	m	m	m	m	m	m	m	m
G20 average	m	m	m	m	m	m	m	m	m

1. "Total" refers to the weighted averages of the employment/unemployment/inactivity rate of individuals at ISCED 3/4 level.
2. Year of reference 2011.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933115844

Table A5.6. [1/2] Percentage of full-time, full-year earners among all earners, by educational attainment and age group (2012)[1]

How to read this table: In Australia, 86% of 25-64 year-old men with below upper secondary education that have earnings from employment work full time. Among 25-64 year-old women, 46% of those that have income from employment work full time.

				Below upper secondary education			Upper secondary or post-secondary non-tertiary education			Tertiary education			All levels of education		
				25-64	35-44	55-64	25-64	35-44	55-64	25-64	35-44	55-64	25-64	35-44	55-64
				(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD	Australia	2012	Men	**86**	90	78	**90**	93	84	**89**	93	79	**89**	92	81
			Women	**46**	42	44	**52**	45	48	**61**	53	58	**56**	49	51
			M+W	**68**	68	62	**76**	74	72	**74**	72	68	**74**	72	67
	Austria	2012	Men	**62**	60	69	**76**	77	80	**83**	86	89	**76**	77	81
			Women	**36**	33	41	**41**	35	47	**54**	46	73	**43**	37	52
			M+W	**47**	44	53	**60**	56	68	**69**	68	82	**60**	57	69
	Belgium	2011	Men	**77**	m	69	**64**	64	60	**86**	90	78	**83**	88	73
			Women	**32**	m	m	**57**	55	55	**58**	55	55	**49**	45	46
			M+W	**59**	66	55	**65**	65	60	**72**	72	69	**67**	68	62
	Canada	2011	Men	**74**	70	68	**78**	79	75	**71**	84	76	**74**	80	74
			Women	**69**	50	50	**53**	60	55	**61**	65	61	**59**	62	58
			M+W	**73**	63	61	**68**	71	66	**66**	74	68	**67**	72	67
	Chile	2011	Men	**55**	52	60	**64**	69	70	**65**	66	71	**61**	62	65
			Women	**38**	34	43	**51**	49	53	**53**	52	49	**47**	45	48
			M+W	**49**	46	55	**58**	60	63	**59**	59	62	**55**	55	59
	Czech Republic	2011	Men	**53**	54	54	**61**	64	57	**57**	57	53	**60**	62	56
			Women	**40**	41	40	**46**	48	42	**35**	32	30	**43**	45	39
			M+W	**46**	48	46	**55**	57	51	**47**	46	45	**52**	54	49
	Denmark	2012	Men	**50**	50	51	**58**	62	55	**74**	81	70	**61**	66	58
			Women	**43**	41	45	**51**	52	46	**58**	60	57	**52**	54	50
			M+W	**47**	47	48	**55**	57	51	**65**	69	63	**57**	60	54
	Estonia	2012	Men	**98**	95	98	**98**	99	95	**94**	93	92	**97**	97	95
			Women	**84**	79	69	**89**	90	83	**88**	88	83	**88**	88	82
			M+W	**93**	89	85	**93**	94	88	**90**	90	86	**92**	92	87
	Finland	2012	Men	**92**	94	90	**93**	95	91	**95**	96	90	**94**	96	91
			Women	**88**	88	90	**92**	93	93	**91**	89	92	**91**	90	92
			M+W	**90**	92	90	**93**	94	92	**93**	92	91	**93**	93	91
	France	2010	Men	**72**	78	59	**81**	86	62	**87**	90	75	**81**	86	64
			Women	**46**	49	39	**59**	60	59	**69**	71	64	**61**	63	53
			M+W	**59**	64	48	**71**	74	60	**77**	80	70	**71**	75	59
	Germany	2012	Men	**85**	90	90	**84**	89	82	**86**	88	88	**84**	88	85
			Women	**38**	30	35	**44**	40	41	**56**	50	60	**47**	42	46
			M+W	**61**	61	59	**64**	64	61	**72**	70	77	**66**	65	66
	Greece	2012	Men	**74**	68	75	**81**	86	76	**91**	93	93	**82**	84	80
			Women	**59**	52	67	**70**	72	68	**80**	85	61	**72**	75	66
			M+W	**69**	63	72	**77**	81	72	**86**	89	84	**78**	80	75
	Hungary	2012	Men	**76**	78	73	**84**	85	81	**89**	91	84	**84**	86	81
			Women	**75**	78	66	**79**	79	75	**89**	88	88	**81**	82	77
			M+W	**76**	78	69	**82**	83	79	**89**	89	86	**83**	84	79
	Iceland			**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m
	Ireland	2011	Men	**41**	44	32	**50**	54	43	**67**	73	46	**55**	63	39
			Women	**24**	31	21	**38**	35	38	**58**	55	47	**46**	46	36
			M+W	**35**	39	29	**44**	45	40	**63**	64	47	**51**	55	37
	Israel	2012	Men	**86**	88	81	**90**	91	88	**87**	94	85	**88**	92	85
			Women	**46**	50	41	**65**	70	55	**66**	70	63	**66**	70	59
			M+W	**74**	80	67	**80**	82	74	**77**	82	74	**78**	82	73
	Italy	2010	Men	**78**	82	67	**85**	89	78	**88**	91	84	**82**	86	74
			Women	**48**	45	46	**62**	58	72	**72**	74	78	**60**	58	62
			M+W	**67**	69	59	**75**	75	75	**80**	82	81	**73**	74	69
	Japan			**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m
	Korea	2012	Men	**74**	77	70	**79**	81	75	**68**	70	55	**73**	74	68
			Women	**64**	66	62	**63**	63	58	**50**	46	42	**58**	55	60
			M+W	**68**	71	65	**72**	73	70	**62**	62	53	**67**	67	65
	Luxembourg	2012	Men	**84**	89	66	**90**	92	70	**91**	94	86	**88**	92	75
			Women	**44**	46	39	**56**	58	60	**65**	59	54	**55**	55	50
			M+W	**65**	69	52	**76**	78	66	**79**	78	76	**74**	75	64

Note: The length of the reference period varies from one week to one year. Self-employed individuals are excluded in some countries.

1. Full-time basis refers to people who have worked all year long and at least 30 hours per week. See Indicator A6 and Annex 3 for details.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933115863

Table A5.6. [2/2] Percentage of full-time, full-year earners among all earners, by educational attainment and age group (2012)[1]

How to read this table: In Australia, 86% of 25-64 year-old men with below upper secondary education that have earnings from employment work full time. Among 25-64 year-old women, 46% of those that have income from employment work full time.

				Below upper secondary education			Upper secondary and post-secondary non-tertiary education			Tertiary education			All levels of education		
				25-64	35-44	55-64	25-64	35-44	55-64	25-64	35-44	55-64	25-64	35-44	55-64
				(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD	Mexico			**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m
	Netherlands	2010	Men	**71**	72	70	**70**	73	69	**68**	69	65	**70**	71	68
			Women	**15**	14	11	**19**	15	17	**29**	22	25	**22**	17	17
			M+W	**46**	46	42	**45**	43	48	**49**	46	50	**47**	45	47
	New Zealand	2012	Men	**90**	92	86	**93**	94	89	**92**	94	90	**92**	94	88
			Women	**63**	64	58	**64**	57	63	**71**	66	65	**67**	63	63
			M+W	**77**	80	72	**82**	79	80	**81**	79	76	**80**	79	76
	Norway	2011	Men	**52**	53	49	**66**	69	60	**69**	73	69	**63**	67	61
			Women	**28**	28	26	**37**	37	34	**47**	47	52	**39**	41	39
			M+W	**41**	42	38	**53**	56	48	**56**	59	61	**52**	55	51
	Poland	2012	Men	**96**	97	94	**97**	98	95	**91**	91	90	**95**	95	93
			Women	**89**	90	88	**92**	92	91	**89**	89	89	**91**	91	90
			M+W	**93**	94	92	**95**	95	93	**90**	90	90	**93**	93	92
	Portugal	2011	Men	**98**	98	98	**96**	98	96	**94**	95	88	**97**	97	97
			Women	**90**	92	86	**93**	95	93	**93**	94	88	**92**	93	86
			M+W	**95**	95	93	**95**	96	95	**94**	94	88	**94**	95	93
	Slovak Republic	2012	Men	**52**	51	58	**64**	66	65	**66**	68	69	**63**	64	64
			Women	**49**	46	51	**59**	59	61	**62**	64	67	**58**	59	60
			M+W	**50**	48	53	**62**	63	63	**64**	66	68	**60**	62	62
	Slovenia			**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m
	Spain	2011	Men	**75**	73	77	**78**	77	83	**84**	87	87	**79**	79	81
			Women	**51**	43	61	**63**	64	76	**75**	77	87	**65**	64	72
			M+W	**66**	62	71	**72**	71	80	**79**	82	87	**72**	73	78
	Sweden	2010	Men	**74**	77	69	**79**	84	63	**79**	86	71	**78**	84	67
			Women	**37**	46	30	**48**	49	43	**60**	58	59	**52**	53	47
			M+W	**60**	65	55	**65**	69	53	**68**	70	64	**66**	69	57
	Switzerland			**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m
	Turkey	2012	Men	**61**	64	58	**75**	79	71	**82**	91	80	**69**	73	64
			Women	**47**	46	59	**70**	74	63	**76**	86	90	**62**	63	62
			M+W	**58**	60	58	**74**	78	70	**80**	90	80	**67**	71	63
	United Kingdom	2012	Men	**83**	82	84	**92**	95	83	**92**	95	78	**91**	94	82
			Women	**43**	40	41	**54**	50	50	**65**	59	54	**59**	54	50
			M+W	**66**	67	62	**74**	73	68	**79**	78	67	**76**	76	68
	United States	2012	Men	**66**	68	66	**76**	78	75	**84**	87	79	**79**	81	76
			Women	**52**	55	55	**64**	65	65	**70**	70	68	**66**	67	66
			M+W	**61**	64	61	**71**	73	70	**77**	79	74	**73**	75	71
	OECD average		Men	**74**	75	71	**79**	82	75	**82**	85	78	**79**	82	75
			Women	**51**	51	50	**60**	59	59	**66**	65	64	**60**	60	58
			M+W	**64**	65	61	**71**	72	68	**74**	75	72	**70**	71	67
	EU21 average		Men	**74**	75	72	**79**	82	74	**83**	86	79	**80**	83	75
			Women	**52**	52	51	**61**	60	60	**67**	66	66	**61**	61	59
			M+W	**65**	65	62	**71**	72	68	**75**	76	74	**71**	72	68
Partners	Argentina			**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m
	Brazil	2012	Men	**73**	75	74	**79**	82	80	**78**	79	78	**76**	77	76
			Women	**48**	50	44	**64**	65	60	**63**	64	57	**57**	58	49
			M+W	**64**	65	63	**72**	74	72	**70**	70	68	**67**	69	65
	China			**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m
	Colombia			**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m
	India			**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m
	Indonesia			**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m
	Latvia			**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m
	Russian Federation			**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m
	Saudi Arabia			**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m
	South Africa			**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m
	G20 average			**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m

Note: The length of the reference period varies from one week to one year. Self-employed individuals are excluded in some countries.

1. Full-time basis refers to people who have worked all year long and at least 30 hours per week. See Indicator A6 and Annex 3 for details.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933115863

Table A5.7a (L). [1/2] Labour market status, by educational attainment and literacy proficiency level (2012)

Literacy proficiency in the Survey of Adult Skills, percentage of 25-64 year-olds

	Proficiency level	Employed						Unemployed						Inactive					
		Below upper secondary education		Upper secondary or post-secondary non-tertiary education		Tertiary education		Below upper secondary education		Upper secondary or post-secondary non-tertiary education		Tertiary education		Below upper secondary education		Upper secondary or post-secondary non-tertiary education		Tertiary education	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
		(1)	(2)	(3)	(4)	(5)	(6)	(9)	(10)	(11)	(12)	(13)	(14)	(17)	(18)	(19)	(20)	(21)	(22)
OECD **National entities**																			
Australia	0/1	50	(3.4)	66	(3.7)	70	(5.7)	3.4	(1.3)	5.3	(2.3)	5.2	(3.7)	47	(3.5)	29	(3.9)	25	(5.2)
	2	65	(3.0)	75	(2.2)	80	(2.5)	3.6	(1.2)	3.7	(1.0)	4.2	(1.6)	32	(2.9)	21	(2.0)	16	(2.5)
	3	73	(2.8)	79	(1.8)	85	(1.5)	3.2	(1.7)	3.3	(0.9)	3.0	(0.8)	24	(2.5)	18	(1.8)	12	(1.3)
	4/5	c	c	82	(4.1)	89	(1.5)	c	c	3.9	(2.4)	2.2	(0.8)	c	c	14	(3.7)	8	(1.4)
Austria	0/1	54	(3.5)	67	(2.9)	c	c	6.9	(1.9)	3.1	(1.1)	c	c	39	(3.4)	30	(2.7)	c	c
	2	59	(3.4)	76	(1.5)	80	(3.6)	3.9	(1.3)	2.8	(0.7)	2.8	(1.7)	38	(3.3)	21	(1.5)	17	(3.3)
	3	68	(4.6)	86	(1.4)	89	(1.9)	2.6	(1.6)	2.6	(0.7)	2.0	(0.9)	29	(4.8)	11	(1.3)	9	(1.7)
	4/5	c	c	88	(3.4)	91	(2.4)	c	c	2.5	(1.6)	c	c	c	c	10	(2.8)	7	(2.3)
Canada	0/1	54	(2.3)	70	(2.0)	75	(2.9)	4.5	(1.1)	4.7	(1.1)	4.3	(1.4)	42	(2.4)	25	(1.8)	21	(2.6)
	2	61	(3.3)	77	(1.4)	82	(1.5)	4.7	(1.5)	3.8	(0.7)	3.3	(0.7)	35	(3.0)	19	(1.3)	15	(1.4)
	3	68	(5.1)	81	(1.4)	87	(0.9)	5.1	(3.1)	2.9	(0.6)	2.7	(0.5)	26	(4.6)	16	(1.2)	10	(0.8)
	4/5	c	c	82	(3.8)	91	(1.1)	c	c	3.0	(2.0)	2.3	(0.6)	c	c	15	(3.5)	7	(1.0)
Czech Republic	0/1	39	(7.0)	70	(4.1)	c	c	13.8	(5.6)	2.8	(0.9)	c	c	48	(6.8)	27	(4.1)	c	c
	2	47	(5.8)	75	(1.8)	84	(4.3)	15.0	(3.7)	4.7	(1.0)	2.4	(1.8)	38	(5.9)	21	(1.7)	14	(4.0)
	3	c	c	78	(1.9)	83	(3.4)	c	c	3.3	(1.0)	3.3	(1.6)	c	c	18	(1.7)	14	(3.0)
	4/5	c	c	86	(5.3)	89	(4.1)	c	c	3.7	(2.4)	0.7	(0.5)	c	c	11	(4.6)	10	(4.0)
Denmark	0/1	52	(2.8)	62	(2.9)	69	(4.0)	7.1	(1.5)	5.4	(1.7)	4.5	(1.8)	41	(2.6)	32	(2.6)	26	(3.7)
	2	65	(3.4)	77	(1.7)	83	(1.8)	5.7	(1.7)	4.3	(0.8)	3.8	(1.1)	29	(3.1)	18	(1.6)	13	(1.5)
	3	76	(5.0)	82	(1.7)	89	(1.0)	7.1	(2.5)	5.4	(1.0)	3.3	(0.7)	17	(4.2)	12	(1.3)	8	(0.8)
	4/5	c	c	80	(5.4)	93	(1.7)	c	c	3.5	(3.0)	3.0	(1.2)	c	c	17	(5.0)	4	(1.2)
Estonia	0/1	49	(3.4)	68	(2.7)	79	(4.2)	8.7	(2.3)	8.1	(1.5)	5.7	(1.9)	42	(3.6)	24	(2.5)	15	(3.7)
	2	56	(3.2)	74	(1.5)	85	(1.6)	11.3	(2.0)	6.8	(0.8)	3.9	(0.8)	32	(3.2)	19	(1.3)	12	(1.4)
	3	65	(4.4)	80	(1.5)	88	(1.0)	6.5	(2.2)	5.6	(0.8)	3.9	(0.6)	28	(4.5)	15	(1.3)	8	(0.9)
	4/5	c	c	87	(3.0)	94	(1.3)	c	c	3.5	(1.8)	1.9	(0.7)	c	c	10	(2.7)	4	(1.2)
Finland	0/1	39	(4.4)	55	(3.9)	c	c	3.1	(1.7)	6.1	(1.9)	c	c	58	(4.6)	39	(3.9)	c	c
	2	57	(3.9)	72	(2.0)	81	(2.3)	3.9	(1.4)	3.9	(1.1)	2.6	(1.0)	39	(3.7)	24	(2.1)	16	(2.0)
	3	68	(6.0)	80	(1.6)	89	(1.3)	5.3	(2.3)	4.7	(1.0)	2.4	(0.6)	27	(5.2)	15	(1.6)	9	(1.1)
	4/5	c	c	82	(2.6)	91	(1.2)	c	c	5.1	(1.6)	3.0	(0.6)	c	c	13	(2.3)	6	(1.0)
France	0/1	50	(1.8)	68	(2.5)	65	(4.6)	6.5	(1.1)	7.3	(1.1)	8.1	(2.9)	44	(1.8)	25	(2.2)	27	(4.2)
	2	57	(2.2)	74	(1.5)	80	(2.0)	6.4	(1.1)	5.5	(0.7)	4.1	(1.0)	37	(2.1)	20	(1.4)	16	(1.8)
	3	61	(3.8)	75	(1.7)	87	(1.0)	7.1	(2.2)	6.3	(0.9)	3.0	(0.6)	32	(3.8)	19	(1.6)	10	(1.0)
	4/5	c	c	c	c	88	(2.3)	c	c	c	c	4.6	(1.4)	c	c	c	c	8	(1.9)
Germany	0/1	52	(3.9)	70	(2.6)	c	c	9.3	(2.6)	5.1	(1.2)	c	c	38	(3.9)	25	(2.4)	c	c
	2	60	(5.4)	79	(1.7)	83	(2.4)	8.3	(3.7)	4.0	(0.9)	3.0	(1.1)	32	(5.0)	17	(1.6)	15	(2.3)
	3	c	c	84	(1.7)	91	(1.4)	c	c	4.3	(1.0)	2.1	(0.6)	c	c	12	(1.5)	7	(1.2)
	4/5	c	c	86	(3.4)	93	(2.1)	c	c	c	c	1.7	(0.8)	c	c	13	(3.2)	6	(1.9)
Ireland	0/1	41	(3.2)	60	(4.4)	72	(5.9)	9.1	(1.7)	13.4	(2.6)	5.0	(2.6)	50	(3.6)	26	(3.8)	23	(5.7)
	2	52	(2.9)	62	(1.8)	78	(2.2)	11.2	(2.0)	11.0	(1.2)	5.9	(1.2)	36	(2.9)	27	(1.8)	16	(2.0)
	3	56	(4.9)	70	(2.2)	82	(1.6)	6.4	(2.7)	9.4	(1.5)	4.1	(0.8)	38	(4.7)	21	(1.6)	14	(1.3)
	4/5	c	c	77	(5.7)	86	(2.9)	c	c	7.1	(3.7)	2.4	(1.2)	c	c	16	(4.6)	11	(2.3)
Italy	0/1	50	(2.4)	69	(4.3)	c	c	11.2	(1.5)	8.2	(2.2)	c	c	39	(2.2)	23	(3.4)	c	c
	2	54	(2.3)	66	(2.5)	75	(3.8)	7.6	(1.5)	10.7	(1.7)	9.2	(3.0)	38	(2.1)	23	(2.1)	16	(3.1)
	3	63	(4.6)	75	(2.7)	83	(2.8)	7.8	(2.5)	8.6	(1.7)	5.1	(2.2)	30	(4.0)	16	(2.1)	11	(2.4)
	4/5	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
Japan	0/1	65	(5.9)	71	(6.6)	c	c	c	c	c	c	c	c	33	(5.7)	29	(6.6)	c	c
	2	66	(4.0)	71	(2.4)	79	(3.1)	c	c	c	c	c	c	34	(4.0)	28	(2.4)	21	(3.0)
	3	77	(5.1)	76	(1.5)	80	(1.4)	c	c	2.5	(0.7)	1.4	(0.5)	20	(4.8)	21	(1.6)	19	(1.3)
	4/5	c	c	80	(3.8)	79	(1.6)	c	c	2.2	(1.8)	3.0	(0.7)	c	c	18	(4.0)	18	(1.6)
Korea	0/1	61	(2.6)	76	(3.4)	c	c	2.1	(0.9)	1.9	(1.0)	c	c	37	(2.7)	22	(3.4)	c	c
	2	65	(2.4)	76	(1.4)	77	(1.7)	1.7	(0.8)	2.6	(0.6)	2.3	(0.7)	33	(2.4)	21	(1.5)	21	(1.6)
	3	69	(5.5)	76	(2.0)	80	(1.2)	2.9	(1.7)	3.1	(0.8)	2.3	(0.6)	28	(5.7)	21	(1.9)	18	(1.3)
	4/5	c	c	c	c	81	(2.6)	c	c	c	c	4.2	(1.7)	c	c	c	c	15	(2.6)
Netherlands	0/1	54	(3.3)	68	(5.6)	c	c	6.8	(1.8)	3.5	(2.1)	c	c	39	(3.4)	29	(5.0)	c	c
	2	64	(2.8)	77	(2.1)	79	(3.7)	3.6	(1.2)	5.5	(1.3)	c	c	33	(2.7)	17	(2.0)	19	(3.5)
	3	76	(3.3)	85	(1.4)	90	(1.5)	1.8	(1.0)	3.1	(0.7)	2.5	(0.8)	22	(3.0)	12	(1.4)	8	(1.2)
	4/5	c	c	86	(3.7)	92	(1.5)	c	c	3.2	(1.6)	3.0	(1.0)	c	c	10	(3.1)	5	(1.2)

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for all levels of education combined are available for consultation on line (see *StatLink* below)

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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A5

Table A5.7a (L). [2/2] Labour market status, by educational attainment and literacy proficiency level (2012)

Literacy proficiency in the Survey of Adult Skills, percentage of 25-64 year-olds

		Proficiency level	Employed						Unemployed						Inactive					
			Below upper secondary education		Upper secondary or post-secondary non-tertiary education		Tertiary education		Below upper secondary education		Upper secondary or post-secondary non-tertiary education		Tertiary education		Below upper secondary education		Upper secondary or post-secondary non-tertiary education		Tertiary education	
			%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
			(1)	(2)	(3)	(4)	(5)	(6)	(9)	(10)	(11)	(12)	(13)	(14)	(17)	(18)	(19)	(20)	(21)	(22)
OECD	**National entities**																			
	Norway	0/1	57	(4.5)	72	(3.6)	c	c	4.2	(1.7)	4.8	(2.0)	c	c	39	(4.1)	23	(3.6)	c	c
		2	72	(3.3)	81	(2.0)	86	(2.3)	2.8	(1.3)	2.9	(0.9)	2.2	(1.0)	26	(3.1)	16	(1.8)	12	(2.3)
		3	78	(3.6)	87	(1.7)	93	(0.9)	3.0	(1.3)	2.8	(0.8)	1.6	(0.4)	19	(3.3)	11	(1.6)	5	(0.8)
		4/5	c	c	89	(3.4)	95	(1.0)	c	c	c	c	0.7	(0.4)	c	c	9	(3.4)	4	(0.9)
	Poland	0/1	37	(4.1)	57	(2.7)	c	c	9.5	(2.5)	7.5	(1.5)	c	c	53	(4.2)	35	(2.4)	c	c
		2	45	(4.7)	63	(2.0)	85	(2.6)	13.2	(3.6)	6.5	(1.0)	3.1	(1.2)	41	(4.6)	31	(2.1)	12	(2.2)
		3	c	c	67	(2.1)	87	(1.5)	c	c	5.5	(1.1)	3.5	(0.8)	c	c	27	(2.2)	9	(1.4)
		4/5	c	c	67	(6.4)	92	(2.0)	c	c	9.5	(4.3)	2.0	(0.9)	c	c	24	(5.0)	6	(1.7)
	Slovak Republic	0/1	25	(3.4)	65	(3.9)	c	c	13.6	(2.2)	11.3	(2.3)	c	c	c	c	24	(3.4)	c	c
		2	36	(3.2)	71	(1.6)	85	(2.9)	12.1	(1.9)	6.6	(0.9)	2.1	(1.1)	51	(3.1)	22	(1.4)	13	(2.8)
		3	43	(5.3)	73	(1.6)	88	(1.9)	10.1	(3.1)	6.7	(0.9)	3.9	(1.0)	46	(5.4)	20	(1.4)	9	(1.6)
		4/5	c	c	76	(4.5)	85	(4.4)	c	c	9.0	(3.1)	2.3	(1.4)	c	c	15	(3.5)	13	(4.0)
	Spain	0/1	43	(1.4)	66	(4.5)	73	(4.5)	18.4	(1.3)	12.1	(2.9)	8.3	(2.7)	38	(1.6)	22	(3.4)	19	(4.0)
		2	54	(1.7)	66	(2.8)	78	(2.3)	16.8	(1.6)	11.2	(1.9)	9.5	(1.5)	29	(1.9)	23	(2.5)	13	(1.8)
		3	63	(3.7)	72	(3.4)	81	(1.7)	14.4	(2.7)	12.5	(2.4)	8.8	(1.1)	23	(3.2)	16	(2.8)	10	(1.3)
		4/5	c	c	c	c	85	(3.4)	c	c	c	c	5.7	(1.9)	c	c	c	c	9	(2.7)
	Sweden	0/1	50	(4.3)	67	(4.0)	c	c	11.7	(2.8)	7.6	(1.9)	c	c	38	(4.1)	25	(3.7)	c	c
		2	69	(3.3)	83	(2.1)	85	(3.0)	6.7	(2.4)	4.7	(1.1)	3.3	(1.5)	24	(2.8)	13	(1.8)	12	(2.6)
		3	79	(5.6)	87	(1.4)	92	(1.2)	7.5	(3.6)	3.0	(0.8)	2.8	(0.8)	14	(4.3)	10	(1.2)	6	(1.0)
		4/5	c	c	93	(2.8)	95	(1.3)	c	c	2.2	(1.4)	1.2	(0.7)	c	c	5	(2.3)	4	(1.1)
	United States	0/1	61	(3.5)	67	(3.1)	c	c	7.3	(1.7)	8.8	(1.6)	c	c	31	(3.2)	24	(2.9)	c	c
		2	63	(6.0)	70	(2.0)	81	(2.3)	9.2	(3.5)	8.2	(1.1)	5.0	(1.4)	28	(5.0)	21	(1.9)	14	(2.0)
		3	c	c	81	(1.7)	86	(1.2)	c	c	6.2	(1.2)	4.8	(0.8)	c	c	12	(1.5)	9	(1.1)
		4/5	c	c	88	(3.7)	88	(1.9)	c	c	2.7	(1.9)	2.6	(0.7)	c	c	10	(3.6)	9	(1.8)
	Sub-national entities																			
	Flanders (Belgium)	0/1	45	(3.3)	69	(2.8)	c	c	2.0	(0.8)	2.4	(1.0)	c	c	53	(3.4)	29	(2.8)	c	c
		2	57	(3.6)	78	(1.7)	84	(2.6)	2.3	(0.9)	2.2	(0.6)	1.4	(0.8)	41	(3.6)	20	(1.7)	15	(2.6)
		3	63	(6.3)	83	(1.7)	89	(1.2)	c	c	1.0	(0.5)	1.4	(0.4)	36	(6.4)	16	(1.7)	9	(1.1)
		4/5	c	c	88	(3.3)	94	(1.3)	c	c	c	c	0.8	(0.5)	c	c	10	(3.5)	5	(1.2)
	England (UK)	0/1	51	(2.9)	72	(4.5)	73	(7.0)	9.8	(1.9)	9.0	(2.5)	5.3	(2.4)	40	(2.7)	19	(3.9)	22	(6.3)
		2	65	(2.6)	72	(2.2)	79	(2.7)	7.2	(1.5)	6.3	(1.4)	4.0	(1.4)	28	(2.4)	21	(2.1)	17	(2.4)
		3	68	(4.1)	81	(1.8)	86	(1.3)	2.4	(1.6)	4.3	(1.0)	2.6	(0.6)	30	(3.9)	14	(1.7)	12	(1.2)
		4/5	c	c	86	(3.2)	88	(1.8)	c	c	3.7	(1.9)	1.9	(0.7)	c	c	10	(2.6)	10	(1.6)
	Northern Ireland (UK)	0/1	47	(3.5)	63	(4.9)	c	c	3.7	(1.0)	9.2	(3.4)	c	c	49	(3.4)	28	(4.8)	c	c
		2	58	(2.9)	71	(2.9)	78	(3.4)	2.9	(1.1)	5.7	(1.6)	3.4	(1.4)	39	(2.8)	23	(2.7)	18	(3.1)
		3	60	(4.8)	78	(2.9)	87	(1.7)	4.4	(2.1)	4.1	(1.8)	2.5	(1.0)	36	(4.9)	18	(2.5)	11	(1.5)
		4/5	c	c	c	c	90	(3.5)	c	c	c	c	3.9	(2.6)	c	c	c	c	6	(2.3)
	England/N. Ireland (UK)	0/1	50	(2.8)	72	(4.3)	73	(6.8)	9.5	(1.8)	9.0	(2.4)	5.4	(2.3)	40	(2.6)	19	(3.8)	22	(6.1)
		2	64	(2.5)	72	(2.1)	79	(2.6)	7.0	(1.4)	6.3	(1.3)	3.9	(1.3)	29	(2.3)	21	(2.0)	17	(2.3)
		3	67	(3.9)	81	(1.8)	86	(1.2)	2.5	(1.5)	4.3	(1.0)	2.6	(0.5)	30	(3.7)	14	(1.6)	12	(1.2)
		4/5	c	c	86	(3.1)	88	(1.7)	c	c	3.6	(1.9)	2.0	(0.7)	c	c	10	(2.6)	10	(1.6)
	Average	0/1	49	(0.8)	67	(0.8)	72	(1.8)	8.0	(0.5)	6.6	(0.4)	5.8	(0.9)	42	(0.8)	27	(0.8)	22	(1.6)
		2	59	(0.8)	74	(0.4)	81	(0.6)	7.5	(0.5)	5.6	(0.2)	3.9	(0.3)	34	(0.7)	21	(0.4)	15	(0.5)
		3	67	(1.1)	79	(0.4)	87	(0.3)	5.8	(0.6)	4.9	(0.2)	3.2	(0.2)	27	(1.0)	16	(0.4)	10	(0.3)
		4/5	c	c	83	(1.0)	89	(0.5)	c	c	4.3	(0.6)	2.5	(0.2)	c	c	13	(0.9)	8	(0.4)
Partners	**Russian Federation***	0/1	c	c	c	c	53	(4.7)	c	c	c	c	2.5	(1.8)	c	c	c	c	44	(4.5)
		2	c	c	66	(4.1)	65	(2.5)	c	c	c	c	2.4	(1.1)	c	c	33	(4.5)	32	(2.2)
		3	c	c	63	(6.4)	72	(2.3)	c	c	4.1	(2.2)	2.6	(0.9)	c	c	33	(5.5)	25	(2.3)
		4/5	c	c	c	c	74	(4.2)	c	c	c	c	4.3	(2.0)	c	c	c	c	22	(4.8)

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for all levels of education combined are available for consultation on line (see *StatLink* below)

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table A5.8 (L). Mean literacy score among adults with upper secondary or post-secondary non-tertiary education, by labour market status and programme orientation (2012)

Mean literacy score in the Survey of Adult Skills, 25-64 year-olds

	Employed						Unemployed						Inactive					
	Vocational		General		Total		Vocational		General		Total		Vocational		General		Total	
	Score	S.E.	Score	S.E.	Score	S.E.	Score	S.E.	Score	S.E.	Score	S.E.	Score	S.E.	Score	S.E.	Score	S.E.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
OECD																		
National entities																		
Australia	279	(1.7)	285	(2.8)	282	(1.7)	265	(10.5)	c	c	272	(9.7)	268	(4.7)	269	(4.9)	269	(3.8)
Austria	269	(1.1)	290	(3.6)	272	(1.1)	258	(6.0)	c	c	263	(6.0)	251	(2.2)	274	(9.0)	253	(2.2)
Canada	272	(1.6)	265	(1.6)	268	(1.2)	273	(9.9)	249	(6.6)	258	(5.4)	255	(4.0)	255	(3.5)	255	(2.6)
Czech Republic	269	(1.2)	291	(5.0)	271	(1.1)	266	(4.4)	c	c	270	(4.6)	258	(2.8)	294	(5.7)	263	(2.7)
Denmark	264	(1.3)	286	(3.2)	268	(1.2)	258	(6.2)	c	c	264	(5.5)	243	(3.1)	277	(7.1)	250	(2.8)
Estonia	266	(1.3)	274	(1.8)	270	(1.1)	257	(4.4)	262	(5.0)	259	(3.7)	257	(3.1)	255	(3.3)	257	(2.5)
Finland	278	(1.5)	308	(4.0)	282	(1.5)	271	(6.3)	c	c	275	(6.9)	250	(3.4)	303	(7.5)	259	(3.3)
France	254	(1.1)	278	(1.7)	260	(1.0)	254	(4.4)	259	(7.6)	256	(4.0)	250	(2.0)	269	(3.7)	254	(1.9)
Germany	264	(1.2)	295	(6.7)	265	(1.2)	255	(4.7)	c	c	256	(4.5)	247	(2.6)	273	(17.7)	249	(2.4)
Ireland	269	(2.5)	270	(2.0)	269	(1.7)	255	(5.4)	267	(5.5)	261	(4.2)	264	(2.9)	260	(4.1)	262	(2.6)
Italy	253	(3.0)	c	c	266	(1.6)	251	(5.1)	c	c	261	(3.7)	251	(4.5)	c	c	256	(2.6)
Japan	287	(2.1)	288	(1.6)	289	(1.2)	c	c	c	c	c	c	280	(3.6)	279	(2.9)	281	(2.3)
Korea	267	(1.4)	263	(1.5)	265	(1.0)	c	c	269	(7.3)	270	(6.1)	268	(3.2)	265	(2.9)	266	(2.4)
Netherlands	281	(1.4)	305	(2.7)	286	(1.3)	271	(6.9)	c	c	277	(6.3)	259	(3.3)	288	(7.7)	269	(3.8)
Norway	269	(1.4)	286	(2.5)	274	(1.5)	259	(10.0)	c	c	265	(7.6)	255	(3.9)	273	(6.4)	259	(3.7)
Poland	256	(1.3)	272	(3.5)	258	(1.2)	248	(5.2)	272	(8.3)	252	(4.6)	248	(1.9)	259	(4.6)	249	(1.8)
Slovak Republic	267	(1.4)	283	(1.4)	277	(1.0)	265	(4.6)	279	(6.0)	273	(3.8)	260	(2.2)	281	(2.4)	272	(1.9)
Spain	246	(4.9)	261	(1.9)	259	(1.8)	c	c	260	(5.2)	258	(4.8)	c	c	254	(3.5)	254	(3.2)
Sweden	276	(1.9)	284	(2.2)	281	(1.3)	c	c	c	c	256	(6.3)	249	(6.1)	260	(6.3)	256	(3.8)
United States	271	(2.8)	251	(2.1)	263	(1.6)	c	c	242	(4.4)	251	(3.5)	252	(6.0)	241	(3.8)	246	(2.8)
Sub-national entities																		
Flanders (Belgium)	251	(2.2)	c	c	268	(1.3)	c	c	c	c	257	(8.9)	239	(3.5)	c	c	255	(2.7)
England (UK)	267	(3.7)	278	(2.1)	277	(1.7)	c	c	256	(7.0)	259	(6.0)	254	(6.4)	264	(3.5)	265	(3.5)
Northern Ireland (UK)	269	(4.3)	271	(2.9)	273	(2.9)	c	c	c	c	257	(8.1)	258	(5.5)	263	(3.9)	262	(3.7)
England/N. Ireland (UK)	267	(3.6)	278	(2.0)	276	(1.7)	251	(9.8)	257	(6.9)	259	(5.9)	254	(6.1)	264	(3.3)	265	(3.3)
Average	267	(0.5)	281	(0.7)	271	(0.3)	260	(1.7)	262	(2.0)	262	(1.3)	255	(0.8)	270	(1.4)	259	(0.6)
Partners																		
Russian Federation*	274	(3.4)	264	(5.7)	270	(3.5)	c	c	c	c	c	c	271	(11.2)	273	(8.3)	272	(7.6)

* See note on data for the Russian Federation in the *Methodology* section.

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933115901

A5

Table A5.9a (L). Distribution of the adult population by literacy proficiency levels and labour market status (2012)

Literacy proficiency in the Survey of Adult Skills, percentage of 25-64 year-olds

	Employed								Unemployed							
	Level 0/1		Level 2		Level 3		Level 4/5		Level 0/1		Level 2		Level 3		Level 4/5	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
OECD																
National entities																
Australia	57	(2.2)	73	(1.4)	80	(1.0)	86	(1.6)	4.2	(1.0)	3.8	(0.7)	3.1	(0.6)	2.9	(0.9)
Austria	61	(2.2)	73	(1.4)	85	(1.3)	89	(1.9)	c	c	c	c	c	c	c	c
Canada	66	(1.3)	77	(0.9)	84	(0.7)	89	(1.1)	4.5	(0.7)	3.7	(0.4)	2.9	(0.4)	2.5	(0.6)
Czech Republic	62	(3.7)	72	(1.6)	78	(1.8)	87	(3.3)	5.9	(1.9)	5.7	(0.8)	3.6	(0.7)	2.1	(1.2)
Denmark	58	(1.8)	76	(1.2)	85	(0.9)	90	(1.8)	6.1	(1.0)	4.5	(0.6)	4.5	(0.6)	3.4	(1.3)
Estonia	65	(2.1)	75	(1.2)	83	(0.9)	92	(1.2)	7.8	(1.1)	6.5	(0.6)	4.8	(0.5)	2.5	(0.7)
Finland	50	(2.7)	71	(1.5)	83	(1.0)	88	(1.1)	4.2	(1.2)	3.6	(0.6)	3.6	(0.5)	3.6	(0.6)
France	58	(1.4)	71	(1.0)	79	(0.8)	84	(1.8)	6.9	(0.7)	5.4	(0.5)	4.8	(0.6)	4.5	(1.2)
Germany	65	(2.1)	78	(1.3)	87	(1.0)	90	(1.7)	6.4	(1.1)	4.1	(0.7)	3.4	(0.6)	1.6	(0.7)
Ireland	50	(2.3)	63	(1.2)	74	(1.4)	84	(2.5)	9.9	(1.2)	9.8	(0.9)	6.5	(0.8)	3.7	(1.2)
Italy	55	(2.0)	61	(1.4)	74	(1.8)	86	(4.7)	10.4	(1.3)	8.9	(0.9)	7.5	(1.1)	5.9	(3.1)
Japan	69	(4.3)	72	(1.7)	78	(0.9)	79	(1.6)	c	c	c	c	c	c	c	c
Korea	69	(2.2)	74	(0.9)	78	(1.1)	78	(2.8)	1.9	(0.6)	2.3	(0.4)	2.6	(0.5)	3.7	(1.4)
Netherlands	59	(2.6)	72	(1.6)	85	(0.9)	90	(1.4)	5.6	(1.4)	4.1	(0.7)	2.7	(0.5)	3.0	(0.8)
Norway	66	(2.7)	80	(1.4)	89	(0.9)	93	(1.2)	c	c	c	c	c	c	c	c
Poland	55	(2.2)	65	(1.7)	75	(1.3)	85	(2.2)	7.5	(1.1)	6.6	(0.8)	4.9	(0.7)	4.0	(1.4)
Slovak Republic	46	(3.0)	66	(1.4)	75	(1.2)	80	(3.4)	11.8	(1.5)	7.0	(0.8)	6.1	(0.7)	5.7	(1.8)
Spain	50	(1.4)	63	(1.4)	75	(1.5)	83	(3.3)	16.5	(1.1)	13.5	(1.1)	10.8	(1.0)	7.2	(2.1)
Sweden	58	(2.5)	79	(1.3)	88	(1.0)	94	(1.3)	10.1	(1.5)	5.0	(0.9)	3.4	(0.6)	1.5	(0.7)
United States	66	(2.4)	73	(1.6)	83	(1.1)	88	(1.6)	8.1	(1.1)	7.4	(0.9)	5.6	(0.8)	2.6	(0.7)
Sub-national entities																
Flanders (Belgium)	58	(2.0)	75	(1.2)	85	(1.0)	93	(1.2)	c	c	c	c	c	c	c	c
England (UK)	61	(2.2)	72	(1.6)	82	(1.1)	87	(1.7)	8.8	(1.2)	5.9	(0.7)	3.2	(0.5)	2.5	(0.7)
Northern Ireland (UK)	53	(2.9)	67	(1.6)	79	(1.3)	88	(2.7)	5.5	(1.2)	4.0	(0.7)	3.4	(0.8)	3.7	(2.0)
England/N. Ireland (UK)	61	(2.1)	72	(1.5)	82	(1.1)	87	(1.6)	8.7	(1.1)	5.8	(0.7)	3.2	(0.5)	2.5	(0.7)
Average	59	(0.5)	72	(0.3)	81	(0.2)	87	(0.5)	7.6	(0.3)	6.0	(0.2)	4.7	(0.2)	3.5	(0.3)
Partners																
Russian Federation*	55	(3.8)	64	(2.3)	68	(2.6)	69	(5.6)	c	c	c	c	c	c	c	c

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for all literacy proficiency levels combined and for inactivity rates by literacy proficiency levels are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933115920

Table A5.10a (L). Distribution of people working full time/part time by literacy proficiency level and age group (2012)

Literacy proficiency in the Survey of Adult Skills

		Work intensity	25-34 year-olds								55-64 year-olds							
			Level 0/1		Level 2		Level 3		Level 4/5		Level 0/1		Level 2		Level 3		Level 4/5	
			%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
OECD	**National entities**																	
	Australia	Part-time	13	(3.1)	26	(4.0)	39	(4.4)	23	(3.7)	16	(3.1)	35	(4.1)	40	(4.5)	9	(2.1)
		Full-time	7	(1.3)	23	(1.8)	45	(3.0)	24	(2.3)	15	(1.8)	33	(3.0)	39	(2.7)	13	(2.2)
	Austria	Part-time	13	(3.8)	28	(5.0)	46	(5.8)	13	(3.7)	c	c	c	c	c	c	c	c
		Full-time	8	(1.6)	31	(2.6)	47	(2.8)	14	(1.8)	17	(2.8)	50	(4.1)	30	(3.4)	4	(1.4)
	Canada	Part-time	7	(2.2)	29	(4.0)	41	(4.4)	23	(3.4)	15	(2.5)	39	(3.7)	35	(3.5)	10	(2.4)
		Full-time	9	(1.1)	27	(2.0)	42	(2.6)	22	(1.6)	21	(1.4)	35	(1.7)	33	(1.6)	10	(1.1)
	Czech Republic	Part-time	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
		Full-time	6	(1.4)	26	(3.2)	51	(3.4)	16	(2.4)	15	(2.7)	42	(5.3)	37	(4.4)	6	(2.4)
	Denmark	Part-time	c	c	c	c	c	c	c	c	25	(3.5)	45	(4.5)	27	(3.6)	3	(1.2)
		Full-time	9	(1.2)	27	(2.5)	46	(2.8)	18	(2.2)	17	(1.3)	43	(1.7)	36	(1.8)	4	(0.8)
	Estonia	Part-time	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
		Full-time	8	(1.2)	28	(1.7)	46	(2.0)	18	(1.8)	15	(1.5)	40	(2.3)	37	(2.3)	7	(1.2)
	Finland	Part-time	c	c	c	c	c	c	c	c	9	(3.3)	51	(6.3)	32	(5.8)	8	(3.2)
		Full-time	4	(1.0)	15	(2.1)	42	(2.3)	39	(1.9)	14	(1.6)	38	(2.2)	40	(2.1)	8	(1.1)
	France	Part-time	c	c	c	c	c	c	c	c	36	(4.0)	38	(4.5)	25	(3.9)	2	(1.1)
		Full-time	9	(1.2)	31	(1.9)	45	(2.3)	15	(1.2)	30	(1.9)	42	(2.1)	25	(1.7)	3	(0.8)
	Germany	Part-time	12	(3.5)	25	(3.9)	44	(6.2)	20	(4.8)	23	(4.6)	45	(6.8)	29	(4.8)	3	(1.7)
		Full-time	12	(1.8)	29	(2.3)	43	(2.5)	16	(1.8)	16	(2.9)	44	(3.5)	35	(2.8)	5	(1.4)
	Ireland	Part-time	12	(3.3)	41	(4.6)	38	(4.5)	9	(3.0)	22	(3.9)	43	(5.2)	31	(5.1)	3	(1.5)
		Full-time	8	(1.2)	31	(2.2)	45	(2.4)	16	(2.1)	24	(3.6)	41	(4.3)	31	(3.1)	4	(1.9)
	Italy	Part-time	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
		Full-time	20	(2.8)	35	(3.3)	38	(3.3)	7	(1.6)	35	(4.8)	43	(5.3)	21	(3.8)	2	(1.1)
	Japan	Part-time	c	c	c	c	c	c	c	c	15	(3.1)	36	(4.0)	40	(4.2)	9	(2.3)
		Full-time	2	(0.7)	12	(1.7)	53	(2.3)	33	(2.4)	11	(1.7)	36	(2.8)	43	(2.8)	10	(1.7)
	Korea	Part-time	c	c	c	c	c	c	c	c	36	(4.5)	45	(5.5)	18	(4.3)	c	c
		Full-time	4	(0.9)	28	(2.2)	54	(2.3)	14	(1.7)	28	(2.3)	47	(2.9)	23	(2.6)	2	(0.9)
	Netherlands	Part-time	8	(2.4)	21	(3.8)	46	(4.8)	25	(3.6)	19	(2.9)	39	(3.8)	36	(4.0)	5	(2.0)
		Full-time	5	(1.2)	17	(2.0)	47	(3.1)	32	(3.3)	16	(2.7)	34	(3.6)	40	(3.0)	10	(2.1)
	Norway	Part-time	18	(4.2)	20	(4.7)	43	(5.6)	19	(4.1)	24	(4.7)	46	(5.4)	27	(5.2)	3	(2.0)
		Full-time	9	(1.3)	20	(2.0)	48	(2.6)	24	(2.1)	12	(1.9)	40	(3.1)	41	(2.7)	7	(1.4)
	Poland	Part-time	6	(3.5)	30	(5.7)	48	(7.5)	16	(5.3)	c	c	c	c	c	c	c	c
		Full-time	12	(1.5)	33	(2.8)	38	(2.7)	16	(1.6)	20	(2.5)	42	(3.9)	32	(3.5)	6	(2.1)
	Slovak Republic	Part-time	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
		Full-time	6	(1.1)	30	(2.1)	52	(2.3)	12	(1.7)	11	(2.1)	41	(3.4)	44	(2.9)	4	(1.2)
	Spain	Part-time	12	(3.4)	33	(4.7)	45	(4.9)	10	(3.8)	c	c	c	c	c	c	c	c
		Full-time	18	(2.1)	42	(2.6)	34	(2.2)	7	(1.3)	39	(3.0)	38	(3.1)	21	(3.0)	2	(1.1)
	Sweden	Part-time	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
		Full-time	6	(1.2)	20	(2.1)	45	(2.6)	28	(2.2)	13	(1.5)	36	(2.8)	41	(2.9)	9	(1.5)
	United States	Part-time	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
		Full-time	16	(1.8)	29	(2.8)	37	(2.5)	18	(2.2)	18	(2.4)	34	(3.0)	38	(2.6)	10	(1.4)
	Sub-national entities																	
	Flanders (Belgium)	Part-time	c	c	c	c	c	c	c	c	20	(4.7)	46	(6.3)	28	(5.4)	5	(3.2)
		Full-time	5	(1.0)	22	(2.1)	49	(2.8)	24	(2.3)	18	(2.7)	37	(3.4)	37	(3.6)	8	(1.9)
	England (UK)	Part-time	17	(4.3)	29	(4.7)	38	(5.0)	16	(4.2)	16	(3.6)	36	(5.9)	39	(4.8)	9	(3.4)
		Full-time	8	(1.6)	28	(2.4)	42	(2.7)	21	(2.1)	17	(3.2)	38	(3.4)	33	(3.6)	12	(2.4)
	Northern Ireland (UK)	Part-time	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
		Full-time	9	(2.5)	28	(3.8)	46	(3.7)	17	(2.2)	20	(4.7)	38	(5.0)	32	(4.5)	9	(2.7)
	England/N. Ireland (UK)	Part-time	17	(4.1)	29	(4.7)	38	(4.9)	16	(4.1)	16	(3.5)	37	(5.8)	39	(4.7)	9	(3.4)
		Full-time	8	(1.5)	28	(2.4)	43	(2.6)	21	(2.1)	17	(3.2)	38	(3.3)	33	(3.5)	12	(2.3)
	Average	Part-time	12	(1.1)	28	(1.4)	43	(1.7)	17	(1.3)	21	(1.1)	42	(1.5)	32	(1.3)	6	(0.7)
		Full-time	9	(0.3)	26	(0.5)	45	(0.6)	20	(0.4)	19	(0.5)	40	(0.7)	34	(0.6)	7	(0.3)
Partners	Russian Federation*	Part-time	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c	c
		Full-time	12	(2.2)	34	(3.9)	44	(3.8)	10	(2.4)	8	(3.2)	34	(6.8)	44	(7.2)	13	(4.1)

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for age groups 35-44, 45-54 and 25-64 are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

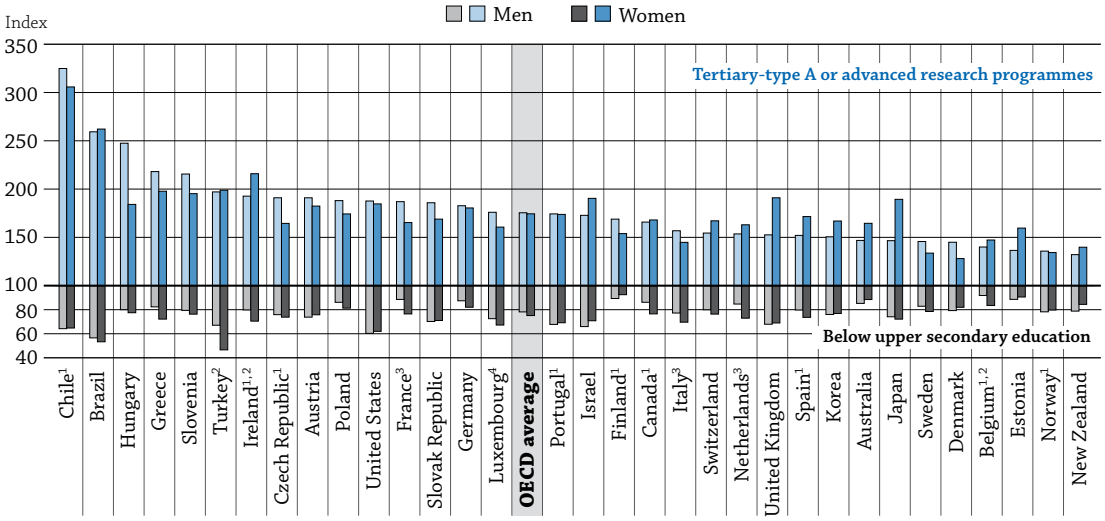
StatLink http://dx.doi.org/10.1787/888933115939

WHAT ARE THE EARNINGS ADVANTAGES FROM EDUCATION?

- In all OECD countries, adults with tertiary education earn more than adults with upper secondary or post-secondary non-tertiary education, who, in turn, earn more than adults without upper secondary education.
- Across OECD countries, compared with adults with upper secondary education who have income from employment, those without this qualification earn about 20% less, those with post-secondary non-tertiary education about 10% more, those with tertiary-type B (vocationally oriented) education about 30% more, and those with tertiary-type A (academically oriented) education or advanced research earn about 70% more.
- Across OECD countries, a tertiary-educated woman earns about 75% of what a similarly educated man earns. Only in Belgium, Slovenia, Spain and Turkey do the earnings of tertiary-educated women amount to 80% or more of men's earnings. In Brazil, Chile and Hungary, women with a tertiary degree earn 65% or less of what tertiary-educated men earn.
- On average, a tertiary graduate who performs at Level 4 or 5 in literacy proficiency, as measured by the Survey of Adult Skills (PIAAC), earns about 45% more than a similarly educated adult who performs at or below Level 1 in literacy proficiency; among adults with upper secondary education, there is a difference in earnings of around 30% between those with high literacy proficiency and those with low proficiency.

Chart A6.1. Relative earnings of workers, by educational attainment and gender (2012)

25-64 year-olds with income from employment; upper secondary education = 100



1. Year of reference 2011.
2. Earnings net of income tax.
3. Year of reference 2010.
4. Data refer to all tertiary education.

Countries are ranked in descending order of the relative earnings of 25-64 year-old men with tertiary-type A or advanced research programmes education.

Source: OECD. Table A6.1b, available on line. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933116205

Context

Even if having better jobs is only one among many of the positive social and individual outcomes of attaining higher qualifications, data show that higher levels of education usually translate into better chances of employment (see Indicator A5) and higher earnings. In fact, in all OECD countries for which information is available, the higher the level of education, the greater the relative earnings.

This also seems to hold true for skills levels: individuals with high literacy proficiency, as measured by the Survey of Adult Skills, a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC), report having the highest wages, while those with low skills proficiency generally report the lowest income.

The potential to earn more and see those earnings increase over time, along with other social benefits, is an incentive for individuals to pursue education and training; this is true even though the economic rewards vary, according to the chosen field of education (see Box A6.1 in *Education at a Glance 2013* [OECD, 2013]). While relative earnings for individuals with higher educational attainment tend to increase with age, relative earnings for people with below upper secondary education tend to decrease. "Relative earnings" are percentages of the earnings of adults with levels of education other than upper secondary relative to the earnings of those with upper secondary education.

Variations in relative earnings among countries reflect a number of factors, including the demand for skills in the labour market, the supply of workers at various levels of educational attainment, minimum wage laws, the strength of labour unions, the coverage of collective-bargaining agreements, relative incidence of part-time and seasonal work or the age composition of the labour force.

Information in this indicator shows that earnings advantages increase or decrease according to education, age, gender and skills proficiency. Each of these factors seems to play a role in individuals' earnings advantages to different extents. The higher the qualification attained, the better-placed individuals are to earn higher wages and to see increases in those wages over time. In addition, high skills proficiency seems to pay off in the labour market, not only in employment rates but also in mean earnings. However, in many countries, gender gaps in earnings persist, regardless of the levels of education and skills.

Other findings

- **Only about 10% of those with tertiary education are in the low-earnings category, and in general tertiary-educated individuals are substantially more likely to earn twice as much as the median worker.** About 30% of tertiary-educated workers earn twice as much as the median worker and are substantially less likely to be in the low-earnings category than those with below upper secondary education (3% earn more than twice the median and about 30% earn at or below half of the median).
- **In Brazil, Turkey and the United States, adults without upper secondary education are the most penalised in their wages, earning, at best, 35% less than people with that qualification**. In Chile, Brazil and Hungary, those with tertiary education are, comparatively, the most highly rewarded, earning more than double the income of a person with upper secondary education.
- **About 65% of the 15-24 year-old non-students have earnings from employment, while fewer than half of students do (about 40%).** In OECD countries, about 50% of 15-24 year-olds have income from employment.
- **Women with either tertiary education or with below upper secondary education aged 55-64 can expect to earn about 75% of what men of a similar age and education level earn**, while women of that age who have upper secondary education can expect to earn about 80% of what men of the same age and education level earn.

Trends

In all OECD countries, adults with tertiary education earn considerably more than adults with below upper secondary education. Between 2005 and 2012, in countries with available data for both years, the relative earnings of adults without upper secondary education either remained stable or fell, to some degree, when compared with earnings of adults with upper secondary education. In addition, in most of these countries, earnings of tertiary-educated adults relative to earnings of adults with upper secondary education increased or remained stable during the same period; the only exceptions are Hungary and the United States.

These differences suggest that the demand for higher-level and updated skills have grown, and that individuals with lower levels of skills are even more vulnerable today.

Analysis

Educational attainment and relative earnings

The higher the level of education, the higher the relative earnings. "Relative earnings" refers to the earnings of adults with income from employment who have an educational attainment other than upper secondary, relative to the earnings of those with upper secondary education.

In all OECD countries, adults with tertiary education earn more than adults with upper secondary education, who, in turn, earn more than adults with below upper secondary education. In many countries, upper secondary education is the level beyond which further education and training implies high relative earnings. As such, upper secondary education can be considered the benchmark against which earnings related to educational attainment can be measured. Since private investment costs beyond upper secondary education rise considerably in most countries, a high earnings premium is an important incentive for individuals to invest time and money in further education (Table A6.1a).

Earnings differentials between adults with tertiary education and those with upper secondary education are generally more pronounced than the differentials between upper secondary and below upper secondary education. Across OECD countries, compared with adults with income from employment with upper secondary education, those without this qualification earn about 20% less, those with post-secondary non-tertiary education about 10% more, those with tertiary-type B education about 30% more and those with tertiary-type A education or advanced research earn about 70% more.

Chile, Brazil, Hungary, Turkey and the United States show the largest differences in earnings related to the level of education. In Brazil, Turkey and the United States, those without upper secondary education are the most penalised, as they earn at least 35% less than people with this qualification. In Chile, Brazil and Hungary, those with tertiary education are the most highly rewarded, relative to persons with less education, as they earn more than double the income of a person with upper secondary education (Table A6.1a).

Relative earnings, by gender

Across OECD countries, relative earnings are affected by educational attainment to various degrees. Chart A6.1 shows that, on average across OECD countries, there are no large differences related to educational attainment between the genders in the relative earnings of adults with income from employment. A man or a woman with tertiary education (including only ISCED level 5A or 6 in Chart A6.1) earns about 70% more than a person of the same gender with upper secondary education. Nevertheless, there are large differences among countries. In Chile and Brazil (for both men and women), in Greece, Hungary and Slovenia (for men), and in Ireland (for women), tertiary-educated adults earns more than twice as much as those with upper secondary education (Table A6.1b, available on line).

Among tertiary-educated adults, differences in relative earnings (i.e. compared with the earnings of adults with upper secondary education) between men and women vary among countries. In Australia, Estonia, Ireland, Israel, Japan, Korea, Spain, Switzerland and the United Kingdom, women's relative earnings are more than 10 percentage points higher compared to men's relative earnings, while in Chile, the Czech Republic, Denmark, Finland, France, Greece, Hungary, Italy, Luxembourg, Poland, the Slovak Republic, Slovenia and Sweden, men's earnings are more than 10 percentage points higher than women's. In both cases, the differences are relative to the earnings of members of the same gender with upper secondary education who have income from employment. When comparing the genders, it should be borne in mind that there may be large differences between the two in the proportion of people with income from employment (Table A6.1b, available on line).

Relative earnings, by age

Higher educational attainment is associated with higher earnings during a person's working life. On average across OECD countries, earnings increase with the level of educational attainment, but this increase is particularly large for older workers. People with higher levels of education are more likely to be employed, and remain employed, and have more opportunities to gain experience on the job.

In Chart A6.2, the difference in relative earnings of older workers (55-64 year-olds) is subtracted from the difference in relative earnings of younger workers (25-34 year-olds). In both cases, the differences are relative to the earnings of members of the same age group with upper secondary education who have income from employment. The result is the percentage-point difference in relative earnings between the two age groups. Taking the OECD average as an example, young adults with below upper secondary education earn about 80% of what young adults with

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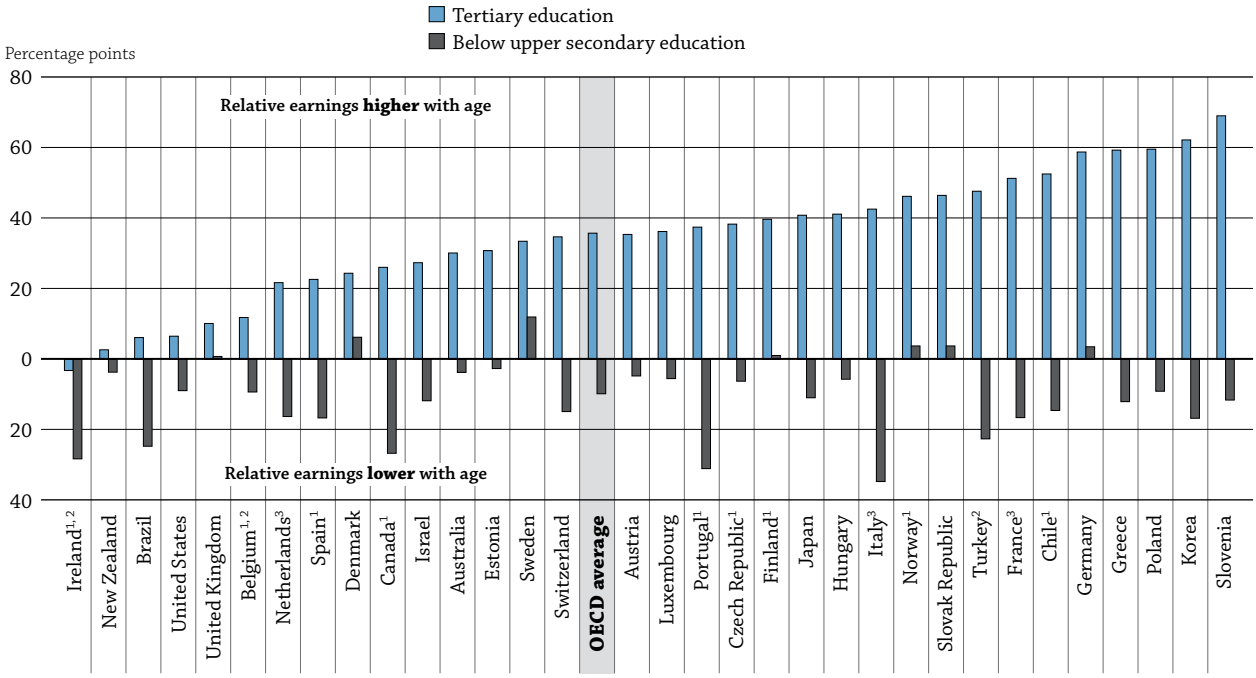
upper secondary education earn. This proportion is 70% for older adults (Table A6.1a). Chart A6.2 shows the difference between these two age groups, i.e. about 10 percentage points. For workers with tertiary-type A education or an advanced research qualification (ISCED level 5A or 6), the difference in relative earnings between the two age groups is calculated the same way, and averages around 35 percentage points.

The relative earnings for tertiary-educated older adults are higher than those of younger adults in most OECD and G20 countries, with the exception of Ireland. On average, the differential between the two groups is up to 35 percentage points. For those with only below upper secondary education, the relative earnings disadvantage increases for older workers in all countries except Denmark, Finland, Germany, Norway, the Slovak Republic, Sweden and the United Kingdom. The increase in this disadvantage is not as marked as the increase in the earnings advantage for those with a tertiary education – an indication that tertiary education is key to higher earnings at older ages (Table A6.1a).

Chart A6.2. Differences in relative earnings between older and younger workers, by educational attainment (2012)

55-64 and 25-34 year-olds with income from employment, percentage-point difference, earnings relative to workers with upper secondary education



1. Year of reference 2011.
2. Earnings net of income tax.
3. Year of reference 2010.

Countries are ranked in ascending order of the difference in relative earnings among 55-64 year-olds and 25-34 year-olds with tertiary education.

Source: OECD. Table A6.1a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

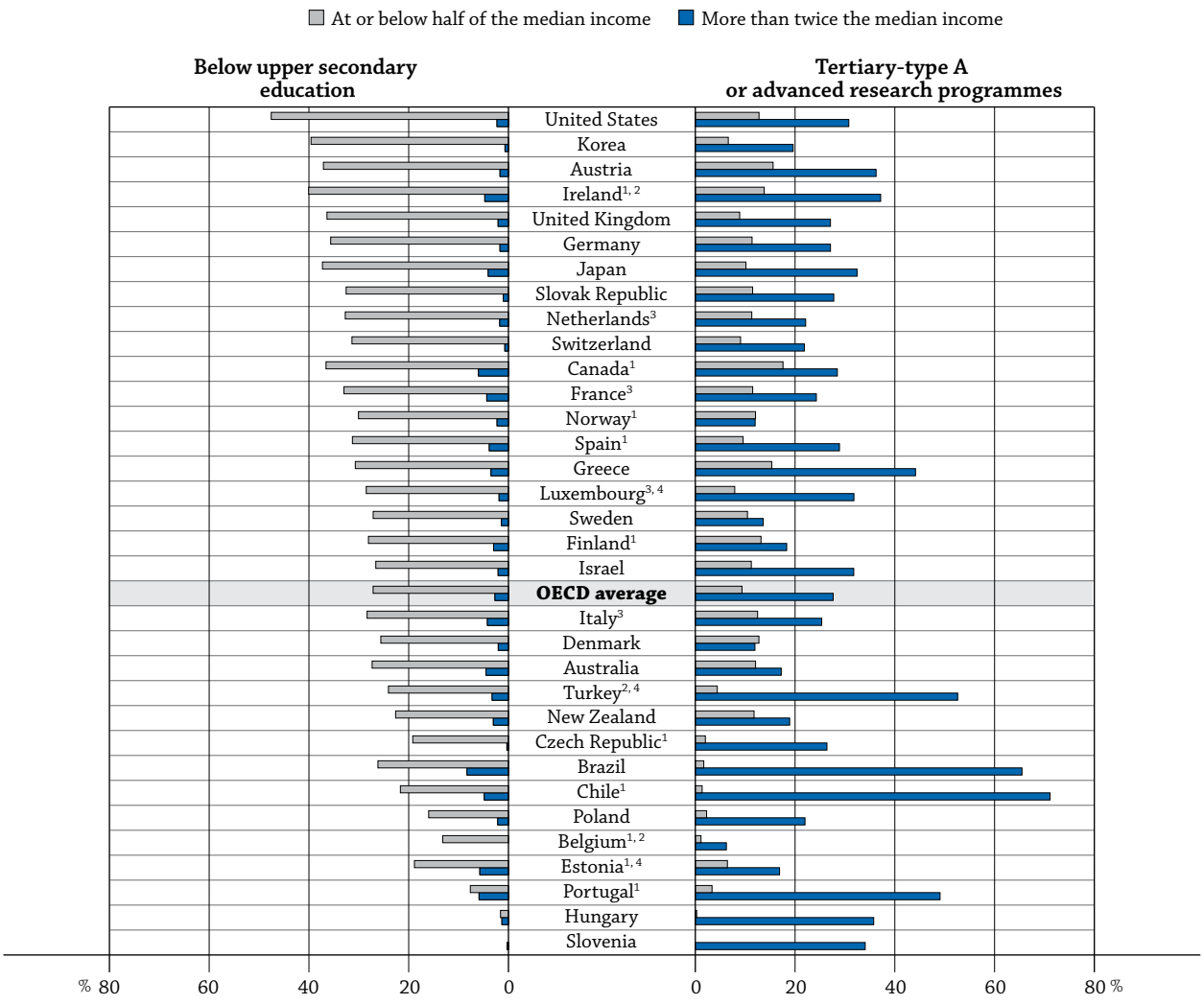
StatLink http://dx.doi.org/10.1787/888933116224

Trends in relative earnings, by educational attainment

Between 2005 and 2012, in countries with available data for both years, the relative earnings of adults with below upper secondary education who have income from employment either remained stable or fell, to some degree, when compared with earnings of adults with upper secondary education. In most countries, except Hungary and the United States, relative earnings for tertiary-educated adults increased between 2005 and 2012. Nonetheless, relative earnings have undergone large fluctuations in several countries. In addition, data on earnings' trends are relative to the changes in earnings of people with upper secondary qualifications in each country. For this reason it is difficult to assess the average evolution of relative earnings for the different levels of education throughout the years (see *Methodology* section for further information) (Table A6.2a).

Chart A6.3. Differences in relative earnings of workers, by educational attainment (2012)

25-64 year-olds with income from employment



1. Year of reference 2011.
2. Earnings net of income tax.
3. Year of reference 2010.
4. Data refer to all tertiary education.

Countries are ranked in descending order of the difference in proportion of 25-64 year-olds at or below half the median and the proportion of the population earning more than twice the median, at below upper secondary education.

Source: OECD. Table A6.4, available on line. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933116243

Differences in earnings between female and male workers, by educational attainment

Regardless of the level of education, the gender gap in earnings persists. The available data on full-time, full-year earners show that the largest gender gap in earnings is among workers with tertiary education. Across OECD countries, a tertiary-educated woman earns about 75% of what a tertiary educated man earns. Only in Belgium, Slovenia, Spain and Turkey do the earnings of tertiary-educated women amount to 80% or more of men's earnings. In Brazil, Chile and Hungary, women with a tertiary degree earn 65% or less of what tertiary-educated men earn (Table A6.3a).

On average, only women with an upper secondary or post-secondary non-tertiary education working full time show an increase in earnings, relative to men, as they grow older. Women with tertiary education and women with below upper secondary education show no increase in earnings, relative to men's earnings, as they age. Tertiary-educated

women or women with below upper secondary education aged 55-64 can expect to earn about 75% of what men of a similar age and education level earn, while women that age who have upper secondary education can expect to earn about 80% of what men of the same age and education level earn (Table A6.3a).

Distribution of earnings within levels of educational attainment

Data on the distribution of earnings within groups with different levels of education can show how tightly earnings centre around the country median. In addition to providing information on equity in earnings, these data indicate the risks associated with investing in education, as risk is typically measured by the variation in outcomes. Data on the distribution of earnings (Table A6.4, available on line) include earnings from all employed individuals, and this limits the analysis as the hours worked influences earnings, in general, and the distribution of earnings, in particular (see *Methodology* section for further information).

For people with income from employment, the five earnings categories reported range from "At or below half the median" income to "More than twice the median" income, while the proportion of people without earnings from work is reported in a separate column. Chart A6.3 contrasts the results for those with below upper secondary education with those who have completed a tertiary-type A or an advanced research programme (ISCED 5A or 6) by comparing the proportion of wage-earners at or below one-half of the median to those at more than twice the median. As expected, there is a large difference between these two educational categories. On average, tertiary-educated individuals are substantially more likely to earn twice as much as the median worker (about 30% of these individuals do) and are substantially less likely to be in the low-earnings category (about 10% are) than those with below upper secondary education (3% earn more than twice the median and about 30% earn at or below half of the median) (Table A6.4, available on line).

There are some notable differences in how well tertiary-educated individuals fare in different countries. In Brazil and Chile, 65% or more of those with a degree from a tertiary-type A or advanced research programme earn twice as much as the median worker; in Austria, Canada and Greece, 15% or more of those with such a degree are found in the lowest-earnings category (at or below half of the median); and in Denmark and Norway, an individual with such a degree is roughly as likely to fall into the lowest and highest earnings categories (Chart A6.3).

In all countries, individuals who remain with low qualifications through their working life (below upper secondary education) usually face large earnings disadvantages. On average across OECD countries, less than 5% of those with below upper secondary education earn twice the national median. Only in Brazil, Canada, Estonia and Portugal is this proportion larger than 5%. On average, over 25% of those with below upper secondary education earn less than half the national median; in the United States, more than 45% of this group do (Chart A6.3).

Relative earnings of students

In OECD countries, about 50% of 15-24 year-olds have income from employment. In this age group, a majority of non-students (about 65%) has earnings from employment, while less than half of students do (about 40%). In Belgium, Chile, Greece and Spain, less than 10% of 15-24 year-old students have earnings from employment. It is important to consider that, in some countries, such as Switzerland, a proportion of students enrolled in upper secondary education has earnings based on apprenticeship contracts but these students are not included in these calculations. Data on students' earnings show that female students at this age are about 5 percentage points more likely to work than their male counterparts (Table A6.5b and Table A6.5c, available on line).

On average, among students with income from employment, those who have attained upper secondary or post-secondary non-tertiary education have higher earnings than students with below upper secondary attainment, relative to non-students (Table A6.5a).

These findings support the widespread notion that schooling beyond compulsory education implies a loss of income, even when combining studying and work. This loss of income, together with tuition fees and the need to repay loans, may discourage some individuals from studying while being active in the labour market.

Mean monthly earnings and literacy proficiency levels in the Survey of Adult Skills

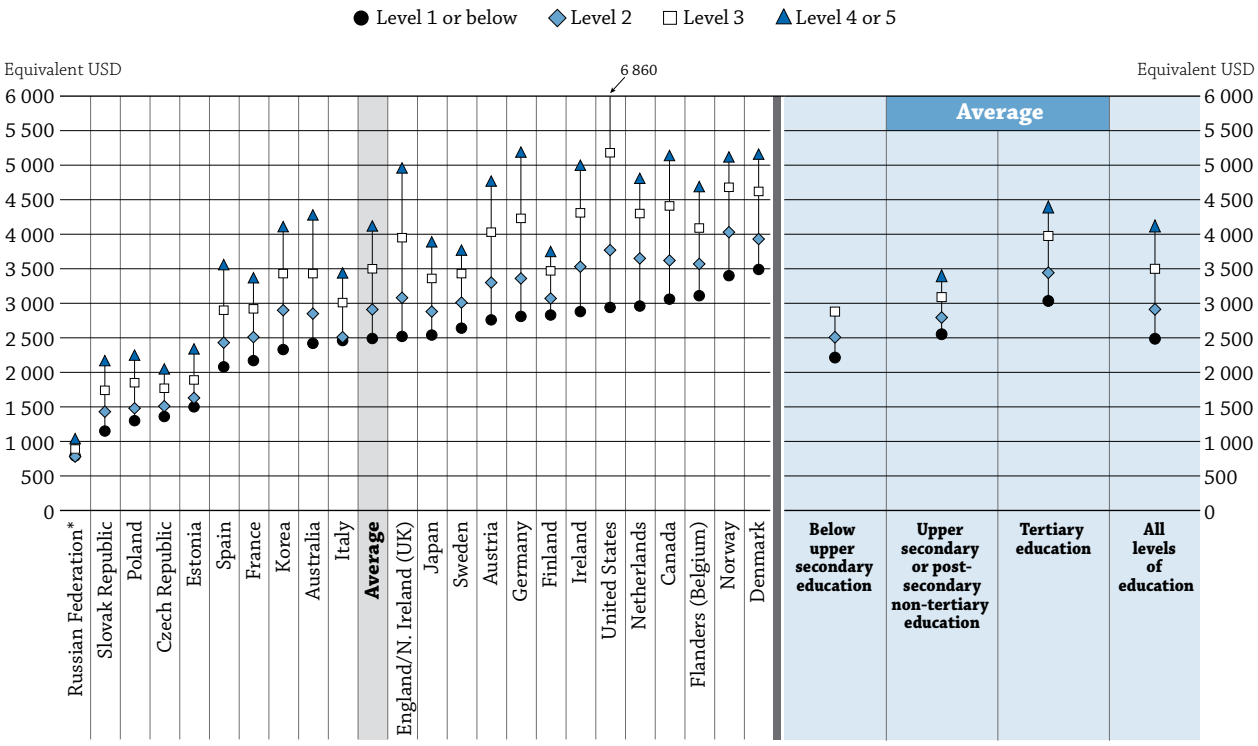
The higher the proficiency in literacy, as measured by the Survey of Adult Skills, the higher the monthly earnings. Conversely, those with low literacy proficiency have generally the lowest monthly earnings. Chart A6.4 shows that across countries, mean monthly earnings in USD are higher as both the educational attainment level and the literacy proficiency level increase (right side of chart). In all countries with available data, mean monthly earnings are lowest

for those who perform at or below Level 1 in literacy proficiency and highest for those who perform at Level 4 or 5 (left side of chart). On average across countries, an individual at literacy proficiency Level 4 or 5 earns about 65% more than an individual at Level 1 or below.

Nonetheless, the difference in mean monthly earnings between people at each literacy proficiency level varies widely among countries. As proficiency increases, differences in returns range from less than 50% in Denmark, Finland, Italy, the Russian Federation and Sweden, to over 100% in the United States.

Chart A6.4. Mean monthly earnings, by literacy proficiency level (2012)

Survey of Adult Skills, 25-64 year-olds with income from employment working full time (i.e. 30 or more hours per week)



* See note on data for the Russian Federation in the *Methodology* section.

Countries are ranked in ascending order of mean monthly earnings by literacy proficiency Level 1 or below.

Source: OECD. Table A6.6a (L). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933116262

In addition, the right section of the chart shows the average impact of skills and educational attainment on mean monthly earnings. At all levels of education combined, earnings advantages are larger at higher levels of proficiency. On average, a tertiary graduate who performs at Level 4 or 5 in literacy proficiency, as measured by the Survey of Adult Skills, earns about 45% more than a similarly educated adult who performs at or below Level 1 in literacy proficiency; among adults with upper secondary education, there is a differences in earnings of around 30% between those with high literacy proficiency and those with low proficiency.

Definitions

Age groups: adults refers to 25-64 year-olds; **younger adults** refers to 25-34 year-olds; **older adults** refers to 55-64 year-olds. The **working-age population** is the total population aged 25-64.

Levels of education: below upper secondary corresponds to ISCED levels 0, 1, 2 and 3C short programmes; **upper secondary or post-secondary non-tertiary** corresponds to ISCED levels 3A, 3B, 3C long programmes, and ISCED level 4; and **tertiary** corresponds to ISCED levels 5A, 5B and 6. See the *Reader's Guide* at the beginning of the book for a presentation of all ISCED levels.

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Methodology

The indicator is based on two different data collections. One is the regular data collection by the OECD LSO (Labour Market and Social Outcomes of Learning) Network that takes account of earnings from work for all individuals during the reference period, even if the individual has worked part time or part year; this database contains data on student versus non-student earnings. It also gathers information on the earnings of those working full time and full year, for Table A6.3a. The second data collection is the Survey of Adult Skills, for Tables A6.6a, b and c and A6.7. Data on proficiency levels are based on the Survey of Adult Skills (PIAAC) (2012). PIAAC is the OECD Programme for the International Assessment of Adult Competencies. See *About the Survey of Adult Skills* at the beginning of this publication and Annex 3 (*www.oecd.org/edu/eag.htm*) for additional information.

Regular earnings data collection

Regular earnings data collection (used in all tables except Tables A6.6 and A6.7) provides information based on an annual, monthly or weekly reference period, depending on the country. The length of the reference period for earnings also differs. Australia, New Zealand and the United Kingdom reported data on weekly earnings; Belgium, Brazil, Chile, Estonia, Finland, Israel (three months), Korea, Portugal and Switzerland reported monthly data; and all other countries reported annual data. France reported annual data from 2008 onwards, and monthly data up to and including 2007. Data on earnings are before income tax, except for Belgium, Korea and Turkey, where earnings reported are net of income tax. Data on earnings for individuals in part-time work are excluded in the regular data collection for the Czech Republic, Hungary, Portugal and Slovenia; and data on part-year earnings are excluded for the Czech Republic, Hungary and Portugal. Earnings of self-employed people are excluded for many countries and, in general, there is no simple and comparable method to separate earnings from employment and returns to capital invested in the business.

Since earnings data differ across countries in a number of ways, the results should be interpreted with caution. For example, in countries reporting annual earnings, differences in the incidence of seasonal work among individuals with different levels of educational attainment will have an effect on relative earnings that is not similarly reflected in the data for countries reporting weekly or monthly earnings. In addition, data available in Tables A6.2a and b concern relative earnings and therefore should be used with caution to assess the evolution of relative earnings for different levels of education. For Tables A6.5a and b, differences between countries could be the result of differences in data sources and in the length of the reference period. For further details, see Annex 3.

The total (men plus women, i.e. M+W) average for earnings is not the simple average of the earnings figures for men and women, but the average based on earnings of the total population. This overall average weights the average earnings figure separately for men and women by the share of men and women at different levels of attainment.

Full-time and full-year data collection

Full-time and full-year data collection supplies the data for Table A6.3a (gender differences in full-time earnings) and Table A5.6 (differences in full-time earnings by educational attainment).

For the definition of full-time earnings (in Tables A6.3a and A5.6), countries were asked whether they had applied a self-designated full-time status or a threshold value of typical number of hours worked per week. Belgium, France, Italy, Luxembourg, Portugal, Spain, Sweden and the United Kingdom reported self-designated full-time status; the other countries defined the full-time status by the number of working hours per week. The threshold was 44/45 hours per week in Chile, 37 hours per week in the Slovak Republic, 36 hours in Hungary and Slovenia, 35 hours in Australia, Canada, Estonia, Germany, Israel, Korea, Norway and the United States, and 30 hours in the Czech Republic, Greece and New Zealand. Other participating countries did not report a minimum normal number of working hours for full-time work. For some countries, data on full-time, full-year earnings are based on the European Survey on Income and Living Conditions (EU-SILC), which uses a self-designated approach in establishing full-time status.

Survey of Adult Skills

Data for Tables A6.6 and A6.7 are taken from the Survey of Adult Skills, a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC).

"Monthly earnings" includes bonuses for wage and salary earners and self-employed individuals, PPP corrected USD. The wage distribution was trimmed to eliminate the 1st and 99th percentiles.

Only people working full time are taken into account; a person is considered to be working full time if the working hours per week are greater than or equal to 30.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Note regarding data from the Russian Federation in the Survey of Adult Skills (PIAAC)

Readers should note that the sample for the Russian Federation does not include the population of the Moscow municipal area. The data published, therefore, do not represent the entire resident population aged 16-65 in Russia but rather the population of Russia *excluding* the population residing in the Moscow municipal area. More detailed information regarding the data from the Russian Federation as well as that of other countries can be found in the *Technical Report of the Survey of Adult Skills* (OECD, forthcoming).

Reference

OECD (2013), *Education at a Glance 2013: OECD Indicators*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eag-2013-en*.

Tables of Indicator A6

StatLink http://dx.doi.org/10.1787/888933116053

	Table A6.1a	Relative earnings of workers, by educational attainment and age group (2012)
WEB	Table A6.1b	Relative earnings of workers, by educational attainment, age group and gender (2012)
	Table A6.2a	Trends in relative earnings of workers, by educational attainment and gender (2000, 2005, 2010, 2011, 2012)
WEB	Table A6.2b	Trends in relative earnings of workers, by educational attainment and gender (2000-12)
	Table A6.3a	Differences in earnings between female and male workers, by educational attainment and age group (2012)
	Table A6.3b	Trends in the differences in earnings between female and male workers, by educational attainment (2000, 2005, 2010, 2011 and 2012)
WEB	Table A6.3c	Trends in the differences in earnings between female and male workers, by educational attainment (2000-12)
WEB	Table A6.4	Distribution of 25-64 year-olds, by gender, educational attainment and level of earnings relative to median earnings (2012)
	Table A6.5a	Relative earnings of 15-24 year-old students with income from employment, by educational attainment and gender (2012)
	Table A6.5b	Percentage of 15-29 year-olds with income from employment among all 15-29 year-olds, by age group and student status (2012)
WEB	Table A6.5c	Percentage of 15-29 year-olds with income from employment among all 15-29 year-olds, by age group, student status and gender (2012)
	Table A6.6a (L)	Mean monthly earnings of workers, by educational attainment and literacy proficiency level (2012)
WEB	Table A6.6a (N)	Mean monthly earnings of workers, by educational attainment and numeracy proficiency level (2012)
WEB	Table A6.6b (L)	Mean monthly earnings of workers, by educational attainment, literacy proficiency level and gender (2012)
WEB	Table A6.6b (N)	Mean monthly earnings of workers, by educational attainment, numeracy proficiency level and gender (2012)
WEB	Table A6.6c (L)	Mean monthly earnings of workers, by educational attainment, literacy proficiency level and age (2012)
WEB	Table A6.6c (N)	Mean monthly earnings of workers, by educational attainment, numeracy proficiency level and age (2012)
WEB	Table A6.7 (L)	Mean monthly earnings of workers, by educational attainment, literacy proficiency level and years since obtained most recent qualification (2012)
WEB	Table A6.7 (N)	Mean monthly earnings of workers, by educational attainment, numeracy proficiency level and years since obtained most recent qualification (2012)

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Table A6.1a. Relative earnings of workers, by educational attainment and age group (2012)

Adults with income from employment; upper secondary education = 100

		Year	Below upper secondary education			Post-secondary non-tertiary education			Tertiary-type B education			Tertiary-type A or advanced research programmes			All tertiary education		
			25-64	25-34	55-64	25-64	25-34	55-64	25-64	25-34	55-64	25-64	25-34	55-64	25-64	25-34	55-64
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
OECD	Australia	2012	83	88	84	99	95	108	114	111	129	142	121	159	134	119	149
	Austria	2012	70	70	66	127	112	162	143	120	144	185	143	194	171	138	173
	Belgium[1]	2011	90	92	83	95	101	89	116	113	117	142	132	153	128	123	135
	Canada	2011	87	103	76	111	125	105	113	110	111	163	133	185	139	123	149
	Chile	2011	66	70	56	m	m	m	151	133	143	309	261	323	260	227	279
	Czech Republic	2011	73	78	71	m	m	m	117	114	118	181	154	190	176	149	187
	Denmark	2012	81	78	84	61	42	104	117	116	113	130	112	142	128	112	137
	Estonia	2012	94	93	91	m	m	m	m	m	m	134	116	147	134	116	147
	Finland	2011	92	92	93	m	m	m	128	118	127	157	127	205	147	126	166
	France	2010	82	89	72	m	m	m	127	126	136	170	145	212	154	138	189
	Germany	2012	84	84	87	114	118	114	146	145	141	183	149	227	174	148	207
	Greece	2012	79	94	82	99	111	77	151	127	185	198	140	267	152	127	187
	Hungary	2012	78	81	76	122	116	127	127	121	157	209	182	223	208	181	222
	Iceland		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Ireland[1]	2011	84	104	76	99	99	108	131	123	109	201	186	185	175	165	162
	Israel	2012	71	76	64	109	91	94	112	96	109	170	133	174	152	123	151
	Italy	2010	77	94	59	m	m	m	m	m	m	147	125	167	147	125	167
	Japan	2012	78	87	76	m	m	m	91	99	99	172	144	203	152	136	177
	Korea	2012	71	82	65	m	m	m	116	113	144	161	133	196	147	126	188
	Luxembourg	2012	70	68	63	119	86	71	m	m	m	m	m	m	168	148	184
	Mexico		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Netherlands	2010	83	90	74	m	m	m	145	134	145	157	137	160	156	137	159
	New Zealand	2012	82	85	82	110	115	101	105	107	100	134	126	146	123	121	123
	Norway	2011	78	76	80	128	125	137	155	136	169	128	107	152	130	108	154
	Poland	2012	85	89	80	107	99	112	m	m	m	172	146	205	172	146	205
	Portugal	2011	70	82	51	104	109	96	161	141	154	171	157	204	170	156	193
	Slovak Republic	2012	67	66	70	m	m	m	126	116	134	175	145	193	173	144	190
	Slovenia	2012	78	85	73	m	m	m	152	130	165	200	150	240	180	142	211
	Spain	2011	80	87	70	c	c	c	106	105	103	156	139	160	141	127	150
	Sweden	2012	82	76	88	121	79	138	107	92	115	135	115	158	128	110	143
	Switzerland	2012	77	84	70	107	102	117	141	131	143	165	135	182	158	134	169
	Turkey[1]	2012	63	68	46	a	a	a	m	m	m	191	186	234	191	186	234
	United Kingdom	2012	70	68	69	m	m	m	130	127	136	164	153	170	156	149	159
	United States	2012	63	70	61	m	m	m	109	112	100	182	170	180	174	165	172
	OECD average		78	83	73	108	102	110	127	119	131	170	145	191	159	140	176
	EU21 average		79	84	75	106	98	109	131	122	135	168	143	190	159	138	175
Partners	Argentina		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Brazil	2012	58	65	41	m	m	m	m	m	m	247	235	241	247	235	241
	China		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Colombia		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	India		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Indonesia		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Latvia		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russian Federation		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Saudi Arabia		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	South Africa		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	G20 average		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m

1. Earnings net of income tax.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116072

A6

Table A6.2a. [1/2] Trends in relative earnings of workers, by educational attainment and gender (2000, 2005, 2010, 2011, 2012)

25-64 year-olds with income from employment; upper secondary education = 100

		2000			2005			2010			2011			2012		
	Educational attainment	Men	Women	M+W	Men	Women	M+W	Men	Women	M+W	Men	Women	M+W	Men	Women	M+W
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
OECD Australia	Below upper secondary	m	m	m	88	88	81	m	m	m	m	m	m	85	88	83
	Tertiary	m	m	m	141	148	134	m	m	m	m	m	m	141	153	134
Austria	Below upper secondary	m	m	m	80	78	74	73	75	69	71	78	69	74	76	70
	Tertiary	m	m	m	157	165	158	163	173	165	164	174	166	171	174	171
Belgium[1]	Below upper secondary	93	83	92	91	82	89	92	86	91	92	84	90	m	m	m
	Tertiary	128	133	128	137	134	133	132	135	131	129	134	128	m	m	m
Canada	Below upper secondary	84	72	83	80	70	80	81	79	83	86	77	87	m	m	m
	Tertiary	149	139	143	140	140	138	146	154	145	144	142	139	m	m	m
Chile	Below upper secondary	m	m	m	m	m	m	m	m	m	64	65	66	m	m	m
	Tertiary	m	m	m	m	m	m	m	m	m	271	262	260	m	m	m
Czech Republic	Below upper secondary	m	m	m	79	72	72	76	74	73	76	74	73	m	m	m
	Tertiary	m	m	m	190	161	181	195	163	182	187	160	176	m	m	m
Denmark	Below upper secondary	m	m	m	82	84	82	80	83	81	79	83	81	79	82	81
	Tertiary	m	m	m	133	126	125	141	126	129	138	126	128	138	126	128
Estonia	Below upper secondary	m	m	m	m	m	m	m	m	m	81	81	87	89	91	94
	Tertiary	m	m	m	m	m	m	m	m	m	146	148	135	137	160	134
Finland	Below upper secondary	92	99	95	91	98	94	90	93	92	89	92	92	m	m	m
	Tertiary	169	146	153	162	145	149	160	147	148	159	147	147	m	m	m
France[2]	Below upper secondary	m	m	m	90	81	86	89	76	82	m	m	m	m	m	m
	Tertiary	m	m	m	152	142	144	162	155	154	m	m	m	m	m	m
Germany	Below upper secondary	81	74	76	95	80	89	97	77	88	91	85	88	87	82	84
	Tertiary	143	141	145	153	156	159	176	159	172	166	163	169	171	172	174
Greece	Below upper secondary	m	m	m	m	m	m	m	m	m	69	52	62	82	72	79
	Tertiary	m	m	m	m	m	m	m	m	m	151	231	171	169	140	152
Hungary	Below upper secondary	81	77	77	80	77	78	80	75	77	79	75	76	80	77	78
	Tertiary	252	179	210	269	202	229	259	198	221	256	193	217	246	184	208
Iceland		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Ireland[1]	Below upper secondary	82	64	87	83	67	84	76	78	81	80	70	84	m	m	m
	Tertiary	135	161	149	187	190	192	168	177	165	169	190	175	m	m	m
Israel	Below upper secondary	m	m	m	74	72	79	68	63	72	69	66	72	66	71	71
	Tertiary	m	m	m	160	158	151	164	150	152	159	152	151	153	171	152
Italy	Below upper secondary	71	84	78	m	m	m	77	70	77	m	m	m	m	m	m
	Tertiary	143	137	138	m	m	m	157	145	147	m	m	m	m	m	m
Japan	Below upper secondary	m	m	m	m	m	m	m	m	m	m	m	m	74	72	78
	Tertiary	m	m	m	m	m	m	m	m	m	m	m	m	144	160	152
Korea	Below upper secondary	m	m	m	73	76	68	71	77	69	72	78	71	76	77	71
	Tertiary	m	m	m	139	160	149	143	155	151	137	153	147	140	152	147
Luxembourg	Below upper secondary	m	m	m	m	m	m	69	68	67	m	m	m	73	67	70
	Tertiary	m	m	m	m	m	m	166	166	161	m	m	m	176	161	168
Mexico		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Netherlands	Below upper secondary	m	m	m	m	m	m	85	73	83	m	m	m	m	m	m
	Tertiary	m	m	m	m	m	m	153	162	156	m	m	m	m	m	m
New Zealand	Below upper secondary	79	86	82	79	78	81	81	83	83	80	85	83	79	84	82
	Tertiary	128	126	127	122	121	125	130	132	131	124	129	125	122	127	123
Norway	Below upper secondary	81	82	80	79	81	79	78	79	78	78	80	78	m	m	m
	Tertiary	134	134	131	136	136	131	137	136	131	137	135	130	m	m	m
Poland	Below upper secondary	m	m	m	m	m	m	87	79	83	m	m	m	86	81	85
	Tertiary	m	m	m	m	m	m	187	172	171	m	m	m	188	174	172
Portugal	Below upper secondary	m	m	m	64	66	67	67	68	69	68	69	70	m	m	m
	Tertiary	m	m	m	183	173	177	173	172	170	173	172	170	m	m	m

1. Earnings net of income tax.
2. Break in the series between 2007 and 2008, change in the data source.
3. Averages cannot be compared throughout the years as the number of countries used to calculate those averages is different every year.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116091

Table A6.2a. [2/2] Trends in relative earnings of workers, by educational attainment and gender (2000, 2005, 2010, 2011, 2012)

25-64 year-olds with income from employment; upper secondary education = 100

			2000			2005			2010			2011			2012		
		Educational attainment	Men	Women	M+W	Men	Women	M+W	Men	Women	M+W	Men	Women	M+W	Men	Women	M+W
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
OECD	Slovak Republic	Below upper secondary	m	m	m	m	m	m	70	71	67	69	71	67	70	71	67
		Tertiary	m	m	m	m	m	m	188	172	179	185	169	175	185	167	173
	Slovenia	Below upper secondary	m	m	m	m	m	m	75	74	75	77	76	76	79	76	78
		Tertiary	m	m	m	m	m	m	201	181	186	197	180	183	192	177	180
	Spain	Below upper secondary	m	m	m	79	72	80	81	74	80	80	74	80	m	m	m
		Tertiary	m	m	m	132	155	137	134	157	140	136	155	141	m	m	m
	Sweden	Below upper secondary	m	m	m	87	87	88	84	81	84	83	80	83	83	79	82
		Tertiary	m	m	m	140	127	130	138	128	129	137	128	128	136	129	128
	Switzerland	Below upper secondary	79	72	75	81	77	76	78	78	76	80	77	77	80	76	77
		Tertiary	135	144	152	142	150	157	144	151	155	144	159	157	145	159	158
	Turkey[1]	Below upper secondary	m	m	m	72	43	69	m	m	m	m	m	m	67	47	63
		Tertiary	m	m	m	153	154	149	m	m	m	m	m	m	197	199	191
	United Kingdom	Below upper secondary	74	69	69	72	71	71	64	69	67	67	69	69	68	69	70
		Tertiary	152	176	160	146	181	158	162	177	165	151	182	157	147	178	156
	United States	Below upper secondary	65	66	68	69	67	71	64	61	66	64	58	64	60	62	63
		Tertiary	181	169	176	196	178	186	184	175	177	182	181	177	180	177	174
	OECD average[3]	Below upper secondary	80	77	80	80	76	79	78	76	77	77	75	77	77	75	76
		Tertiary	154	149	151	158	155	154	164	158	158	164	165	161	164	162	159
	EU21 average[3]	Below upper secondary	82	78	82	82	78	81	80	76	78	78	76	78	79	77	78
		Tertiary	160	153	155	165	158	159	169	161	162	165	166	160	171	162	162
Partners	Argentina		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Brazil	Below upper secondary	m	m	m	m	m	m	m	m	m	57	50	58	57	53	58
		Tertiary	m	m	m	m	m	m	m	m	m	273	269	257	259	262	247
	China		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Colombia		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	India		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Indonesia		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Latvia		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russian Federation		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Saudi Arabia		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	South Africa		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	G20 average		m	m	m	m	m	m	m	m	m	m	m	m	m	m	m

1. Earnings net of income tax.
2. Break in the series between 2007 and 2008, change in the data source.
3. Averages cannot be compared throughout the years as the number of countries used to calculate those averages is different every year.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116091

Table A6.3a. Differences in earnings between female and male workers, by educational attainment and age group (2012)

Adults with income from employment; average annual full-time, full-year earnings of women as a percentage of men's earnings

		Year	Below upper secondary education			Upper secondary or post-secondary non-tertiary education			Tertiary education		
			25-64	35-44	55-64	25-64	35-44	55-64	25-64	35-44	55-64
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OECD	Australia	2012	79	80	81	75	74	78	75	75	69
	Austria	2012	76	74	77	76	76	80	76	80	79
	Belgium[1]	2011	80	m	m	98	96	99	86	86	81
	Canada	2011	65	70	73	70	71	70	69	68	70
	Chile	2011	76	79	70	69	68	71	62	70	53
	Czech Republic	2011	79	78	80	80	74	87	70	64	85
	Denmark	2012	83	80	82	80	78	83	75	76	73
	Estonia	2012	64	60	88	59	59	66	68	64	69
	Finland	2012	79	75	79	79	76	79	76	75	74
	France	2010	74	69	76	79	75	75	73	77	70
	Germany	2012	82	79	92	82	83	86	72	73	73
	Greece	2012	76	75	65	84	86	69	70	75	66
	Hungary	2012	81	81	78	84	81	90	63	57	70
	Iceland		m	m	m	m	m	m	m	m	m
	Ireland[1]	2011	73	84	71	77	76	75	76	86	80
	Israel	2012	77	57	87	66	68	60	72	70	80
	Italy	2010	78	79	72	78	78	77	69	77	68
	Japan	2012	m	m	m	m	m	m	m	m	m
	Korea	2012	65	67	63	64	62	67	68	67	69
	Luxembourg	2012	82	85	71	83	88	66	72	89	65
	Mexico		m	m	m	m	m	m	m	m	m
	Netherlands	2010	77	79	76	79	85	79	74	83	74
	New Zealand	2012	84	90	78	83	85	83	79	76	80
	Norway	2011	82	80	82	79	78	78	74	75	72
	Poland	2012	73	69	74	79	72	89	71	66	76
	Portugal	2011	75	75	74	72	72	69	70	74	68
	Slovak Republic	2012	73	74	72	75	71	83	67	59	73
	Slovenia	2012	85	84	85	88	84	99	82	80	87
	Spain	2011	78	86	75	79	78	90	86	83	92
	Sweden		m	m	m	m	m	m	m	m	m
	Switzerland		m	m	m	m	m	m	m	m	m
	Turkey[1]	2012	67	64	59	83	74	148	82	85	69
	United Kingdom	2012	75	73	79	72	71	66	80	82	76
	United States	2012	75	90	72	70	69	67	69	70	69
	OECD average		76	76	76	77	76	80	73	75	73
	EU21 average		77	77	77	79	78	80	74	75	75
Partners	Argentina		m	m	m	m	m	m	m	m	m
	Brazil	2012	68	69	64	62	60	58	63	63	66
	China		m	m	m	m	m	m	m	m	m
	Colombia		m	m	m	m	m	m	m	m	m
	India		m	m	m	m	m	m	m	m	m
	Indonesia		m	m	m	m	m	m	m	m	m
	Latvia		m	m	m	m	m	m	m	m	m
	Russian Federation		m	m	m	m	m	m	m	m	m
	Saudi Arabia		m	m	m	m	m	m	m	m	m
	South Africa		m	m	m	m	m	m	m	m	m
	G20 average		m	m	m	m	m	m	m	m	m

Note: Columns showing the relative earnings for all levels of education combined are available for consultation on line (see *StatLink* below).

1. Earnings net of income tax.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116110

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Table A6.3b. Trends in the differences in earnings between female and male workers, by educational attainment (2000, 2005, 2010, 2011 and 2012)

25-64 year-olds with income from employment, average annual earnings of women as a percentage of men's earnings

		Below upper secondary education					Upper secondary or post-secondary non-tertiary education					Tertiary education				
		2000	2005	2010	2011	2012	2000	2005	2010	2011	2012	2000	2005	2010	2011	2012
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
OECD	Australia	m	61	m	m	62	m	61	m	m	61	m	64	m	m	65
	Austria	m	57	61	65	62	m	60	60	59	60	m	62	63	63	62
	Belgium[1]	64	67	72	70	m	72	75	77	77	m	74	73	79	80	m
	Canada	53	55	61	57	m	61	61	62	61	m	57	62	67	64	m
	Chile	m	m	m	66	m	m	m	m	65	m	m	m	m	63	m
	Czech Republic	m	74	79	79	m	m	80	82	81	m	m	68	68	69	m
	Denmark	m	73	80	78	77	m	71	76	75	74	m	67	68	68	68
	Estonia	m	m	59	62	58	m	m	60	62	56	m	m	62	63	66
	Finland	76	78	77	76	m	71	73	74	74	m	61	65	68	68	m
	France[2]	m	68	61	m	m	m	75	71	m	m	m	70	68	m	m
	Germany	56	52	49	56	56	63	62	62	61	62	61	62	56	59	60
	Greece	m	m	m	32	70	m	m	m	44	79	m	m	m	65	66
	Hungary	83	88	83	84	84	88	93	89	88	85	62	69	68	67	64
	Iceland	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Ireland[1]	46	49	60	56	m	60	63	64	65	m	71	62	63	71	m
	Israel	m	57	60	62	61	m	59	65	66	58	m	58	60	63	63
	Italy	76	m	62	m	m	65	m	69	m	m	62	m	64	m	m
	Japan	m	m	m	m	42	m	m	m	m	43	m	m	m	m	48
	Korea	m	61	64	63	60	m	59	59	58	60	m	67	64	65	65
	Luxembourg	m	m	63	m	66	m	m	64	m	71	m	m	64	m	65
	Mexico	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Netherlands	m	m	49	m	m	m	m	57	m	m	m	m	60	m	m
	New Zealand	67	61	69	70	70	64	64	65	64	67	61	61	68	68	69
	Norway	63	65	68	68	m	62	63	66	66	m	62	63	65	66	m
	Poland	m	m	72	m	73	m	m	81	m	79	m	m	72	m	72
	Portugal	m	73	71	72	m	m	71	71	71	m	m	67	70	70	m
	Slovak Republic	m	m	73	75	73	m	m	73	72	72	m	m	67	66	65
	Slovenia	m	m	85	85	85	m	m	87	86	88	m	m	79	79	82
	Spain	m	58	66	67	m	m	64	71	72	m	m	75	84	82	m
	Sweden	m	74	73	72	72	m	73	74	74	75	m	68	71	71	72
	Switzerland	53	54	58	55	55	58	57	59	58	58	62	60	61	63	63
	Turkey[1]	m	47	m	m	55	m	78	m	m	79	m	78	m	m	80
	United Kingdom	50	55	70	50	58	54	56	65	48	57	63	69	71	58	69
	United States	60	63	63	58	66	60	65	66	64	64	56	59	63	63	63
	OECD average[3]	62	63	67	65	65	65	67	69	67	67	63	66	67	67	66
	EU21 average[3]	65	67	68	67	69	68	70	71	69	72	65	68	68	69	68
Partners	Argentina	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Brazil	m	m	m	51	55	m	m	m	59	58	m	m	m	58	59
	China	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Colombia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Indonesia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Latvia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russian Federation	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Saudi Arabia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	G20 average	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m

1. Earnings net of income tax.
2. Break in the series between 2007 and 2008, change in the data source.
3. Averages cannot be compared throughout the years as the number of countries used to calculate those averages is different every year.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116129

Table A6.5a. Relative earnings of 15-24 year-old students with income from employment, by educational attainment and gender (2012)[1]

Earnings of 15-24 year-old students with income from employment compared with earnings of 15-24 year-old non-students with income from employment; non-students with income from employment = 100

		Year	Below upper secondary education			Upper secondary or post-secondary non-tertiary education			Tertiary education		
			Men	Women	M + W	Men	Women	M + W	Men	Women	M + W
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OECD	Australia	2012	c	c	29	51	57	52	c	c	68
	Austria	2012	57	54	55	37	32	33	c	c	c
	Belgium	2010	56	57	54	78	63	67	79	83	82
	Canada	2011	34	47	37	47	57	49	51	55	53
	Chile	2011	123	78	112	121	93	111	c	c	c
	Czech Republic		m	m	m	m	m	m	m	m	m
	Denmark	2012	45	46	44	42	55	47	c	c	c
	Estonia	2012	c	c	c	c	c	c	c	c	c
	Finland	2011	33	48	c	55	58	c	c	c	c
	France	2010	53	46	50	46	47	45	c	c	c
	Germany	2012	38	48	41	34	48	40	c	c	c
	Greece	2012	c	c	c	58	121	92	c	c	c
	Hungary		m	m	m	m	m	m	m	m	m
	Iceland		m	m	m	m	m	m	m	m	m
	Ireland	2011	21	c	17	57	60	57	c	c	c
	Israel	2012	c	c	c	63	22	44	c	c	c
	Italy	2010	45	45	43	45	79	59	c	c	c
	Japan		m	m	m	m	m	m	m	m	m
	Korea	2012	41	40	40	64	53	57	c	c	c
	Luxembourg		m	m	m	m	m	m	m	m	m
	Mexico		m	m	m	m	m	m	m	m	m
	Netherlands		m	m	m	m	m	m	m	m	m
	New Zealand	2010	42	29	35	62	47	53	c	c	c
	Norway	2011	38	34	36	38	46	40	c	c	c
	Poland		m	m	m	m	m	m	m	m	m
	Portugal		m	m	m	m	m	m	m	m	m
	Slovak Republic		m	m	m	m	m	m	m	m	m
	Slovenia		m	m	m	m	m	m	m	m	m
	Spain	2011	49	71	56	45	32	39	c	c	c
	Sweden	2009	11	12	11	46	58	50	30	44	38
	Switzerland	2012	36	47	43	63	50	56	c	c	c
	Turkey	2012	81	99	83	100	64	84	c	c	c
	United Kingdom	2012	31	57	48	51	51	49	79	76	78
	United States	2012	24	34	26	50	66	56	64	73	68
	OECD average		45	50	45	57	57	56	c	c	c
	EU21 average		40	48	42	49	59	53	c	c	c
Partners	Argentina		m	m	m	m	m	m	m	m	m
	Brazil	2012	59	74	62	114	115	112	m	m	m
	China		m	m	m	m	m	m	m	m	m
	Colombia		m	m	m	m	m	m	m	m	m
	India		m	m	m	m	m	m	m	m	m
	Indonesia		m	m	m	m	m	m	m	m	m
	Latvia		m	m	m	m	m	m	m	m	m
	Russian Federation		m	m	m	m	m	m	m	m	m
	Saudi Arabia		m	m	m	m	m	m	m	m	m
	South Africa		m	m	m	m	m	m	m	m	m
	G20 average		m	m	m	m	m	m	m	m	m

Note: Columns showing the relative earnings for all levels of education combined are available for consultation on line (see *StatLink* below).

1. For some countries in this table the age breakdown is 16-24 year-olds.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116148

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Table A6.5b. Percentage of 15-29 year-olds with income from employment among all 15-29 year-olds, by age group and student status (2012)

How to read this table: In Australia, 70% of all 15-24 year-old non-students have income from employment; and 47% of all 15-24 year-old students. Among all 15-24 year-olds, 56% have income from employment

			15-24 year-olds[1]			25-29 year-olds		
			Non-students	Students	Total	Non-students	Students	Total
		Year	(1)	(2)	(3)	(4)	(5)	(6)
OECD	Australia	2012	70	47	56	79	71	77
	Austria	2012	87	64	73	91	81	89
	Belgium	2010	60	6	24	73	41	71
	Canada	2011	86	68	75	89	77	87
	Chile	2011	50	10	27	70	45	66
	Czech Republic		m	m	m	m	m	m
	Denmark	2012	71	71	71	81	82	82
	Estonia	2012	c	13	22	c	c	49
	Finland	2011	c	c	c	c	c	c
	France	2010	78	35	56	91	79	90
	Germany	2012	66	37	46	70	62	68
	Greece	2012	32	5	15	58	30	55
	Hungary		m	m	m	m	m	m
	Iceland		m	m	m	m	m	m
	Ireland	2011	35	26	30	69	36	65
	Israel	2012	63	18	42	76	68	74
	Italy	2010	56	12	33	79	38	74
	Japan		m	m	m	m	m	m
	Korea	2012	54	10	24	71	32	68
	Luxembourg		m	m	m	m	m	m
	Mexico		m	m	m	m	m	m
	Netherlands		m	m	m	m	m	m
	New Zealand	2010	69	33	48	75	61	73
	Norway	2011	71	76	74	89	90	90
	Poland		m	m	m	m	m	m
	Portugal		m	m	m	m	m	m
	Slovak Republic		m	m	m	m	m	m
	Slovenia		m	m	m	m	m	m
	Spain	2011	53	10	26	73	54	70
	Sweden	2009	100	100	100	99	100	99
	Switzerland	2012	70	17	36	82	60	78
	Turkey	2012	76	77	76	86	88	86
	United Kingdom	2012	65	33	51	79	62	77
	United States	2012	72	41	54	c	c	c
	OECD average		66	37	48	79	63	76
	EU21 average		64	34	46	79	60	74
Partners	Argentina		m	m	m	m	m	m
	Brazil	2012	64	34	50	76	73	75
	China		m	m	m	m	m	m
	Colombia		m	m	m	m	m	m
	India		m	m	m	m	m	m
	Indonesia		m	m	m	m	m	m
	Latvia		m	m	m	m	m	m
	Russian Federation		m	m	m	m	m	m
	Saudi Arabia		m	m	m	m	m	m
	South Africa		m	m	m	m	m	m
	G20 average		m	m	m	m	m	m

1. For some countries in this table the age breakdown is 16-24 year-olds.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116167

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Table A6.6a (L). [1/2] Mean monthly earnings of workers, by educational attainment and literacy proficiency level (2012)

Literacy proficiency in the Survey of Adult Skills, 25-64 year-olds with income from employment working full time (i.e. 30 or more hours per week), in equivalent USD converted using PPPs for private consumption

	Below upper secondary education						Upper secondary or post-secondary non-tertiary education							
	Level 0/1		Level 2		Level 3		Level 0/1		Level 2		Level 3		Level 4/5	
	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.
	(1)	(2)	(3)	(4)	(5)	(6)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
OECD														
National entities														
Australia	2 160	(125)	2 570	(155)	2 790	(179)	2 680	(157)	2 870	(127)	3 140	(105)	3 710	(259)
Austria	2 170	(106)	2 400	(105)	2 860	(224)	2 910	(121)	3 310	(83)	3 810	(91)	4 310	(313)
Canada	2 790	(148)	3 170	(196)	3 720	(417)	3 040	(155)	3 410	(99)	3 740	(116)	3 970	(224)
Czech Republic	950	(78)	1 230	(49)	c	c	1 440	(72)	1 500	(44)	1 600	(45)	1 740	(138)
Denmark	3 020	(126)	3 480	(110)	3 840	(175)	3 770	(145)	3 880	(72)	4 160	(84)	4 420	(248)
Estonia	1 490	(213)	1 620	(153)	1 720	(166)	1 510	(100)	1 530	(63)	1 710	(65)	1 940	(173)
Finland	2 630	(132)	2 900	(154)	2 920	(169)	2 810	(136)	2 910	(62)	3 110	(59)	3 360	(133)
France	1 960	(52)	2 250	(80)	2 570	(122)	2 270	(62)	2 390	(41)	2 490	(52)	2 520	(179)
Germany	2 290	(178)	2 590	(218)	c	c	2 820	(130)	3 170	(87)	3 500	(99)	3 990	(346)
Ireland	2 820	(240)	3 290	(223)	3 330	(303)	2 650	(143)	3 230	(119)	3 680	(167)	4 180	(410)
Italy	2 470	(135)	2 300	(112)	2 640	(191)	2 310	(127)	2 630	(84)	2 850	(87)	3 200	(294)
Japan	2 140	(216)	2 410	(150)	3 000	(238)	2 870	(333)	2 870	(131)	3 010	(94)	3 050	(178)
Korea	2 060	(120)	2 330	(130)	2 460	(264)	2 470	(156)	2 750	(81)	2 950	(105)	2 960	(319)
Netherlands	2 830	(155)	3 420	(138)	3 590	(159)	2 990	(220)	3 480	(138)	3 800	(94)	4 070	(192)
Norway	3 160	(181)	3 670	(125)	3 920	(170)	3 440	(180)	3 950	(98)	4 350	(93)	4 630	(277)
Poland	1 210	(171)	1 180	(172)	c	c	1 260	(62)	1 350	(49)	1 530	(57)	1 620	(147)
Slovak Republic	960	(75)	990	(55)	1 130	(92)	1 170	(85)	1 390	(49)	1 520	(51)	1 630	(147)
Spain	1 870	(64)	1 980	(69)	2 200	(122)	2 200	(143)	2 250	(106)	2 510	(131)	c	c
Sweden	2 550	(127)	2 870	(87)	2 970	(160)	2 660	(110)	3 000	(57)	3 270	(57)	3 440	(125)
United States	1 990	(71)	2 500	(208)	c	c	3 200	(223)	3 330	(130)	4 150	(182)	4 770	(472)
Sub-national entities														
Flanders (Belgium)	2 790	(135)	3 330	(152)	3 320	(195)	3 130	(161)	3 410	(80)	3 600	(77)	3 740	(250)
England (UK)	2 420	(176)	2 710	(108)	2 850	(229)	2 550	(135)	2 880	(128)	3 490	(146)	4 150	(331)
Northern Ireland (UK)	2 020	(107)	2 230	(107)	2 550	(259)	2 210	(198)	2 560	(178)	3 260	(227)	3 660	(455)
England/N. Ireland (UK)	2 400	(168)	2 690	(103)	2 840	(218)	2 540	(132)	2 870	(124)	3 480	(142)	4 140	(323)
Average	2 210	(31)	2 510	(30)	2 880	(50)	2 550	(33)	2 790	(20)	3 090	(21)	3 400	(57)
Partners														
Russian Federation*	c	c	c	c	c	c	c	c	690	(72)	880	(105)	c	c

* See note on data for the Russian Federation in the *Methodology* section.

Notes: For below upper secondary education, literacy proficiency Level 4/5 are available only on line as for many countries there are too few observations to provide reliable estimates. The values of the means in this table have been rounded up to the nearest ten. Values not rounded up are available on line.

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Table A6.6a (L). [2/2] Mean monthly earnings of workers, by educational attainment and literacy proficiency level (2012)

Literacy proficiency in the Survey of Adult Skills, 25-64 year-olds with income from employment working full time (i.e. 30 or more hours per week), in equivalent USD converted using PPPs for private consumption

	Tertiary education								All levels of education							
	Level 0/1		Level 2		Level 3		Level 4/5		Level 0/1		Level 2		Level 3		Level 4/5	
	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.
	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)
OECD																
National entities																
Australia	2 660	(275)	3 180	(174)	3 940	(108)	4 610	(131)	2 420	(90)	2 850	(88)	3 430	(68)	4 280	(110)
Austria	c	c	4 170	(220)	4 800	(161)	5 180	(251)	2 760	(101)	3 300	(76)	4 030	(80)	4 770	(195)
Canada	3 320	(186)	3 900	(107)	4 770	(88)	5 370	(144)	3 060	(96)	3 620	(71)	4 410	(65)	5 140	(127)
Czech Republic	c	c	1 900	(201)	2 190	(95)	2 290	(136)	1 360	(67)	1 510	(44)	1 770	(45)	2 050	(101)
Denmark	3 830	(210)	4 280	(115)	5 010	(72)	5 370	(157)	3 490	(98)	3 930	(56)	4 620	(55)	5 160	(131)
Estonia	1 460	(145)	1 770	(83)	2 060	(65)	2 500	(107)	1 500	(79)	1 630	(45)	1 890	(44)	2 340	(91)
Finland	c	c	3 440	(107)	3 830	(54)	3 890	(67)	2 830	(127)	3 070	(59)	3 470	(43)	3 750	(57)
France	2 760	(217)	3 110	(92)	3 300	(51)	3 600	(96)	2 170	(45)	2 510	(36)	2 920	(35)	3 370	(88)
Germany	3 750	(475)	4 070	(183)	4 990	(137)	5 650	(215)	2 810	(110)	3 360	(77)	4 230	(84)	5 190	(188)
Ireland	3 690	(393)	4 030	(145)	4 830	(127)	5 240	(269)	2 880	(139)	3 530	(88)	4 310	(103)	5 000	(227)
Italy	c	c	3 130	(215)	3 590	(185)	3 650	(432)	2 460	(107)	2 510	(70)	3 010	(78)	3 440	(264)
Japan	c	c	3 260	(208)	3 740	(100)	4 170	(129)	2 540	(204)	2 880	(96)	3 360	(67)	3 890	(100)
Korea	3 070	(384)	3 470	(125)	3 800	(78)	4 370	(162)	2 330	(102)	2 900	(65)	3 430	(65)	4 110	(150)
Netherlands	c	c	4 480	(324)	5 000	(133)	5 140	(123)	2 960	(135)	3 650	(101)	4 300	(73)	4 810	(96)
Norway	3 710	(238)	4 550	(161)	5 090	(87)	5 270	(107)	3 400	(115)	4 030	(68)	4 680	(63)	5 120	(101)
Poland	1 800	(200)	1 950	(106)	2 210	(85)	2 420	(118)	1 300	(59)	1 480	(53)	1 850	(57)	2 250	(99)
Slovak Republic	c	c	1 890	(137)	2 320	(120)	2 770	(335)	1 150	(68)	1 430	(42)	1 740	(48)	2 170	(155)
Spain	2 720	(202)	3 090	(107)	3 250	(88)	3 680	(194)	2 080	(59)	2 430	(53)	2 900	(64)	3 560	(178)
Sweden	2 810	(181)	3 240	(106)	3 750	(73)	3 920	(75)	2 640	(80)	3 010	(47)	3 430	(45)	3 770	(67)
United States	4 180	(588)	4 980	(274)	5 960	(263)	7 370	(380)	2 940	(142)	3 770	(120)	5 180	(166)	6 860	(325)
Sub-national entities																
Flanders (Belgium)	c	c	4 160	(203)	4 500	(114)	4 910	(186)	3 110	(116)	3 570	(72)	4 090	(73)	4 690	(169)
England (UK)	2 710	(391)	3 720	(263)	4 540	(158)	5 340	(202)	2 530	(127)	3 100	(102)	3 970	(108)	4 980	(173)
Northern Ireland (UK)	c	c	3 420	(187)	3 670	(115)	4 400	(248)	2 160	(95)	2 670	(97)	3 400	(102)	4 170	(213)
England/N. Ireland (UK)	2 710	(385)	3 710	(256)	4 510	(153)	5 320	(197)	2 520	(123)	3 080	(98)	3 950	(104)	4 960	(170)
Average	3 030	(85)	3 440	(38)	3 970	(26)	4 400	(44)	2 490	(23)	2 910	(15)	3 500	(16)	4 120	(34)
Partners																
Russian Federation*	790	(60)	820	(38)	910	(28)	1 070	(69)	790	(55)	780	(34)	890	(37)	1 040	(63)

* See note on data for the Russian Federation in the *Methodology* section.

Notes: For below upper secondary education, literacy proficiency Level 4/5 are available only on line as for many countries there are too few observations to provide reliable estimates. The values of the means in this table have been rounded up to the nearest ten. Values not rounded up are available on line.

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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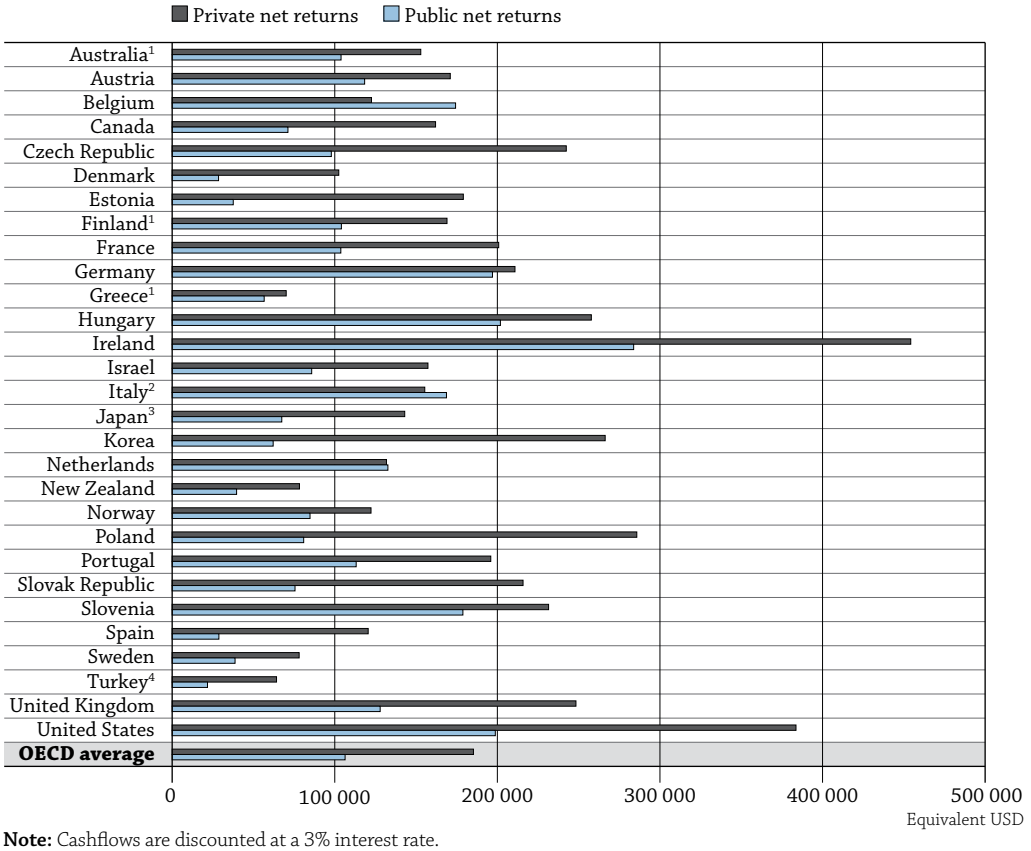
WHAT ARE THE INCENTIVES TO INVEST IN EDUCATION?

- Individuals completing tertiary education benefit from substantial returns on investment: they are more likely to be employed and earn more than individuals without tertiary education do.
- On average across OECD countries, the financial return for tertiary-educated people is around twice as large as for those with an upper secondary or post-secondary non-tertiary education.
- Not only does education pay off for individuals, but the public also benefits from a large proportion of tertiary-educated individuals through greater tax revenues and social contributions.
- The net public return on investment for a man with tertiary education is over USD 105 000 across OECD countries – almost three times the amount of public investment in his education. For a woman, the public return is over USD 60 000, which is almost twice the amount of public investment in her education.

Chart A7.1. Net private and public returns associated with a man attaining tertiary education (2010)

As compared with returns from upper secondary or post-secondary non-tertiary education



Note: Cashflows are discounted at a 3% interest rate.
1. Year of reference 2009.
2. Year of reference 2008.
3. Year of reference 2007.
4. Year of reference 2005.
Countries are shown in alphabetical order.
Source: OECD. Tables A7.3a and A7.4a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933116452

Context

Higher educational achievement benefits both individuals and society, not only financially, but in the well-being with which it is also associated, such as better health outcomes and more civically engaged societies. For individuals, having a higher education improves chances for employment and reduces

the risk of unemployment. Better opportunities in the labour market (see Indicator A5) and higher earnings expectations (see Indicator A6) are strong incentives for individuals to invest in education and postpone consumption and earnings for future rewards. Society, in turn, benefits through reduced public expenditure on social welfare programmes and revenues earned through taxes paid once individuals enter the labour market.

It is crucial for policy makers to understand the economic incentives for individuals to invest in education. For instance, large increases in labour-market demand for more highly educated workers can drive up earnings and returns before supply catches up. That signals a need for additional investment in education. In countries with rigid labour laws and structures that tend to limit differences in wages across the board, this signal will be weaker.

An understanding of the returns from education is also relevant for policies that address access to education, taxes and the costs of further education for the individual. It is important, then, to consider the balance between private and public returns together with the information from other indicators in this publication. It is not sufficient to consider only the public rate of return to determine the optimal amount governments should invest in education (see Box A7.1 in *Education at a Glance 2013* [OECD, 2013a]).

In countries with lengthy tertiary programmes and relatively high incomes after upper secondary or post-secondary non-tertiary education, the effect of foregone earnings is considerable. The magnitude of this effect also depends on expected wage levels and the probability of finding a job with or without having tertiary qualifications. As the labour market for young adults worsens (see Indicator C5) the effect of foregone earnings is reduced, making tertiary education a less costly investment. Since more highly educated people tend to fare better in the labour market in times of economic hardship (see Indicator A5), larger earnings differentials add to the benefit to both the individual and society. Data from 2010 (used in this volume), when the effects of the global economic crisis were already strongly felt, show that both private and public returns are larger for individuals with tertiary education compared to those with upper secondary and post-secondary non-tertiary education.

It should be kept in mind that a host of education-related and contextual factors not reflected in this indicator affect the returns to education. These include, for example, the field of study, countries' specific economic situation, labour market context and institutional setting, as well as social and cultural factors.

Other findings

- **Gross earnings benefits from tertiary education**, compared with the income of a person with an upper secondary or post-secondary non-tertiary education, **are USD 350 000 for men and USD 250 000 for women across OECD countries**.
- **Gross earning benefits for an individual attaining an upper secondary or post-secondary non-tertiary degree**, compared to benefits for an individual who has not attained this level of education, **are particularly high in Austria, the Netherlands (for a woman), Norway and the United States**. In these countries, they amount to at least USD 260 000 for a man and USD 160 000 for a woman.
- On average across the 28 OECD countries with available data, **the public return** (net present value) **for a man who completed upper secondary or post-secondary non-tertiary education is about USD 39 000** compared with a man who did not complete that level of education. **For a woman, the public return is USD 24 000**.
- With few exceptions, **the net private returns related to attaining a tertiary education exceed those related to attaining upper secondary or post-secondary non-tertiary education**. Only in Norway and Sweden does upper secondary or post-secondary non-tertiary education bring higher returns to men.
- **Across OECD countries, individuals invest about USD 50 000 to earn a tertiary degree.** In Japan, the Netherlands and the United States, average investment exceeds USD 100 000 when direct and indirect costs are taken into account.

Analysis

Financial returns on investment in education

This indicator provides information on the costs and benefits of education and the incentives to invest in education. It assesses the economic benefits of education for an individual by estimating the earnings premiums of higher levels of education, taking into consideration the direct and indirect costs and benefits of attaining those levels of education. Besides higher earnings compared to individuals with lower education levels, the probability of finding work, expressed in monetary terms by the variable called the "unemployment effect", is also a benefit (see *Definitions* section below).

Costs include direct costs, notably tuition fees, and indirect costs due to higher income taxes, social contributions levies, loss of salary because of delayed entry into the labour market, and fewer entitlements to social transfers, such as housing allowances, family allowances or supplemental social welfare benefits. In addition, social contributions and income taxes account for a certain percentage of the income and tend to be higher for individuals with more advanced education because they tend to earn more.

The economic benefits and costs of tertiary education are compared to those of upper secondary or post-secondary non-tertiary education; for upper secondary or post-secondary non-tertiary education, below upper secondary education is used as a point of reference. In the calculations, women are benchmarked against women, and men against men. The calculations are done separately for men and women, and no average is computed to account for differences by gender in earnings differentials and unemployment rates.

To provide information on the costs and benefits of education and the incentives to invest in education is a difficult undertaking that involves some methodological and analytical considerations. Investing in education, by both individuals and governments, implies a complex interaction of factors and effects that are beyond those taken into account here. Thus, this indicator should be interpreted in the context of other indicators in this volume (and in *Education at a Glance 2013* [OECD, 2013a]) to better understand the results. The limitations of the calculations, and underlying concepts and assumptions, are presented in the *Methodology* section at the end of this chapter.

Incentives for individuals to invest in education

Upper secondary or post-secondary non-tertiary education

Across OECD countries, a man who invests in upper secondary or post-secondary non-tertiary education can expect a net gain of around USD 100 000 during his working life compared to a man who has attained below upper secondary education. However, the amount varies significantly among countries: in Ireland, the Slovak Republic and the United States, this level of education generates USD 160 000 or more over a man's working life (Table A7.1a).

Benefits for an individual are generally based on gross earnings and reduced risk of unemployment. In all countries, men with an upper secondary or post-secondary non-tertiary education enjoy a significant earnings premium over those who have not attained that level of education. The value of reduced risk of unemployment can also be large. In the Czech Republic, Germany, Ireland and the Slovak Republic, the better labour market prospects for a man with this level of education are valued at USD 80 000 or more (Table A7.1a).

Direct costs, foregone earnings, income tax effects, social transfers and social contribution effects (see *Definitions* section below) are all considered part of the costs of education. The direct costs of education for a man and a woman are the same. The direct costs for an individual investing in an upper secondary or post-secondary non-tertiary education are negligible in all countries (representing, on average, less than 2% and a maximum of 6% of benefits). Therefore, the main investment cost is foregone earnings – what a student could potentially earn if not in school. Foregone earnings vary substantially among countries, depending on the length of education, earnings levels and earning differentials between individuals with upper secondary or post-secondary non-tertiary education and those without it (Tables A7.1a and A7.1b).

Good labour-market prospects for both men and women who have not attained upper secondary or post-secondary non-tertiary education increase the costs of further investment in education; so do smaller earnings differentials and longer upper secondary or post-secondary non-tertiary programmes. In Estonia, Hungary, the Slovak Republic, Spain and Turkey, foregone earnings are estimated at less than USD 13 000 for an individual (both women and men), while in Austria, Denmark, the Netherlands and Norway, they exceed USD 42 000 for an individual (both women and men) (Tables A7.1a and A7.1b).

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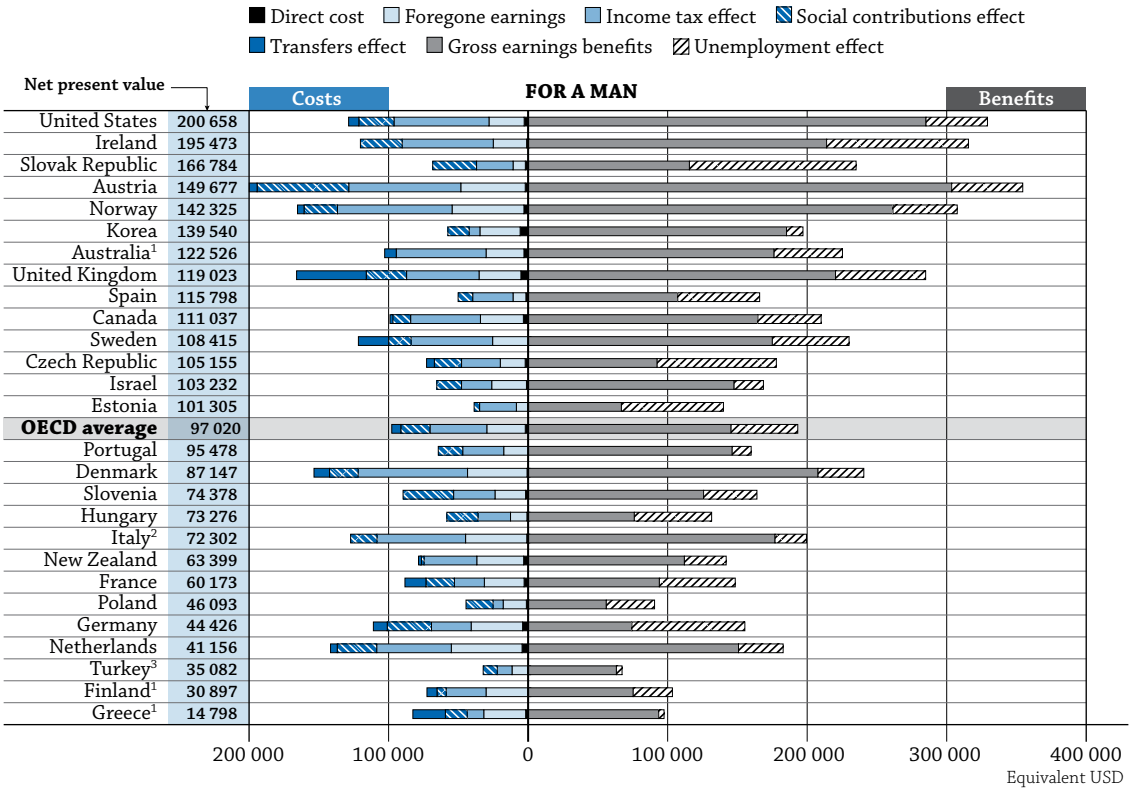
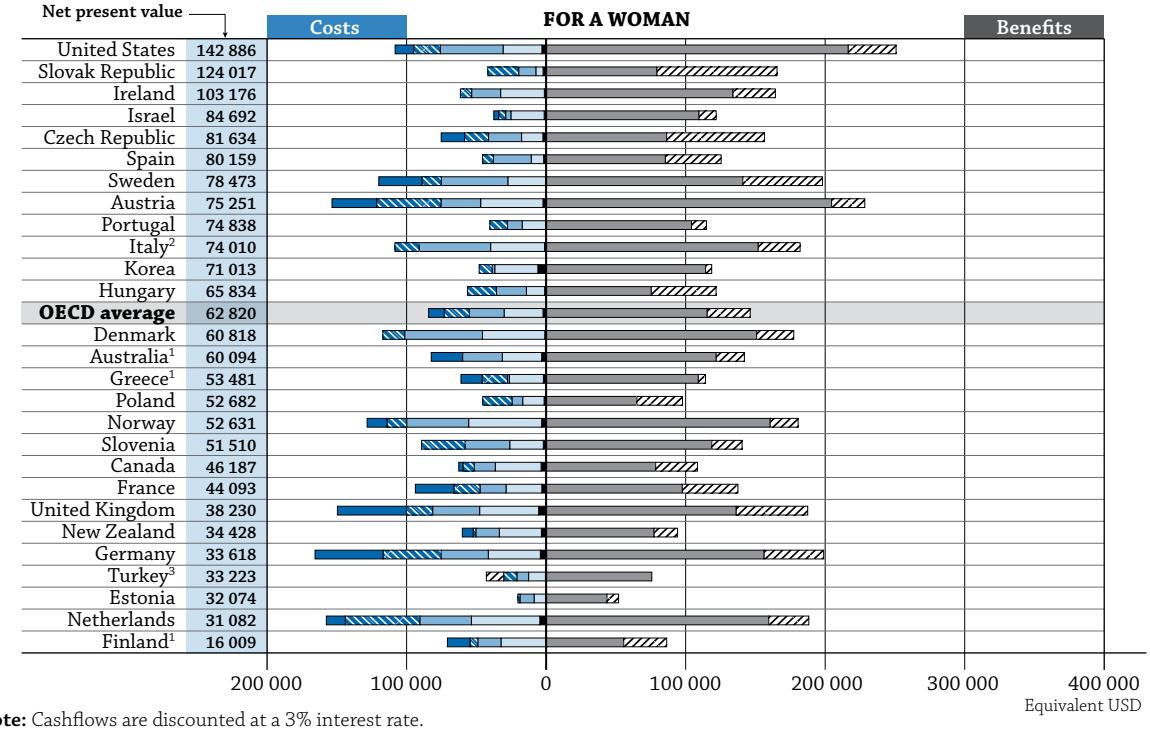
Chart A7.2. Private costs and benefits for a man and for a woman attaining upper secondary or post-secondary non-tertiary education (2010)

As compared with costs and benefits for below upper secondary education





Note: Cashflows are discounted at a 3% interest rate.
1. Year of reference 2009.
2. Year of reference 2008.
3. Year of reference 2005.

Countries are ranked in descending order of the private net present value.

Source: OECD. Tables A7.1a and A7.1b. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933116471

Data on a man attaining upper secondary or post-secondary non-tertiary education show that countries with relatively high income tax effects (estimated at more than USD 65 000) are Austria, Denmark, Ireland, Norway and the United States. In Estonia, too, the impact of taxes represents almost 40% of the earnings premium for a man attaining upper secondary or post-secondary non-tertiary education. The income tax effect is less significant (estimated at less than USD 20 000) in Greece, Korea, Poland and Turkey. Austria, Germany, the Netherlands, the Slovak Republic and Slovenia, are the countries with largest proportions of social contributions (amount estimated at more than USD 22 000 for both man and woman) (Tables A7.1a and b). In Austria, Denmark, France, Greece, Sweden and the United Kingdom, indirect costs due to reduced rights to welfare and other social benefits (social transfers) amount to more than USD 10 000 for a man (Table A7.1a).

Men generally enjoy better financial returns than women after attaining upper secondary or post-secondary non-tertiary education, except in Greece, Italy and Poland. In these countries, the private net present value for women attaining upper secondary or post-secondary education is higher than that for men. On average across OECD countries, a woman can expect a net gain of USD 63 000 over her working life – about USD 34 000 less than a man. The gender gap in private net returns is particularly pronounced in Austria, Estonia, Ireland, Korea, Norway and the United Kingdom. The difference is largest in Ireland, where net benefits for a man attaining an upper secondary or post-secondary non-tertiary education are around USD 195 000, but only around half of that, USD 103 000, for a woman. The main reasons for this difference in private returns lie in differences in the unemployment effect between the genders, which, on average, benefits men more than women. This means that having an upper secondary or post-secondary non-tertiary education, compared to not having that credential, increases the chances of employment for men more than it does for women (Chart A7.2).

Tertiary education

Individuals who hold a tertiary degree can expect even higher net returns than individuals who invested only up to the upper secondary level of education. On average across OECD countries, the return for tertiary-educated people is USD 185 000 for a man and USD 130 000 for a woman as compared with a man/woman attaining upper secondary or post-secondary non-tertiary education. With few exceptions, the net private returns related to a tertiary education exceed those of upper secondary or post-secondary non-tertiary education.

The net private returns for investing in tertiary education are typically higher for men than for women. In Greece, New Zealand, Spain and Turkey, the returns are higher for women (Tables A7.3a and b).

The value of the gross earnings benefits for men and women with tertiary education is substantial: on average, USD 350 000 for men and USD 250 000 for women. But there are also significant variations between countries.

The Czech Republic, Hungary, Poland and Slovenia are among those countries where earning premiums are above the OECD average despite relatively lower overall costs and income levels compared to other OECD countries. This may be explained by the still relatively low tertiary attainment levels in the working-age population which, in turn, suggests a short supply of higher-educated individuals. This may have driven up wages and wage inequality between tertiary and lower-educated individuals over the years.

Compared with upper secondary or post-secondary non-tertiary education, the impact of unemployment benefits is less pronounced than the earnings differential, on average across OECD countries; but the effects of taxes, social contributions and social transfers, and the direct costs of education, are more substantial. In particular, people with tertiary education remain longer in education and thus lose a substantial amount of earnings (foregone earnings) that they could have received if they had joined the labour market earlier.

Private investment costs for tertiary education, including direct and indirect costs, are very high in some countries. Across OECD countries, individuals invest about USD 50 000 to earn a tertiary degree. The average investment exceeds USD 100 000 for a man in Japan and for an individual of either gender in the Netherlands and the United States. On average across OECD countries, direct costs, such as tuition fees, constitute about one-fifth of the total investment made by a tertiary graduate (estimated at USD 10 000 for an individual of either gender) (Tables A7.3a and b).

One way to increase weak labour-market returns is to provide higher education at lower costs to the individual. Apart from subsidising the direct costs of education, a number of countries also provide students with loans and grants to improve incentives and access to education. Whereas grants are transfers made in cash, goods or services for which no repayment is required, loans are transfers that require repayment. This indicator only takes grants into account; it does not report on loans (see Box A7.1 for the impact of loans in a limited number of countries).

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The grants effect is particularly important in Denmark and the United States, where they cover around 35% (or USD 29 000) and 26% (or USD 27 000), respectively, of the total costs of tertiary education. In Austria, Finland, the Netherlands and Sweden, grants are estimated at USD 8 000 or more, about 15% of the total cost (Tables A7.3a and b).

Data show, however, that countries that have the highest direct costs of tertiary education, notably Australia, Canada, the United Kingdom and the United States, provide grants in small amounts compared to the direct costs. In Australia and Canada, grants cover less than 5% of the direct costs of tertiary education. In Japan and Korea, the direct costs of tertiary education are also among the highest, but there is no information about grants. However, many countries, including those offering only small grants, provide student loans, which must be repaid after graduation. Loan regulations, particularly when graduates have to start reimbursing their loans (e.g. once they earn above a certain income threshold, right after graduation, etc.) and the applicable interest rate, vary widely between countries. For most student loans, however, the total amount to be repaid and the amount to be repaid per period depend on employment status and actual income earned after graduation. The availability of student loans, coupled with adequate information and guidance on how they work, can encourage students, particularly those from socio-economically disadvantaged backgrounds, to pursue their studies. But because loans must be repaid after graduation – and thus subtracted from earnings benefits – they reduce the financial benefits of education.

Public rate of return on investments in education

Upper secondary or post-secondary non-tertiary education

As mentioned above, higher education levels tend to translate into higher income levels, on average (see Indicator A6). In this sense, investments in education generate public returns as tertiary-educated individuals pay higher income taxes and social insurance payments and require fewer social transfers. The public returns on investing in men's and women's upper secondary or post-secondary non-tertiary education are positive in most countries. On average across OECD countries, this level of education generates a net public return of USD 39 000 for a man and USD 24 000 for a women (Tables A7.2a and b).

On average, the public benefits are twice as large as the overall public costs of upper secondary or post-secondary non-tertiary education, for both men and women. In the United Kingdom, public benefits are nine times larger than the public costs for a man with this level of education and nearly ten times larger for a woman (Tables A7.2a and A7.2b).

Tertiary education

On average across OECD countries, public investment in an individual's tertiary education is USD 38 000 higher than that for an individual's upper secondary or post-secondary education (taking into account public direct spending and indirect costs). Public investment in an individual's tertiary education is highest (more than USD 50 000 higher than for an individual at the lower education level) in Austria, Denmark, Finland, Germany, the Netherlands, Sweden and the United States (Chart A7.3).

In most countries, the public returns from tertiary education are substantially higher than the public returns from upper secondary or post-secondary non-tertiary education. This is because of the higher taxes and social contributions that flow from the higher incomes of those with tertiary qualifications. On average across OECD countries, the public net return from an investment in tertiary education is over USD 105 000 for a man and over USD 60 000 for a woman. Taking into account direct costs, foregone earnings, and public grants, the public benefits from a man in tertiary education are four times higher than the public costs, and from a tertiary-educated woman, 2.5 times higher (Tables A7.4a and b).

Overall, differences in wages are the source of the differences in returns to both the individual and the public sector. Where the differences between wages are smaller, the returns to higher education are lower. This is particularly true in Denmark, New Zealand, Norway and Sweden. The Nordic countries have generally offset the effects of this weak reward structure by providing a higher-education system that is almost free of charge and by having a generous student-grant system (see Indicator B5).

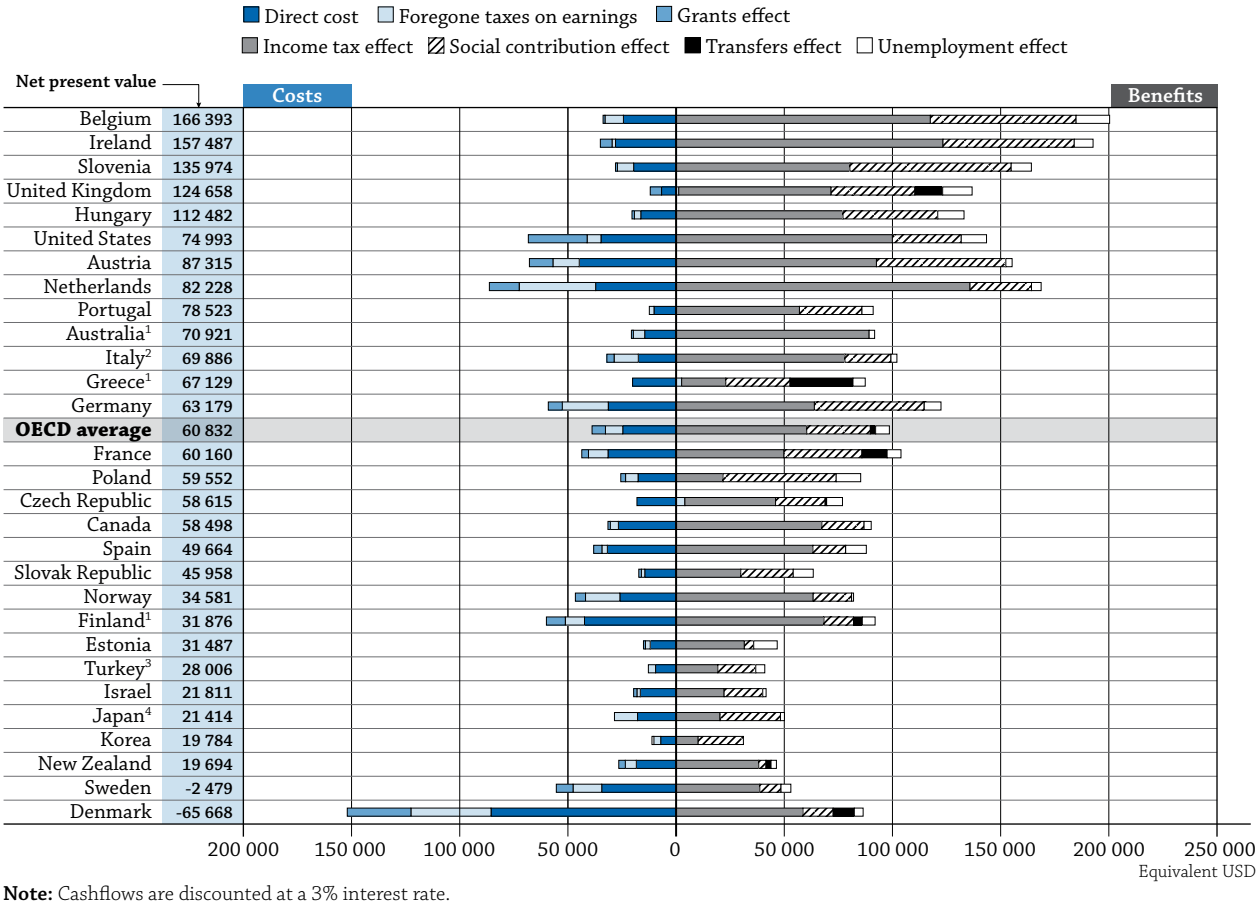
Given that earnings premiums vary substantially among OECD countries, tax payments and benefits to the public sector also vary in ways that are somewhat counter-intuitive. Because earnings premiums are relatively low in the Nordic countries, average tertiary earnings typically fall below the income bracket where high marginal taxes are levied. The largest public gains in tax and social security benefits from higher education are most often found in countries where earnings differentials are large, or where average earnings reach high income-tax brackets.

In Austria, Belgium, Denmark, Germany, Hungary, Ireland, Italy, the Netherlands, Slovenia and the United States, tertiary-educated individuals pay considerably more in taxes and social contributions. In all these countries, earning premiums are above the OECD average and thus levies for social contribution are also higher.

A number of countries have tax policies that effectively lower the actual tax paid by individuals, particularly by those in high-income brackets. Tax relief for interest payments on mortgage debt has been introduced in many OECD countries to encourage homeownership. These benefits favour those with higher education and high marginal tax rates. The tax incentives for housing are particularly large in the Czech Republic, Denmark, Finland, Greece, the Netherlands, Norway, Sweden and the United States (Andrews et al., 2011).

Chart A7.3. Public costs and benefits for a woman attaining tertiary education (2010)

As compared with costs and benefits for upper secondary or post-secondary non-tertiary education



Note: Cashflows are discounted at a 3% interest rate.
1. Year of reference 2009.
2. Year of reference 2008.
3. Year of reference 2005.
4. Year of reference 2007.
Countries are ranked in descending order of the public net present value.
Source: OECD. Table A7.4b. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933116490

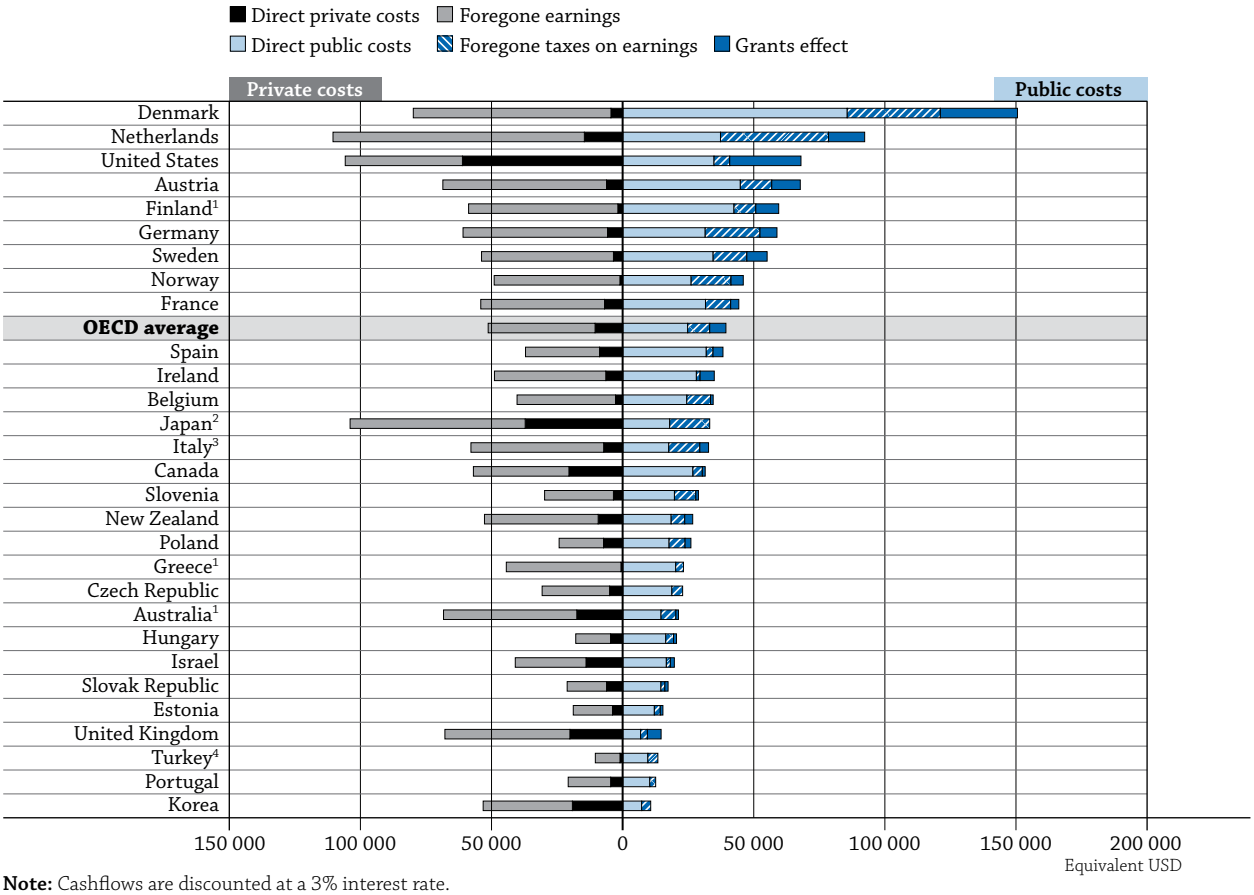
The distribution of costs for education between the public sector and individuals

Direct costs for education are in large part borne by the public sector. For instance, on average across OECD countries, the direct costs for a man attaining tertiary education are around 30% of the total private and public direct investment costs. Only in a few countries, notably Australia, Japan, Korea, the United Kingdom and the United States, do private direct costs, such as tuition fees, constitute more than 55% of the overall public and private direct investment costs for tertiary education. Some countries provide grants and loans to individuals to alleviate the financial burden of attaining tertiary education. Grants are awarded based on various criteria, such as outstanding performance or a student's socio-economic background, to encourage young individuals from less affluent families to pursue their studies.

Countries that offer particularly large grants are the Nordic countries of Denmark (USD 29 000), Finland (USD 9 000) and Sweden (USD 8 000), as well as Austria (USD 11 000), the Netherlands (USD 14 000) and the United States (USD 27 000). Interestingly, the available data show no relationship between direct costs and grants. Countries where grants are higher do not have always the highest private direct costs. Conversely, among the five countries where direct costs are the highest (about USD 20 000 or more), only the United Kingdom and the United States provide substantial grants to students (USD 5 000 in the United Kingdom). But there are other government-funded schemes besides grants, including subsidised student loans (Box A7.1) and discounted tuition rates for less economically advantaged students, that can help lower the private cost of accessing tertiary education (Tables A7.3a and A7.4a).

Chart A7.4. Public versus private costs for a man attaining tertiary education (2010)

As compared with costs from upper secondary or post-secondary non-tertiary education



Note: Cashflows are discounted at a 3% interest rate.
1. Year of reference 2009.
2. Year of reference 2007.
3. Year of reference 2008.
4. Year of reference 2005.
Countries are ranked in descending order of the total public costs.
Source: OECD. Tables A7.3a and A7.4a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933116509

Box A7.1. Going further in estimating returns to education

Apart from the earnings differentials, which are related to labour market conditions, the major components of the returns to education relate to policy decisions regarding access to education, taxes and the costs of education for the individual. The net present value analysis can be extended in a number of ways, subject to data availability. For instance, the analysis in this chapter takes into account student grant systems and excludes loan systems.

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This box goes a step further and presents the first attempt to quantify the impact of student loans for tertiary programmes on returns to education, based on information on loans collected through an *ad hoc* survey from the OECD Labour and Social Outcomes of Education (LSO) Network for the 14 countries shown in the chart below (tables available on line).

In this box, the impact of student loans on net present value of attaining tertiary education varies according:

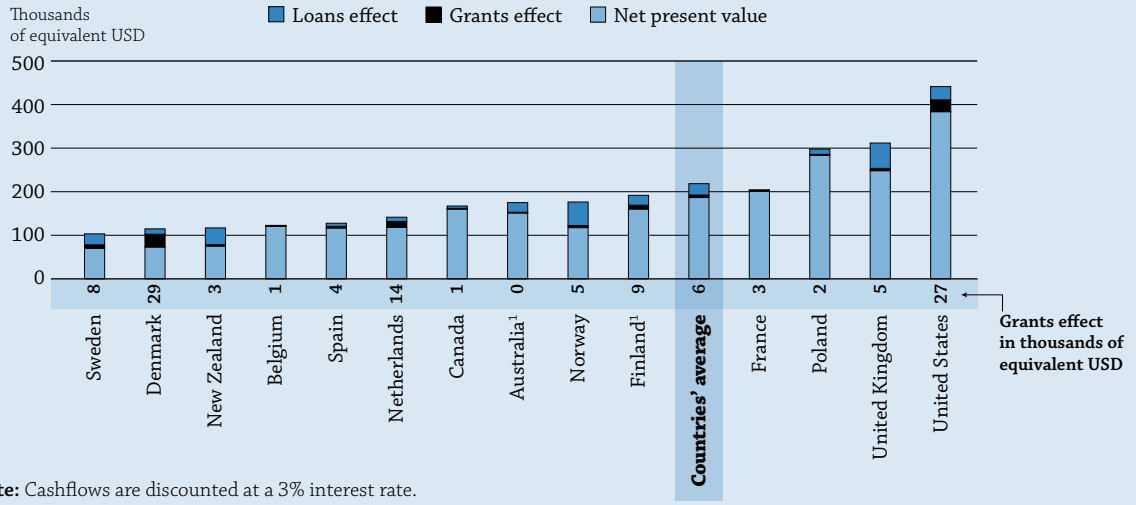
- Access to loans or the percentage of students receiving loans;
- The average amount of a typical student loan;
- The cost or interest rate charged; and
- Remission/forgiveness and default payments, i.e. overall expected proportion of an average loan to be written off/irrecoverable.

There are two broad types of student loans: fixed repayment (also referred to as mortgage-style) loans and income-contingent loans. Both systems imply some costs for the government that guarantees the loan repayment or/and subsidises the interest rates. In theory, the prevalence of income-contingent or fixed-repayment systems should affect the net returns of education, as the remission rate is larger with income-contingent systems (implying larger costs for government but larger benefits for students) (see Box B5.1).

Following the approach to estimating the financial returns to education, based on the investment theory from the finance literature, both the average loan per student per year (based on the percentage of students receiving a loan and the average amount of these loans) and the average interest rate on these loans have been taken into account. The basis for integrating the interest rate on loans is to consider that there is more than one source of financing, and the weight for each element is proportional to its market value. The result is the weighted average cost of capital (WACC), a weighted combination of the loan interest rate and the discount rate (i.e. the interest rate at which banks may borrow funds from the central bank). The WACC allows for calculating a net present value with the gains expressed in monetary units. The remission/forgiveness due to completion of studies on time (or other performance-based incentives) or the default payments for loans guaranteed by the government are integrated into the calculation of the impact of loans on net present values, with a positive effect on net present value. The loans effect presented in this box is therefore a combination of the above components.

Chart A7.a. The contribution of grants and loans on the private net present value for a man attaining tertiary education (2010)

As compared with a man attaining upper secondary or post-secondary non-tertiary education, in thousands of equivalent USD, converted using PPPs for GDP



Note: Cashflows are discounted at a 3% interest rate.
1. Year of reference 2009.
Countries are ranked in ascending order of the private net present value.
Source: OECD. Table A7.5a, available on line. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933116528

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The results of the survey show that, among the 14 countries with available data, the impact of loans on the net present value indicator is greater in New Zealand, Norway, Sweden, the United Kingdom and the United States than in Canada and the Netherlands, although all of these countries report well-developed student support systems.

This chart also shows the large differences among countries in the average tuition fees charged by tertiary-type A institutions for full-time national students in first-degree programmes, and in the financial support to these students. Australia, Canada, the Netherlands, New Zealand, the United Kingdom and the United States have comparatively high levels of tuition fees and well-developed student loan systems. Denmark, Finland, Norway and Sweden have comparatively low levels of tuition fees and well-developed student support systems (see Indicator B5).

In the Netherlands, grants or scholarships have a larger impact on the private net present value than loans, because grants are more widely accessible than loans – more than two in three students receive a grant (compared with one in three students who take advantage of loans) – and because the average amount of a grant is larger than the average amount of a loan. The average cost of loans in the Netherlands is higher than in other countries, but this estimate does not account for specific financial rules, like fiscal deductibility of some education costs, etc.

In Canada, students benefit from relatively high remission rates, i.e. a large proportion of the average loan is expected to be written off if studies are completed. The overall benefit from loans is nonetheless counterbalanced by the relatively high average cost of loans (i.e. the high interest rate that is charged on the loan after studies are completed).

Not surprisingly, the impact of loans is negligible in Belgium, France and Spain, as these countries have comparatively low tuition fees and less-developed student support systems.

Definitions

Adults refers to 25-64 year-olds.

Direct costs are a reflection of how much is spent on students per year from all sources (public, private and households), and are relative to the length of schooling.

Foregone earnings while in education depend largely on the level of earnings that a non-student can expect to receive and the duration of studies. The individual's foregone earnings are net of taxes, social contributions and social transfers.

Foregone taxes on earnings include the taxes, social contributions and social transfers not received by the public sector.

Gross earnings benefits are estimates of the earnings an individual will receive when in the labour market.

The **income tax effect** is the estimated amount received by the public sector from taxes. It is usually the main source of public revenue from investments made in education. It is more pronounced at the tertiary level of education because of progressive income taxes.

The **internal rate of return** indicates at what real interest rate the investment breaks even.

Levels of education: below upper secondary corresponds to ISCED levels 0, 1, 2 and 3C short programmes; **upper secondary or post-secondary non-tertiary** corresponds to ISCED levels 3A, 3B, 3C long programmes, and ISCED level 4; and **tertiary** corresponds to ISCED levels 5A, 5B and 6. See the Reader's Guide at the beginning of the book for a presentation of all ISCED levels.

The **net present value** is the difference between the discounted benefits and the discounted investment costs, and represents the additional value that education produces over and above the 3% real interest that is charged on these cash flows.

The **social contribution effect** in the calculations only concerns those paid by individuals and not those paid by employers. The latter are an additional source of public income. In most OECD countries individuals pay social contributions on a flat rate and, as such, differences between education levels are smaller and proportional to earnings levels.

The **transfers effect** concerns the social transfers related to a given level of earnings.

The **unemployment effect** is translated into monetary gains by using the level of earnings for different education categories over the working life.

Methodology

This indicator builds on information collected in other chapters of *Education at a Glance 2013* (OECD, 2013a), with one exception: to be able to calculate public returns and examine net benefits for individuals, information from the OECD Taxing Wages database is used. The earnings data used are from the earnings data collection database, compiled by the LSO (Labour Market and Social Outcomes of Learning) Network (available as relative earnings in *Education at a Glance 2013,* Indicator A6). The data on direct costs of education are from Indicators B1 and B3. Data for the probability of finding a job (unemployment rates for different educational categories and age groups) are from Indicator A5. The minimum wage is used as an approximation for what a student could potentially earn if not in school in calculating the foregone earnings at the upper secondary or post-secondary non-tertiary level of education. See Annex 3 (*www.oecd.org/edu/eag.htm*) for additional information.

In calculating the returns to education, the approach taken here is the net present value (NPV) of the investment. In this framework, lifetime costs and benefits are transferred back to the start of the investment. This is done by discounting all cash flows back to the beginning of the investment with a set rate of interest (discount rate). The choice of interest rate is difficult, as it should reflect not only the overall time horizon of the investment, but also the cost of borrowing or the perceived risk of the investment. To keep things simple, and to make the interpretation of results easier, the same discount rate is applied across all OECD countries.

To arrive at a reasonable discount rate, long-term government bonds have been used as a benchmark. The average long-term interest rate across OECD countries was approximately 4.4% in 2010 (OECD Finance Database [OECD, 2013b]). Assuming that countries' central banks have succeeded in anchoring inflation expectations at or below 2% per year, this implies a real interest rate of 2% to 3%. The 3% real discount rate used in this indicator reflects the fact that calculations are made in constant prices. The change in the discount rate has a substantial impact on the net present value of education.

Discounting the costs and benefits to the present value with this interest rate makes the financial returns on the overall investment and values of the different components comparable across time and countries. Using the same unit of analysis also has the advantage of making it possible to add or subtract components across different education levels or between the private and public sectors to understand how different factors interact.

NPV calculations are based on the same method as internal rate of return (IRR) calculations. The main difference between the two methods lies in how the interest rate is set. For calculations developed within the IRR framework, the interest rate is raised to the level at which the economic benefits equal the cost of the investment. It pinpoints the discount rate at which the investment breaks even.

In calculating the private NPV, investment costs include after-tax foregone earnings adjusted for the probability of finding a job (unemployment rate) and direct private expenditures on education. Both of these investment streams take into account the duration of studies. On the benefits side, age-earnings profiles are used to calculate the earnings differential between different education levels. These gross earnings differentials are adjusted for differences in income taxes, social contributions and social transfers, including housing benefits and social assistance related to earnings level, to arrive at net earnings differentials. The cash flows are further adjusted for probability of finding a job. The calculations are done separately for men and women to account for differences in earnings differentials and unemployment rates.

In calculating the public NPV, public costs include lost tax receipts during the years of schooling (income tax and social contributions) and public expenditures, taking into account the duration of studies. Lost tax receipts are low in some countries because young individuals earn less. Public expenditures on education include direct expenditures, such as teachers' salaries or spending for the construction of school buildings, purchase of textbooks, etc., and public-private transfers, such as public subsidies to households for scholarships and other grants, and to other private entities for

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providing training at the workplace, etc. The benefits for the public sector are additional tax and social contribution receipts associated with higher earnings and savings on transfers, i.e. housing benefits and social assistance that the public sector does not have to pay because of higher earnings.

It is important to consider some of the broad conceptual limitations on the estimates of financial returns discussed here. For instance:

- To calculate returns over the lifetime, 64 is used as the upper age limit in all countries. However, the age of eligibility for pensions varies widely between countries. A few years more or less in the labour market can make a substantial difference in the returns to education for an individual and the public. Thus, it is likely that in countries where the retirement age deviates significantly from 64, return rates are over- or underestimated.
- As earnings generally increase with educational attainment, individuals with higher levels of education typically consume more goods and services, and thus pay additional value-added taxes (VAT) on their consumption. Public returns are thus underestimated in this indicator.
- Individuals with higher earnings also tend to pay more into their pensions and, after leaving the labour force, will have a further income advantage that is not taken into account in the calculations here. Better-educated individuals also tend to live longer, entailing additional public costs that are also not taken into account here. In addition, in countries where a substantial part of the pension system is financed by employers through employer contributions added to salaries, the returns to higher education are typically underestimated compared to countries where pensions are paid by the individual.
- Many governments have programmes that provide loans to students at low interest rates. Loans can provide a strong incentive for individuals to pursue their studies and reduce the costs of attaining higher education. Yet, as loans have to be repaid later, they also reduce the financial benefits of education. These subsidies can often make a substantial difference in the returns to education for the individual, but they are not included here.
- In some countries, unemployment compensation is quite generous, while in others unemployed individuals have to rely on social benefits.
- Direct costs are most notably tuition fees, but also costs for educational materials or daily expenses that are associated with a change in residence required to pursue a specific educational programme. These are not taken into consideration.
- The data reported are accounting-based values only. The results no doubt differ from econometric estimates that would use the same data on the micro level (i.e. data from household or individual surveys) rather than a lifetime stream of earnings derived from average earnings.
- For upper secondary or post-secondary non-tertiary education, caution is required when interpreting foregone earnings, as the minimum wage is used as an approximation.

Given these factors, the returns on education in different countries should be assessed with caution.

The approach used here estimates future earnings for individuals with different levels of education, based on knowledge of how average present gross earnings vary by level of attainment and age. However, the relationship between different levels of educational attainment and earnings may differ in the future, as technological, economic and social changes may all alter how wage levels relate to education levels.

Differences in returns across countries partly reflect different institutional and non-market conditions that bear on earnings, such as institutional conditions that limit flexibility in relative earnings.

In estimating benefits, the effect of education on the likelihood of finding employment when an individual wants to work is taken into account. However, this also makes the estimate sensitive to the stage in the economic cycle at which the data are collected. As more highly educated individuals typically have a stronger attachment to the labour market, the value of education generally increases in times of slow economic growth.

The calculations also involve a number of restrictive assumptions needed for international comparability. For calculating the investments in education, foregone earnings have been standardised at the level of the legal minimum wage or the equivalent in countries in which earnings data include part-time work. When no national minimum wage was available, the wage was selected from wages set in collective agreements. This assumption aims to counterbalance the very low earnings recorded for 15-24 year-olds that led to excessively high estimates in earlier editions of *Education at a Glance*. In the Czech Republic, Hungary, Japan, the Netherlands, Portugal and the United Kingdom, actual earnings are used in calculating foregone earnings, as part-time work is excluded in these earnings data collections.

Costs and benefits for upper secondary or post-secondary non-tertiary education cannot be computed for Belgium because upper secondary or post-secondary non-tertiary education is compulsory in both countries. The fact that upper secondary education is compulsory in these countries prevents a consistent application of the methodology for this indicator, because it uses an investment approach. The investment approach assumes that individuals make a choice to invest in a given level of education in order to obtain the benefits. In countries where a particular level of education is compulsory, individuals do not face this choice, therefore by making the methodology is inapplicable in these instances.

For further information on methodology, please see OECD, 2011, and Annex 3 at *www.oecd.org/edu/eag.htm*.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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Tables of Indicator A7

StatLink http://dx.doi.org/10.1787/888933116281

	Table A7.1a	Private costs and benefits for a man attaining upper secondary or post-secondary non-tertiary education (2010)
	Table A7.1b	Private costs and benefits for a woman attaining upper secondary or post-secondary non-tertiary education (2010)
	Table A7.2a	Public costs and benefits for a man attaining upper secondary or post-secondary non-tertiary education (2010)
	Table A7.2b	Public costs and benefits for a woman attaining upper secondary or post-secondary non-tertiary education (2010)
	Table A7.3a	Private costs and benefits for a man attaining tertiary education (2010)
	Table A7.3b	Private costs and benefits for a woman attaining tertiary education (2010)
	Table A7.4a	Public costs and benefits for a man attaining tertiary education (2010)
	Table A7.4b	Public costs and benefits for a woman attaining tertiary education (2010)
WEB	Table A7.5a	Private net present value including grants and loans for a man attaining tertiary education (2010)
WEB	Table A7.5b	Private net present value including grants and loans for a woman attaining tertiary education (2010)
WEB	Table A7.6a	Public net present value including grants and loans for a man attaining tertiary education (2010)
WEB	Table A7.6b	Public net present value including grants and loans for a woman attaining tertiary education (2010)

Table A7.1a. Private costs and benefits for a man attaining upper secondary or post-secondary non-tertiary education (2010)

As compared with a man attaining lower secondary education, in equivalent USD converted using PPPs for GDP

		Year	Direct costs	Foregone earnings	Total costs	Gross earnings benefits	Income tax effect	Social contribution effect	Transfers effect	Unemployment effect	Total benefits	Net present value	Internal rate of return
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
OECD	Australia	2009	- 3 019	- 27 156	**- 30 175**	176 400	- 64 407	0	- 8 303	49 011	**152 701**	**122 526**	19.9%
	Austria	2010	- 2 084	- 46 210	**- 48 294**	303 737	- 80 357	- 65 732	- 10 652	50 975	**197 971**	**149 677**	12.1%
	Belgium[1]		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Canada	2010	- 3 424	- 30 793	**- 34 217**	164 771	- 50 060	- 13 432	- 1 362	45 338	**145 254**	**111 037**	13.3%
	Chile		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Czech Republic	2010	- 2 130	- 17 846	**- 19 976**	92 549	- 27 793	- 19 496	- 5 574	85 445	**125 131**	**105 155**	18.2%
	Denmark	2010	- 797	- 42 671	**- 43 468**	207 899	- 78 437	- 20 515	- 11 164	32 831	**130 615**	**87 147**	11.7%
	Estonia	2010	- 249	- 8 196	**- 8 445**	66 894	- 26 383	- 3 919	0	73 157	**109 750**	**101 305**	39.5%
	Finland	2009	- 178	- 30 022	**- 30 201**	75 381	- 28 532	- 6 632	- 7 202	28 082	**61 097**	**30 897**	7.8%
	France	2010	- 2 904	- 28 503	**- 31 407**	94 133	- 21 451	- 20 444	- 15 050	54 391	**91 579**	**60 173**	10.6%
	Germany	2010	- 3 973	- 36 901	**- 40 874**	74 406	- 28 450	- 31 726	- 9 942	81 012	**85 299**	**44 426**	7.5%
	Greece	2009	- 1 780	- 30 044	**- 31 824**	93 624	- 11 870	- 15 658	- 23 320	3 845	**46 622**	**14 798**	4.1%
	Hungary	2010	- 878	- 11 766	**- 12 644**	76 171	- 23 298	- 22 368	0	55 414	**85 919**	**73 276**	19.3%
	Iceland		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Ireland	2010	- 1 084	- 23 927	**- 25 011**	214 036	- 65 316	- 29 965	0	101 729	**220 484**	**195 473**	30.3%
	Israel	2010	- 1 215	- 24 905	**- 26 120**	147 712	- 21 659	- 17 721	0	21 021	**129 352**	**103 232**	12.6%
	Italy	2008	- 986	- 43 886	**- 44 872**	177 073	- 63 514	- 18 903	0	22 519	**117 174**	**72 302**	8.1%
	Japan[2]		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Korea	2010	- 5 756	- 28 830	**- 34 587**	185 305	- 7 688	- 15 277	0	11 785	**174 126**	**139 540**	13.1%
	Luxembourg		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Mexico		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Netherlands	2010	- 4 358	- 50 747	**- 55 105**	150 870	- 53 510	- 28 296	- 4 801	31 999	**96 261**	**41 156**	5.7%
	New Zealand	2010	- 3 213	- 33 613	**- 36 827**	112 064	- 37 790	- 2 839	- 1 172	29 961	**100 226**	**63 399**	8.7%
	Norway	2010	- 3 023	- 51 519	**- 54 543**	261 645	- 82 184	- 23 995	- 4 680	46 082	**196 868**	**142 325**	13.0%
	Poland	2010	- 1 276	- 16 640	**- 17 916**	56 062	- 7 234	- 19 415	0	34 594	**64 008**	**46 093**	11.6%
	Portugal	2010	0	- 17 510	**- 17 510**	146 361	- 29 407	- 17 538	0	13 572	**112 987**	**95 478**	12.0%
	Slovak Republic	2010	- 2 007	- 8 802	**- 10 809**	115 675	- 26 205	- 31 402	0	119 524	**177 592**	**166 784**	35.1%
	Slovenia	2010	- 1 833	- 21 943	**- 23 776**	125 817	- 29 689	- 36 241	0	38 266	**98 153**	**74 378**	12.8%
	Spain	2010	- 1 613	- 9 225	**- 10 838**	107 297	- 28 928	- 10 463	0	58 730	**126 636**	**115 798**	35.3%
	Sweden	2010	- 16	- 25 456	**- 25 473**	175 142	- 58 469	- 16 085	- 21 705	55 004	**133 887**	**108 415**	16.5%
	Switzerland		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Turkey	2005	- 336	- 11 218	**- 11 554**	63 318	- 10 584	- 10 115	0	4 017	**46 637**	**35 082**	9.5%
	United Kingdom	2010	- 5 195	- 30 014	**- 35 209**	220 438	- 51 976	- 28 912	- 49 957	64 640	**154 232**	**119 023**	18.2%
	United States	2010	- 2 853	- 25 225	**- 28 078**	285 333	- 68 131	- 25 197	- 7 344	44 074	**228 736**	**200 658**	19.4%
	OECD average		- 2 081	- 27 169	**- 29 250**	147 041	- 40 123	- 20 455	- 6 749	46 556	**126 270**	**97 020**	15.8%
	EU21 average		- 1 755	- 26 332	**- 28 087**	135 451	- 38 990	- 23 353	- 8 388	52 933	**117 653**	**89 566**	16.7%
Partners	Argentina		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Brazil		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	China		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Colombia		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	India		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Indonesia		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Latvia		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Russian Federation		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Saudi Arabia		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	South Africa		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	G20 average		m	m	**m**	m	m	m	m	m	**m**	**m**	m

Note: Values are based on the difference between men who attained an upper secondary or post-secondary non-tertiary education compared with those who have not attained that level of education.

1. Data for Belgium are not included in the table because upper secondary education is compulsory.
2. Data at lower and upper secondary levels of education are not broken down.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116300

A7

Table A7.1b. Private costs and benefits for a woman attaining upper secondary or post-secondary non-tertiary education (2010)

As compared with a woman attaining lower secondary education, in equivalent USD converted using PPPs for GDP

		Year	Direct costs	Foregone earnings	Total costs	Gross earnings benefits	Income tax effect	Social contribution effect	Transfers effect	Unemployment effect	Total benefits	Net present value	Internal rate of return
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
OECD	Australia	2009	- 3 019	- 28 198	**- 31 217**	122 044	- 28 457	0	- 22 467	20 190	**91 311**	**60 094**	12.7%
	Austria	2010	- 2 084	- 44 642	**- 46 726**	204 709	- 28 457	- 46 030	- 32 029	23 784	**121 977**	**75 251**	9.0%
	Belgium[1]		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Canada	2010	- 3 424	- 32 817	**- 36 241**	78 654	- 15 117	- 8 057	- 3 002	29 950	**82 428**	**46 187**	7.1%
	Chile		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Czech Republic	2010	- 2 130	- 15 299	**- 17 429**	86 525	- 23 652	- 17 196	- 16 740	70 127	**99 064**	**81 634**	19.3%
	Denmark	2010	- 797	- 44 663	**- 45 460**	151 000	- 55 719	- 15 607	0	26 604	**106 278**	**60 818**	9.1%
	Estonia	2010	- 249	- 8 187	**- 8 436**	43 751	- 10 151	- 1 455	0	8 365	**40 510**	**32 074**	31.6%
	Finland	2009	- 178	- 31 990	**- 32 168**	55 774	- 16 608	- 5 546	- 16 226	30 783	**48 177**	**16 009**	5.5%
	France	2010	- 2 904	- 25 642	**- 28 546**	97 781	- 18 674	- 18 682	- 27 615	39 828	**72 639**	**44 093**	8.1%
	Germany	2010	- 3 973	- 37 300	**- 41 272**	156 387	- 33 692	- 41 680	- 48 767	42 644	**74 891**	**33 618**	6.4%
	Greece	2009	- 1 780	- 24 381	**- 26 160**	109 244	- 1 304	- 18 230	- 15 164	5 096	**79 641**	**53 481**	7.8%
	Hungary	2010	- 878	- 13 082	**- 13 960**	75 548	- 21 486	- 20 637	0	46 369	**79 794**	**65 834**	15.8%
	Iceland		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Ireland	2010	- 1 084	- 31 344	**- 32 428**	134 069	- 20 768	- 8 056	0	30 359	**135 604**	**103 176**	15.0%
	Israel	2010	- 1 215	- 23 860	**- 25 076**	109 731	- 3 747	- 5 003	- 3 505	12 291	**109 768**	**84 692**	13.0%
	Italy	2008	- 986	- 38 624	**- 39 610**	152 167	- 51 238	- 17 293	0	29 983	**113 620**	**74 010**	8.4%
	Japan[2]		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Korea	2010	- 5 756	- 30 875	**- 36 631**	114 418	- 1 830	- 9 342	0	4 399	**107 644**	**71 013**	11.3%
	Luxembourg		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Mexico		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Netherlands	2010	- 4 358	- 48 974	**- 53 332**	159 683	- 36 998	- 53 343	- 13 638	28 711	**84 414**	**31 082**	5.1%
	New Zealand	2010	- 3 213	- 30 148	**- 33 362**	77 579	- 16 827	- 1 872	- 7 825	16 735	**67 790**	**34 428**	7.7%
	Norway	2010	- 3 023	- 52 322	**- 55 345**	160 744	- 44 395	- 14 122	- 14 220	19 969	**107 976**	**52 631**	6.9%
	Poland	2010	- 1 276	- 15 341	**- 16 618**	65 215	- 7 681	- 20 906	0	32 672	**69 299**	**52 682**	11.7%
	Portugal	2010	0	- 16 952	**- 16 952**	104 322	- 10 554	- 12 633	0	10 654	**91 790**	**74 838**	11.3%
	Slovak Republic	2010	- 2 007	- 5 179	**- 7 187**	79 613	- 12 302	- 22 099	0	85 991	**131 204**	**124 017**	43.8%
	Slovenia	2010	- 1 833	- 24 045	**- 25 877**	118 868	- 32 045	- 31 131	0	21 694	**77 387**	**51 510**	8.8%
	Spain	2010	- 1 613	- 8 881	**- 10 494**	85 625	- 27 101	- 7 802	0	39 931	**90 653**	**80 159**	16.5%
	Sweden	2010	- 16	- 27 231	**- 27 247**	141 055	- 47 672	- 13 857	- 30 949	57 144	**105 720**	**78 473**	11.5%
	Switzerland		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Turkey	2005	- 336	- 12 058	**- 12 394**	75 879	- 8 395	- 9 432	0	- 12 434	**45 618**	**33 223**	9.2%
	United Kingdom	2010	- 5 195	- 42 268	**- 47 464**	136 400	- 33 662	- 18 761	- 49 494	51 211	**85 693**	**38 230**	6.7%
	United States	2010	- 2 853	- 27 807	**- 30 659**	216 685	- 44 957	- 19 154	- 13 250	34 220	**173 546**	**142 886**	16.7%
	OECD average		- 2 081	- 27 486	**- 29 566**	115 314	- 24 203	- 16 960	- 11 663	29 899	**92 386**	**62 820**	12.5%
	EU21 average		- 1 755	- 26 528	**- 28 282**	113 565	- 25 777	- 20 576	- 13 191	35 892	**89 913**	**61 631**	13.2%
Partners	Argentina		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Brazil		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	China		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Colombia		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	India		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Indonesia		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Latvia		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Russian Federation		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	Saudi Arabia		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	South Africa		m	m	**m**	m	m	m	m	m	**m**	**m**	m
	G20 average		m	m	**m**	m	m	m	m	m	**m**	**m**	m

Note: Values are based on the difference between women who attained an upper secondary or post-secondary non-tertiary education compared with those who have not attained that level of education.

1. Data for Belgium are not included in the table because upper secondary education is compulsory.
2. Data at lower and upper secondary levels of education are not broken down.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116319

Table A7.2a. Public costs and benefits for a man attaining upper secondary or post-secondary non-tertiary education (2010)

As compared with a man attaining lower secondary education, in equivalent USD converted using PPPs for GDP

		Year	Direct costs	Foregone taxes on earnings	Total costs	Income tax effect	Social contribution effect	Transfers effect	Unemployment effect	Total benefits	Net present value	Internal rate of return
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
OECD	Australia	2009	- 15 955	- 3 020	**- 18 975**	55 053	0	8 303	9 355	**72 710**	**53 735**	17.1%
	Austria	2010	- 43 971	- 8 869	**- 52 840**	73 918	56 580	10 652	15 590	**156 741**	**103 901**	9.5%
	Belgium[1]		m	m	**m**	m	m	m	m	**m**	**m**	m
	Canada	2010	- 27 754	- 2 945	**- 30 700**	43 075	10 028	1 322	8 540	**62 965**	**32 266**	6.4%
	Chile		m	m	**m**	m	m	m	m	**m**	**m**	m
	Czech Republic	2010	- 21 080	2 849	**- 18 231**	18 550	10 152	5 574	18 586	**52 862**	**34 631**	10.2%
	Denmark	2010	- 32 430	- 20 100	**- 52 530**	69 942	16 687	11 164	12 323	**110 115**	**57 585**	7.6%
	Estonia	2010	- 19 081	- 1 241	**- 20 323**	13 696	1 879	0	14 726	**30 301**	**9 978**	5.5%
	Finland	2009	- 21 711	- 4 391	**- 26 103**	23 424	4 855	7 202	6 884	**42 366**	**16 263**	6.5%
	France	2010	- 33 511	- 5 799	**- 39 310**	15 415	13 033	15 050	13 446	**56 945**	**17 635**	5.9%
	Germany	2010	- 27 953	- 13 996	**- 41 949**	17 205	15 268	9 942	27 703	**70 119**	**28 170**	6.8%
	Greece	2009	- 22 045	2 032	**- 20 013**	11 723	15 045	23 320	760	**50 848**	**30 835**	6.0%
	Hungary	2010	- 15 696	- 2 625	**- 18 321**	16 503	12 994	0	16 168	**45 666**	**27 345**	8.5%
	Iceland		m	m	**m**	m	m	m	m	**m**	**m**	m
	Ireland	2010	- 25 625	- 794	**- 26 419**	55 056	23 939	0	16 285	**95 281**	**68 862**	10.8%
	Israel	2010	- 14 670	- 1 409	**- 16 079**	20 681	16 468	0	2 231	**39 380**	**23 301**	6.7%
	Italy	2008	- 32 919	- 10 264	**- 43 183**	59 003	16 776	0	6 638	**82 418**	**39 235**	6.0%
	Japan[2]		m	m	**m**	m	m	m	m	**m**	**m**	m
	Korea	2010	- 21 051	- 2 923	**- 23 974**	7 529	14 366	0	1 069	**22 965**	**- 1 009**	2.8%
	Luxembourg		m	m	**m**	m	m	m	m	**m**	**m**	m
	Mexico		m	m	**m**	m	m	m	m	**m**	**m**	m
	Netherlands	2010	- 28 879	- 2 153	**- 31 032**	50 757	20 313	4 801	10 736	**86 607**	**55 575**	9.8%
	New Zealand	2010	- 22 264	- 4 017	**- 26 281**	32 780	2 243	1 172	5 605	**41 800**	**15 519**	5.1%
	Norway	2010	- 38 967	- 16 326	**- 55 292**	73 242	20 424	4 680	12 512	**110 859**	**55 566**	7.6%
	Poland	2010	- 19 278	- 5 994	**- 25 272**	4 952	12 024	0	9 673	**26 648**	**1 377**	3.3%
	Portugal	2010	- 26 371	- 2 429	**- 28 800**	28 325	16 055	0	2 565	**46 945**	**18 145**	4.7%
	Slovak Republic	2010	- 14 722	- 874	**- 15 596**	17 620	15 479	0	24 507	**57 606**	**42 011**	12.3%
	Slovenia	2010	- 19 303	- 6 815	**- 26 119**	25 987	27 826	0	12 116	**65 930**	**39 811**	9.0%
	Spain	2010	- 18 107	- 843	**- 18 950**	23 289	6 766	0	9 336	**39 391**	**20 441**	6.1%
	Sweden	2010	- 29 675	- 6 505	**- 36 180**	46 649	12 257	21 705	15 648	**96 259**	**60 079**	14.3%
	Switzerland		m	m	**m**	m	m	m	m	**m**	**m**	m
	Turkey	2005	- 4 776	- 4 551	**- 9 327**	9 997	9 514	0	1 188	**20 699**	**11 371**	6.4%
	United Kingdom	2010	- 19 434	4 949	**- 14 485**	44 222	24 322	49 957	12 344	**130 846**	**116 361**	27.1%
	United States	2010	- 34 048	- 3 381	**- 37 429**	61 984	21 854	7 344	9 490	**100 671**	**63 242**	9.1%
	OECD average		- 24 121	- 4 535	**- 28 656**	34 095	15 450	6 748	10 964	**67 257**	**38 601**	8.6%
	EU21 average		- 24 831	- 4 414	**- 29 245**	32 433	16 961	8 388	12 949	**70 731**	**41 486**	8.9%
Partners	Argentina		m	m	**m**	m	m	m	m	**m**	**m**	m
	Brazil		m	m	**m**	m	m	m	m	**m**	**m**	m
	China		m	m	**m**	m	m	m	m	**m**	**m**	m
	Colombia		m	m	**m**	m	m	m	m	**m**	**m**	m
	India		m	m	**m**	m	m	m	m	**m**	**m**	m
	Indonesia		m	m	**m**	m	m	m	m	**m**	**m**	m
	Latvia		m	m	**m**	m	m	m	m	**m**	**m**	m
	Russian Federation		m	m	**m**	m	m	m	m	**m**	**m**	m
	Saudi Arabia		m	m	**m**	m	m	m	m	**m**	**m**	m
	South Africa		m	m	**m**	m	m	m	m	**m**	**m**	m
	G20 average		m	m	**m**	m	m	m	m	**m**	**m**	m

Note: Values are based on the difference between men who attained an upper secondary or post-secondary non-tertiary education compared with those who have not attained that level of education.

1. Data for Belgium are not included in the table because upper secondary education is compulsory.
2. Data at lower and upper secondary levels of education are not broken down.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table A7.2b. Public costs and benefits for a woman attaining upper secondary or post-secondary non-tertiary education (2010)

As compared with a woman attaining lower secondary education, in equivalent USD converted using PPPs for GDP

		Year	Direct costs	Foregone taxes on earnings	Total costs	Income tax effect	Social contribution effect	Transfers effect	Unemployment effect	Total benefits	Net present value	Internal rate of return
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
OECD	Australia	2009	- 15 955	- 3 136	**- 19 091**	26 218	0	22 467	2 239	**50 924**	**31 833**	18.4%
	Austria	2010	- 43 971	- 8 568	**- 52 539**	28 045	41 879	32 029	4 562	**106 516**	**53 977**	8.2%
	Belgium[1]		m	m	**m**	m	m	m	m	**m**	**m**	m
	Canada	2010	- 28 587	- 3 233	**- 31 820**	13 613	6 115	3 002	3 447	**26 176**	**- 5 644**	2.3%
	Chile		m	m	**m**	m	m	m	m	**m**	**m**	m
	Czech Republic	2010	- 21 080	2 442	**- 18 638**	17 417	9 532	16 740	13 901	**57 589**	**38 951**	10.5%
	Denmark	2010	- 32 430	- 21 038	**- 53 468**	49 505	12 177	0	9 644	**71 326**	**17 858**	4.8%
	Estonia	2010	- 19 081	- 1 240	**- 20 321**	8 914	1 223	0	1 469	**11 606**	**- 8 715**	0.2%
	Finland	2009	- 21 711	- 4 679	**- 26 390**	12 075	3 607	16 226	6 472	**38 380**	**11 989**	6.6%
	France	2010	- 33 511	- 5 217	**- 38 728**	15 257	13 296	27 615	8 802	**64 970**	**26 243**	5.6%
	Germany	2010	- 27 953	- 14 147	**- 42 100**	30 323	33 057	48 767	11 993	**124 140**	**82 040**	13.7%
	Greece	2009	- 22 045	1 649	**- 20 396**	1 347	17 423	15 164	764	**34 699**	**14 303**	4.8%
	Hungary	2010	- 15 696	- 2 918	**- 18 614**	16 259	12 802	0	13 062	**42 123**	**23 509**	7.5%
	Iceland		m	m	**m**	m	m	m	m	**m**	**m**	m
	Ireland	2010	- 25 625	- 1 040	**- 26 665**	19 850	7 690	0	1 284	**28 824**	**2 159**	3.3%
	Israel	2010	- 14 670	- 1 350	**- 16 020**	3 668	4 543	3 505	539	**12 254**	**- 3 766**	1.8%
	Italy	2008	- 32 919	- 9 033	**- 41 952**	47 153	14 467	0	6 910	**68 530**	**26 578**	5.2%
	Japan[2]		m	m	**m**	m	m	m	m	**m**	**m**	m
	Korea	2010	- 21 051	- 3 130	**- 24 181**	1 797	9 001	0	374	**11 172**	**- 13 009**	-1.0%
	Luxembourg		m	m	**m**	m	m	m	m	**m**	**m**	m
	Mexico		m	m	**m**	m	m	m	m	**m**	**m**	m
	Netherlands	2010	- 28 879	1 113	**- 27 766**	35 228	46 047	13 638	9 066	**m**	**76 213**	14.6%
	New Zealand	2010	- 22 264	- 3 603	**- 25 867**	14 529	1 540	7 825	2 630	**26 524**	**657**	3.1%
	Norway	2010	- 38 967	- 16 580	**- 55 547**	41 576	12 582	14 220	4 360	**72 737**	**17 190**	4.8%
	Poland	2010	- 19 278	- 5 526	**- 24 804**	5 740	13 937	0	8 910	**28 588**	**3 784**	3.6%
	Portugal	2010	- 26 371	- 2 352	**- 28 722**	10 290	11 473	0	1 424	**23 187**	**- 5 536**	2.3%
	Slovak Republic	2010	- 14 722	- 514	**- 15 236**	9 428	10 668	0	14 305	**34 401**	**19 165**	7.8%
	Slovenia	2010	- 19 303	- 7 468	**- 26 771**	30 404	26 364	0	6 407	**63 175**	**36 404**	7.4%
	Spain	2010	- 18 107	- 811	**- 18 919**	25 096	5 301	0	4 506	**34 904**	**15 985**	5.2%
	Sweden	2010	- 29 675	- 6 959	**- 36 633**	36 329	9 895	30 949	15 306	**92 478**	**55 845**	13.6%
	Switzerland		m	m	**m**	m	m	m	m	**m**	**m**	m
	Turkey	2005	- 4 776	- 4 892	**- 9 668**	10 025	11 264	0	- 3 463	**17 827**	**8 159**	5.8%
	United Kingdom	2010	- 19 434	8 961	**- 10 473**	27 379	15 059	49 494	9 985	**101 917**	**91 444**	19.3%
	United States	2010	- 34 048	- 3 727	**- 37 775**	41 313	16 564	13 250	6 233	**77 360**	**39 585**	7.5%
	OECD average		- 24 152	- 4 333	**- 28 485**	21 436	13 611	11 663	6 116	**50 859**	**24 341**	6.9%
	EU21 average		- 24 831	- 4 071	**- 28 902**	22 423	16 100	13 191	7 830	**57 075**	**30 642**	7.6%
Partners	Argentina		m	m	**m**	m	m	m	m	**m**	**m**	m
	Brazil		m	m	**m**	m	m	m	m	**m**	**m**	m
	China		m	m	**m**	m	m	m	m	**m**	**m**	m
	Colombia		m	m	**m**	m	m	m	m	**m**	**m**	m
	India		m	m	**m**	m	m	m	m	**m**	**m**	m
	Indonesia		m	m	**m**	m	m	m	m	**m**	**m**	m
	Latvia		m	m	**m**	m	m	m	m	**m**	**m**	m
	Russian Federation		m	m	**m**	m	m	m	m	**m**	**m**	m
	Saudi Arabia		m	m	**m**	m	m	m	m	**m**	**m**	m
	South Africa		m	m	**m**	m	m	m	m	**m**	**m**	m
	G20 average		m	m	**m**	m	m	m	m	**m**	**m**	m

Note: Values are based on the difference between women who attained an upper secondary or post-secondary non-tertiary education compared with those who have not attained that level of education.

1. Data for Belgium are not included in the table because upper secondary education is compulsory.
2. Data at lower and upper secondary levels of education are not broken down.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116357

Table A7.3a. Private costs and benefits for a man attaining tertiary education (2010)

As compared with a man attaining upper secondary or post-secondary non-tertiary education, in equivalent USD converted using PPPs for GDP

		Year	Direct costs	Foregone earnings	Total costs	Gross earnings benefits	Income tax effect	Social contribution effect	Transfers effect	Unemployment effect	Grants effect	Total benefits	Net present value	Internal rate of return
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD	Australia	2009	- 17 528	- 50 814	**- 68 342**	339 977	- 124 441	0	0	5 363	335	**221 234**	**152 892**	9.0%
	Austria	2010	- 6 199	- 62 401	**- 68 600**	396 272	- 132 408	- 53 634	0	18 521	10 877	**239 629**	**171 029**	10.1%
	Belgium	2010	- 2 780	- 37 528	**- 40 307**	348 982	- 155 156	- 53 464	0	21 666	862	**162 891**	**122 584**	11.9%
	Canada	2010	- 20 529	- 36 423	**- 56 952**	293 058	- 96 272	- 6 355	0	27 401	1 103	**218 935**	**161 982**	10.2%
	Chile		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Czech Republic	2010	- 5 029	- 25 719	**- 30 748**	365 437	- 70 726	- 41 771	0	20 181	m	**273 121**	**242 373**	18.6%
	Denmark	2010	- 4 509	- 75 357	**- 79 866**	314 158	- 143 348	- 26 897	- 8 763	17 765	29 411	**182 326**	**102 460**	8.4%
	Estonia	2010	- 3 924	- 14 951	**- 18 875**	207 579	- 46 145	- 6 453	0	42 224	730	**197 934**	**179 059**	20.6%
	Finland	2009	- 1 873	- 56 911	**- 58 784**	343 119	- 138 956	- 24 568	0	39 479	8 730	**227 803**	**169 020**	11.9%
	France	2010	- 6 963	- 47 182	**- 54 145**	380 704	- 95 841	- 51 427	- 691	19 109	3 103	**254 957**	**200 812**	11.4%
	Germany	2010	- 5 813	- 55 093	**- 60 906**	462 289	- 166 502	- 89 273	0	58 741	6 472	**271 727**	**210 821**	13.4%
	Greece	2009	- 690	- 43 715	**- 44 405**	182 193	- 35 679	- 29 437	- 8 700	6 156	m	**114 533**	**70 128**	7.5%
	Hungary	2010	- 4 664	- 13 268	**- 17 932**	459 159	- 147 118	- 75 232	0	37 773	1 135	**275 718**	**257 785**	28.5%
	Iceland		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Ireland	2010	- 6 478	- 42 453	**- 48 931**	684 820	- 259 751	- 58 952	0	131 625	5 412	**503 154**	**454 224**	29.9%
	Israel	2010	- 14 023	- 26 963	**- 40 987**	285 448	- 69 772	- 35 702	0	16 788	1 528	**198 291**	**157 304**	11.8%
	Italy	2008	- 7 285	- 50 608	**- 57 893**	408 011	- 159 562	- 41 835	0	3 295	3 330	**213 239**	**155 346**	8.1%
	Japan	2007	- 37 215	- 66 750	**- 103 965**	326 614	- 64 523	- 36 039	0	20 931	m	**246 983**	**143 018**	7.4%
	Korea	2010	- 19 211	- 34 019	**- 53 231**	379 884	- 47 160	- 25 602	0	12 407	m	**319 528**	**266 298**	12.8%
	Luxembourg		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Mexico		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Netherlands	2010	- 14 646	- 95 834	**- 110 480**	442 661	- 197 999	- 26 901	0	10 736	13 770	**242 267**	**131 787**	7.2%
	New Zealand	2010	- 9 384	- 43 347	**- 52 731**	193 910	- 62 325	- 3 875	- 86	358	3 039	**131 021**	**78 290**	7.3%
	Norway	2010	- 1 086	- 47 946	**- 49 032**	274 357	- 107 528	- 23 197	0	23 000	4 690	**171 321**	**122 289**	8.2%
	Poland	2010	- 7 343	- 16 928	**- 24 270**	376 155	- 30 873	- 75 986	0	38 492	2 228	**310 015**	**285 745**	24.6%
	Portugal	2010	- 4 627	- 16 181	**- 20 808**	324 887	- 89 461	- 36 243	0	17 564	m	**216 746**	**195 937**	18.3%
	Slovak Republic	2010	- 6 183	- 15 019	**- 21 202**	290 121	- 51 866	- 40 961	0	38 465	1 226	**236 985**	**215 783**	21.4%
	Slovenia	2010	- 3 564	- 26 242	**- 29 806**	447 946	- 110 866	- 96 037	0	19 992	259	**261 294**	**231 488**	17.1%
	Spain	2010	- 8 864	- 28 219	**- 37 083**	178 900	- 52 903	- 14 033	0	41 874	3 791	**157 629**	**120 546**	11.2%
	Sweden	2010	- 3 560	- 50 291	**- 53 851**	209 467	- 84 430	- 9 281	0	8 454	7 735	**131 945**	**78 094**	7.4%
	Switzerland		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Turkey	2005	- 1 061	- 9 402	**- 10 463**	106 985	- 18 682	- 16 424	0	2 761	m	**74 640**	**64 177**	19.3%
	United Kingdom	2010	- 20 162	- 47 655	**- 67 817**	413 163	- 89 124	- 49 107	- 4 303	40 284	5 225	**316 138**	**248 322**	14.3%
	United States	2010	- 61 135	- 44 678	**- 105 813**	628 922	- 210 898	- 55 768	0	100 046	27 162	**489 463**	**383 649**	15.4%
	OECD average		- 10 563	- 40 755	**- 51 318**	347 075	- 105 528	- 38 085	- 777	29 016	6 181	**236 602**	**185 284**	13.9%
	EU21 average		- 6 258	- 41 078	**- 47 335**	361 801	- 112 936	- 45 075	- 1 123	31 620	6 135	**239 503**	**192 167**	15.1%
Partners	Argentina		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Brazil		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	China		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Colombia		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	India		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Indonesia		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Latvia		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Russian Federation		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Saudi Arabia		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	South Africa		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	G20 average		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m

Note: Values are based on the difference between men who attained a tertiary education compared with those who have attained an upper secondary or post-secondary non-tertiary education.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116376

A7

Table A7.3b. Private costs and benefits for a woman attaining tertiary education (2010)

As compared with a woman attaining upper secondary or post-secondary non-tertiary education, in equivalent USD converted using PPPs for GDP

		Year	Direct costs	Foregone earnings	Total costs	Gross earnings benefits	Income tax effect	Social contribution effect	Transfers effect	Unemployment effect	Grants effect	Total benefits	Net present value	Internal rate of return
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD	Australia	2009	- 17 528	- 52 120	**- 69 648**	253 308	- 91 641	0	0	13 021	335	**175 023**	**105 374**	8.9%
	Austria	2010	- 6 199	- 63 316	**- 69 515**	331 700	- 93 938	- 61 225	0	8 104	10 877	**195 518**	**126 003**	9.0%
	Belgium	2010	- 2 780	- 35 428	**- 38 207**	310 555	- 127 305	- 72 908	0	40 296	862	**151 500**	**113 293**	13.7%
	Canada	2010	- 20 529	- 37 837	**- 58 366**	261 335	- 69 368	- 20 695	0	16 627	1 103	**189 002**	**130 636**	11.4%
	Chile		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Czech Republic	2010	- 4 882	- 24 979	**- 29 862**	208 439	- 45 919	- 26 193	- 688	29 891	m	**165 530**	**135 668**	15.3%
	Denmark	2010	- 4 509	- 78 578	**- 83 087**	175 082	- 61 404	- 15 158	- 9 772	10 710	29 411	**128 869**	**45 782**	6.5%
	Estonia	2010	- 3 924	- 15 754	**- 19 678**	153 829	- 40 802	- 5 839	0	54 649	730	**162 567**	**142 889**	29.7%
	Finland	2009	- 1 873	- 60 589	**- 62 461**	211 875	- 72 749	- 15 039	- 4 079	21 742	8 730	**150 480**	**88 019**	8.8%
	France	2010	- 6 963	- 44 369	**- 51 332**	263 248	- 52 801	- 39 383	- 11 640	24 882	3 103	**187 409**	**136 077**	10.9%
	Germany	2010	- 5 813	- 55 984	**- 61 797**	247 459	- 67 041	- 55 248	- 17	22 124	6 472	**153 749**	**91 952**	8.5%
	Greece	2009	- 690	- 36 674	**- 37 363**	186 037	- 21 786	- 33 976	- 29 066	26 865	m	**128 074**	**90 710**	9.6%
	Hungary	2010	- 4 664	- 13 164	**- 17 828**	257 527	- 83 602	- 49 345	0	32 818	1 135	**158 533**	**140 705**	24.6%
	Iceland		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Ireland	2010	- 6 478	- 48 135	**- 54 612**	456 714	- 129 055	- 63 508	0	39 212	5 412	**308 775**	**254 163**	21.0%
	Israel	2010	- 14 023	- 27 428	**- 41 451**	151 423	- 22 840	- 18 663	0	12 245	1 528	**123 692**	**82 240**	8.6%
	Italy	2008	- 7 285	- 47 826	**- 55 111**	223 811	- 79 954	- 21 986	0	7 563	3 330	**132 764**	**77 652**	6.9%
	Japan	2007	- 37 215	- 49 265	**- 86 481**	231 306	- 20 848	- 29 117	0	9 951	m	**191 293**	**104 812**	7.8%
	Korea	2010	- 19 211	- 35 087	**- 54 298**	268 211	- 10 077	- 20 463	0	- 5 570	m	**232 101**	**177 802**	11.0%
	Luxembourg		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Mexico		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Netherlands	2010	- 14 646	- 90 283	**- 104 929**	353 759	- 137 587	- 30 982	0	11 955	13 770	**210 915**	**105 985**	7.0%
	New Zealand	2010	- 9 384	- 42 595	**- 51 980**	167 699	- 40 316	- 3 622	- 2 329	13 769	3 039	**138 239**	**86 260**	10.3%
	Norway	2010	- 1 086	- 50 062	**- 51 148**	227 688	- 63 403	- 17 791	0	785	4 690	**151 970**	**100 822**	9.6%
	Poland	2010	- 7 343	- 16 014	**- 23 356**	243 941	- 24 419	- 60 782	0	39 454	2 228	**200 423**	**177 066**	21.6%
	Portugal	2010	- 4 627	- 15 481	**- 20 108**	262 280	- 59 602	- 31 363	0	22 688	m	**194 001**	**173 893**	22.0%
	Slovak Republic	2010	- 6 183	- 15 551	**- 21 734**	181 063	- 33 609	- 29 678	0	40 616	1 226	**159 618**	**137 884**	18.5%
	Slovenia	2010	- 3 564	- 26 170	**- 29 734**	343 115	- 84 277	- 79 783	0	24 076	259	**203 390**	**173 657**	15.3%
	Spain	2010	- 8 864	- 27 626	**- 36 490**	237 736	- 69 735	- 18 075	0	46 399	3 791	**200 115**	**163 625**	14.5%
	Sweden	2010	- 3 560	- 51 796	**- 55 356**	140 237	- 42 057	- 10 883	0	15 631	7 735	**110 663**	**55 306**	7.1%
	Switzerland		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Turkey	2005	- 1 061	- 8 185	**- 9 246**	116 530	- 21 267	- 19 627	0	14 075	m	**89 711**	**80 466**	19.2%
	United Kingdom	2010	- 20 162	- 47 080	**- 67 241**	351 526	- 79 076	- 43 645	- 12 831	55 550	5 225	**276 748**	**209 506**	12.3%
	United States	2010	- 61 135	- 47 732	**- 108 867**	416 147	- 107 923	- 35 416	0	47 389	27 162	**347 358**	**238 491**	12.9%
	OECD average		- 10 558	- 40 176	**- 50 734**	249 434	- 63 945	- 32 082	- 2 428	24 052	6 181	**179 932**	**129 198**	13.2%
	EU21 average		- 6 250	- 40 740	**- 46 990**	256 997	- 70 336	- 38 250	- 3 405	28 761	6 135	**178 982**	**131 992**	14.1%
Partners	Argentina		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Brazil		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	China		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Colombia		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	India		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Indonesia		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Latvia		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Russian Federation		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	Saudi Arabia		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	South Africa		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m
	G20 average		m	m	**m**	m	m	m	m	m	m	**m**	**m**	m

Note: Values are based on the difference between women who attained a tertiary education compared with those who have attained an upper secondary or post-secondary non-tertiary education.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116395

Table A7.4a. Public costs and benefits for a man attaining tertiary education (2010)

As compared with a man attaining upper secondary or post-secondary non-tertiary education, in equivalent USD converted using PPPs for GDP

		Year	Direct costs	Foregone taxes on earnings	Grants effect	Total costs	Income tax effect	Social contribution effect	Transfers effect	Unemployment effect	Total benefits	Net present value	Internal rate of return
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
OECD	Australia	2009	- 14 588	- 5 652	- 335	**- 20 575**	123 233	0	0	1 208	**124 441**	**103 866**	12.9%
	Austria	2010	- 44 819	- 11 977	- 10 877	**- 67 673**	128 843	50 561	0	6 637	**186 041**	**118 368**	8.0%
	Belgium	2010	- 24 413	- 9 051	- 862	**- 34 326**	149 431	50 456	0	8 733	**208 619**	**174 293**	15.1%
	Canada	2010	- 26 735	- 3 589	- 1 103	**- 31 427**	91 254	4 772	0	6 602	**102 627**	**71 201**	8.9%
	Chile		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Czech Republic	2010	- 18 717	4 105	m	**- 14 612**	67 727	39 580	0	5 191	**112 497**	**97 885**	17.6%
	Denmark	2010	- 85 578	- 35 496	- 29 411	**- 150 485**	137 397	25 140	8 763	7 708	**179 007**	**28 522**	3.8%
	Estonia	2010	- 12 037	- 2 264	- 730	**- 15 032**	38 729	5 313	0	8 557	**52 599**	**37 567**	10.5%
	Finland	2009	- 42 400	- 8 324	- 8 730	**- 59 454**	128 733	22 053	0	12 738	**163 525**	**104 071**	8.3%
	France	2010	- 31 533	- 9 599	- 3 103	**- 44 236**	92 737	48 871	691	5 660	**147 960**	**103 724**	8.7%
	Germany	2010	- 31 421	- 20 896	- 6 472	**- 58 789**	153 573	78 113	0	24 090	**255 776**	**196 987**	11.9%
	Greece	2009	- 20 179	2 956	m	**- 17 223**	34 885	28 464	8 700	1 766	**73 816**	**56 593**	11.6%
	Hungary	2010	- 16 393	- 2 960	- 1 135	**- 20 489**	138 343	69 279	0	14 727	**222 349**	**201 861**	23.0%
	Iceland		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Ireland	2010	- 28 066	- 1 409	- 5 412	**- 34 887**	231 031	49 600	0	38 072	**318 703**	**283 816**	26.9%
	Israel	2010	- 16 613	- 1 526	- 1 528	**- 19 666**	67 496	34 209	0	3 768	**105 474**	**85 807**	11.4%
	Italy	2008	- 17 538	- 11 836	- 3 330	**- 32 704**	157 696	41 484	0	2 217	**201 397**	**168 693**	10.1%
	Japan	2007	- 17 897	- 15 254	m	**- 33 151**	62 285	33 612	0	4 665	**100 562**	**67 411**	8.4%
	Korea	2010	- 7 198	- 3 449	m	**- 10 648**	46 494	24 687	0	1 581	**72 762**	**62 115**	12.3%
	Luxembourg		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Mexico		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Netherlands	2010	- 37 254	- 41 204	- 13 770	**- 92 227**	195 349	25 117	0	4 433	**224 900**	**132 673**	7.2%
	New Zealand	2010	- 18 444	- 5 180	- 3 039	**- 26 663**	61 879	3 868	86	453	**66 286**	**39 623**	7.0%
	Norway	2010	- 26 059	- 15 194	- 4 690	**- 45 942**	102 100	21 412	0	7 213	**130 725**	**84 783**	7.1%
	Poland	2010	- 17 653	- 6 097	- 2 228	**- 25 978**	28 162	68 381	0	10 316	**106 860**	**80 882**	12.4%
	Portugal	2010	- 10 295	- 2 245	m	**- 12 540**	85 300	34 368	0	6 036	**125 705**	**113 164**	16.1%
	Slovak Republic	2010	- 14 559	- 1 492	- 1 226	**- 17 276**	47 313	36 008	0	9 505	**92 826**	**75 550**	13.8%
	Slovenia	2010	- 19 698	- 8 151	- 259	**- 28 108**	107 113	91 799	0	7 991	**206 903**	**178 795**	15.4%
	Spain	2010	- 31 833	- 2 577	- 3 791	**- 38 201**	46 168	11 387	0	9 381	**66 936**	**28 735**	5.6%
	Sweden	2010	- 34 448	- 12 852	- 7 735	**- 55 035**	82 130	8 756	0	2 826	**93 711**	**38 676**	5.2%
	Switzerland		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Turkey	2005	- 9 567	- 3 814	m	**- 13 381**	18 209	16 010	0	886	**35 106**	**21 724**	9.3%
	United Kingdom	2010	- 6 798	- 2 591	- 5 225	**- 14 615**	82 483	45 366	4 303	10 381	**142 534**	**127 919**	26.1%
	United States	2010	- 34 787	- 5 989	- 27 162	**- 67 937**	189 603	48 143	0	28 922	**266 667**	**198 730**	10.8%
	OECD average		- 24 742	- 8 400	- 6 181	**- 38 044**	99 852	35 062	777	8 699	**144 390**	**106 346**	11.9%
	EU21 average		- 27 282	- 9 198	- 6 135	**- 41 694**	106 657	41 505	1 123	9 848	**159 133**	**117 439**	12.9%
Partners	Argentina		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Brazil		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	China		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Colombia		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	India		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Indonesia		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Latvia		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Russian Federation		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Saudi Arabia		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	South Africa		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	G20 average		m	m	m	**m**	m	m	m	m	**m**	**m**	m

Note: Values are based on the difference between men who attained a tertiary education compared with those who have attained an upper secondary or post-secondary non-tertiary education.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116414

A7

Table A7.4b. Public costs and benefits for a woman attaining tertiary education (2010)

As compared with a woman attaining upper secondary or post-secondary non-tertiary education, in equivalent USD converted using PPPs for GDP

		Year	Direct costs	Foregone taxes on earnings	Grants effect	Total costs	Income tax effect	Social contribution effect	Transfers effect	Unemployment effect	Total benefits	Net present value	Internal rate of return
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
OECD	Australia	2009	- 14 588	- 5 797	- 335	**- 20 720**	89 111	0	0	2 530	**91 641**	**70 921**	13.5%
	Austria	2010	- 44 819	- 12 152	- 10 877	**- 67 849**	92 488	59 772	0	2 903	**155 164**	**87 315**	7.0%
	Belgium	2010	- 24 413	- 8 544	- 862	**- 33 820**	117 399	67 323	0	15 490	**200 212**	**166 393**	19.0%
	Canada	2010	- 26 735	- 3 728	- 1 103	**- 31 566**	67 254	19 517	0	3 293	**90 064**	**58 498**	9.5%
	Chile		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Czech Republic	2010	- 18 172	3 987	m	**- 14 185**	41 879	22 919	688	7 315	**72 800**	**58 615**	14.6%
	Denmark	2010	- 85 578	- 37 013	- 29 411	**- 152 002**	58 528	13 964	9 772	4 069	**86 334**	**- 65 668**	0.4%
	Estonia	2010	- 12 037	- 2 386	- 730	**- 15 153**	31 454	4 315	0	10 872	**46 641**	**31 487**	12.9%
	Finland	2009	- 42 400	- 8 862	- 8 730	**- 59 992**	68 219	13 657	4 079	5 912	**91 868**	**31 876**	5.2%
	France	2010	- 31 533	- 9 027	- 3 103	**- 43 664**	49 775	35 999	11 640	6 409	**103 824**	**60 160**	8.4%
	Germany	2010	- 31 421	- 21 234	- 6 472	**- 59 127**	63 819	50 751	17	7 718	**122 306**	**63 179**	6.9%
	Greece	2009	- 20 179	2 480	m	**- 17 699**	20 386	29 703	29 066	5 673	**84 828**	**67 129**	11.7%
	Hungary	2010	- 16 393	- 2 937	- 1 135	**- 20 465**	77 014	43 784	0	12 149	**132 947**	**112 482**	17.3%
	Iceland		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Ireland	2010	- 28 066	- 1 598	- 5 412	**- 35 076**	123 230	60 647	0	8 686	**192 563**	**157 487**	17.5%
	Israel	2010	- 16 613	- 1 552	- 1 528	**- 19 692**	22 108	17 839	0	1 557	**41 503**	**21 811**	6.4%
	Italy	2008	- 17 538	- 11 185	- 3 330	**- 32 053**	77 919	21 270	0	2 750	**101 940**	**69 886**	8.0%
	Japan	2007	- 17 897	- 10 654	m	**- 28 551**	20 218	27 924	0	1 822	**49 965**	**21 414**	6.2%
	Korea	2010	- 7 198	- 3 557	m	**- 10 756**	10 123	20 892	0	- 474	**30 540**	**19 784**	8.0%
	Luxembourg		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Mexico		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Netherlands	2010	- 37 254	- 35 318	- 13 770	**- 86 341**	135 724	28 393	0	4 453	**168 569**	**82 228**	6.5%
	New Zealand	2010	- 18 444	- 5 090	- 3 039	**- 26 573**	38 104	3 348	2 329	2 486	**46 267**	**19 694**	6.5%
	Norway	2010	- 26 059	- 15 864	- 4 690	**- 46 613**	63 264	17 730	0	199	**81 193**	**34 581**	5.8%
	Poland	2010	- 17 653	- 5 768	- 2 228	**- 25 648**	21 556	52 341	0	11 304	**85 200**	**59 552**	10.5%
	Portugal	2010	- 10 295	- 2 148	m	**- 12 443**	56 914	28 879	0	5 172	**90 966**	**78 523**	14.9%
	Slovak Republic	2010	- 14 559	- 1 544	- 1 226	**- 17 329**	29 789	24 260	0	9 238	**63 287**	**45 958**	11.1%
	Slovenia	2010	- 19 698	- 8 128	- 259	**- 28 085**	80 209	74 531	0	9 320	**164 060**	**135 974**	13.1%
	Spain	2010	- 31 833	- 2 523	- 3 791	**- 38 147**	63 118	15 146	0	9 546	**87 811**	**49 664**	7.5%
	Sweden	2010	- 34 448	- 13 236	- 7 735	**- 55 420**	38 592	9 798	0	4 551	**52 940**	**- 2 479**	2.8%
	Switzerland		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Turkey	2005	- 9 567	- 3 320	m	**- 12 887**	19 194	17 528	0	4 171	**40 894**	**28 006**	9.1%
	United Kingdom	2010	- 6 798	1 128	- 5 225	**- 10 895**	70 396	38 718	12 831	13 607	**135 553**	**124 658**	36.4%
	United States	2010	- 34 787	- 6 398	- 27 162	**- 68 347**	99 860	31 811	0	11 668	**143 339**	**74 993**	7.4%
	OECD average		- 24 723	- 7 999	- 6 181	**- 37 624**	60 264	29 405	2 428	6 358	**98 456**	**60 832**	10.5%
	EU21 average		- 27 254	- 8 800	- 6 135	**- 41 270**	65 920	34 809	3 405	7 857	**111 991**	**70 721**	11.6%
Partners	Argentina		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Brazil		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	China		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Colombia		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	India		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Indonesia		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Latvia		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Russian Federation		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	Saudi Arabia		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	South Africa		m	m	m	**m**	m	m	m	m	**m**	**m**	m
	G20 average		m	m	m	**m**	m	m	m	m	**m**	**m**	m

Note: Values are based on the difference between women who attained a tertiary education compared with those who have attained an upper secondary or post-secondary non-tertiary education.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

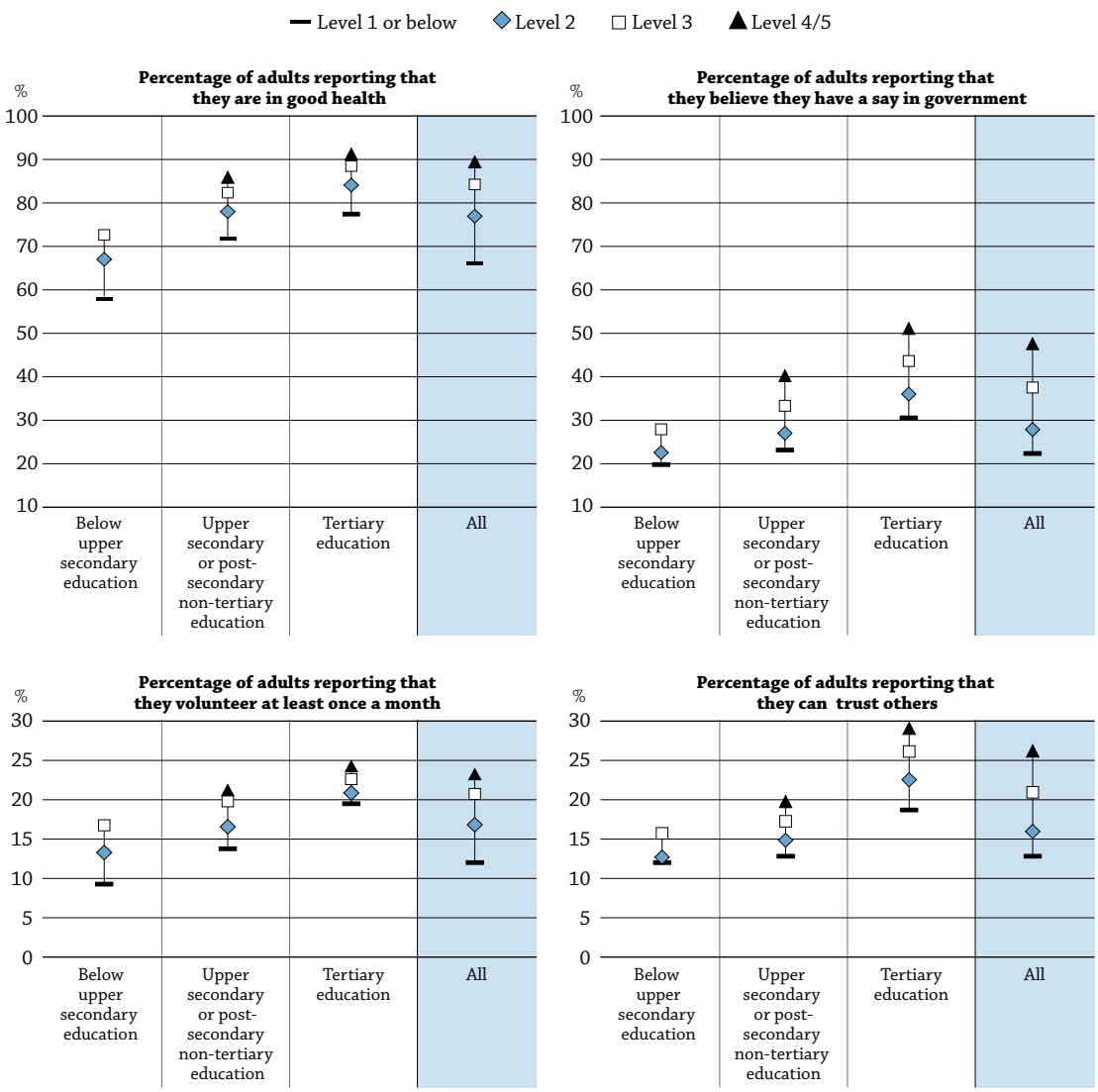
StatLink http://dx.doi.org/10.1787/888933116433

WHAT ARE THE SOCIAL OUTCOMES OF EDUCATION?

- Both educational attainment and literacy proficiency are associated with higher levels of social outcomes including self-reported health status, volunteering, interpersonal trust and political efficacy. Among individuals with the same level of educational attainment, those with higher levels of literacy proficiency have higher levels of social outcomes.
- There is a particularly strong relationship between literacy proficiency and political efficacy among tertiary graduates. On average across 20 OECD countries, the gap in the proportion of adults reporting that they believe they have a say in government between tertiary graduates with the highest and lowest literacy proficiency is 21 percentage points.
- There is a strong relationship between literacy proficiency and volunteering among those who have not attained upper secondary education. On average across 21 OECD countries, the difference in the proportion of adults reporting that they volunteer at least once a month between low-educated adults with the highest and lowest literacy proficiency is 8 percentage points.

Chart A8.1. Social outcomes of learning in OECD countries (2012)

Survey of Adult Skills, average, 25-64 year-olds



Source: OECD. Tables A8.1a (L), A8.2a (L), A8.3a (L) and A8.4a (L). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933116642

Context

Improving health is a key policy objective for all OECD countries. This is reflected in high levels of public expenditure on health, which in 2009 amounted to 6.9% of GDP in OECD countries (OECD, 2011a). This amount is much higher than the public expenditure on education of 5.0% in the same year (OECD, 2011b). Although the significant resources spent on healthcare have generally helped people live longer, the nature of health problems has changed, with recent increases in chronic debilitating conditions such as heart disease, diabetes and depression. Efforts to combat these trends depend in part on altering individuals' lifestyle choices which may be improved by raising cognitive and socio-emotional skills through education (OECD, 2013a).

Social cohesion, often reflected in levels of civic and social engagement, is also of high concern in OECD countries. Countries generally perceive that levels of civic participation, political efficacy and interpersonal trust are inadequate thus posing a challenge for the maintenance of well-functioning democratic institutions and political processes. Education may play an important role in ensuring social cohesion by fostering literacy, self-efficacy and resilience that underlie social and political interaction.

Other findings

- **The differences in social outcomes between those in the highest and the lowest literacy proficiency level are generally comparable to the differences in social outcomes between those who have not attained upper secondary education and those who have attained tertiary education.** For example, the gap in those reporting being in good health between adults with high and low levels of education is 23 percentage points. The gap in those reporting being in good health between adults with the highest and lowest literacy proficiency is the same at 23 percentage points.
- **Women seem to benefit more from improving skills in terms of reporting being in better health and having greater trust in others.** For example, the gap in those reporting that they can trust others between women with the highest and lowest literacy proficiency is 19 percentage points. A similar figure for men is 15 percentage points.

Analysis

This year's social outcomes of education (and skills) indicator includes measures of self-reported health, volunteering, interpersonal trust and political efficacy, assessed in the Survey of Adult Skills, a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC). These four social outcomes measures are considered among the key indicators of individual and national well-being (OECD, 2013a).

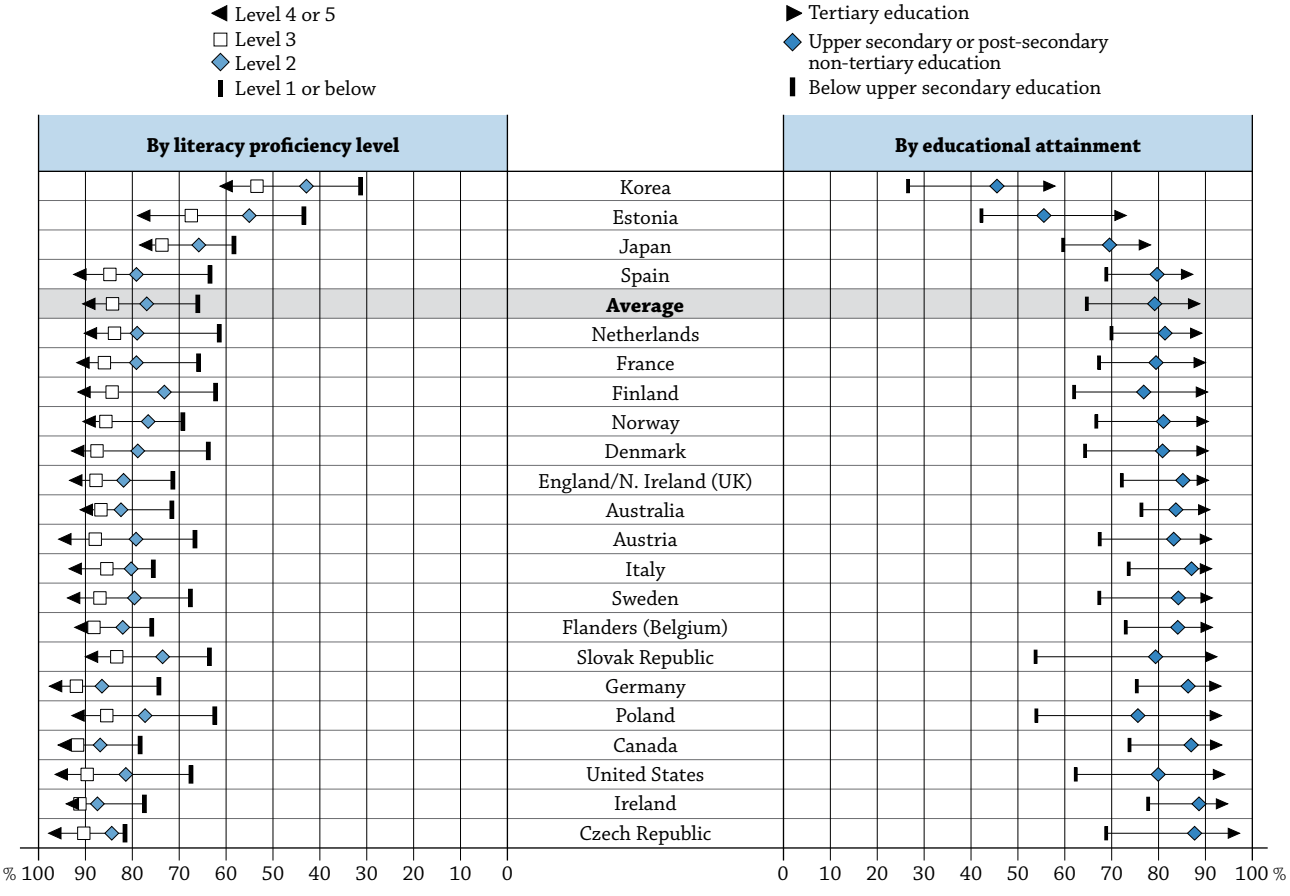
Both educational attainment and literacy proficiency are positively associated with these social outcome measures (Charts A8.2, A8.3, A8.4 and A8.5, Tables A8.1, A8.2, A8.3 and A8.4). Differences in outcomes across those with different literacy or educational attainment are sometimes substantial. Although country-specific patterns can vary, the overall results and strength of the relationships are similar when using numeracy scales (Tables A8.1a [N], A8.2a [N], A8.3a [N] and A8.4a [N]).

Self-reported health

On average, across 22 OECD countries, the difference in the proportion of adults reporting that they are "in good health" between those with high (i.e. tertiary) and low (i.e. below upper secondary) education is 23 percentage points (Chart A8.2 and Table A8.1a [L]). Particularly large differences are observed in Poland (38 percentage points) and Slovak Republic (37 percentage points). Similarly, the difference in self-reported health between those with the highest and lowest literacy proficiency, as measured by the Survey of Adult Skills, is 23 percentage points, on average across these countries (Chart A8.2 and Table A8.1a [L]). Estonia has a large difference of 34 percentage points.

Chart A8.2. Percentage of adults reporting that they are in good health, by educational attainment and literacy proficiency level (2012)

Survey of Adult Skills, 25-64 year-olds



Countries are ranked in ascending order of the proportion of people with tertiary education reporting that they are in good health.

Source: OECD. Table A8.1a (L). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

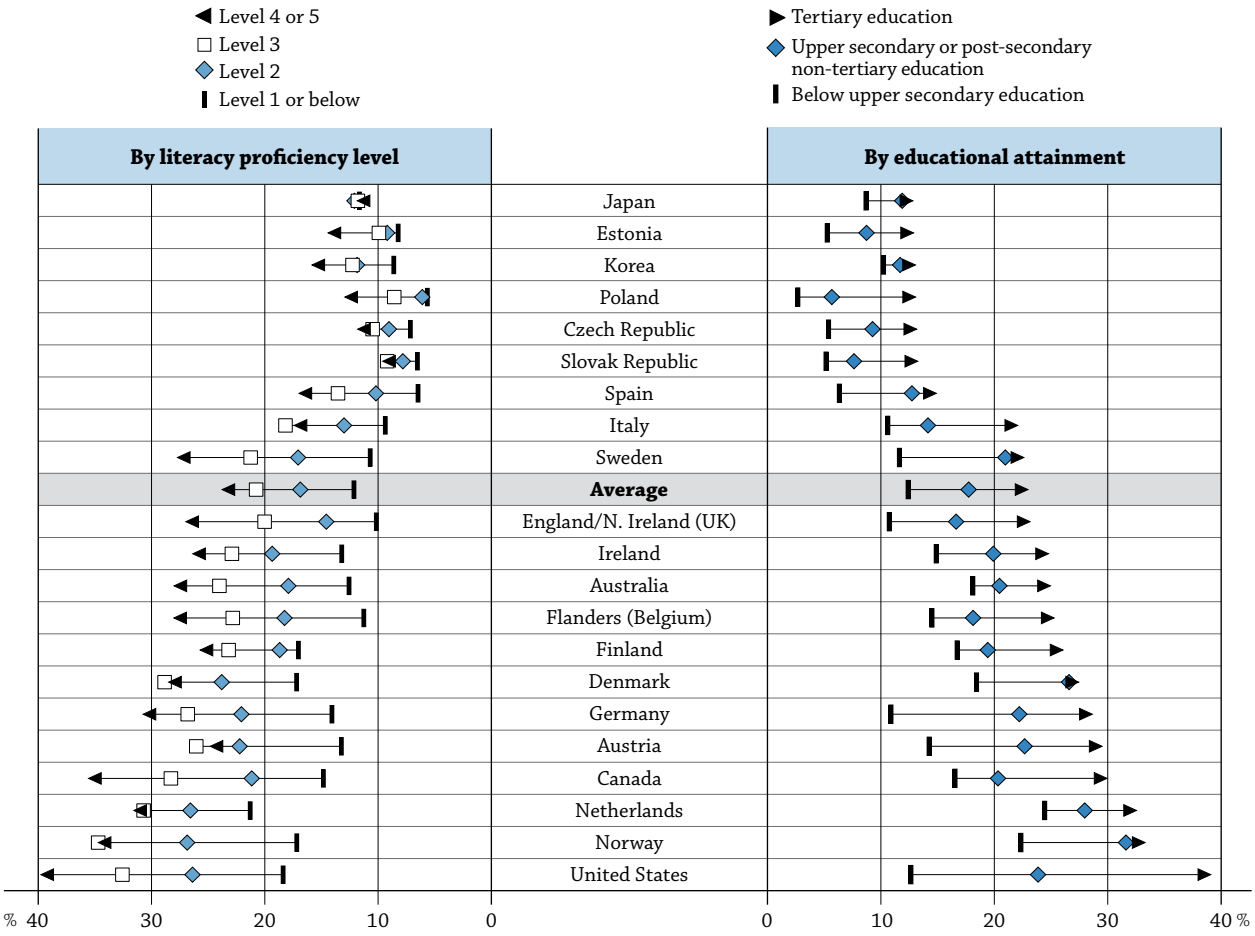
StatLink http://dx.doi.org/10.1787/888933116661

Volunteering

The difference in the proportion of adults reporting that they participate in volunteer activities between those with high and low education is 10 percentage points, on average across 21 OECD countries (Chart A8.3 and Table A8.2a [L]). Particularly large differences are observed in the United States (26 percentage points) and Germany (17 percentage points). Similarly, differences in self-reported participation in volunteer activities between those with the highest and lowest literacy proficiency is 11 percentage points, on average across these countries (Chart A8.3 and Table A8.2a [L]). Particularly large differences are observed in the United States (21 percentage points) and Canada (20 percentage points).

Chart A8.3. Percentage of adults reporting that they volunteer at least once a month, by educational attainment and literacy proficiency level (2012)

Survey of Adult Skills, 25-64 year-olds



Countries are ranked in ascending order of the proportion of people with tertiary education reporting that they volunteer at least once a month.

Source: OECD. Table A8.2a (L). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

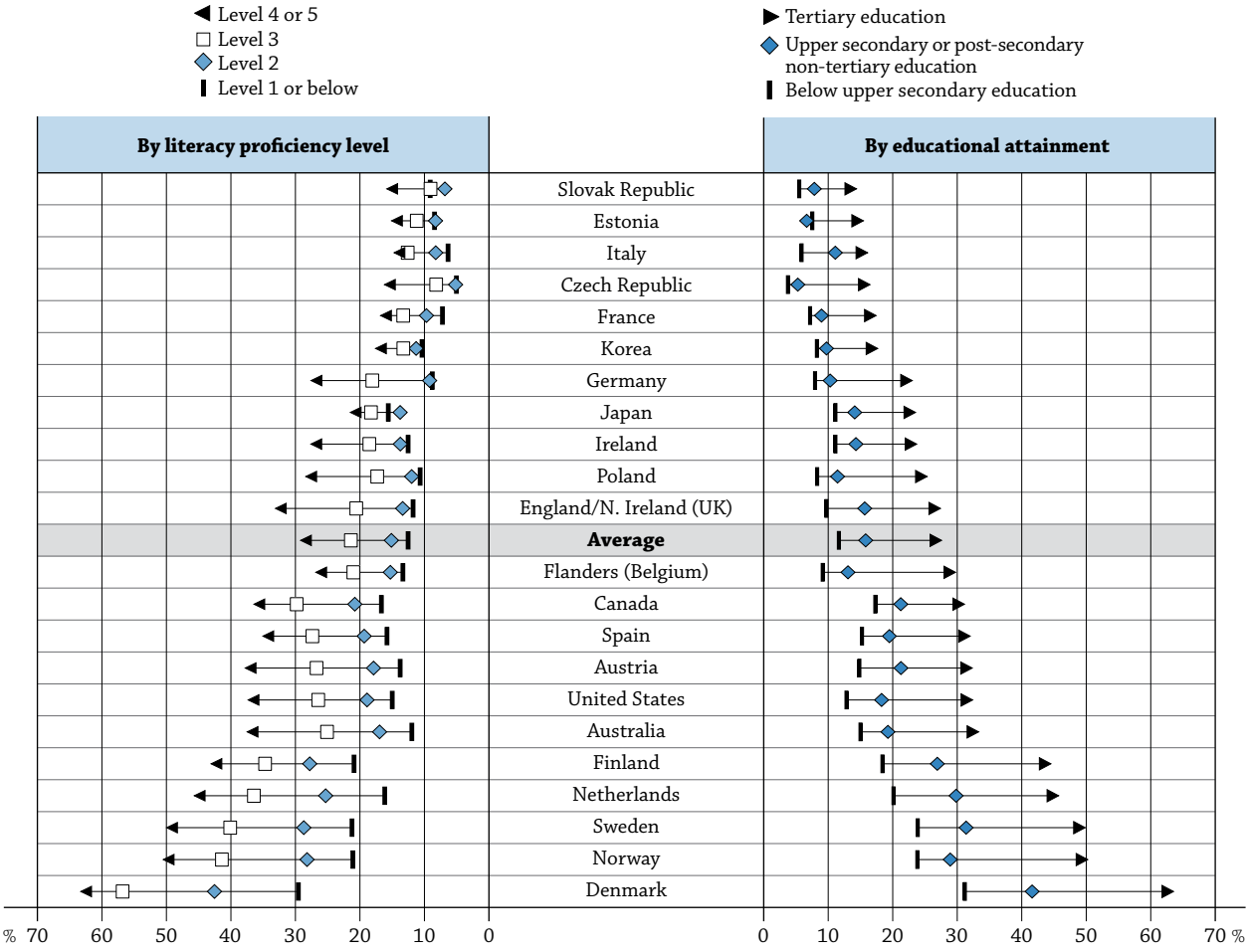
StatLink http://dx.doi.org/10.1787/888933116680

Interpersonal trust

Differences in the proportion of adults reporting that they "can trust others" between those with high and low education is 16 percentage points, on average across 22 OECD countries (Chart A8.4 and Table A8.3c [L]). Particularly large differences are observed in Denmark (31 percentage points) and the Netherlands (25 percentage points). Similarly, the differences in self-reported interpersonal trust between those with the highest and lowest literacy proficiency is 17 percentage points, on average across these countries (Chart A8.4 and Table A8.3c [L]). Particularly large differences are seen in Denmark (33 percentage points) and Norway (29 percentage points).

Chart A8.4. Percentage of adults reporting that they trust others, by educational attainment and literacy proficiency level (2012)

Survey of Adult Skills, 25-64 year-olds



Countries are ranked in ascending order of the proportion of people with tertiary education reporting that they trust others.

Source: OECD. Table A8.3a (L). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933116699

Political efficacy

On average across 20 OECD countries, the difference in the proportion of adults between high and low education reporting that they "believe they have a say in government" is 20 percentage points (Chart A8.5 and Table A8.4a [L]). Particularly large differences are seen in the Netherlands (27 percentage points) and Norway (33 percentage points). Across these countries, the gap in self-reported political efficacy between adults with the highest and lowest literacy proficiency is 25 percentage points, on average (Chart A8.5 and Table A8.4a [L]). A particularly large difference of 43 percentage points is observed in Norway.

The differences in social outcomes between those with the highest and the lowest literacy proficiency level are generally comparable to the differences in social outcomes between those who have not attained upper secondary education and those who have attained tertiary education (Charts A8.1, A8.2, A8.3, A8.4 and A8.5, and Tables A8.1, A8.2, A8.3 and A8.4). Note that the percentage of adults scoring at the lowest and highest literacy proficiency levels are 12% and 16%, respectively (OECD, 2013b). In contrast, adults who have not attained upper secondary and those who have attained teriary education are 24% and 33%, respectively. This may imply that the relationship between educational attainment and social outcomes is stronger than the relationship between literacy proficiency and social outcomes. Similarly, OECD (2013b, p. 232) suggests that the relationship between literacy proficiency and wages is generally much stronger than the relationship between years of education and wages.

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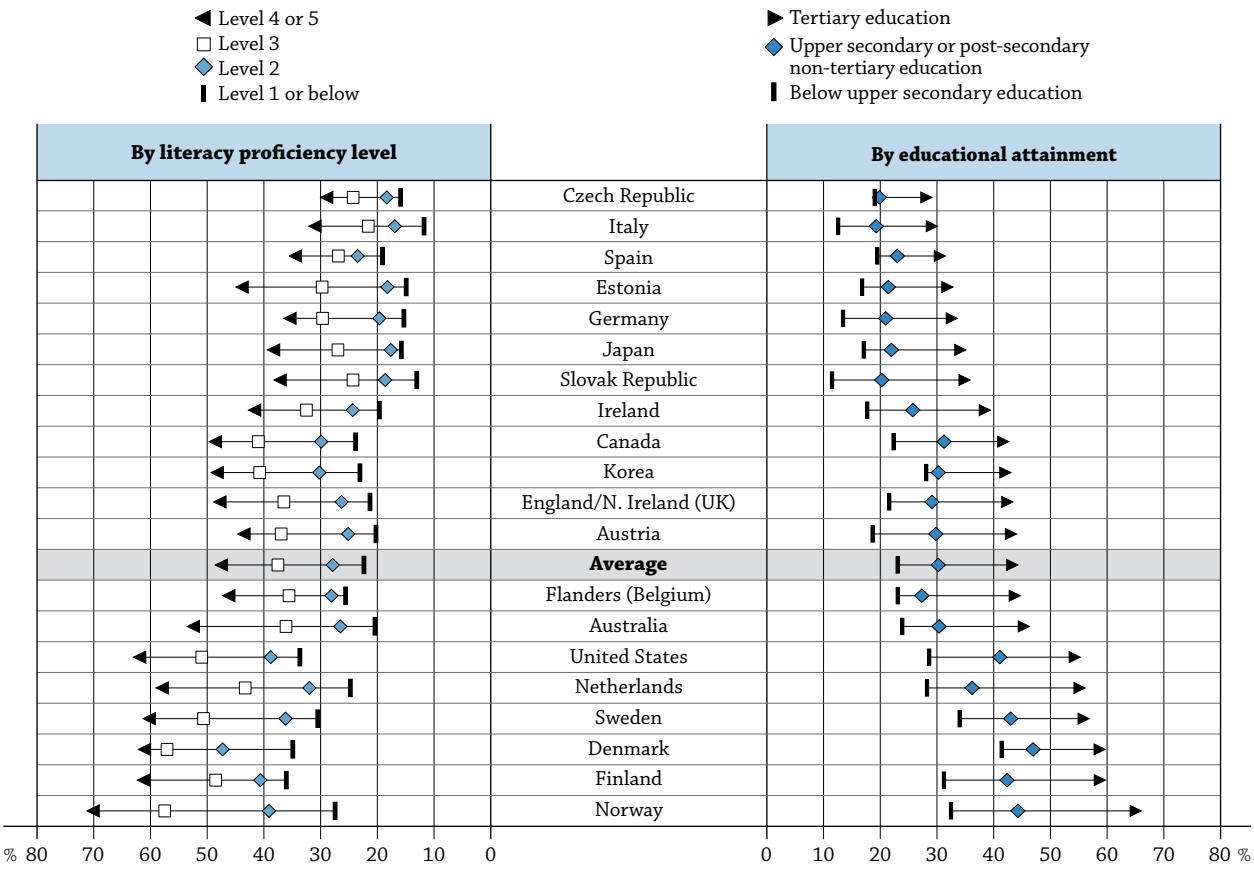
Chart A8.5. Percentage of adults reporting that they believe they have a say in government, by educational attainment and literacy proficiency level (2012)

Survey of Adult Skills, 25-64 year-olds



Countries are ranked in ascending order of the proportion of people with tertiary education reporting that they have a say in government.

Source: OECD. Table A8.4a (L). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933116718

Causal effects

Other studies using longitudinal data suggest that the associations presented in Charts A8.1, A8.2, A8.3, A8.4 and A8.5 may reflect causal effects of education and skills on social outcomes. For instance, Conti, Heckman and Urzua (2010), using the British Cohort Study (BCS) 1970, show that a considerable proportion of the relationship between educational attainment and health outcomes reflects causal effects. Heckman et al. (2014) also show, using the National Longitudinal Study of Youth (NLSY), that cognitive and socio-emotional skills exhibit causal effects on a variety of labour market and social outcomes. Moreover, Heckman and Kautz (2013), using evidence from experimental studies, argue that a number of early childhood and school-based programmes exhibit positive impact on educational, labour market and social outcomes by enhancing cognitive and socio-emotional skills.

Relationship between literacy proficiency and social outcomes, by educational attainment

Chart A8.1 shows the relationship between literacy proficiency and four social outcome measures separately for three levels of educational attainment, namely below upper secondary, upper secondary or post-secondary non-tertiary, and tertiary education. This chart suggests that the strength of the relationships varies across education levels. For instance, there is a strong relationship between literacy proficiency and political efficacy, particularly among tertiary graduates. Tertiary education may give students better access to public decision making and politics, and literacy proficiency may improve one's capacity to contribute to this process. The power of literacy proficiency increases as individuals receive more opportunities to demonstrate such skills. Moreover, there is a strong relationship between literacy proficiency and volunteering, particularly among those who have not attained upper secondary education.

Those with a lower level of education may have relatively limited access to volunteering activities, but the data are consistent with the argument that high literacy proficiency may more than compensate for that by improving their capability to understand the benefits of volunteering activities for themselves as well as for the society, and to gain access to the most appropriate ones. The above analysis also suggests that education may have a direct (or, independent) effect on social outcomes over and above the indirect effects through raising literacy proficiency.

The role of gender

Women are more likely to benefit more from improving skills in terms of being in better health and having greater trust in others. On average across 22 OECD countries, the gap between women with the highest and lowest levels of literacy proficiency who report that they are "in good health" is 25 percentage points (Table A8.1b). Comparing similarly educated men, the difference is 22 percentage points. Moreover, the gap between women with the highest and lowest levels of skills who report that they "can trust others" is 19 percentage points (Table A8.3b). Comparing similarly educated men, the difference is 15 percentage points. In contrast, women are less likely to benefit more than men from improving educational attainment in terms of reporting being in better health, volunteering and believing they have a say in government.

Definitions

Age groups: **adults** refers to 25-64 year-olds.

Interpersonal trust, i.e. can trust others is defined as those who strongly disagree or disagree that there are only few people you can trust completely.

Levels of education: below upper secondary corresponds to ISCED levels 0, 1, 2 and 3C short programmes; **upper secondary or post-secondary non-tertiary** corresponds to ISCED levels 3A, 3B, 3C long programmes and ISCED level 4; and **tertiary** corresponds to ISCED levels 5A, 5B and 6. See the Reader's Guide at the beginning of the book for a presentation of all ISCED levels.

Political efficacy, i.e. believe they have a say in government is defined as those who strongly disagree or disagree with the statement: "People like me don't have any say about what the government does".

Self-reported health, i.e. good health is defined as those who report that they are in excellent, very good or good health.

Volunteering is defined as those who report that they volunteer at least once a month.

Methodology

All data are based on the Survey of Adult Skills (PIAAC) (2012). PIAAC is the OECD Programme for the International Assessment of Adult Competencies. See *About the Survey of Adult Sills* at the beginning of this publication and Annex 3 (*www.oecd.org/edu/eag.htm*) for additional information.

Note regarding data from the Russian Federation in the Survey of Adult Skills (PIAAC)

Readers should note that the sample for the Russian Federation does not include the population of the Moscow municipal area. The data published, therefore, do not represent the entire resident population aged 16-65 in Russia but rather the population of Russia *excluding* the population residing in the Moscow municipal area. More detailed information regarding the data from the Russian Federation as well as that of other countries can be found in the *Technical Report of the Survey of Adult Skills* (OECD, forthcoming).

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Tables of Indicator A8

StatLink http://dx.doi.org/10.1787/888933116547

Table A8.1a (L)	**Percentage of adults reporting that they are in good health, by educational attainment and literacy proficiency level (2012)**
WEB Table A8.1a (N)	Percentage of adults reporting that they are in good health, by educational attainment and numeracy proficiency level (2012)
WEB Table A8.1b (L)	Percentage of adults reporting that they are in good health, by educational attainment, literacy proficiency level and gender (2012)
WEB Table A8.1b (N)	Percentage of adults reporting that they are in good health, by educational attainment, numeracy proficiency level and gender (2012)
Table A8.2a (L)	**Percentage of adults reporting that they volunteer at least once a month, by educational attainment and literacy proficiency level (2012)**
WEB Table A8.2a (N)	Percentage of adults reporting that they volunteer at least once a month, by educational attainment and numeracy proficiency level (2012)
WEB Table A8.2b (L)	Percentage of adults reporting that they volunteer at least once a month, by educational attainment, literacy proficiency level and gender (2012)
WEB Table A8.2b (N)	Percentage of adults reporting that they volunteer at least once a month, by educational attainment, numeracy proficiency level and gender (2012)
Table A8.3a (L)	**Percentage of adults reporting that they trust others, by educational attainment and literacy proficiency level (2012)**
WEB Table A8.3a (N)	Percentage of adults reporting that they trust others, by educational attainment and numeracy proficiency level (2012)
WEB Table A8.3b (L)	Percentage of adults reporting that they trust others, by educational attainment, literacy proficiency level and gender (2012)
WEB Table A8.3b (N)	Percentage of adults reporting that they trust others, by educational attainment, numeracy proficiency level and gender (2012)
WEB Table A8.3c (L)	Percentage of adults reporting that others do not take advantage of them, by educational attainment and literacy proficiency level (2012)
WEB Table A8.3c (N)	Percentage of adults reporting that others do not take advantage of them, by educational attainment and numeracy proficiency level (2012)
WEB Table A8.3d (L)	Percentage of adults reporting that others do not take advantage of them, by educational attainment, literacy proficiency level and gender (2012)
WEB Table A8.3d (N)	Percentage of adults reporting that others do not take advantage of them, by educational attainment, numeracy proficiency level and gender (2012)
Table A8.4a (L)	**Percentage of adults reporting that they believe they have a say in government, by educational attainment and literacy proficiency level (2012)**
WEB Table A8.4a (N)	Percentage of adults reporting that they believe they have a say in government, by educational attainment and numeracy proficiency level (2012)
WEB Table A8.4b (L)	Percentage of adults reporting that they believe they have a say in government, by educational attainment, literacy proficiency level and gender (2012)
WEB Table A8.4b (N)	Percentage of adults reporting that they believe they have a say in government, by educational attainment, numeracy proficiency level and gender (2012)

A8

Table A8.1a (L). [1/2] Percentage of adults reporting that they are in good health, by educational attainment and literacy proficiency level (2012)

Literacy proficiency level in the Survey of Adult Skills, 25-64 year-olds

	Below upper secondary education								Upper secondary or post-secondary non-tertiary education									
	Level 0/1		Level 2		Level 3		Total		Level 0/1		Level 2		Level 3		Level 4/5		Total	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
	(1)	(2)	(3)	(4)	(5)	(6)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
OECD																		
National entities																		
Australia	67	(3.2)	79	(2.7)	82	(3.0)	76	(1.2)	77	(3.5)	82	(1.9)	86	(1.6)	85	(2.5)	84	(1.1)
Austria	60	(3.5)	69	(3.2)	75	(5.3)	68	(1.7)	71	(2.8)	81	(1.4)	88	(1.2)	93	(2.8)	83	(0.6)
Canada	69	(2.2)	76	(2.6)	87	(3.6)	74	(1.7)	82	(1.8)	87	(1.2)	89	(1.1)	91	(3.3)	87	(0.6)
Czech Republic	73	(7.0)	66	(6.7)	68	(9.3)	69	(3.6)	84	(3.5)	86	(1.9)	90	(1.9)	95	(3.7)	88	(0.9)
Denmark	54	(2.9)	68	(3.1)	78	(3.9)	64	(1.5)	69	(3.0)	80	(1.8)	85	(1.7)	89	(4.7)	81	(0.9)
Estonia	37	(3.6)	42	(3.4)	47	(5.3)	42	(1.8)	43	(3.3)	52	(1.7)	62	(1.8)	69	(4.7)	56	(0.9)
Finland	58	(4.2)	60	(4.2)	70	(5.6)	62	(1.8)	62	(4.5)	74	(2.1)	81	(1.5)	84	(3.2)	77	(1.0)
France	61	(2.1)	72	(2.2)	78	(3.9)	67	(1.0)	71	(2.7)	80	(1.5)	83	(1.9)	85	(4.7)	80	(0.8)
Germany	71	(4.3)	80	(4.7)	82	(8.2)	75	(2.5)	76	(2.3)	87	(1.4)	90	(1.4)	96	(2.6)	86	(0.8)
Ireland	71	(2.4)	82	(2.4)	85	(4.0)	78	(1.3)	88	(2.7)	89	(1.5)	89	(1.6)	88	(5.3)	89	(0.8)
Italy	72	(2.2)	75	(2.2)	75	(4.1)	74	(1.3)	87	(2.7)	86	(1.8)	88	(1.9)	91	(5.0)	87	(1.1)
Japan	53	(6.2)	55	(4.8)	68	(5.4)	60	(2.5)	63	(6.2)	67	(2.5)	72	(1.9)	70	(4.5)	70	(1.3)
Korea	22	(2.6)	28	(2.7)	35	(5.2)	27	(1.4)	41	(3.8)	44	(2.0)	49	(2.5)	52	(9.5)	46	(1.3)
Netherlands	59	(3.2)	77	(2.6)	72	(3.4)	70	(1.3)	64	(5.6)	81	(2.0)	84	(1.6)	85	(3.5)	81	(1.0)
Norway	61	(4.4)	65	(3.4)	75	(3.3)	67	(1.9)	73	(4.1)	79	(2.2)	84	(1.8)	88	(4.0)	81	(1.0)
Poland	45	(4.1)	59	(4.1)	66	(7.9)	54	(2.3)	66	(2.4)	76	(1.5)	82	(2.1)	86	(6.0)	76	(0.9)
Slovak Republic	51	(3.6)	52	(4.1)	62	(5.9)	54	(2.2)	75	(3.5)	77	(1.5)	82	(1.2)	86	(4.2)	79	(0.7)
Spain	60	(1.7)	76	(1.7)	81	(3.3)	69	(1.2)	73	(3.9)	81	(2.6)	81	(3.1)	92	(6.1)	80	(1.4)
Sweden	59	(4.1)	71	(3.9)	75	(5.9)	67	(2.3)	75	(3.9)	82	(2.3)	86	(1.5)	92	(2.6)	84	(0.9)
United States	57	(4.2)	70	(6.3)	78	(10.1)	62	(2.7)	71	(2.6)	79	(2.1)	85	(2.1)	90	(4.2)	80	(1.4)
Sub-national entities																		
Flanders (Belgium)	68	(2.6)	77	(2.5)	76	(4.6)	73	(1.6)	83	(2.5)	82	(1.6)	87	(1.8)	90	(4.1)	84	(0.8)
England (UK)	60	(2.8)	76	(2.5)	83	(3.9)	72	(1.4)	82	(3.4)	83	(2.0)	87	(1.8)	92	(2.7)	85	(1.0)
Northern Ireland (UK)	62	(3.5)	70	(3.0)	73	(4.4)	68	(1.8)	77	(4.4)	82	(2.6)	85	(2.5)	89	(5.1)	83	(1.4)
England/N. Ireland (UK)	60	(2.7)	76	(2.4)	83	(3.8)	72	(1.3)	82	(3.3)	83	(2.0)	87	(1.8)	92	(2.7)	85	(1.0)
OECD average	59	(0.8)	67	(0.8)	73	(1.2)	65	(0.4)	72	(0.8)	78	(0.4)	82	(0.4)	86	(1.0)	79	(0.2)
Partners																		
Russian Federation*	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for literacy proficiency Level 4/5 and below upper secondary education (i.e. columns 7 and 8) are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116566

Table A8.1a (L). [2/2] Percentage of adults reporting that they are in good health, by educational attainment and literacy proficiency level (2012)

Literacy proficiency level in the Survey of Adult Skills, 25-64 year-olds

	Tertiary education										All levels of education									
	Level 0/1		Level 2		Level 3		Level 4/5		Total		Level 0/1		Level 2		Level 3		Level 4/5		Total	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
OECD																				
National entities																				
Australia	80	(5.4)	89	(2.3)	89	(1.3)	92	(1.3)	90	(0.8)	72	(2.2)	82	(1.4)	87	(0.9)	90	(1.1)	84	(0.5)
Austria	77	(8.8)	85	(2.8)	91	(1.4)	96	(1.7)	90	(1.0)	67	(2.2)	79	(1.3)	88	(1.1)	95	(1.7)	82	(0.6)
Canada	85	(2.3)	90	(1.2)	93	(0.7)	96	(0.8)	92	(0.4)	78	(1.2)	87	(0.8)	92	(0.5)	95	(0.9)	88	(0.3)
Czech Republic	c	c	95	(2.8)	96	(1.6)	98	(1.2)	96	(0.9)	82	(3.1)	84	(1.9)	90	(1.5)	97	(1.8)	88	(0.7)
Denmark	79	(4.1)	85	(2.0)	91	(0.9)	94	(1.6)	89	(0.6)	64	(1.7)	79	(1.1)	88	(0.9)	92	(1.8)	81	(0.6)
Estonia	52	(4.9)	65	(2.0)	75	(1.4)	82	(2.3)	72	(0.8)	43	(2.1)	55	(1.2)	67	(1.1)	78	(2.2)	61	(0.5)
Finland	77	(6.7)	82	(2.2)	90	(1.2)	93	(1.0)	89	(0.7)	62	(2.7)	73	(1.4)	84	(1.1)	90	(1.2)	80	(0.6)
France	74	(5.0)	85	(1.8)	90	(0.9)	93	(1.7)	89	(0.6)	66	(1.6)	79	(1.0)	86	(1.0)	91	(1.7)	79	(0.5)
Germany	77	(5.8)	88	(2.1)	94	(1.0)	97	(1.4)	92	(0.7)	74	(1.9)	86	(1.1)	92	(1.0)	97	(1.4)	87	(0.6)
Ireland	87	(5.0)	93	(1.5)	94	(0.9)	94	(1.4)	94	(0.6)	77	(1.9)	87	(1.0)	91	(0.9)	93	(1.6)	87	(0.5)
Italy	88	(4.9)	88	(3.1)	91	(2.2)	94	(2.9)	90	(1.3)	76	(1.8)	80	(1.4)	85	(1.7)	92	(3.1)	81	(0.9)
Japan	c	c	74	(3.6)	76	(1.4)	80	(1.8)	77	(0.9)	58	(4.4)	66	(1.9)	74	(1.2)	77	(1.6)	72	(0.8)
Korea	53	(9.4)	52	(2.4)	58	(1.8)	62	(3.8)	57	(1.1)	31	(2.0)	43	(1.2)	53	(1.3)	60	(3.4)	47	(0.7)
Netherlands	76	(8.3)	80	(3.6)	89	(1.2)	91	(1.6)	88	(0.8)	61	(2.5)	79	(1.5)	84	(1.1)	89	(1.5)	81	(0.6)
Norway	84	(4.7)	86	(2.2)	90	(1.1)	91	(1.5)	89	(0.7)	69	(2.6)	77	(1.5)	86	(1.0)	89	(1.8)	82	(0.7)
Poland	88	(5.3)	91	(2.2)	92	(1.6)	94	(1.9)	92	(0.8)	62	(1.9)	77	(1.2)	85	(1.2)	92	(2.2)	78	(0.6)
Slovak Republic	c	c	89	(2.6)	92	(1.3)	92	(3.0)	91	(1.0)	64	(2.8)	74	(1.4)	83	(0.9)	89	(2.6)	78	(0.6)
Spain	79	(4.2)	83	(2.4)	88	(1.6)	91	(2.6)	86	(1.1)	63	(1.5)	79	(1.2)	85	(1.3)	91	(2.4)	77	(0.7)
Sweden	77	(5.9)	85	(3.0)	91	(1.3)	94	(1.3)	90	(0.7)	68	(2.5)	80	(1.7)	87	(1.1)	93	(1.4)	83	(0.7)
United States	81	(5.0)	90	(1.6)	94	(1.0)	97	(1.1)	93	(0.6)	68	(1.9)	81	(1.6)	90	(1.0)	95	(1.2)	83	(0.8)
Sub-national entities																				
Flanders (Belgium)	80	(5.6)	88	(2.5)	91	(1.2)	92	(1.6)	90	(0.8)	76	(1.7)	82	(1.2)	88	(0.9)	91	(1.5)	85	(0.5)
England (UK)	82	(5.7)	87	(2.3)	90	(1.3)	93	(1.6)	89	(0.8)	71	(2.1)	82	(1.3)	88	(1.2)	92	(1.4)	84	(0.6)
Northern Ireland (UK)	86	(5.4)	84	(3.2)	91	(1.5)	95	(1.5)	90	(0.9)	68	(2.7)	77	(1.7)	86	(1.4)	93	(1.7)	80	(0.9)
England/N. Ireland (UK)	82	(5.6)	87	(2.2)	90	(1.3)	93	(1.6)	89	(0.8)	71	(2.0)	82	(1.2)	88	(1.1)	92	(1.4)	84	(0.6)
OECD average	78	(1.3)	84	(0.5)	88	(0.3)	91	(0.4)	88	(0.2)	66	(0.5)	77	(0.3)	84	(0.2)	89	(0.4)	79	(0.1)
Partners																				
Russian Federation*	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for literacy proficiency Level 4/5 and below upper secondary education (i.e. columns 7 and 8) are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116566

Table A8.2a (L). [1/2] Percentage of adults reporting that they volunteer at least once a month, by educational attainment and literacy proficiency level (2012)

Literacy proficiency level in the Survey of Adult Skills, 25-64 year-olds

	Below upper secondary education								Upper secondary or post-secondary non-tertiary education									
	Level 0/1		Level 2		Level 3		Total		Level 0/1		Level 2		Level 3		Level 4/5		Total	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
	(1)	(2)	(3)	(4)	(5)	(6)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
OECD																		
National entities																		
Australia	12	(2.6)	17	(2.3)	24	(2.4)	18	(1.2)	11	(3.4)	17	(2.1)	24	(2.3)	27	(3.9)	20	(1.1)
Austria	7	(2.1)	17	(3.0)	21	(5.1)	14	(1.4)	17	(2.5)	22	(1.6)	25	(1.5)	23	(4.5)	23	(0.8)
Canada	15	(1.8)	16	(2.2)	23	(4.2)	17	(1.2)	13	(1.8)	18	(1.2)	24	(1.5)	32	(3.7)	20	(0.8)
Czech Republic	4	(2.7)	7	(3.5)	c	c	5	(1.9)	8	(3.0)	9	(1.5)	10	(1.5)	12	(4.0)	9	(1.0)
Denmark	12	(1.8)	21	(2.8)	25	(4.4)	18	(1.1)	23	(2.9)	25	(2.0)	30	(2.2)	28	(6.4)	27	(1.2)
Estonia	6	(1.6)	5	(1.3)	5	(2.0)	5	(0.7)	8	(1.6)	9	(1.0)	8	(1.1)	13	(3.4)	9	(0.7)
Finland	11	(2.9)	17	(3.0)	21	(4.1)	17	(1.8)	19	(3.4)	17	(1.7)	21	(1.7)	20	(3.1)	19	(1.0)
France	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w
Germany	7	(2.5)	14	(4.0)	19	(8.4)	11	(1.7)	16	(2.4)	21	(1.7)	26	(2.0)	28	(4.8)	22	(1.0)
Ireland	12	(1.7)	16	(2.1)	20	(3.8)	15	(1.2)	12	(2.5)	20	(1.8)	23	(2.0)	24	(6.2)	20	(0.9)
Italy	9	(1.5)	12	(1.9)	13	(3.5)	11	(1.1)	10	(2.3)	13	(1.5)	18	(2.1)	15	(7.0)	14	(1.0)
Japan	6	(2.8)	10	(2.5)	10	(2.7)	9	(1.3)	13	(5.2)	12	(1.9)	12	(1.3)	10	(2.5)	12	(0.9)
Korea	7	(1.6)	13	(2.0)	12	(3.6)	10	(1.0)	10	(2.3)	11	(1.2)	13	(1.6)	17	(7.0)	12	(0.7)
Netherlands	21	(2.6)	26	(2.4)	27	(3.1)	24	(1.3)	21	(4.5)	26	(2.5)	30	(1.9)	31	(3.5)	28	(1.1)
Norway	16	(3.2)	21	(2.8)	28	(4.1)	22	(1.6)	19	(3.3)	28	(2.7)	38	(2.4)	33	(7.8)	32	(1.3)
Poland	2	(1.4)	3	(1.7)	3	(2.5)	3	(0.9)	6	(1.3)	5	(0.8)	7	(1.2)	6	(4.1)	6	(0.5)
Slovak Republic	4	(1.3)	5	(1.5)	8	(3.2)	5	(1.0)	7	(1.8)	8	(1.1)	8	(0.9)	7	(2.3)	8	(0.5)
Spain	5	(0.8)	7	(1.0)	10	(2.2)	6	(0.6)	11	(3.1)	13	(1.9)	13	(2.4)	19	(8.6)	13	(1.2)
Sweden	5	(2.1)	15	(2.8)	16	(4.2)	12	(1.4)	15	(3.0)	18	(2.2)	22	(1.9)	31	(5.2)	21	(1.1)
United States	11	(2.4)	15	(4.0)	c	c	13	(1.6)	20	(2.7)	24	(2.2)	26	(2.5)	27	(5.8)	24	(1.2)
Sub-national entities																		
Flanders (Belgium)	c	c	c	c	c	c	15	(1.3)	c	c	18	(1.9)	20	(2.1)	c	c	18	(1.0)
England (UK)	7	(1.6)	10	(1.8)	16	(3.4)	11	(1.2)	13	(3.0)	16	(2.0)	18	(2.2)	21	(4.3)	17	(1.1)
Northern Ireland (UK)	9	(2.3)	8	(2.1)	13	(4.3)	9	(1.4)	18	(5.3)	16	(2.7)	18	(2.6)	24	(6.2)	17	(1.5)
England/N. Ireland (UK)	7	(1.5)	10	(1.8)	16	(3.3)	11	(1.1)	13	(3.0)	16	(1.9)	18	(2.2)	22	(4.2)	17	(1.1)
OECD average	9	(0.5)	13	(0.6)	17	(0.9)	12	(0.3)	14	(0.7)	17	(0.4)	20	(0.4)	21	(1.2)	18	(0.2)
Partners																		
Russian Federation*	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for literacy proficiency Level 4/5 and below upper secondary education (i.e. columns 7 and 8) are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116585

Table A8.2a (L). [2/2] Percentage of adults reporting that they volunteer at least once a month, by educational attainment and literacy proficiency level (2012)

Literacy proficiency level in the Survey of Adult Skills, 25-64 year-olds

	Tertiary education										All levels of education									
	Level 0/1		Level 2		Level 3		Level 4/5		Total		Level 0/1		Level 2		Level 3		Level 4/5		Total	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
OECD																				
National entities																				
Australia	17	(4.7)	21	(2.8)	24	(2.0)	28	(2.2)	24	(1.2)	13	(2.0)	18	(1.3)	24	(1.3)	27	(1.7)	21	(0.6)
Austria	21	(8.3)	32	(3.6)	30	(2.6)	26	(3.5)	29	(1.6)	13	(1.6)	22	(1.4)	26	(1.3)	24	(2.7)	22	(0.7)
Canada	17	(2.4)	26	(1.6)	31	(1.2)	36	(2.1)	29	(0.7)	15	(1.1)	21	(0.9)	28	(0.9)	35	(1.8)	25	(0.5)
Czech Republic	c	c	11	(6.0)	14	(3.0)	11	(4.3)	13	(2.0)	7	(2.3)	9	(1.5)	10	(1.3)	11	(3.0)	10	(0.8)
Denmark	19	(4.0)	24	(2.1)	29	(1.6)	28	(2.7)	27	(0.9)	17	(1.5)	24	(1.4)	29	(1.3)	28	(2.5)	25	(0.6)
Estonia	13	(3.6)	12	(1.6)	12	(1.2)	14	(2.1)	12	(0.6)	8	(1.1)	9	(0.7)	10	(0.8)	14	(1.8)	10	(0.4)
Finland	26	(5.4)	22	(2.7)	25	(1.7)	27	(1.9)	26	(1.0)	17	(2.2)	19	(1.5)	23	(1.2)	25	(1.6)	22	(0.6)
France	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w
Germany	20	(5.9)	27	(2.7)	28	(2.1)	31	(3.1)	28	(1.2)	14	(1.7)	22	(1.3)	27	(1.5)	30	(2.8)	23	(0.8)
Ireland	24	(6.5)	23	(2.6)	24	(2.0)	27	(3.4)	24	(1.0)	13	(1.4)	19	(1.3)	23	(1.4)	26	(2.9)	20	(0.7)
Italy	17	(6.1)	21	(4.0)	23	(3.1)	20	(6.5)	22	(2.0)	9	(1.2)	13	(1.2)	18	(1.7)	17	(4.5)	13	(0.8)
Japan	27	(12.2)	14	(2.9)	12	(1.2)	12	(1.4)	12	(0.7)	12	(3.0)	12	(1.5)	12	(0.8)	11	(1.2)	12	(0.5)
Korea	15	(6.5)	13	(1.6)	12	(1.2)	15	(2.5)	12	(0.7)	9	(1.5)	12	(0.9)	12	(0.9)	15	(2.4)	12	(0.5)
Netherlands	26	(8.8)	29	(4.2)	33	(2.1)	32	(2.5)	32	(1.2)	21	(2.2)	27	(1.5)	31	(1.2)	31	(2.1)	28	(0.6)
Norway	c	c	31	(3.4)	34	(1.9)	34	(2.6)	33	(1.2)	17	(2.0)	27	(1.8)	35	(1.5)	34	(2.7)	30	(0.8)
Poland	15	(7.7)	12	(2.5)	12	(1.6)	15	(3.0)	12	(1.0)	6	(1.1)	6	(0.7)	9	(0.9)	12	(2.4)	7	(0.4)
Slovak Republic	24	(11.5)	12	(2.9)	13	(1.8)	12	(4.2)	13	(1.2)	6	(1.2)	8	(1.0)	9	(0.8)	9	(2.4)	8	(0.5)
Spain	9	(2.8)	14	(1.9)	15	(1.7)	16	(3.3)	14	(1.0)	6	(0.8)	10	(0.8)	13	(1.2)	16	(2.9)	10	(0.4)
Sweden	16	(5.0)	19	(3.0)	21	(2.0)	26	(2.4)	22	(1.2)	11	(1.6)	17	(1.5)	21	(1.3)	27	(2.2)	20	(0.7)
United States	31	(5.8)	37	(3.1)	38	(2.0)	43	(3.0)	39	(1.0)	18	(2.0)	26	(1.8)	33	(1.5)	39	(2.7)	29	(0.7)
Sub-national entities																				
Flanders (Belgium)	20	(6.9)	21	(2.9)	24	(1.6)	29	(2.8)	25	(1.1)	11	(1.6)	18	(1.4)	23	(1.3)	28	(2.6)	20	(0.8)
England (UK)	c	c	18	(2.2)	23	(1.7)	29	(2.8)	22	(1.0)	10	(1.5)	15	(1.1)	20	(1.2)	26	(2.3)	18	(0.6)
Northern Ireland (UK)	16	(6.9)	23	(4.1)	29	(2.7)	30	(3.8)	27	(1.5)	12	(2.0)	14	(1.4)	22	(1.7)	28	(3.3)	18	(0.8)
England/N. Ireland (UK)	14	(4.2)	18	(2.2)	23	(1.7)	29	(2.7)	23	(1.0)	10	(1.5)	15	(1.1)	20	(1.2)	26	(2.3)	18	(0.6)
OECD average	19	(1.5)	21	(0.7)	23	(0.4)	24	(0.7)	22	(0.3)	12	(0.4)	17	(0.3)	21	(0.3)	23	(0.6)	18	(0.1)
Partners																				
Russian Federation*	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for literacy proficiency Level 4/5 and below upper secondary education (i.e. columns 7 and 8) are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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A8

Table A8.3a (L). [1/2] Percentage of adults reporting that they trust others, by educational attainment and literacy proficiency level (2012)

Literacy proficiency level in the Survey of Adult Skills, 25-64 year-olds

	Below upper secondary education								Upper secondary or post-secondary non-tertiary education									
	Level 0/1		Level 2		Level 3		Total		Level 0/1		Level 2		Level 3		Level 4/5		Total	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
	(1)	(2)	(3)	(4)	(5)	(6)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
OECD																		
National entities																		
Australia	10	(1.7)	14	(1.9)	20	(2.1)	15	(0.9)	14	(3.1)	15	(1.8)	21	(2.1)	30	(4.6)	19	(1.1)
Austria	13	(2.7)	15	(2.4)	17	(3.8)	15	(1.3)	14	(2.5)	18	(1.4)	25	(1.4)	34	(4.6)	21	(0.9)
Canada	14	(1.8)	18	(2.5)	26	(6.4)	17	(1.3)	18	(1.7)	18	(1.3)	25	(1.8)	28	(4.8)	21	(0.7)
Czech Republic	4	(1.8)	c	c	c	c	4	(1.1)	6	(2.3)	5	(1.3)	5	(1.1)	6	(2.6)	5	(0.6)
Denmark	22	(2.2)	31	(3.1)	49	(4.8)	31	(1.5)	33	(3.0)	39	(2.0)	47	(2.2)	48	(6.3)	42	(1.3)
Estonia	9	(1.9)	8	(1.9)	5	(2.5)	8	(0.9)	7	(1.4)	6	(0.8)	7	(1.0)	9	(2.5)	7	(0.5)
Finland	12	(3.0)	21	(3.6)	22	(4.4)	18	(1.9)	23	(3.4)	26	(2.0)	28	(1.8)	30	(3.6)	27	(1.0)
France	7	(1.0)	7	(1.2)	7	(2.3)	7	(0.6)	7	(1.2)	9	(0.9)	9	(1.2)	11	(4.5)	9	(0.6)
Germany	9	(2.6)	8	(2.7)	c	c	8	(1.6)	7	(1.6)	7	(1.1)	14	(1.5)	21	(4.2)	10	(0.7)
Ireland	11	(2.0)	10	(1.7)	12	(3.2)	11	(1.0)	14	(3.2)	14	(1.7)	15	(1.9)	15	(5.6)	14	(0.9)
Italy	5	(1.1)	6	(1.2)	7	(2.9)	6	(0.7)	9	(2.2)	11	(1.8)	12	(2.0)	12	(4.2)	11	(1.1)
Japan	13	(4.0)	10	(2.7)	11	(3.2)	11	(1.5)	18	(5.1)	13	(1.9)	14	(1.5)	13	(3.4)	14	(0.9)
Korea	9	(1.8)	8	(1.5)	7	(2.8)	8	(1.0)	11	(2.2)	9	(1.0)	10	(1.2)	13	(5.4)	10	(0.6)
Netherlands	14	(1.9)	18	(2.1)	29	(3.0)	20	(1.2)	21	(3.9)	28	(2.7)	32	(2.1)	34	(4.1)	30	(1.0)
Norway	21	(3.6)	20	(2.9)	29	(4.0)	24	(1.7)	18	(3.6)	26	(2.5)	33	(2.0)	35	(5.0)	29	(1.1)
Poland	10	(2.5)	7	(2.6)	4	(2.9)	8	(1.2)	10	(1.5)	10	(1.4)	13	(1.8)	20	(5.6)	11	(0.8)
Slovak Republic	9	(2.0)	4	(1.3)	3	(1.9)	6	(0.9)	8	(2.0)	7	(0.9)	8	(0.9)	12	(3.7)	8	(0.5)
Spain	14	(1.2)	16	(1.4)	17	(3.1)	15	(0.7)	21	(3.5)	17	(2.3)	20	(3.0)	29	(10.3)	19	(1.5)
Sweden	20	(3.7)	23	(3.4)	31	(5.1)	24	(1.8)	23	(3.6)	27	(2.2)	35	(2.1)	38	(4.9)	31	(1.2)
United States	13	(3.1)	12	(3.8)	14	(8.7)	13	(2.2)	15	(2.0)	17	(1.9)	21	(2.3)	28	(5.4)	18	(1.1)
Sub-national entities																		
Flanders (Belgium)	10	(2.1)	10	(2.2)	6	(2.6)	9	(1.2)	14	(2.3)	12	(1.5)	13	(1.6)	15	(5.5)	13	(0.8)
England (UK)	10	(2.1)	8	(1.6)	13	(2.9)	10	(1.0)	10	(2.5)	12	(2.0)	17	(2.2)	27	(5.4)	16	(1.1)
Northern Ireland (UK)	10	(1.9)	8	(1.7)	10	(3.0)	9	(1.1)	16	(5.1)	17	(2.4)	17	(3.1)	18	(7.9)	17	(1.4)
England/N. Ireland (UK)	10	(2.0)	8	(1.6)	12	(2.8)	10	(0.9)	10	(2.4)	12	(1.9)	17	(2.2)	27	(5.2)	16	(1.0)
OECD average	12	(0.5)	13	(0.5)	16	(0.9)	13	(0.3)	14	(0.6)	16	(0.4)	19	(0.4)	23	(1.1)	18	(0.2)
Partners																		
Russian Federation*	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for literacy proficiency Level 4/5 and below upper secondary education (i.e. columns 7 and 8) are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table A8.3a (L). [2/2] Percentage of adults reporting that they trust others, by educational attainment and literacy proficiency level (2012)

Literacy proficiency level in the Survey of Adult Skills, 25-64 year-olds

	Tertiary education										All levels of education									
	Level 0/1		Level 2		Level 3		Level 4/5		Total		Level 0/1		Level 2		Level 3		Level 4/5		Total	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
OECD																				
National entities																				
Australia	17	(5.3)	23	(2.8)	32	(2.0)	41	(2.1)	32	(1.0)	12	(1.5)	17	(1.2)	25	(1.3)	37	(1.8)	23	(0.7)
Austria	18	(7.3)	21	(3.3)	34	(2.9)	40	(4.5)	31	(1.6)	14	(1.7)	18	(1.1)	27	(1.3)	37	(3.5)	22	(0.7)
Canada	18	(2.5)	24	(1.4)	33	(1.2)	37	(2.1)	30	(0.7)	17	(1.1)	21	(0.9)	30	(1.0)	36	(2.1)	26	(0.5)
Czech Republic	c	c	7	(4.4)	16	(3.6)	22	(5.1)	16	(2.2)	5	(1.6)	5	(1.1)	8	(1.4)	15	(3.7)	7	(0.7)
Denmark	46	(4.5)	58	(2.3)	65	(1.5)	67	(2.9)	63	(1.0)	30	(1.7)	43	(1.2)	57	(1.2)	63	(2.6)	48	(0.7)
Estonia	11	(2.7)	12	(1.6)	16	(1.4)	17	(2.1)	15	(0.7)	8	(1.1)	8	(0.7)	11	(0.8)	14	(1.5)	10	(0.4)
Finland	40	(7.6)	37	(3.0)	43	(1.8)	47	(2.1)	44	(1.1)	21	(2.3)	28	(1.5)	35	(1.3)	42	(1.9)	33	(0.7)
France	7	(2.6)	14	(1.8)	18	(1.3)	18	(2.2)	17	(0.8)	7	(0.7)	10	(0.7)	13	(0.8)	16	(1.9)	11	(0.4)
Germany	18	(5.5)	14	(2.3)	23	(1.9)	30	(2.7)	22	(1.0)	9	(1.4)	9	(1.0)	18	(1.2)	27	(2.3)	14	(0.6)
Ireland	18	(5.5)	18	(2.1)	23	(1.7)	30	(2.7)	23	(1.0)	13	(1.7)	14	(0.9)	19	(1.1)	27	(2.6)	16	(0.6)
Italy	13	(5.5)	12	(3.2)	18	(2.6)	16	(5.6)	15	(1.4)	6	(0.9)	8	(0.9)	13	(1.3)	14	(3.7)	9	(0.6)
Japan	c	c	17	(2.8)	23	(1.4)	24	(1.7)	23	(0.9)	16	(3.1)	14	(1.4)	18	(1.0)	21	(1.4)	18	(0.6)
Korea	21	(6.6)	17	(1.6)	16	(1.1)	18	(2.9)	17	(0.7)	10	(1.3)	11	(0.7)	13	(0.8)	17	(2.6)	12	(0.4)
Netherlands	19	(8.8)	38	(4.1)	45	(2.2)	50	(2.6)	45	(1.3)	16	(1.7)	25	(1.7)	36	(1.3)	45	(2.2)	32	(0.6)
Norway	28	(5.6)	42	(3.8)	51	(2.0)	54	(2.7)	49	(1.2)	21	(2.3)	28	(1.9)	41	(1.3)	50	(2.4)	36	(0.8)
Poland	17	(6.3)	21	(3.3)	24	(2.4)	30	(3.6)	24	(1.3)	11	(1.3)	12	(1.1)	17	(1.3)	28	(3.1)	15	(0.6)
Slovak Republic	c	c	11	(2.7)	12	(1.5)	19	(4.1)	13	(1.1)	9	(1.6)	7	(0.8)	9	(0.8)	15	(3.0)	9	(0.4)
Spain	23	(4.8)	27	(2.3)	34	(2.0)	36	(4.6)	31	(1.2)	16	(1.2)	19	(1.1)	27	(1.5)	34	(4.2)	21	(0.6)
Sweden	22	(5.6)	41	(4.1)	50	(2.1)	55	(2.4)	49	(1.3)	21	(2.3)	29	(1.6)	40	(1.5)	49	(2.3)	36	(0.8)
United States	20	(6.4)	26	(2.8)	32	(1.7)	39	(2.9)	31	(1.2)	15	(2.1)	19	(1.5)	26	(1.5)	37	(2.7)	23	(0.8)
Sub-national entities																				
Flanders (Belgium)	30	(7.9)	29	(4.2)	29	(2.1)	29	(2.7)	29	(1.2)	13	(1.7)	15	(1.3)	21	(1.2)	26	(2.5)	19	(0.6)
England (UK)	21	(5.6)	21	(2.8)	25	(2.0)	36	(3.1)	27	(1.2)	12	(1.6)	13	(1.3)	21	(1.4)	32	(2.8)	19	(0.7)
Northern Ireland (UK)	10	(6.3)	18	(3.4)	24	(2.4)	30	(4.1)	23	(1.6)	11	(1.9)	14	(1.5)	19	(1.8)	26	(4.0)	16	(0.8)
England/N. Ireland (UK)	20	(5.5)	21	(2.7)	25	(1.9)	36	(3.1)	26	(1.2)	12	(1.6)	13	(1.3)	21	(1.4)	32	(2.8)	18	(0.7)
OECD average	21	(1.3)	24	(0.6)	30	(0.4)	34	(0.7)	29	(0.3)	14	(0.4)	17	(0.3)	24	(0.3)	31	(0.6)	21	(0.1)
Partners																				
Russian Federation*	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for literacy proficiency Level 4/5 and below upper secondary education (i.e. columns 7 and 8) are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table A8.4a (L). [1/2] Percentage of adults reporting that they believe they have a say in government, by educational attainment and literacy proficiency level (2012)

Literacy proficiency level in the Survey of Adult Skills, 25-64 year-olds

	Below upper secondary education								Upper secondary or post-secondary non-tertiary education									
	Level 0/1		Level 2		Level 3		Total		Level 0/1		Level 2		Level 3		Level 4/5		Total	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
	(1)	(2)	(3)	(4)	(5)	(6)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
OECD																		
National entities																		
Australia	18	(2.6)	21	(2.3)	30	(3.1)	24	(1.3)	23	(3.5)	26	(2.3)	32	(2.3)	43	(4.3)	30	(1.1)
Austria	15	(3.0)	18	(2.5)	25	(4.2)	19	(1.6)	23	(2.6)	26	(1.6)	35	(1.9)	40	(4.9)	30	(1.0)
Canada	20	(2.1)	21	(2.5)	35	(6.0)	22	(1.4)	24	(2.1)	28	(1.5)	37	(1.7)	37	(4.9)	31	(0.9)
Czech Republic	19	(6.3)	19	(5.3)	17	(6.9)	19	(3.0)	15	(3.8)	17	(2.0)	24	(2.4)	22	(7.6)	20	(1.2)
Denmark	33	(3.1)	42	(3.3)	55	(4.9)	41	(1.6)	37	(2.8)	46	(2.3)	51	(2.8)	54	(8.0)	47	(1.2)
Estonia	17	(2.4)	16	(2.2)	17	(3.0)	17	(1.2)	12	(1.8)	17	(1.2)	27	(1.6)	38	(4.0)	21	(0.8)
Finland	27	(4.4)	32	(3.6)	33	(4.9)	31	(2.4)	42	(3.8)	39	(2.7)	42	(2.3)	51	(4.3)	42	(1.2)
France	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w
Germany	12	(2.9)	15	(3.9)	13	(8.2)	13	(2.1)	17	(2.3)	18	(1.5)	26	(1.9)	31	(5.0)	21	(0.8)
Ireland	18	(2.3)	16	(2.3)	19	(4.3)	18	(1.4)	16	(2.9)	25	(1.8)	28	(2.2)	37	(7.0)	26	(1.2)
Italy	11	(1.7)	13	(2.0)	16	(4.0)	12	(1.3)	13	(2.5)	19	(1.8)	22	(2.2)	26	(7.1)	19	(1.1)
Japan	14	(4.2)	14	(3.4)	22	(4.0)	17	(1.8)	14	(4.4)	16	(1.9)	23	(1.6)	34	(3.7)	22	(1.0)
Korea	21	(2.4)	31	(2.7)	39	(5.6)	28	(1.5)	24	(3.4)	27	(1.7)	35	(2.1)	40	(7.8)	30	(1.2)
Netherlands	22	(2.6)	28	(2.2)	35	(3.0)	28	(1.5)	33	(4.6)	30	(2.4)	36	(2.2)	50	(4.3)	36	(1.3)
Norway	24	(4.0)	28	(3.1)	43	(4.2)	32	(1.8)	29	(4.0)	39	(2.8)	50	(2.6)	59	(5.9)	44	(1.6)
Poland	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w
Slovak Republic	9	(2.1)	12	(2.3)	14	(3.6)	11	(1.1)	16	(2.8)	20	(1.5)	20	(1.5)	27	(4.5)	20	(0.8)
Spain	18	(1.6)	21	(1.8)	20	(2.7)	19	(0.9)	21	(3.8)	23	(2.7)	23	(2.8)	29	(12.2)	23	(1.4)
Sweden	27	(4.0)	34	(4.2)	41	(5.7)	34	(2.5)	30	(4.7)	34	(2.4)	49	(2.2)	56	(4.8)	43	(1.2)
United States	29	(3.2)	28	(6.6)	28	(12.7)	29	(2.4)	37	(2.5)	37	(2.1)	47	(2.9)	58	(6.1)	41	(1.2)
Sub-national entities																		
Flanders (Belgium)	22	(2.7)	22	(2.6)	27	(4.4)	23	(1.4)	28	(3.2)	26	(2.0)	27	(2.2)	32	(5.8)	27	(1.0)
England (UK)	18	(2.8)	20	(2.5)	29	(4.3)	22	(1.5)	21	(3.9)	27	(2.6)	31	(2.4)	41	(5.3)	29	(1.4)
Northern Ireland (UK)	14	(2.1)	15	(2.1)	14	(3.8)	15	(1.0)	17	(4.8)	19	(2.7)	23	(3.0)	32	(7.0)	21	(1.5)
England/N. Ireland (UK)	18	(2.6)	20	(2.4)	29	(4.1)	21	(1.5)	20	(3.8)	27	(2.6)	31	(2.3)	40	(5.2)	29	(1.3)
OECD average	20	(0.7)	23	(0.7)	28	(1.2)	23	(0.4)	24	(0.8)	27	(0.5)	33	(0.5)	40	(1.4)	30	(0.3)
Partners																		
Russian Federation*	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for literacy proficiency Level 4/5 and below upper secondary education (i.e. columns 7 and 8) are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116623

Table A8.4a (L). [2/2] Percentage of adults reporting that they believe they have a say in government, by educational attainment and literacy proficiency level (2012)

Literacy proficiency level in the Survey of Adult Skills, 25-64 year-olds

	Tertiary education										All levels of education									
	Level 0/1		Level 2		Level 3		Level 4/5		Total		Level 0/1		Level 2		Level 3		Level 4/5		Total	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)	(40)
OECD																				
National entities																				
Australia	24	(6.9)	36	(2.9)	43	(2.2)	57	(2.6)	45	(1.2)	20	(1.9)	27	(1.5)	36	(1.4)	53	(2.0)	34	(0.6)
Austria	32	(10.4)	35	(3.9)	46	(2.6)	47	(4.4)	43	(1.6)	20	(2.0)	25	(1.3)	37	(1.5)	44	(2.9)	30	(0.8)
Canada	29	(2.6)	35	(1.7)	43	(1.4)	51	(2.1)	42	(0.8)	24	(1.3)	30	(1.0)	41	(1.1)	49	(1.9)	36	(0.5)
Czech Republic	c	c	25	(6.4)	27	(4.0)	34	(4.9)	28	(2.4)	16	(3.2)	18	(2.0)	24	(2.2)	29	(3.9)	21	(1.1)
Denmark	36	(4.8)	54	(2.6)	61	(1.8)	63	(3.1)	59	(1.1)	35	(1.9)	47	(1.5)	57	(1.6)	61	(3.1)	51	(0.8)
Estonia	18	(3.5)	21	(1.9)	34	(1.6)	47	(2.8)	32	(1.0)	15	(1.4)	18	(1.0)	30	(1.0)	44	(2.4)	25	(0.5)
Finland	41	(7.4)	51	(3.6)	57	(2.2)	66	(2.0)	59	(1.1)	36	(2.8)	41	(1.9)	49	(1.5)	61	(2.0)	48	(0.8)
France	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w
Germany	17	(5.1)	27	(2.9)	35	(2.0)	38	(3.1)	33	(1.3)	15	(1.8)	20	(1.2)	30	(1.3)	35	(2.5)	24	(0.7)
Ireland	35	(6.6)	34	(2.9)	39	(1.9)	44	(3.5)	38	(1.2)	20	(1.8)	24	(1.2)	32	(1.4)	42	(3.3)	28	(0.7)
Italy	26	(7.4)	31	(4.5)	26	(3.3)	37	(8.3)	29	(2.2)	12	(1.4)	17	(1.4)	22	(1.8)	31	(5.4)	17	(0.9)
Japan	c	c	24	(3.3)	32	(1.5)	41	(2.0)	34	(1.0)	16	(3.2)	18	(1.6)	27	(1.1)	38	(1.8)	27	(0.6)
Korea	30	(8.0)	34	(2.2)	44	(1.8)	51	(3.9)	42	(1.3)	23	(2.0)	30	(1.2)	41	(1.4)	48	(3.6)	35	(0.8)
Netherlands	28	(10.0)	46	(4.5)	54	(2.2)	62	(2.6)	55	(1.5)	25	(2.4)	32	(1.6)	43	(1.5)	58	(2.3)	41	(0.9)
Norway	36	(5.6)	52	(3.5)	67	(2.0)	74	(2.5)	65	(1.1)	27	(2.5)	39	(1.8)	57	(1.5)	70	(2.3)	50	(0.8)
Poland	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w
Slovak Republic	c	c	23	(3.8)	36	(2.8)	48	(6.4)	35	(2.0)	13	(2.0)	19	(1.2)	24	(1.4)	37	(3.6)	22	(0.7)
Spain	24	(5.3)	28	(2.7)	31	(2.2)	37	(4.3)	30	(1.2)	19	(1.6)	23	(1.2)	27	(1.6)	35	(3.9)	24	(0.6)
Sweden	44	(6.5)	45	(4.2)	56	(2.3)	62	(2.4)	56	(1.4)	30	(2.9)	36	(1.8)	51	(1.5)	60	(2.1)	46	(0.9)
United States	32	(6.3)	47	(2.8)	55	(2.0)	63	(3.2)	54	(1.5)	34	(1.8)	39	(1.7)	51	(1.7)	62	(3.0)	45	(1.0)
Sub-national entities																				
Flanders (Belgium)	33	(9.3)	39	(3.9)	43	(2.1)	50	(2.8)	44	(1.3)	26	(1.9)	28	(1.4)	36	(1.4)	46	(2.5)	33	(0.8)
England (UK)	33	(6.7)	33	(3.2)	43	(2.4)	52	(3.2)	42	(1.4)	21	(2.3)	27	(1.8)	37	(1.6)	48	(2.7)	33	(0.9)
Northern Ireland (UK)	23	(8.2)	31	(4.6)	35	(2.9)	47	(4.5)	36	(1.9)	16	(2.0)	20	(1.8)	27	(1.8)	42	(3.8)	24	(0.8)
England/N. Ireland (UK)	33	(6.6)	33	(3.1)	43	(2.3)	52	(3.1)	42	(1.4)	21	(2.2)	26	(1.7)	36	(1.5)	48	(2.6)	32	(0.9)
OECD average	30	(1.7)	36	(0.8)	44	(0.5)	51	(0.9)	43	(0.3)	22	(0.5)	28	(0.3)	38	(0.3)	48	(0.7)	33	(0.2)
Partners																				
Russian Federation*	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w

* See note on data for the Russian Federation in the *Methodology* section.

Note: Columns showing data for literacy proficiency Level 4/5 and below upper secondary education (i.e. columns 7 and 8) are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

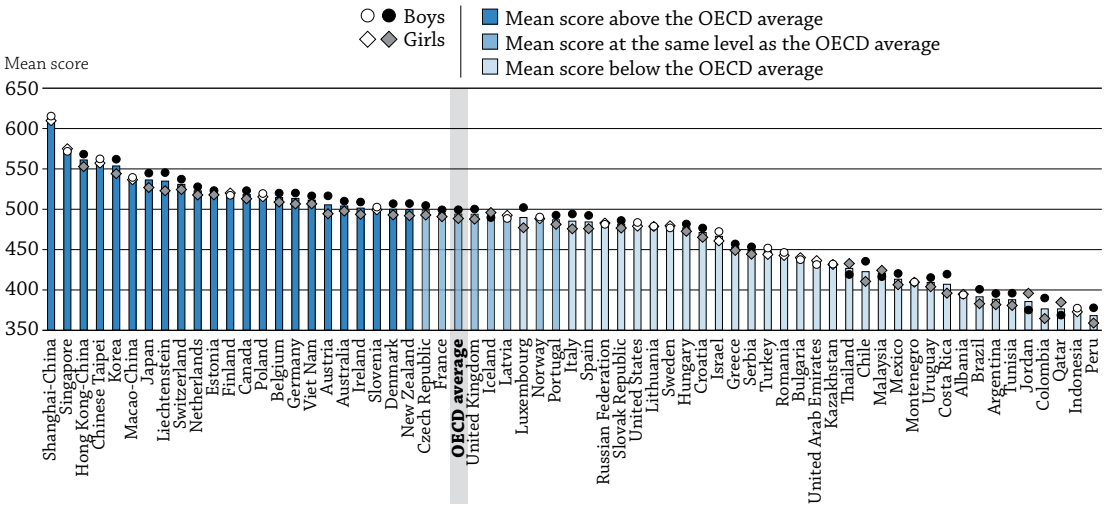
Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116623

HOW ARE STUDENT PERFORMANCE AND EQUITY IN EDUCATION RELATED?

- Shanghai-China performs the highest in mathematics of all countries and economies that participated in PISA 2012, with a mean score of 613 points – 119 points, or the equivalent of nearly three years of schooling, above the OECD average. Singapore, Hong Kong-China, Chinese Taipei, Korea, Macao-China, Japan, Liechtenstein, Switzerland and the Netherlands, in descending order of their scores, round out the top ten performers in mathematics.
- Boys perform better than girls in mathematics in 37 of the 64 countries that participated in PISA 2012, and girls outperform boys in five countries.
- Australia, Canada, Estonia, Finland, Hong Kong-China, Japan, Korea, Liechtenstein, the Netherlands and Macao-China combine high levels of performance with equity in education opportunities as assessed in PISA 2012.

Chart A9.1. Student performance in mathematics, by gender, PISA 2012



Note: Gender differences that are statistically significant are marked in a darker tone.
Countries and economies are ranked in descending order of the mean score in mathematics.
Source: OECD. Table A9.1a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933116813

Context

With mathematics as its primary focus, the Programme for International Student Assessment (PISA) 2012 survey measured 15-year-olds' capacity to reason mathematically and use mathematical concepts, procedures, facts and tools to describe, explain and predict phenomena. The triennial survey, which assesses student performance in reading, mathematics, science and problem-solving, does not just ascertain whether students can reproduce what they have learned; it also examines how well they can extrapolate from what they have learned and apply that knowledge in unfamiliar settings, both in and outside of school. This approach reflects the fact that modern societies reward individuals not for what they know, but for what they can do with what they know.

PISA results reveal what is possible in education by showing what students in the highest-performing and most rapidly improving education systems can do. The findings allow policy makers around the world to gauge the knowledge and skills of students in their own countries in comparison with those in other countries, set policy targets against measurable goals achieved by other education systems, and learn from policies and practices applied elsewhere.

In analysing results of the PISA assessment in the context of various demographic and social characteristics of students and schools, such as gender, socio-economic status and immigrant background, PISA also shows how equitably participating countries are providing education opportunities and realising education outcomes – an indication of the level of equity in the society, as a whole.

Other findings

- On average across OECD countries, **13% of students are top performers in mathematics** (Level 5 or 6). At the same time, 23% of students in OECD countries, and 32% of students in all participating countries, are low performers in mathematics (i.e. they did not reach the baseline Level 2).
- **In only six countries is the gap in mathematics scores between boys and girls – in favour of boys – larger than the equivalent of half a year of formal schooling**.
- Across OECD countries, **15% of the difference in performance among students is explained by disparities in students' socio-economic status**. In countries where this relationship is strong, students from disadvantaged families are less likely to beat the odds against them and achieve high levels of performance. Even more telling, **some 39 score points – the equivalent of around one year of formal schooling –** separate the mathematics performance of those students who are considered socio-economically advantaged and those whose socio-economic status is close to the OECD average.

Trends

- Of the 64 countries and economies with trend data between 2003 and 2012, 25 improved in mathematics performance, 25 showed no change, and 14 deteriorated.
- Among the countries that showed some improvement between 2003 and 2012, Italy, Poland and Portugal reduced the proportion of low performers and increased the proportion of high performers.
- Of the 39 countries and economies that participated in both PISA 2003 and 2012, Mexico, Turkey and Germany improved both their mathematics performance and their levels of equity in education during the period.

Analysis

Results from PISA 2012

PISA-participating countries and economies can be divided into three broad groups, as shown in Chart A9.1: those whose mean scores are statistically around the OECD average (highlighted in medium blue), those whose mean scores are above the OECD average (highlighted in dark blue), and those whose mean scores are below the OECD average (highlighted in light blue). Across OECD countries, the average score in mathematics in PISA 2012 is 494 points.

Among the 64 participating countries and economies that participated in PISA 2012, 23 perform above, seven score around, and 34 score below the OECD average.

The difference between the highest- and the lowest-scoring country/economy is 245 points. Among OECD countries, that difference is 140 points. To gauge the magnitude of these score differences, 41 score points corresponds to the equivalent of one year of formal schooling (see Table A1.2 in Volume I of *PISA 2012 Results*).

Gender differences in mathematics performance

On average across OECD countries, boys outperform girls in mathematics by 11 score points. Despite the stereotype that boys are better than girls at mathematics, boys show an advantage in only 37 out of the 64 countries and economies that participated in PISA 2012, and in only six countries is the gender gap – in favour of boys – larger than the equivalent of half a year of school.

Among the 23 highest performing countries and economies, only in Shanghai-China, Singapore, Chinese Taipei, Macao-China, Finland, Poland and Slovenia boys perform as well as girls in mathematics; in the other countries and economies among this group, boys outperform girls.

The largest difference in scores between boys and girls is seen in Chile, Colombia and Luxembourg: a difference of around 25 points. In Austria, Costa Rica and Liechtenstein, this difference is between 22 and 24 points.

In contrast, in only five countries do girls outperform boys in mathematics. The largest difference is seen in Jordan, where girls score around 21 points higher than boys. Girls also outperform boys in Iceland, Malaysia, Qatar and Thailand.

Trends in average mathematics performance

Trends in average performance indicate how and whether school systems are improving. Trends in mathematics are available for the 64 countries and economies that participated in PISA 2012. Thirty-eight of these have data on mathematics performance from 2012 and the three previous PISA assessments (2003, 2006 and 2009); 17 have data from 2012 and two prior assessments, and nine have data from 2012 and one previous assessment. To better understand a country's/economy's trends and maximise the number of countries used in the comparisons, this indicator focuses on the annualised change in student performance (see the *Definitions* and *Methodology* sections at the end of this indicator). For countries and economies that participated in all four PISA assessments, the annualised change takes into account all four time points; for those countries that have valid data for fewer assessments, it only takes into account the valid and available information.

As shown in Chart A9.2, performance has remained broadly unchanged, but more countries have improved than deteriorated in their mathematics performance. Of the 64 countries and economies with trend data up to 2012, 25 show an average annual improvement in mathematics performance, while 14 show an average deterioration in performance between 2003 and 2012. For the remaining 25 countries and economies, there is no change in mathematics performance during the period. Albania, Kazakhstan, Malaysia, Qatar and the United Arab Emirates (excluding Dubai) show an average improvement in mathematics performance of more than five score points per year. Among OECD countries, improvements in mathematics performance are observed in Israel (with an average improvement of more than four score points per year), Mexico and Turkey (more than three score points per year), Italy, Poland and Portugal (more than two score points per year), and Chile, Germany and Greece (more than one score point per year). Among countries that have participated in every assessment since 2003, Brazil, Italy, Mexico, Poland, Portugal, Tunisia and Turkey show an average improvement in mathematics performance of more than 2.5 points per year (Table A9.1c).

Top and low performers in mathematics in PISA 2012

Results from the PISA 2012 assessment show that nurturing top performance and tackling low performance need not be mutually exclusive. Some high-performing countries in PISA 2012, like Estonia and Finland, also show small variations in student scores.

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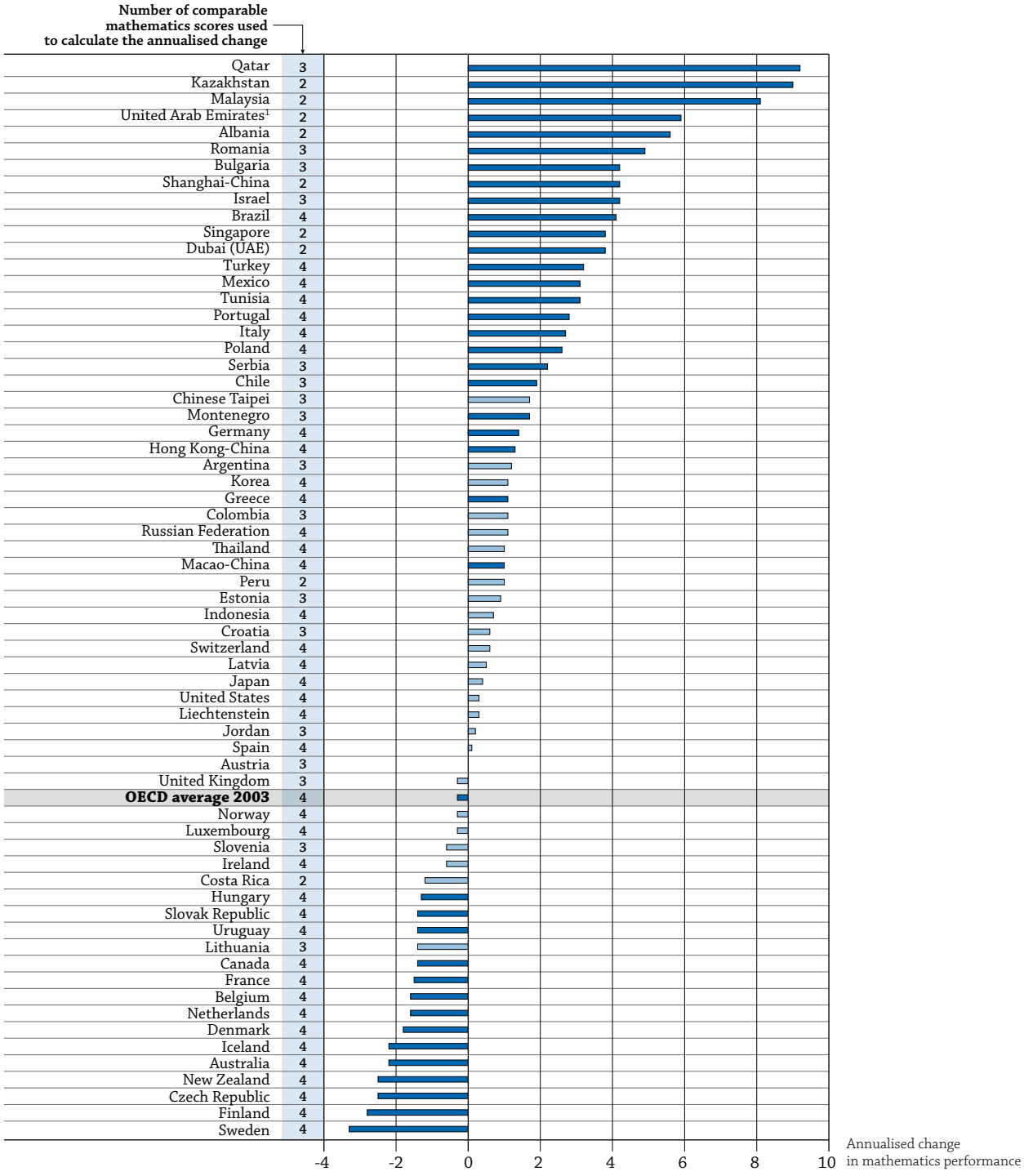
Chart A9.2. Annualised change in mathematics performance throughout participation in PISA

Mathematics score-point difference associated with one calendar year



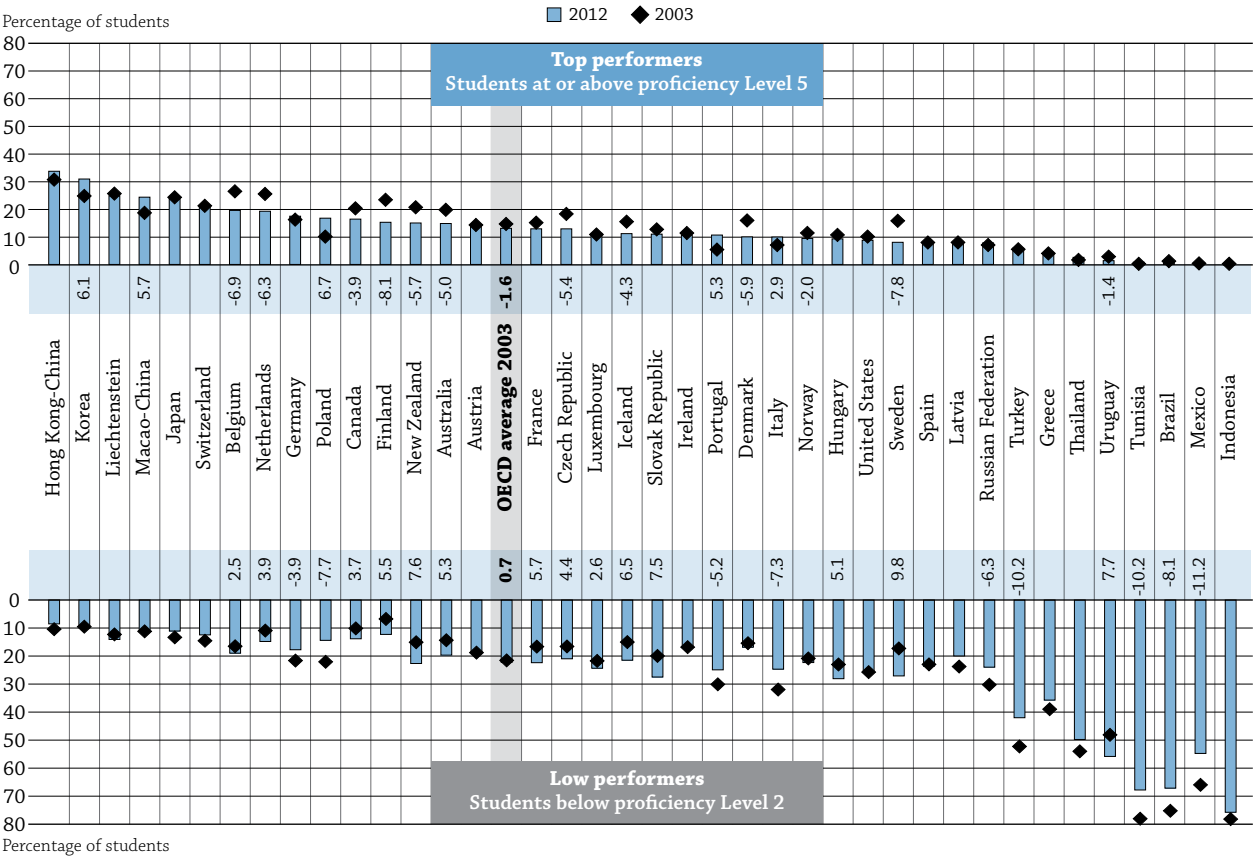
Note: Statistically significant score-point changes are marked in a darker tone.
The annualised change is the average annual change in PISA score points from a country's/economy's earliest participation in PISA to PISA 2012. It is calculated taking into account all country's/economy's participation in PISA.
OECD average 2003 compares only OECD countries with comparable mathematics scores since 2003.
1. Excluding Dubai. In the United Arab Emirates, Dubai took the PISA 2009 assessment in 2009 and the rest of the United Arab Emirates in 2010 as part of PISA 2009+. Results are thus reported separately.
Countries and economies are ranked in descending order of the annualised change in mathematics performance.
Source: OECD. Table A9.1c. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933116832

Almost one in three Korean students is a top performer in mathematics, meaning that they score at Level 5 or 6 of the assessment (for a description of the proficiency levels attained by top and low performers, see the *Definitions* and *Methodology* sections at the end of this indicator). This proportion is the largest among all OECD countries. While far larger than the 13% OECD average, this proportion falls short of that found in Shanghai-China, where more than 50% of students are top performers (Table A9.1a).

Among countries with similar mean scores in PISA, there are notable differences in the percentage of top-performing students. For example, Denmark has a mean score of 500 points in mathematics in PISA 2012 and 10% of students in that country are top performers in mathematics, a smaller proportion than the OECD average of around 13%. New Zealand has a similar mean mathematics score of 500 points, but 15% of its students attain the highest levels of proficiency.

More than 40% of students in 21 countries and economies, including the OECD countries Chile and Mexico, fail to reach the baseline level of proficiency in mathematics (Level 2). At best, these students can only extract relevant information from a single source and use basic algorithms, formulae, procedures or conventions to solve problems involving whole numbers. The proportion of 15-year-old students at this level varies widely across countries, from fewer than one student in ten in four countries and economies, to the majority of students in 15 countries. Most students who score below Level 2 in mathematics are unlikely to continue with education beyond compulsory schooling, and therefore risk facing difficulties using mathematics concepts throughout their lives.

Chart A9.3. Percentage of top performers and low performers in mathematics, PISA 2003 and 2012



Note: The chart shows only countries and economies that participated in both PISA 2003 and PISA 2012 assessments.
The change between PISA 2003 and PISA 2012 in the share of students performing below Level 2 in mathematics is shown below the country/economy name. The change between PISA 2003 and PISA 2012 in the share of students performing at or above Level 5 in mathematics is shown above the country/economy name. Only statistically significant changes are shown.
OECD average 2003 compares only OECD countries with comparable mathematics scores since 2003.
Countries and economies are ranked in descending order of the percentage of students at or above proficiency Level 5 in mathematics in 2012.
Source: OECD. Tables A9.1a, A9.1b and A9.1c. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933116851

To increase the share of top-performing students, countries and economies need to look at the barriers to success posed by social background (examined in Volume II of *PISA 2012 Results*), the relationship between performance and students' attitudes towards learning (examined in Volume III of *PISA 2012 Results*), and schools' organisation, resources and learning environments (examined in Volume IV of *PISA 2012 Results*).

Trends in the proportions of top and low performers

When considering changes in the proportions of top and low performers between PISA 2003 and PISA 2012, certain patterns emerge. Countries/economies can then be classified according to how these two groups have evolved during the period.

- **Moving everyone up: reductions in the share of low performers and increases in that of top performers**
  Countries that have reduced the proportion of students scoring below Level 2 and increased the proportion of students scoring above Level 5 are those that have been able to spread the improvements in their education systems across all levels of performance. Between 2003 and 2012 this was observed in Italy, Poland and Portugal (Chart A9.3).
- **Reducing underperformance: reductions in the share of low performers but no change in that of top performers**
  Other countries have concentrated change among those students who did not meet the baseline proficiency level. These countries saw significant improvements in the performance of low-performing students who now have the basic skills to fully participate in society. Between 2003 and 2012, Brazil, Germany, Mexico, the Russian Federation, Tunisia and Turkey saw a reduction in the share of students scoring below proficiency Level 2 in mathematics (Chart A9.3).
- **Nurturing top performance: increase in the share of top performers but no change in that of low performers**
  Some countries increased the proportion of students performing at or above Level 5. These are students who can handle complex mathematical content and processes. Between 2003 and 2012, Korea and Macao-China saw around a six percentage-point increase in the share of students performing at this level (Chart A9.3).
- **Increasing the share of low performers or decreasing that of top performers**
  In 16 countries, the proportion of students who do not reach the baseline proficiency level increased or the proportion of students who reach the highest levels of proficiency decreased between PISA 2003 and PISA 2012 (Chart A9.3).

Performance and equity

Equity in education means providing all students, regardless of their socio-economic status, with opportunities to benefit from education. Defined in this way, equity does not imply that everyone will have the same outcomes from education. It does mean, however, that students' socio-economic status has little or no impact on their performance, and that all students, regardless of their background, are offered access to quality educational resources and opportunities to learn.

Although poor performance in school does not automatically stem from socio-economic disadvantage, the socio-economic background of students and schools does appear to have a powerful influence on learning outcomes. Because advantaged families are better able to reinforce and enhance the effect of schools, because students from advantaged families attend higher-quality schools, or because schools are simply better equipped to nurture and develop young people from advantaged backgrounds, in many countries schools tend to reproduce existing patterns of socio-economic advantage, rather than create a more equitable distribution of learning opportunities and outcomes.

Students' socio-economic background is measured with the *PISA index of economic, social and cultural status*, which is based on information provided by students about their parents' education and occupations and their home possessions, such as a desk to use for studying and the number of books in the home (see the *Definitions* and *Methodology* sections at the end of this indicator).

PISA identifies two main measures of equity in education outcomes: the proportion of the variation in performance attributed to socio-economic status (the strength of the socio-economic gradient) and the average magnitude of the differences in performance across socio-economic groups (the slope of the socio-economic gradient).

The proportion of the variation in performance explained by socio-economic status, together with performance differences across the socio-economic spectrum, are useful indicators to help determine whether efforts to improve student performance should be targeted mainly at students who perform poorly or come from socio-economically disadvantaged backgrounds. Thus there is an important distinction between the strength of the social gradient,

which is associated with how closely students conform to predictions of performance based on their socio-economic status, and its slope, which refers to the average size of the performance gap associated with a given difference in socio-economic status.

Chart A9.4. Student performance and equity

Source: OECD. Tables A9.1a and A9.2. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933116870

Students' socio-economic status

Across OECD countries, 15% of the variation in student performance in mathematics is attributed to differences in students' socio-economic status. Among high-performing countries and economies, this proportion ranges from 3% in Macao-China to 20% in Belgium. In contrast, in Bulgaria, Chile, France, Hungary, Peru, the Slovak Republic and Uruguay, more than 20% of the difference in student performance can be attributed to students' socio-economic status. In countries where this proportion is large, students from disadvantaged families are less likely to achieve high levels of performance.

As Chart A9.4 shows, of the 23 school systems that scored above the OECD average in PISA 2012, the strength of the relationship between performance and socio-economic status is weaker than average in ten countries and economies: Australia, Canada, Estonia, Finland, Hong Kong-China, Japan, Korea, Liechtenstein, Macao-China and the Netherlands. In another ten (Austria, Denmark, Germany, Ireland, Poland, Shanghai-China, Singapore, Slovenia, Switzerland and Viet Nam), the strength of this relationship is about average. Only in three high-performing countries and economies – Belgium, New Zealand and Chinese Taipei – is the relationship between performance and socio-economic status stronger than average.

On average across OECD countries, the slope of the socio-economic gradient is 39 points, meaning that a change of one unit on the *PISA index of economic, social and cultural status* is associated with a difference of 39 score points in mathematics. Advantaged students (those with a value of 1 on the index) are expected to score, on average, 39 points higher than a student with average socio-economic status (with a value of 0 on the index), and 78 points higher than a disadvantaged student (with a value of -1 on the index).

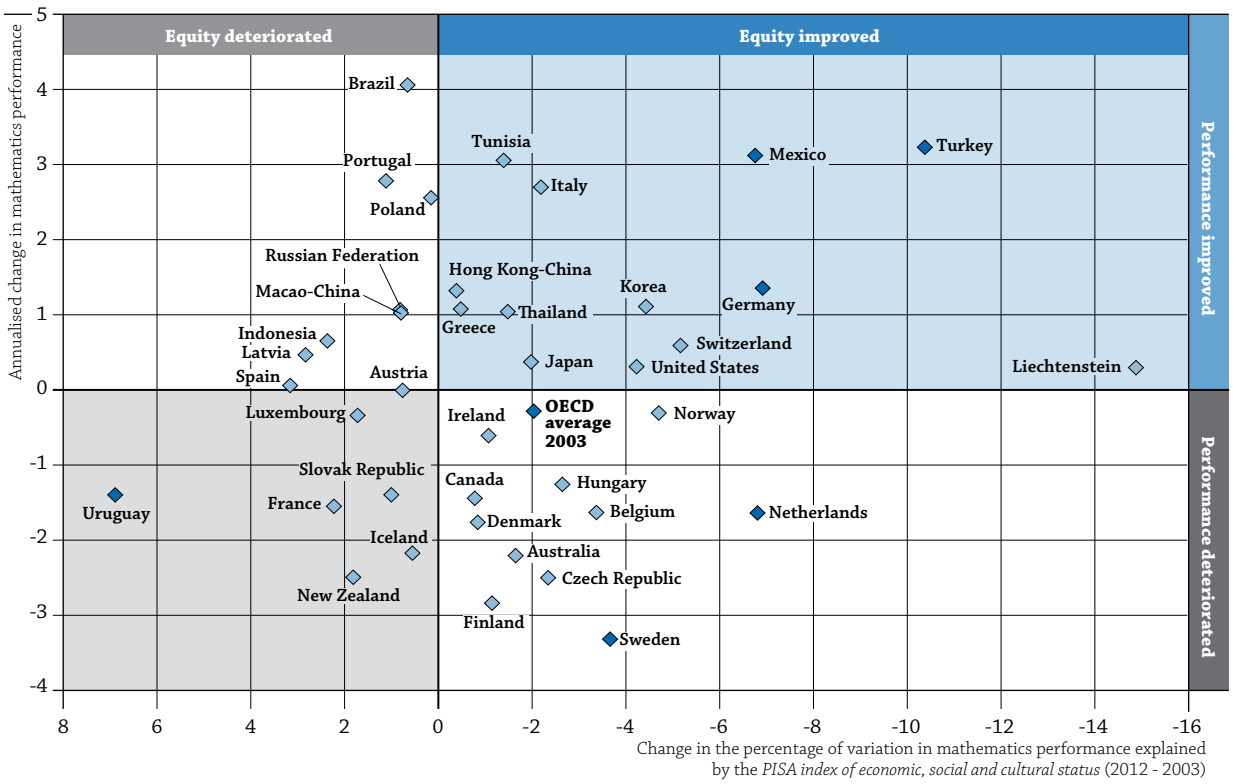
Among the 23 highest-performing countries and economies, performance differences related to socio-economic status are narrower than average in Canada, Estonia, Finland, Hong Kong-China, Macao-China and Viet Nam, about average in 12 countries and economies, and wider than average in five.

In countries with relatively flat gradients, i.e. where performance differences related to socio-economic status are small, policies that specifically target students from disadvantaged backgrounds would not, by themselves, address the needs of many of the country's low-performing students. In this case, targeting low achievers may prove more effective than targeting disadvantaged students.

Trends in equity between PISA 2003 and PISA 2012

By analysing data across different PISA assessments, it is possible to identify the countries that have moved towards a more equitable school system.

Chart A9.5. Change between 2003 and 2012 in student performance and equity



Notes: Changes in both equity and performance between 2003 and 2012 that are statistically significant are indicated in a darker tone.
The annualised change is the average annual change in PISA score points from a country's/economy's earliest participation in PISA to PISA 2012. It is calculated taking into account all of a country's/economy's participation in PISA.
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
For comparability over time, PISA 2003 values on the *PISA index of economic, social and cultural status* have been rescaled to the PISA 2012 scale of the index. PISA 2003 results reported in this chart may thus differ from those presented in *Learning for Tomorrow's World: First Results from PISA 2003* (OECD, 2004).
OECD average 2003 considers only those countries with comparable mathematics scores and values on the *PISA index for economic, social and cultural status* since PISA 2003.
Source: OECD. Tables A9.1c and A9.2. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933116889

Between 2003 and 2012, the average difference in mathematics performance related to a one-unit change in the *PISA index of economic, social and cultural status* remained at 39 score points, but the degree to which students' socio-economic status predicted performance in mathematics decreased from 17% to 15%. In other words, by 2012 it was somewhat easier than it was in 2003 for students to confound predictions about their performance based on their socio-economic status.

Turkey and Mexico moved towards greater equity by reducing both the slope and the strength of the socio-economic gradient, while improving overall performance. This means that, in both of these countries, it was easier for students in 2012 than for students in 2003 to confound expectations about performance, given their socio-economic status, and that the average difference in performance between advantaged and disadvantaged students shrank. In Germany, the performance gap between socio-economically advantaged and disadvantaged students remained unchanged; however, a larger proportion of students performed better than would be predicted by their socio-economic status. Most important, in these three countries, the improvement in equity was combined with an improvement in mathematics performance (Chart A9.5 and Table A9.2).

Other countries and economies that improved mathematics performance (Brazil, Greece, Hong Kong-China, Italy, Macao-China, Poland and Tunisia) maintained their equity levels; only in Portugal were improvements in performance accompanied by a reduction in equity (Table A9.2). These results highlight how, for most countries and economies, improvements in performance need not come at the expense of equity (see Volume II of *the PISA 2012 Results*).

Definitions

The annualised change is the average rate of change at which a country's or economy's average mathematics scores has changed throughout its participation in PISA assessments. Thus, a positive annualised change of x points indicates that the country or economy has improved in performance by x points per year since its earliest comparable PISA results. For countries that have participated in only two assessments, the annualised change is equal to the difference between the two assessments, divided by the number of years that passed between the assessments.

Low performers in mathematics are those students who do not reach the baseline Level 2 on the PISA assessment. At Level 2, students can interpret and recognise situations in contexts that require no more than direct inference; extract relevant information from a single source and make use of a single representational mode; employ basic algorithms, formulae, procedures or conventions to solve problems involving whole numbers; and make literal interpretations of the results.

Top performers in mathematics are students who score at Level 5 or 6 on the PISA assessment. They can develop and work with models for complex situations, identifying constraints and specifying assumptions; select, compare, and evaluate appropriate problem-solving strategies for dealing with complex problems related to these models; work strategically using broad, well-developed thinking and reasoning skills, appropriate linked representations, symbolic and formal characterisations, and insight pertaining to these situations; and begin to reflect on their work and formulate and communicate their interpretations and reasoning.

Methodology

The **annualised change** is a robust measure of a country's progress in education outcomes as it is based on information available from all assessments. It is thus less sensitive to abnormal measurements that may alter a country's PISA trends if results are compared only between two assessments. The annualised change is calculated as the best-fitting line throughout a country's participation in PISA. The year that individual students participated in PISA is regressed on their PISA scores, yielding the annualised change. The annualised change also takes into account the fact that, for some countries, the period between PISA assessments is less than three years (for further information, see Volume I of *PISA 2012 Results*).

The ***PISA index of economic, social and cultural status*** (ESCS) was derived from the following three indices: *highest occupational status of parents* (HISEI), *highest education level of parents* in years of education according to ISCED (PARED), and *home possessions* (HOMEPOS). In PISA 2012, students reported the availability of 14 household items at home. In addition, countries added three specific household items that were seen as appropriate measures of family wealth within the country's context. The *index of home possessions* (HOMEPOS) was derived from these household items and also included the variable indicating the number of books at home. However, the home possessions scale for PISA 2012 was computed differently than in the previous cycles for the purpose of enabling a trend study. For more details, please refer to the section on trends in ESCS in the *PISA 2012 Technical Report* (OECD, forthcoming).

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The ESCS scores were obtained as component scores for the first principal component with zero being the score of an average OECD student and one being the standard deviation across equally weighted OECD countries. For partner countries, ESCS scores were obtained as:

$$ESCS = \frac{ß_1 HISEI' + ß_2 PARED' + ß_3 HOMEPOS'}{\varepsilon_f}$$

where $ß_1$, $ß_2$ and $ß_3$ are the OECD factor loadings, *HISEI'*, *PARED'* and *HOMEPOS'* the "OECD-standardised" variables and ε_f is the eigenvalue of the first principal component. For further information on ESCS, please refer to the *PISA 2012 Technical Report* (OECD, forthcoming).

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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Tables of Indicator A9

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	Table A9.1a	Student performance in mathematics, PISA 2012
WEB	Table A9.1b	Student performance in mathematics, PISA 2003
	Table A9.1c	Change between 2003 and 2012 in student performance in mathematics
	Table A9.2	Relationship between performance in mathematics and socio-economic status

A9

Table A9.1a. Student performance in mathematics, PISA 2012

		PISA 2012													
		All students				Gender differences						Proficiency levels			
		Mathematics performance		Standard deviation		Boys		Girls		Difference (B - G)		Below Level 2 (less than 420.07 score points)		Level 5 or above (above 606.99 score points)	
		Mean score	S.E.	S.D.	S.E.	Mean score	S.E.	Mean score	S.E.	Score dif.	S.E.	%	S.E.	%	S.E.
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
OECD	Australia	504	(1.6)	96	(1.2)	510	(2.4)	498	(2.0)	**12**	(3.1)	19.7	(0.6)	14.8	(0.6)
	Austria	506	(2.7)	92	(1.7)	517	(3.9)	494	(3.3)	**22**	(4.9)	18.7	(1.0)	14.3	(0.9)
	Belgium	515	(2.1)	102	(1.4)	520	(2.9)	509	(2.6)	**11**	(3.4)	19.0	(0.8)	19.5	(0.8)
	Canada	518	(1.8)	89	(0.8)	523	(2.1)	513	(2.1)	**10**	(2.0)	13.8	(0.5)	16.4	(0.6)
	Chile	423	(3.1)	81	(1.5)	436	(3.8)	411	(3.1)	**25**	(3.6)	51.5	(1.7)	1.6	(0.2)
	Czech Republic	499	(2.9)	95	(1.6)	505	(3.7)	493	(3.6)	**12**	(4.6)	21.0	(1.2)	12.9	(0.8)
	Denmark	500	(2.3)	82	(1.3)	507	(2.9)	493	(2.3)	**14**	(2.3)	16.8	(1.0)	10.0	(0.7)
	Estonia	521	(2.0)	81	(1.2)	523	(2.6)	518	(2.2)	**5**	(2.6)	10.5	(0.6)	14.6	(0.8)
	Finland	519	(1.9)	85	(1.2)	517	(2.6)	520	(2.2)	-3	(2.9)	12.3	(0.7)	15.3	(0.7)
	France	495	(2.5)	97	(1.7)	499	(3.4)	491	(2.5)	**9**	(3.4)	22.4	(0.9)	12.9	(0.8)
	Germany	514	(2.9)	96	(1.6)	520	(3.0)	507	(3.4)	**14**	(2.8)	17.7	(1.0)	17.5	(0.9)
	Greece	453	(2.5)	88	(1.3)	457	(3.3)	449	(2.6)	**8**	(3.2)	35.7	(1.3)	3.9	(0.4)
	Hungary	477	(3.2)	94	(2.4)	482	(3.7)	473	(3.6)	**9**	(3.7)	28.1	(1.3)	9.3	(1.1)
	Iceland	493	(1.7)	92	(1.3)	490	(2.3)	496	(2.3)	**-6**	(3.0)	21.5	(0.7)	11.2	(0.7)
	Ireland	501	(2.2)	85	(1.3)	509	(3.3)	494	(2.6)	**15**	(3.8)	16.9	(1.0)	10.7	(0.5)
	Israel	466	(4.7)	105	(1.8)	472	(7.8)	461	(3.5)	12	(7.6)	33.5	(1.7)	9.4	(1.0)
	Italy	485	(2.0)	93	(1.1)	494	(2.4)	476	(2.2)	**18**	(2.5)	24.7	(0.8)	9.9	(0.6)
	Japan	536	(3.6)	94	(2.2)	545	(4.6)	527	(3.6)	**18**	(4.3)	11.1	(1.0)	23.7	(1.5)
	Korea	554	(4.6)	99	(2.1)	562	(5.8)	544	(5.1)	**18**	(6.2)	9.1	(0.9)	30.9	(1.8)
	Luxembourg	490	(1.1)	95	(0.9)	502	(1.5)	477	(1.4)	**25**	(2.0)	24.3	(0.5)	11.2	(0.4)
	Mexico	413	(1.4)	74	(0.7)	420	(1.6)	406	(1.4)	**14**	(1.2)	54.7	(0.8)	0.6	(0.1)
	Netherlands	523	(3.5)	92	(2.1)	528	(3.6)	518	(3.9)	**10**	(2.8)	14.8	(1.3)	19.3	(1.2)
	New Zealand	500	(2.2)	100	(1.2)	507	(3.2)	492	(2.9)	**15**	(4.3)	22.6	(0.8)	15.0	(0.9)
	Norway	489	(2.7)	90	(1.3)	490	(2.8)	488	(3.4)	2	(3.0)	22.3	(1.1)	9.4	(0.7)
	Poland	518	(3.6)	90	(1.9)	520	(4.3)	516	(3.8)	4	(3.4)	14.4	(0.9)	16.7	(1.3)
	Portugal	487	(3.8)	94	(1.4)	493	(4.1)	481	(3.9)	**11**	(2.5)	24.9	(1.5)	10.6	(0.8)
	Slovak Republic	482	(3.4)	101	(2.5)	486	(4.1)	477	(4.1)	**9**	(4.5)	27.5	(1.3)	11.0	(0.9)
	Slovenia	501	(1.2)	92	(1.0)	503	(2.0)	499	(2.0)	3	(3.1)	20.1	(0.6)	13.7	(0.6)
	Spain	484	(1.9)	88	(0.7)	492	(2.4)	476	(2.0)	**16**	(2.2)	23.6	(0.8)	8.0	(0.4)
	Sweden	478	(2.3)	92	(1.3)	477	(3.0)	480	(2.4)	-3	(3.0)	27.1	(1.1)	8.0	(0.5)
	Switzerland	531	(3.0)	94	(1.5)	537	(3.5)	524	(3.1)	**13**	(2.7)	12.4	(0.7)	21.4	(1.2)
	Turkey	448	(4.8)	91	(3.1)	452	(5.1)	444	(5.7)	8	(4.7)	42.0	(1.9)	5.9	(1.1)
	United Kingdom	494	(3.3)	95	(1.7)	500	(4.2)	488	(3.8)	**12**	(4.7)	21.8	(1.3)	11.8	(0.8)
	United States	481	(3.6)	90	(1.3)	484	(3.8)	479	(3.9)	5	(2.8)	25.8	(1.4)	8.8	(0.8)
	OECD average	494	(0.5)	92	(0.3)	499	(0.6)	489	(0.5)	**11**	(0.6)	23.0	(0.2)	12.6	(0.1)
	OECD average 2003[1]	496	(0.5)	92	(0.3)	502	(0.6)	491	(0.6)	**11**	(0.6)	22.2	(0.2)	13.1	(0.2)
Partners	Albania	394	(2.0)	91	(1.4)	394	(2.6)	395	(2.6)	-1	(3.3)	60.7	(1.0)	0.8	(0.2)
	Argentina	388	(3.5)	77	(1.7)	396	(4.2)	382	(3.4)	**14**	(2.9)	66.5	(2.0)	0.3	(0.1)
	Brazil	391	(2.1)	78	(1.6)	401	(2.2)	383	(2.3)	**18**	(1.8)	67.1	(1.0)	0.8	(0.2)
	Bulgaria	439	(4.0)	94	(2.2)	438	(4.7)	440	(4.2)	-2	(4.1)	43.8	(1.8)	4.1	(0.6)
	Colombia	376	(2.9)	74	(1.7)	390	(3.4)	364	(3.2)	**25**	(3.2)	73.8	(1.4)	0.3	(0.1)
	Costa Rica	407	(3.0)	68	(1.8)	420	(3.6)	396	(3.1)	**24**	(2.4)	59.9	(1.9)	0.6	(0.2)
	Croatia	471	(3.5)	88	(2.5)	477	(4.4)	465	(3.7)	**12**	(4.1)	29.9	(1.4)	7.0	(1.1)
	Hong Kong-China	561	(3.2)	96	(1.9)	568	(4.6)	553	(3.9)	**15**	(5.7)	8.5	(0.8)	33.7	(1.4)
	Indonesia	375	(4.0)	71	(3.3)	377	(4.4)	373	(4.3)	5	(3.4)	75.7	(2.1)	0.3	(0.2)
	Jordan	386	(3.1)	78	(2.7)	375	(5.4)	396	(3.1)	**-21**	(6.3)	68.6	(1.5)	0.6	(0.4)
	Kazakhstan	432	(3.0)	71	(1.8)	432	(3.4)	432	(3.3)	0	(2.9)	45.2	(1.7)	0.9	(0.3)
	Latvia	491	(2.8)	82	(1.5)	489	(3.4)	493	(3.2)	-4	(3.6)	19.9	(1.1)	8.0	(0.8)
	Liechtenstein	535	(4.0)	95	(3.7)	546	(6.0)	523	(5.8)	**23**	(8.8)	14.1	(2.0)	24.8	(2.6)
	Lithuania	479	(2.6)	89	(1.4)	479	(2.8)	479	(3.0)	0	(2.4)	26.0	(1.2)	8.1	(0.6)
	Macao-China	538	(1.0)	94	(0.9)	540	(1.4)	537	(1.3)	3	(1.9)	10.8	(0.5)	24.3	(0.6)
	Malaysia	421	(3.2)	81	(1.6)	416	(3.7)	424	(3.7)	**-8**	(3.8)	51.8	(1.7)	1.3	(0.3)
	Montenegro	410	(1.1)	83	(1.1)	410	(1.6)	410	(1.6)	0	(2.4)	56.6	(1.0)	1.0	(0.2)
	Peru	368	(3.7)	84	(2.2)	378	(3.6)	359	(4.8)	**19**	(3.9)	74.6	(1.8)	0.6	(0.2)
	Qatar	376	(0.8)	100	(0.7)	369	(1.1)	385	(0.9)	**-16**	(1.4)	69.6	(0.5)	2.0	(0.2)
	Romania	445	(3.8)	81	(2.2)	447	(4.3)	443	(4.0)	4	(3.6)	40.8	(1.9)	3.2	(0.6)
	Russian Federation	482	(3.0)	86	(1.6)	481	(3.7)	483	(3.1)	-2	(3.0)	24.0	(1.1)	7.8	(0.8)
	Serbia	449	(3.4)	91	(2.2)	453	(4.1)	444	(3.7)	**9**	(3.9)	38.9	(1.5)	4.6	(0.7)
	Shanghai-China	613	(3.3)	101	(2.3)	616	(4.0)	610	(3.4)	6	(3.3)	3.8	(0.5)	55.4	(1.4)
	Singapore	573	(1.3)	105	(0.9)	572	(1.9)	575	(1.8)	-3	(2.5)	8.3	(0.5)	40.0	(0.7)
	Chinese Taipei	560	(3.3)	116	(1.9)	563	(5.4)	557	(5.7)	5	(8.9)	12.8	(0.8)	37.2	(1.2)
	Thailand	427	(3.4)	82	(2.1)	419	(3.6)	433	(4.1)	**-14**	(3.6)	49.7	(1.7)	2.6	(0.5)
	Tunisia	388	(3.9)	78	(3.1)	396	(4.3)	381	(4.0)	**15**	(2.7)	67.7	(1.8)	0.8	(0.4)
	United Arab Emirates[2]	434	(2.4)	90	(1.2)	432	(3.8)	436	(3.0)	-5	(4.7)	46.3	(1.2)	3.5	(0.3)
	Uruguay	409	(2.8)	89	(1.7)	415	(3.5)	404	(2.9)	**11**	(3.1)	55.8	(1.3)	1.4	(0.3)
	Viet Nam	511	(4.8)	86	(2.7)	517	(5.6)	507	(4.7)	**10**	(3.0)	14.2	(1.7)	13.3	(1.5)

Note: Differences that are statistically significant are indicated in bold.

1. OECD average 2003 compares only OECD countries with comparable mathematics scores since 2003.

2. In the United Arab Emirates, Dubai took the PISA 2009 assessment in 2009 and the rest of the United Arab Emirates in 2010 as part of PISA 2009+. Results are thus reported separately for the trends. Mathematics performance in 2012 for Dubai and the rest of United Arab Emirates are respectively: 464 (1.2) and 423 (3.2).

Source: OECD, PISA 2012 Database.

StatLink http://dx.doi.org/10.1787/888933116756

Table A9.1c. Change between 2003 and 2012 in student performance in mathematics

		Change between 2003 and 2012 (PISA 2012 - PISA 2003)													
		All students				Gender differences						Proficiency levels			
		Mathematics performance		Annualised change in mathematics across PISA assessments[1]		Boys		Girls		Difference (B - G)		Below Level 2 (less than 420.07 score points)		Level 5 or above (above 606.99 score points)	
		Score dif.	S.E.	Annual change	S.E.	Score dif.	S.E.	Score dif.	S.E.	Score dif.	S.E.	% dif.	S.E.	% dif.	S.E.
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)
OECD	Australia	**-20**	(3.3)	**-2.2**	(0.3)	**-17**	(4.3)	**-24**	(3.9)	7	(4.9)	**5.3**	(1.1)	**-5.0**	(1.1)
	Austria	0	(4.6)	0.0	(0.5)	7	(5.9)	-7	(5.5)	**15**	(7.3)	-0.1	(1.6)	0.0	(1.4)
	Belgium	**-15**	(3.7)	**-1.6**	(0.4)	**-13**	(4.9)	**-16**	(4.6)	4	(5.7)	**2.5**	(1.2)	**-6.9**	(1.3)
	Canada	**-14**	(3.2)	**-1.4**	(0.3)	**-18**	(3.5)	**-17**	(3.4)	-1	(3.0)	**3.7**	(0.9)	**-3.9**	(1.1)
	Chile	m	m	**1.9**	(0.9)	m	m	m	m	m	m	m	m	m	m
	Czech Republic	**-17**	(4.9)	**-2.5**	(0.5)	**-19**	(6.0)	**-16**	(6.0)	-3	(6.7)	**4.4**	(1.8)	**-5.4**	(1.5)
	Denmark	**-14**	(4.1)	**-1.8**	(0.4)	**-16**	(4.8)	**-13**	(4.2)	-3	(4.4)	1.4	(1.4)	**-5.9**	(1.2)
	Estonia	m	m	0.9	(0.7)	m	m	m	m	m	m	m	m	m	m
	Finland	**-26**	(3.3)	**-2.8**	(0.3)	**-31**	(4.1)	**-20**	(3.6)	**-10**	(4.0)	**5.5**	(0.9)	**-8.1**	(1.2)
	France	**-16**	(4.0)	**-1.5**	(0.4)	**-16**	(5.3)	**-16**	(4.3)	0	(5.6)	**5.7**	(1.5)	-2.2	(1.3)
	Germany	**11**	(4.8)	**1.4**	(0.5)	**12**	(5.4)	8	(5.5)	5	(5.3)	**-3.9**	(1.6)	1.2	(1.4)
	Greece	8	(5.0)	**1.1**	(0.5)	2	(6.1)	**13**	(5.0)	**-11**	(4.9)	-3.3	(2.5)	-0.1	(0.7)
	Hungary	**-13**	(4.7)	**-1.3**	(0.5)	**-12**	(5.4)	**-13**	(5.3)	1	(5.1)	**5.1**	(1.8)	-1.4	(1.5)
	Iceland	**-22**	(2.9)	**-2.2**	(0.3)	**-18**	(3.8)	**-27**	(3.7)	**9**	(4.4)	**6.5**	(1.1)	**-4.3**	(1.0)
	Ireland	-1	(3.8)	-0.6	(0.4)	-1	(4.8)	-2	(4.7)	1	(5.7)	0.1	(1.5)	-0.7	(1.0)
	Israel	m	m	**4.2**	(1.1)	m	m	m	m	m	m	m	m	m	m
	Italy	**20**	(4.2)	**2.7**	(0.4)	**19**	(5.5)	**19**	(4.8)	1	(6.7)	**-7.3**	(1.8)	**2.9**	(0.8)
	Japan	2	(5.7)	0.4	(0.6)	6	(7.7)	-3	(5.7)	9	(7.3)	-2.3	(1.6)	-0.6	(2.2)
	Korea	12	(5.9)	1.1	(0.6)	10	(7.5)	**16**	(7.7)	-5	(9.4)	-0.4	(1.3)	**6.1**	(2.4)
	Luxembourg	-3	(2.4)	-0.3	(0.3)	0	(3.1)	**-8**	(2.8)	**8**	(3.3)	**2.6**	(1.0)	0.4	(0.8)
	Mexico	**28**	(4.3)	**3.1**	(0.5)	**30**	(4.9)	**26**	(4.7)	3	(4.2)	**-11.2**	(2.2)	0.3	(0.1)
	Netherlands	**-15**	(5.1)	**-1.6**	(0.6)	**-12**	(5.7)	**-17**	(5.6)	5	(5.6)	**3.9**	(1.8)	**-6.3**	(1.9)
	New Zealand	**-24**	(3.7)	**-2.5**	(0.4)	**-24**	(4.7)	**-24**	(4.7)	1	(6.2)	**7.6**	(1.3)	**-5.7**	(1.2)
	Norway	-6	(4.1)	-0.3	(0.5)	-8	(4.4)	-4	(4.9)	-4	(4.4)	1.5	(1.6)	**-2.0**	(1.0)
	Poland	**27**	(4.8)	**2.6**	(0.5)	**27**	(5.5)	**28**	(5.1)	-2	(4.4)	**-7.7**	(1.5)	**6.7**	(1.6)
	Portugal	**21**	(5.5)	**2.8**	(0.6)	**20**	(6.2)	**21**	(5.6)	-1	(4.4)	**-5.2**	(2.4)	**5.3**	(1.0)
	Slovak Republic	**-17**	(5.2)	**-1.4**	(0.5)	**-21**	(6.0)	**-12**	(5.7)	-9	(5.3)	**7.5**	(2.0)	-1.7	(1.3)
	Slovenia	m	m	-0.6	(0.4)	m	m	m	m	m	m	m	m	m	m
	Spain	-1	(3.6)	0.1	(0.4)	3	(4.6)	-5	(3.5)	**8**	(3.8)	0.6	(1.4)	0.1	(0.9)
	Sweden	**-31**	(3.9)	**-3.3**	(0.4)	**-35**	(4.6)	**-26**	(4.4)	**-9**	(3.9)	**9.8**	(1.6)	**-7.8**	(1.0)
	Switzerland	4	(4.9)	0.6	(0.5)	3	(6.2)	7	(5.2)	-4	(5.2)	-2.1	(1.2)	0.2	(2.0)
	Turkey	**25**	(8.5)	**3.2**	(0.8)	**22**	(9.6)	**29**	(9.0)	-7	(8.0)	**-10.2**	(3.4)	0.4	(1.9)
	United Kingdom	m	m	-0.3	(0.6)	m	m	m	m	m	m	m	m	m	m
	United States	-2	(5.0)	0.3	(0.6)	-2	(5.4)	-1	(5.4)	-2	(3.9)	0.1	(2.0)	-1.3	(1.1)
	OECD average 2003[2]	**-3**	(0.9)	**-0.3**	(0.1)	**-3**	(1.0)	**-4**	(1.0)	0	(1.0)	**0.7**	(0.3)	**-1.6**	(0.3)
Partners	Albania	m	m	**5.6**	(1.7)	m	m	m	m	m	m	m	m	m	m
	Argentina	m	m	1.2	(1.3)	m	m	m	m	m	m	m	m	m	m
	Brazil	**35**	(5.6)	**4.1**	(0.6)	**36**	(6.7)	**34**	(5.3)	2	(4.8)	**-8.1**	(2.2)	-0.4	(0.5)
	Bulgaria	m	m	**4.2**	(1.3)	m	m	m	m	m	m	m	m	m	m
	Colombia	m	m	1.1	(0.9)	m	m	m	m	m	m	m	m	m	m
	Costa Rica	m	m	-1.2	(2.3)	m	m	m	m	m	m	m	m	m	m
	Croatia	m	m	0.6	(0.8)	m	m	m	m	m	m	m	m	m	m
	Hong Kong-China	11	(5.9)	**1.3**	(0.6)	16	(8.2)	5	(6.3)	11	(8.6)	-1.9	(1.4)	3.0	(2.2)
	Indonesia	**15**	(5.9)	0.7	(0.6)	**16**	(6.2)	**14**	(6.6)	1	(4.3)	-2.4	(2.8)	0.0	(0.2)
	Jordan	m	m	0.2	(0.8)	m	m	m	m	m	m	m	m	m	m
	Kazakhstan	m	m	**9.0**	(1.5)	m	m	m	m	m	m	m	m	m	m
	Latvia	7	(5.0)	0.5	(0.5)	4	(6.2)	**10**	(5.1)	-7	(4.7)	-3.8	(1.9)	0.0	(1.2)
	Liechtenstein	-1	(6.0)	0.3	(0.6)	-4	(9.6)	2	(8.7)	-6	(13.9)	1.8	(2.7)	-0.8	(4.4)
	Lithuania	m	m	-1.4	(0.8)	m	m	m	m	m	m	m	m	m	m
	Macao-China	**11**	(3.6)	**1.0**	(0.4)	1	(5.4)	**20**	(4.0)	**-18**	(6.4)	-0.4	(1.3)	**5.7**	(1.7)
	Malaysia	m	m	**8.1**	(2.1)	m	m	m	m	m	m	m	m	m	m
	Montenegro	m	m	**1.7**	(0.5)	m	m	m	m	m	m	m	m	m	m
	Peru	m	m	1.0	(2.1)	m	m	m	m	m	m	m	m	m	m
	Qatar	m	m	**9.2**	(0.4)	m	m	m	m	m	m	m	m	m	m
	Romania	m	m	**4.9**	(1.0)	m	m	m	m	m	m	m	m	m	m
	Russian Federation	**14**	(5.5)	1.1	(0.6)	8	(6.7)	**20**	(5.5)	**-12**	(5.3)	**-6.3**	(2.3)	0.8	(1.2)
	Serbia	m	m	**2.2**	(0.9)	m	m	m	m	m	m	m	m	m	m
	Shanghai-China	m	m	**4.2**	(1.7)	m	m	m	m	m	m	m	m	m	m
	Singapore	m	m	**3.8**	(1.0)	m	m	m	m	m	m	m	m	m	m
	Chinese Taipei	m	m	1.7	(0.9)	m	m	m	m	m	m	m	m	m	m
	Thailand	**10**	(5.0)	1.0	(0.6)	4	(5.7)	**14**	(5.6)	-10	(5.4)	-4.2	(2.6)	0.9	(0.6)
	Tunisia	**29**	(5.0)	**3.1**	(0.5)	**31**	(5.5)	**28**	(5.4)	3	(3.7)	**-10.2**	(2.3)	0.6	(0.4)
	United Arab Emirates[3]	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Uruguay	**-13**	(4.7)	**-1.4**	(0.5)	**-13**	(5.6)	**-12**	(5.2)	-1	(4.9)	**7.7**	(2.2)	**-1.4**	(0.5)
	Viet Nam	m	m	m	m	m	m	m	m	m	m	m	m	m	m

Note: Differences that are statistically significant are indicated in bold.

1. The annualised change is the average annual change in PISA score points from a country's/economie's earliest participation in PISA to PISA 2012. For countries/economies with more than one available measurement, the annualised change is calculated with a linear regression model. This model considers that Costa Rica, Malaysia and the United Arab Emirates (with the exception of Dubai) implemented the PISA 2009 assessment in 2010 as part of PISA 2009+.

2. OECD average 2003 compares only OECD countries with comparable mathematics scores since 2003.

3. In the United Arab Emirates, Dubai took the PISA 2009 assessment in 2009 and the rest of the United Arab Emirates in 2010 as part of PISA 2009+. Results are thus reported separately. Annualised change for Dubai and the rest of United Arab Emirates are significant and are respectively: **3.8** (0.9) and **5.9** (2.6).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

Source: OECD, PISA 2012 Database.

StatLink http://dx.doi.org/10.1787/888933116775

A9

Table A9.2. Relationship between performance in mathematics and socio-economic status

Results based on students' self-reports

		PISA 2012										Change between 2003 and 2012 (PISA 2012 - PISA 2003)			
		PISA index of economic, social and cultural status (ESCS)		Variability in the ESCS		Mathematics performance adjusted by the mean ESCS		Strength of the relationship between mathematics performance and ESCS[1]		Slope of the socio-economic gradient for mathematics[1]		Strength of the relationship between ESCS and mathematics performance		Slope of the socio-economic gradient for mathematics[1]	
		Mean score	S.E.	S.D.	S.E.	Mean score	S.E.	Percentage of explained variance in mathematics performance	S.E.	Score-point difference in mathematics associated with one-unit increase in ESCS	S.E.	Change in the percentage of explained variance in mathematics performance	S.E.	Change in the score-point difference in mathematics associated with one-unit increase in ESCS	S.E.
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(23)	(24)	(25)	(26)
OECD	Australia	0.25	(0.01)	0.79	(0.01)	496	(1.6)	**12.3***	(0.8)	**42***	(1.3)	-1.6	(1.3)	2	(2.2)
	Austria	0.08	(0.02)	0.85	(0.01)	503	(2.5)	**15.8**	(1.5)	**43**	(2.2)	0.8	(2.1)	2	(3.1)
	Belgium	0.15	(0.02)	0.91	(0.02)	510	(1.8)	**19.6***	(1.4)	**49***	(1.7)	-3.4	(1.9)	-2	(2.6)
	Canada	0.41	(0.02)	0.86	(0.01)	508	(1.6)	**9.4***	(0.7)	**31***	(1.2)	-0.8	(1.1)	1	(1.8)
	Chile	-0.58	(0.04)	1.13	(0.02)	443	(2.7)	**23.1***	(1.9)	**34***	(1.6)	m	m	m	m
	Czech Republic	-0.07	(0.02)	0.75	(0.01)	503	(2.5)	**16.2**	(1.5)	**51***	(2.7)	-2.3	(2.0)	5	(3.4)
	Denmark	0.43	(0.02)	0.84	(0.01)	485	(1.7)	**16.5**	(1.4)	**39**	(1.7)	-0.8	(2.0)	1	(2.5)
	Estonia	0.11	(0.01)	0.81	(0.01)	518	(1.9)	**8.6***	(0.9)	**29***	(1.7)	m	m	m	m
	Finland	0.36	(0.02)	0.77	(0.01)	508	(1.9)	**9.4***	(0.9)	**33***	(1.8)	-1.1	(1.4)	**5**	(2.3)
	France	-0.04	(0.02)	0.80	(0.01)	500	(2.2)	**22.5***	(1.3)	**57***	(2.2)	2.2	(2.3)	**14**	(3.1)
	Germany	0.19	(0.02)	0.93	(0.01)	511	(2.6)	**16.9**	(1.4)	**43**	(2.0)	**-6.9**	(2.0)	-1	(2.5)
	Greece	-0.06	(0.03)	1.00	(0.01)	456	(1.9)	**15.5**	(1.5)	**34***	(1.8)	-0.5	(2.4)	-2	(2.8)
	Hungary	-0.25	(0.03)	0.96	(0.02)	490	(2.8)	**23.1***	(2.3)	**47***	(2.8)	-2.6	(2.9)	-3	(3.5)
	Iceland	0.78	(0.01)	0.81	(0.01)	470	(2.1)	**7.7***	(1.0)	**31***	(2.1)	0.6	(1.3)	5	(2.6)
	Ireland	0.13	(0.02)	0.85	(0.01)	497	(2.0)	**14.6**	(1.2)	**38**	(1.8)	-1.1	(1.9)	2	(2.5)
	Israel	0.17	(0.03)	0.85	(0.02)	460	(3.8)	**17.2**	(1.5)	**51***	(2.6)	m	m	m	m
	Italy	-0.05	(0.01)	0.97	(0.01)	487	(1.8)	**10.1***	(0.6)	**30***	(1.2)	-2.2	(1.4)	-1	(2.2)
	Japan	-0.07	(0.02)	0.71	(0.01)	541	(3.3)	**9.8***	(1.6)	**41**	(3.9)	-2.0	(2.6)	-2	(6.0)
	Korea	0.01	(0.03)	0.74	(0.01)	553	(3.9)	**10.1***	(1.4)	**42**	(3.3)	-4.4	(2.4)	5	(4.3)
	Luxembourg	0.07	(0.01)	1.10	(0.01)	488	(1.3)	**18.3***	(1.1)	**37***	(1.2)	1.7	(1.5)	2	(1.7)
	Mexico	-1.11	(0.02)	1.27	(0.01)	435	(1.4)	**10.4***	(0.8)	**19***	(0.8)	**-6.8**	(2.2)	**-11**	(2.0)
	Netherlands	0.23	(0.02)	0.78	(0.01)	515	(3.2)	**11.5***	(1.7)	**40**	(3.1)	**-6.8**	(2.4)	0	(3.8)
	New Zealand	0.04	(0.02)	0.82	(0.01)	500	(2.2)	**18.4***	(1.3)	**52***	(1.9)	1.8	(1.8)	**8**	(2.5)
	Norway	0.46	(0.02)	0.76	(0.01)	476	(2.8)	**7.4***	(1.0)	**32***	(2.4)	**-4.7**	(1.5)	**-8**	(3.1)
	Poland	-0.21	(0.03)	0.90	(0.01)	526	(3.2)	**16.6**	(1.7)	**41**	(2.4)	0.2	(2.0)	1	(2.9)
	Portugal	-0.48	(0.05)	1.19	(0.02)	506	(2.6)	**19.6***	(1.8)	**35***	(1.6)	1.1	(2.4)	**7**	(2.0)
	Slovak Republic	-0.18	(0.03)	0.92	(0.02)	492	(2.6)	**24.6***	(2.1)	**54***	(2.9)	1.0	(2.9)	6	(3.8)
	Slovenia	0.07	(0.01)	0.87	(0.01)	499	(1.3)	**15.6**	(1.0)	**42**	(1.5)	m	m	m	m
	Spain	-0.19	(0.03)	1.03	(0.01)	492	(1.6)	**15.8**	(1.0)	**34***	(1.1)	**3.2**	(1.6)	**6**	(1.8)
	Sweden	0.28	(0.02)	0.82	(0.01)	471	(1.9)	**10.6***	(1.1)	**36**	(1.9)	**-3.7**	(1.7)	-1	(2.7)
	Switzerland	0.17	(0.02)	0.89	(0.01)	525	(2.7)	**12.8**	(1.2)	**38**	(1.8)	**-5.2**	(1.8)	-3	(2.6)
	Turkey	-1.46	(0.04)	1.10	(0.02)	494	(6.6)	**14.5**	(1.8)	**32***	(2.4)	**-10.4**	(4.3)	**-18**	(5.6)
	United Kingdom	0.27	(0.02)	0.80	(0.01)	486	(2.6)	**12.5**	(1.2)	**41**	(2.4)	m	m	m	m
	United States	0.17	(0.04)	0.97	(0.02)	476	(2.7)	**14.8**	(1.3)	**35***	(1.7)	**-4.2**	(1.8)	**-7**	(2.2)
	OECD average	0.00	(0.00)	0.90	(0.00)	495	(0.5)	**14.8**	(0.2)	**39**	(0.4)	m	m	m	m
	OECD average 2003[2]	0.00	(0.00)	0.90	(0.00)	497	(0.5)	**14.7**	(0.3)	**39**	(0.4)	**-2.0**	(0.4)	0	(0.6)
Partners	Albania	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Argentina	-0.72	(0.04)	1.11	(0.02)	409	(3.0)	**15.1**	(1.5)	**26***	(1.7)	m	m	m	m
	Brazil	-1.17	(0.02)	1.17	(0.01)	423	(3.2)	**15.7**	(1.6)	**26***	(1.7)	0.7	(2.8)	-5	(3.2)
	Bulgaria	-0.28	(0.04)	1.05	(0.03)	451	(3.2)	**22.3***	(2.3)	**42**	(2.7)	m	m	m	m
	Colombia	-1.26	(0.04)	1.18	(0.02)	408	(3.6)	**15.4**	(1.8)	**25***	(1.7)	m	m	m	m
	Costa Rica	-0.98	(0.04)	1.24	(0.02)	431	(3.1)	**18.9**	(2.1)	**24***	(1.6)	m	m	m	m
	Croatia	-0.34	(0.02)	0.85	(0.01)	484	(3.7)	**12.0***	(1.4)	**36**	(2.6)	m	m	m	m
	Hong Kong-China	-0.79	(0.05)	0.97	(0.02)	584	(3.1)	**7.5***	(1.5)	**27***	(2.6)	-0.4	(2.0)	-3	(3.8)
	Indonesia	-1.80	(0.05)	1.10	(0.03)	411	(8.1)	**9.6**	(3.0)	**20***	(3.4)	2.4	(3.4)	-1	(4.3)
	Jordan	-0.42	(0.02)	1.02	(0.01)	397	(3.4)	**8.4***	(1.3)	**22***	(2.2)	m	m	m	m
	Kazakhstan	-0.32	(0.02)	0.75	(0.01)	440	(3.1)	**8.0***	(1.7)	**27***	(2.8)	m	m	m	m
	Latvia	-0.26	(0.03)	0.89	(0.01)	500	(2.5)	**14.7**	(1.7)	**35**	(2.1)	2.8	(2.2)	1	(2.9)
	Liechtenstein	0.30	(0.05)	0.91	(0.03)	528	(4.5)	**7.6***	(3.1)	**28**	(5.8)	**-14.9**	(5.1)	**-19**	(7.5)
	Lithuania	-0.13	(0.02)	0.92	(0.01)	484	(2.2)	**13.8**	(1.2)	**36**	(1.8)	m	m	m	m
	Macao-China	-0.89	(0.01)	0.87	(0.01)	555	(1.6)	**2.6***	(0.4)	**17***	(1.5)	0.8	(1.0)	5	(3.5)
	Malaysia	-0.72	(0.03)	0.99	(0.02)	442	(3.6)	**13.4**	(1.6)	**30***	(2.1)	m	m	m	m
	Montenegro	-0.25	(0.01)	0.89	(0.01)	419	(1.2)	**12.7***	(0.9)	**33***	(1.3)	m	m	m	m
	Peru	-1.23	(0.05)	1.23	(0.02)	409	(4.0)	**23.4***	(2.4)	**33***	(2.0)	m	m	m	m
	Qatar	0.44	(0.01)	0.89	(0.01)	367	(0.9)	**5.6***	(0.5)	**27***	(1.2)	m	m	m	m
	Romania	-0.47	(0.04)	0.94	(0.03)	463	(3.5)	**19.3**	(2.4)	**38**	(2.9)	m	m	m	m
	Russian Federation	-0.11	(0.02)	0.76	(0.01)	487	(3.0)	**11.4**	(1.7)	**38**	(3.2)	0.8	(2.1)	7	(3.7)
	Serbia	-0.30	(0.02)	0.90	(0.01)	459	(3.2)	**11.7***	(1.4)	**34***	(2.4)	m	m	m	m
	Shanghai-China	-0.36	(0.04)	0.96	(0.02)	627	(2.7)	**15.1**	(1.9)	**41**	(2.7)	m	m	m	m
	Singapore	-0.26	(0.01)	0.92	(0.01)	585	(1.2)	**14.4**	(0.9)	**44***	(1.4)	m	m	m	m
	Chinese Taipei	-0.40	(0.02)	0.84	(0.01)	583	(2.5)	**17.9***	(1.4)	**58***	(2.5)	m	m	m	m
	Thailand	-1.35	(0.04)	1.17	(0.02)	457	(4.9)	**9.9***	(2.2)	**22***	(2.4)	-1.5	(2.9)	-1	(3.2)
	Tunisia	-1.19	(0.05)	1.26	(0.02)	415	(5.7)	**12.4**	(2.4)	**22***	(2.6)	-1.4	(3.4)	-3	(3.5)
	United Arab Emirates	0.32	(0.02)	0.85	(0.01)	424	(2.0)	**9.8***	(1.0)	**33***	(1.9)	m	m	m	m
	Uruguay	-0.88	(0.03)	1.13	(0.02)	443	(2.8)	**22.8***	(1.9)	**37**	(1.8)	**6.9**	(2.5)	3	(2.6)
	Viet Nam	-1.81	(0.05)	1.12	(0.03)	565	(6.3)	**14.6**	(2.3)	**29***	(2.6)	m	m	m	m

Notes: Values and changes that are statistically significant are indicated in bold. Values that are statistically significantly different from the OECD average are indicated with an asterisk.

Columns 11-22 are available for consultation on line (see *StatLink* below).

1. Single-level bivariate regression of performance on the ESCS. The slope is the regression coefficient for ESCS and the strength is r-squared x 100.

2. OECD 2003 average compares only OECD countries with comparable data since PISA 2003.

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

Source: OECD, PISA 2012 Database.

StatLink http://dx.doi.org/10.1787/888933116794

Chapter

B

Financial and Human Resources Invested In Education

Indicator B1 How much is spent per student?
StatLink http://dx.doi.org/10.1787/888933116908

Indicator B2 What proportion of national wealth is spent on education?
StatLink http://dx.doi.org/10.1787/888933117174

Indicator B3 How much public and private investment in education is there?
StatLink http://dx.doi.org/10.1787/888933117364

Indicator B4 What is the total public spending on education?
StatLink http://dx.doi.org/10.1787/888933117554

Indicator B5 How much do tertiary students pay and what public support do they receive?
StatLink http://dx.doi.org/10.1787/888933117706

Indicator B6 On what resources and services is education funding spent?
StatLink http://dx.doi.org/10.1787/888933117858

Indicator B7 Which factors influence the level of expenditure on education?
StatLink http://dx.doi.org/10.1787/888933117953

Classification of educational expenditure

Educational expenditure in this chapter is classified through three dimensions:

- The first dimension – represented by the horizontal axis in the diagram below – relates to the location where spending occurs. Spending on schools and universities, education ministries and other agencies directly involved in providing and supporting education is one component of this dimension. Spending on education outside these institutions is another.
- The second dimension – represented by the vertical axis in the diagram below – classifies the goods and services that are purchased. Not all expenditure on educational institutions can be classified as direct educational or instructional expenditure. Educational institutions in many OECD countries offer various ancillary services – such as meals, transport, housing, etc. – in addition to teaching services to support students and their families. At the tertiary level, spending on research and development can be significant. Not all spending on educational goods and services occurs within educational institutions. For example, families may purchase textbooks and materials themselves or seek private tutoring for their children.
- The third dimension – represented by the colours in the diagram below – distinguishes among the sources from which funding originates. These include the public sector and international agencies (indicated by light blue), and households and other private entities (indicated by medium-blue). Where private expenditure on education is subsidised by public funds, this is indicated by cells in the grey colour.

Public sources of funds | Private sources of funds | Private funds publicly subsidised

	Spending on educational institutions (e.g. schools, universities, educational administration and student welfare services)	**Spending on education outside educational institutions** (e.g. private purchases of educational goods and services, including private tutoring)
Spending on core educational services	e.g. public spending on instructional services in educational institutions	e.g. subsidised private spending on books
	e.g. subsidised private spending on instructional services in educational institutions	e.g. private spending on books and other school materials or private tutoring
	e.g. private spending on tuition fees	
Spending on research and development	e.g. public spending on university research	
	e.g. funds from private industry for research and development in educational institutions	
Spending on educational services other than instruction	e.g. public spending on ancillary services such as meals, transport to schools, or housing on the campus	e.g. subsidised private spending on student living costs or reduced prices for transport
	e.g. private spending on fees for ancillary services	e.g. private spending on student living costs or transport

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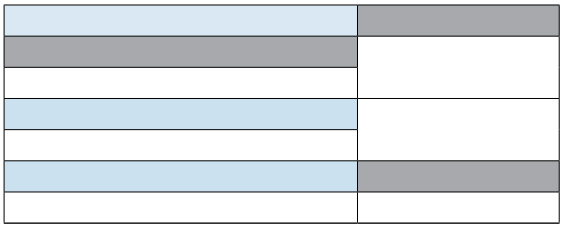
Coverage diagrams

For Indicators B1, B2, B3 and B6

For Indicators B4 and B5

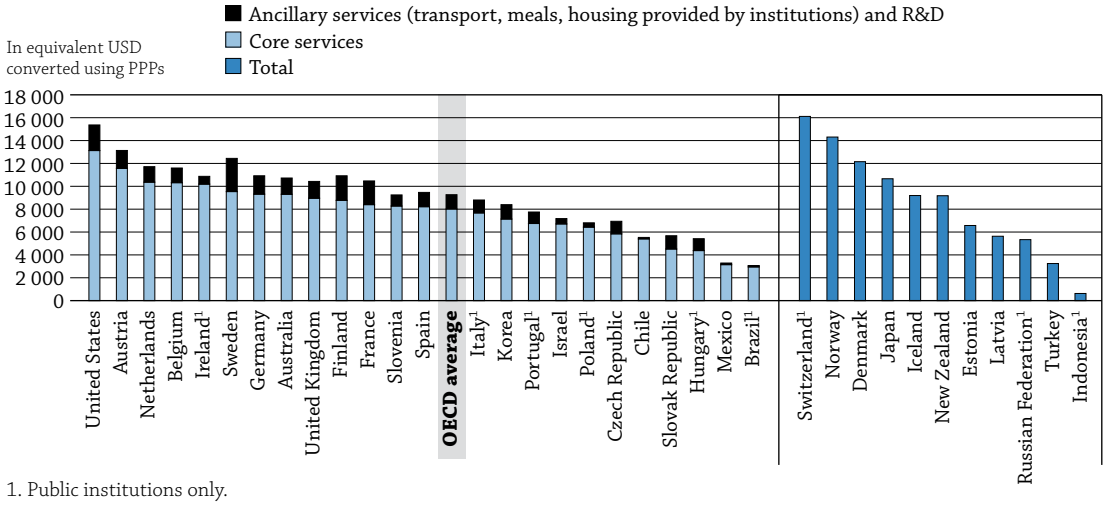


HOW MUCH IS SPENT PER STUDENT?

- On average, OECD countries spend USD 9 487 per student per year from primary through tertiary education: USD 8 296 per primary student, USD 9 280 per secondary student, and USD 13 958 per tertiary student.
- In primary, secondary and post-secondary non-tertiary education, 94% of total expenditure per student is devoted to core educational services. Greater differences are seen at the tertiary level, partly because expenditure on research and development (R&D) represents an average of 32% of total expenditure per student
- From 2005 to 2011, expenditure per student in primary, secondary and post-secondary non-tertiary educational institutions increased by 17 percentage points on average across OECD countries; but between 2009 and 2011, investment in education fell in nearly one-third of OECD countries as a result of the economic crisis, and resulted in a decrease of expenditure per student in a few countries.

Chart B1.1. Annual expenditure per student by educational institutions, by type of service (2011)

In equivalent USD converted using PPPs, based on full-time equivalents, for primary through tertiary education



1. Public institutions only.

Countries are ranked in descending order of expenditure per student by educational institutions for core services.

Source: OECD. Table B1.2. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933117060

Context

The demand for high-quality education, which can translate into higher costs per student, must be balanced against other demands on public expenditure and the overall tax burden. Policy makers must also balance the importance of improving the quality of education services with the desirability of expanding access to education opportunities, notably at the tertiary level. A comparative review of trends in expenditure per student by educational institutions shows that, in many OECD countries, expenditure has not kept up with expanding enrolments. In addition, some OECD countries emphasise broad access to higher education, while others invest in near-universal education for children as young as three or four. Both the extent of investment in education and the number of students enrolled can be affected by financial crises. Consequently, the recent global economic crisis is likely to have resulted in changes in the level of expenditure per student. However, because the crisis began in late 2008, available data until 2011 cannot yet show the full extent of this impact.

Expenditure per student by educational institutions is largely influenced by teachers' salaries (see Indicators B7 and D3), pension systems, instructional and teaching hours (see Indicator B7), the cost of teaching materials and facilities, the programme provided (e.g. general or vocational),

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and the number of students enrolled in the education system (see Indicator C1). Policies to attract new teachers or to reduce average class size or change staffing patterns (see Indicator D2) have also contributed to changes in expenditure per student by educational institutions over time. Ancillary and R&D services can also influence the level of expenditure per student.

Other findings

- Among the ten countries with the largest expenditure per student by secondary educational institutions, **high teachers' salaries and low student-teacher ratios are often the main factors explaining the level of expenditure**.
- **At the primary and secondary levels there is a strong positive relationship between spending per student by educational institutions and GDP per capita**. The relationship is weaker at the tertiary level, mainly because financing mechanisms and enrolment patterns differ more at this level.
- **Excluding activities peripheral to instruction** (research and development and ancillary services, such as welfare services to students), **OECD countries annually spend USD 8 002 per student from primary through tertiary education, on average**. Compared with average total expenditure, this lower amount is mainly the result of much lower expenditure per student at the tertiary level when peripheral activities are excluded.
- **On average, OECD countries spend around two-thirds more per student at the tertiary level than at the primary level**. However, R&D activities or ancillary services can account for a significant proportion of expenditure at the tertiary level. When these are excluded, expenditure per student on core educational services at the tertiary level is still, on average, 11% higher than at the primary, secondary and post-secondary non-tertiary levels.
- The orientation of secondary school programmes influences the level of expenditure per student in most countries. **Among the 19 OECD countries with separate data on expenditure for general and vocational programmes at the upper secondary level, an average of USD 694 more was spent per student in a vocational programme than in a general programme**.

Trends

Between 1995 and 2011, a period of relatively stable student enrolment at primary, secondary and post-secondary non-tertiary levels in most countries, expenditure per student by educational institutions increased in every country with available data except Italy, and by an average of more than 60%. On average across OECD countries, the increase was relatively larger over the period 1995-2005 than over the period 2005-11. The largest increases in expenditure per student between 2005 and 2011 were seen in countries that were still among those with the lowest expenditure per student in 2011. Since the beginning of the economic crisis in 2008, expenditure per primary, secondary and post-secondary non-tertiary student has continued to increase, except in Denmark, Estonia, Hungary, Iceland, Italy, the Russian Federation and Spain.

At the tertiary level, spending per student increased between 1995 and 2011 in most countries, except in Australia, Brazil, the Czech Republic, Hungary, Israel and Switzerland. On average across OECD countries, expenditure per tertiary student remained constant between 1995 and 2000 and then increased at a similar pace between 2000 and 2005 and between 2005 and 2011. Since the beginning of the economic crisis in 2008, expenditure per tertiary student has decreased in more than a third of countries, mainly because enrolment increased faster than expenditure. In Iceland, Ireland, Poland and the Russian Federation, however, there was an actual decrease in expenditure.

Analysis

Expenditure per student by educational institutions

Annual spending per student from primary through tertiary education in 2011 ranged from USD 4 000 per student or less in Brazil, Indonesia, Mexico, and Turkey, to more than USD 10 000 per student in Australia, Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Japan, the Netherlands, Norway, Sweden and the United Kingdom, and by over USD 15 000 in Switzerland and the United States. In more than one-quarter of countries with available data (9 of 35), spending per student ranged from USD 10 000 to less than USD 12 000 per student from primary through tertiary education (Chart B1.1 and Table B1.1a).

Countries have different priorities for allocating their resources (see Indicator B7). For example, among the ten countries with the largest expenditure per student by educational institutions at the lower secondary level (Table B1.1a), Denmark, Ireland, Luxembourg, the Netherlands, Switzerland and the United States have among the highest teachers' salaries after 15 years of experience at lower secondary level, and Austria, Finland, Luxembourg and Norway have some of the lowest student-teacher ratios at that level (see Table B7.2b).

Even if spending per student from primary through tertiary education is similar among some OECD countries, the ways in which resources are allocated to the different levels of education vary widely. Spending per student by educational institutions in a typical OECD country (as represented by the simple mean among all OECD countries) amounts to USD 8 296 at the primary level, USD 9 280 at the secondary level, and USD 13 958 at the tertiary level (Table B1.1a and Chart B1.2). The average for spending per tertiary student is affected by high expenditure – more than USD 20 000 – in a few OECD countries, notably Canada, Denmark, Sweden, Switzerland and the United States.

These averages mask a broad range of expenditure per student by educational institutions across OECD countries, varying by a factor of 11 at the primary level and by a factor of 6 at the secondary level. At the primary level, expenditures range from USD 2 700 or less per student in Argentina, Brazil, Colombia, Indonesia, Mexico and Turkey, to more than USD 23 000 in Luxembourg. At the secondary level, expenditure ranges from USD 3 000 or less per student in Brazil, Colombia, Indonesia, Mexico and Turkey to more than USD 16 000 in Luxembourg (Table B1.1a and Chart B1.2).

These comparisons are based on purchasing power parities (PPPs) for GDP, not on market exchange rates. Therefore, they reflect the amount of a national currency required to produce the same basket of goods and services in a given country as produced by the United States in USD.

Expenditure per student on core education services

On average across OECD countries, expenditure on core education services represents 84% of total expenditure per student from primary through tertiary education, and exceeds 94% in Brazil, Chile, Mexico and Poland. In 2 of the 24 countries for which data are available – the Slovak Republic and Sweden – core educational services account for less than 80% of total expenditure per student. Annual expenditure on R&D and ancillary services influence the ranking of countries for all services combined. However, this overall picture masks large variations among the levels of education (Table B1.2).

At the primary and secondary levels, expenditure is dominated by spending on core education services. On average, OECD countries for which data are available spend 94% of the total expenditure (or USD 8 297) per student by primary, secondary and post-secondary non-tertiary educational institutions on core educational services. In 11 of the 25 countries for which data are available, ancillary services provided by these institutions account for less than 5% of the total expenditure per student. The proportion of total expenditure per student devoted to ancillary services exceeds 10% in Finland, France, Hungary, Korea, the Slovak Republic and Sweden (Table B1.2).

Greater differences are seen at the tertiary level, partly because R&D expenditure can account for a significant proportion of spending on education. The OECD countries in which most R&D is performed in tertiary educational institutions (e.g. Portugal and Switzerland, and Sweden for publicly funded R&D) tend to report higher expenditure per student on educational institutions than those in which a large proportion of R&D is performed in other public institutions or in industry.

Excluding R&D activities and ancillary services (peripheral services, such as student welfare services), expenditure on core education services in tertiary institutions is, on average across OECD countries, USD 9 262 per student. It ranges from USD 5 000 or less in Estonia to more than USD 10 000 in Austria, Brazil, Canada, Finland, Ireland, Israel, the Netherlands, Norway and Switzerland, and more than USD 19 000 in the United States (Table B1.2).

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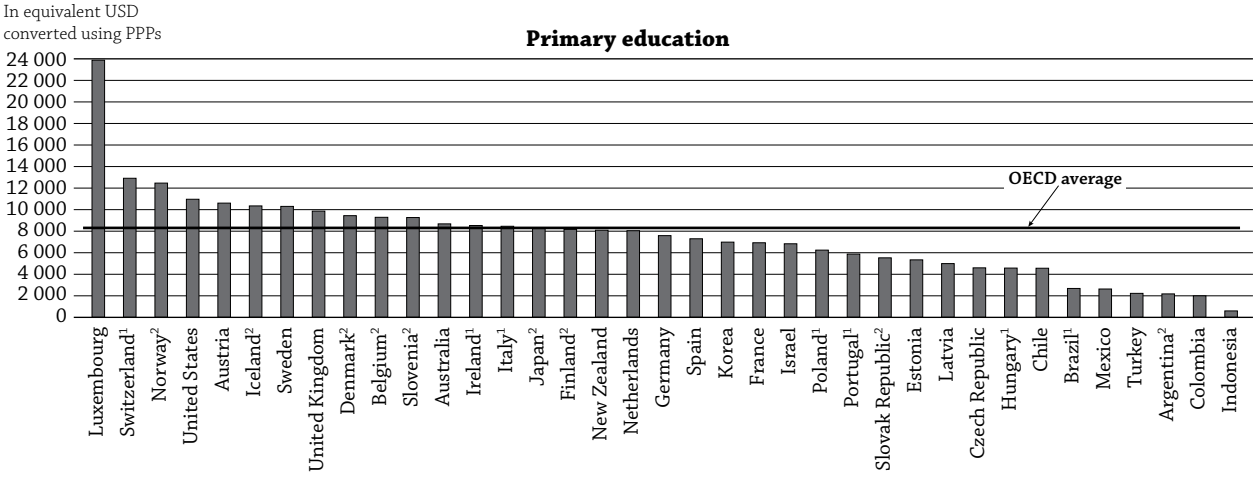
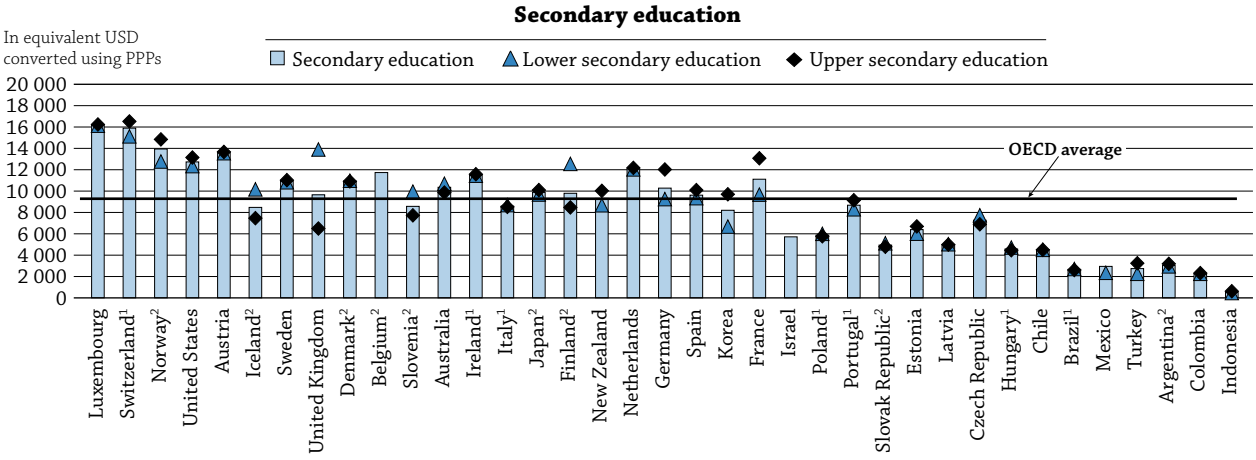
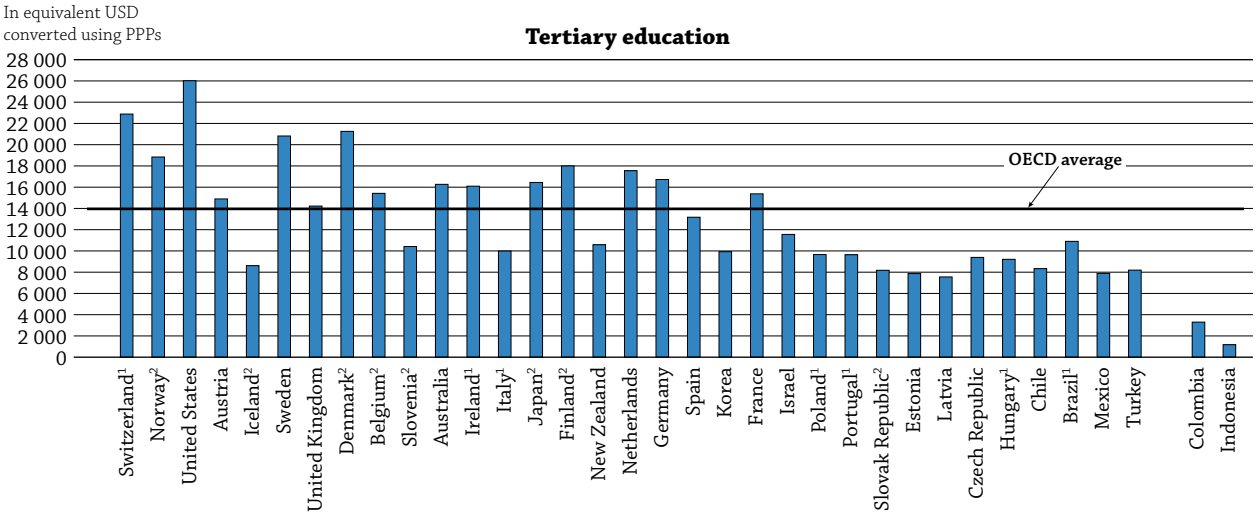
Chart B1.2a. Annual expenditure per student by educational institutions for all services, by level of education (2011)

In equivalent USD converted using PPPs, based on full-time equivalents







1. Public institutions only (for Colombia, in tertiary education only; for Italy, except in tertiary education).
2. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.

Countries are ranked in descending order of expenditure on educational institutions per student in primary education.

Source: OECD. Table B1.1a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933117079

On average across OECD countries, expenditure on R&D and ancillary services at the tertiary level represents 32% and 4%, respectively, of all expenditure per student by tertiary institutions. In 7 of the 28 OECD countries for which data on R&D and ancillary services are available separately from total expenditure – Australia, Germany, Norway, Portugal, Sweden and Switzerland – expenditure on R&D and ancillary services represents at least 40% of total tertiary expenditure per student by educational institutions. This can translate into significant amounts: in Australia, Germany, Norway, Sweden and Switzerland, expenditure for R&D and ancillary services amounts to more than USD 6 000 per student, and this is also the case for Canada, Finland, the Netherlands and the United States (Table B1.2).

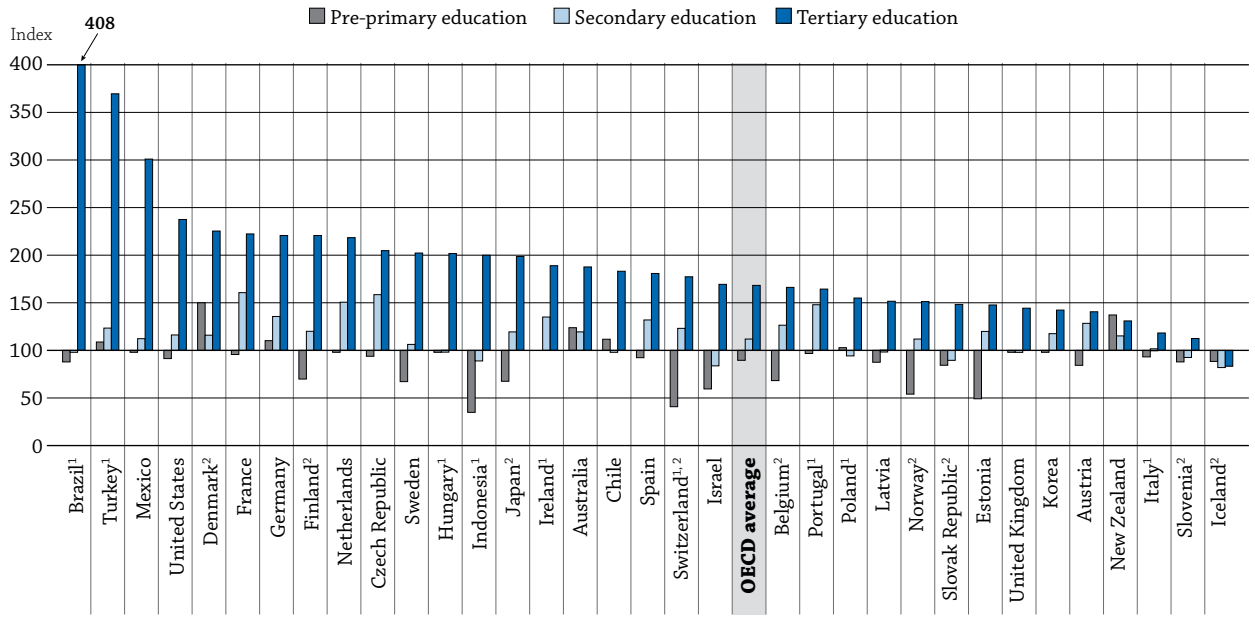
Expenditure per student by educational institutions at different levels of education

Expenditure per student by educational institutions rises with the level of education in almost all countries, but the size of the differentials varies markedly (Table B1.1a and Chart B1.3). Expenditure on secondary education is 1.1 times greater than expenditure on primary education, on average. This ratio exceeds 1.5 in the Czech Republic, France and the Netherlands largely because of the concurrent increase in the number of instructional hours for students and significant decrease in the number of teachers' teaching hours between primary and secondary education, as compared to the OECD average. In these countries, teachers' salaries are also lower in primary education compared to lower secondary education (see Indicators B7, D1 and D4).

Educational institutions in OECD countries spend an average of 1.7 times more per tertiary student than per primary student, but spending patterns vary widely, mainly because education policies vary more at the tertiary level (see Indicator B5). For example, Austria, Estonia, Korea, Iceland, Italy, New Zealand, the Slovak Republic, Slovenia and the United Kingdom spend less than 1.5 times more on a tertiary student than on a primary student, but Mexico and Turkey spend three times as much and Brazil four times as much (Table B1.1a and Chart B1.3).

Chart B1.3. Expenditure per student by educational institutions for all services, at various levels of education relative to primary education (2011)

Primary education = 100



Notes: A ratio of 300 for tertiary education means that expenditure per tertiary student by educational institutions is three times the expenditure per primary student by educational institutions.

A ratio of 50 for pre-primary education means that expenditure per pre-primary student by educational institutions is half the expenditure per primary student by educational institutions.

1. Public institutions only.

2. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.

Countries are ranked in descending order of expenditure per student by educational institutions in tertiary education relative to primary education.

Source: OECD. Table B1.1a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

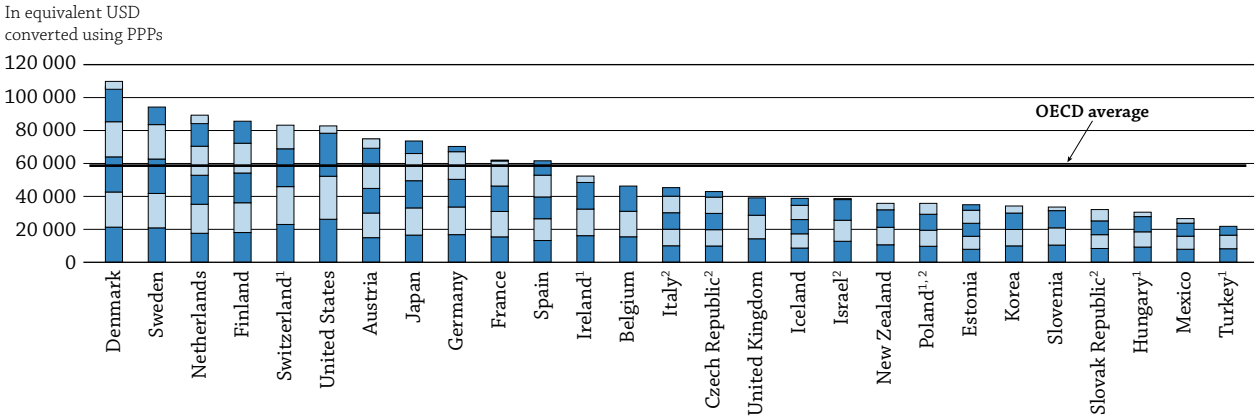
StatLink http://dx.doi.org/10.1787/888933117098

Differences in expenditure per student between general and vocational programmes

In the 19 OECD countries for which data are available, USD 694 more is spent per upper secondary vocational student than per student in a general programme, on average. The countries with large enrolments in dual system apprenticeship programmes at the upper secondary level (e.g. Austria, Finland, France, Germany, Hungary, Luxembourg, the Netherlands and Switzerland) tend to be those with the largest differences between expenditure per general and vocational student, compared with the OECD average. For example, Finland spends USD 1 480 more per vocational than per general upper secondary student; Germany spends USD 4 020 more; the Netherlands spends USD 3 139 more; New Zealand spends USD 1 286 more. The Czech Republic (USD 1 397 more), France (USD 852 more) and the Slovak Republic (USD 1 442 more) also spend more per student in vocational programmes than they spend per student in general programmes, although the differences are smaller. Exceptions to this pattern are Australia and Hungary, where expenditure per student enrolled in a general programme is higher than expenditure per student in an apprenticeship programme. The underestimation of the expenditure made by private enterprises on dual vocational programmes can partly explain the small differences in Austria, France and Hungary (Table B1.6, and see Table C1.3 in Indicator C1 and Box B3.1 in *Education at a Glance 2011*).

Chart B1.4. Cumulative expenditure per student by educational institutions over the average duration of tertiary studies (2011)

Annual expenditure per student by educational institutions multiplied by the average duration of studies, in equivalent USD converted using PPPs



Note: Each segment of the bar represents the annual expenditure by educational institutions per student. The number of segments represents the average number of years a student remains in tertiary education.

1. Public institutions only.

2. Tertiary-type A and advanced research programmes only.

Countries are ranked in descending order of the total expenditure per student by educational institutions over the average duration of tertiary studies.

Source: OECD. Table B1.3a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933117117

Expenditure per student by educational institutions over the average duration of tertiary studies

Given that the duration and intensity of tertiary education vary from country to country, differences in annual expenditure on education services per student (Chart B1.2) do not necessarily reflect differences in the total cost of educating the typical tertiary student. For example, if the usual duration of tertiary studies is long, comparatively low annual expenditure per student by educational institutions can result in comparatively high overall costs for tertiary education. Chart B1.4 shows the average expenditure per student throughout the course of tertiary studies. The figures account for all students for whom expenditure is incurred, including those who do not finish their studies. Although the calculations are based on a number of simplified assumptions, and therefore should be treated with caution (see Annex 3 at *www.oecd.org/edu/eag.htm*), there are some notable differences between annual and aggregate expenditure in the ranking of countries.

For example, annual spending per tertiary student in Japan is about the same as in Ireland, at USD 16 446 and USD 16 095, respectively (Table B1.1a). However, the average duration of tertiary studies is more than one year longer in Japan than in Ireland (4.5 and 3.2 years, respectively). As a consequence, the cumulative expenditure for each tertiary student is USD 20 000 less in Ireland (USD 52 148) than in Japan (USD 73 364) (Chart B1.4 and Table B1.3a).

The total cost of tertiary-type A education in Switzerland (USD 132 433) is more than twice the amount reported by half of countries, with the exception of Austria, Finland, France, Germany, Japan, the Netherlands, Spain and Sweden (Table B1.3a). These figures must be interpreted bearing in mind differences in national degree structures and possible differences in the qualifications students obtain after completing their studies. Tertiary-type B (shorter and vocationally oriented) programmes tend to be less expensive than tertiary-type A programmes, largely because of their shorter duration.

Expenditure per student by educational institutions relative to GDP per capita

Since access to education is universal (and usually compulsory) at the lower levels of schooling in most OECD countries, spending per student by educational institutions at those levels relative to GDP per capita can be interpreted as the resources spent on the school-age population relative to a country's ability to pay. At higher levels of education, this measure is more difficult to interpret because student enrolment levels vary sharply among countries. At the tertiary level, for example, OECD countries may rank relatively high on this measure if a large proportion of their wealth is spent on educating a relatively small number of students.

In OECD countries, expenditure per student by educational institutions averages 23% of GDP per capita at the primary level, 26% at the secondary level, and 41% at the tertiary level. Overall, from the primary to tertiary levels of education, expenditure per student averages 27% of the GDP per capita in OECD countries (Table B1.4). Countries with low levels of expenditure may nonetheless show distributions of investment relative to GDP per capita that are similar to those of countries with a high level of spending per student. For example, Korea and Portugal – countries with below-OECD-average expenditure per student by educational institutions at the secondary level and below-OECD-average GDP per capita – spend more per student relative to GDP per capita than the OECD average.

The relationship between GDP per capita and expenditure per student by educational institutions is difficult to interpret. However, there is a clear positive relationship between the two at both the primary and secondary levels of education – in other words, poorer countries tend to spend less per student than richer ones. Although the relationship is generally positive at these levels, there are variations, even among countries with similar levels of GDP per capita, and especially those in which GDP per capita exceeds USD 30 000. Israel and New Zealand, for example, have similar levels of GDP per capita (see Table X2.1 in Annex 2) but spend very different proportions of it on primary and secondary education. In Israel, the proportions are 23% at the primary level and 19% at the secondary level (at or below the OECD averages of 23% and 26%, respectively), while in New Zealand, the proportions are among the highest, at 26% and 30%, respectively (Table B1.4 and Chart B1.2b, available on line).

There is more variation in spending levels at the tertiary level, and the relationship between countries' relative wealth and their expenditure levels varies as well. Canada, Denmark, Sweden and the United States spend more than 49% of GDP per capita on each tertiary student – among the highest proportions after Brazil (Table B1.4 and Chart B1.5). Brazil spends the equivalent of 93% of GDP per capita on each tertiary student; however, tertiary students represent only 4% of students enrolled in all levels of education combined (Table B1.7, available on line).

Change in expenditure per student by educational institutions between 1995 and 2011

Changes in expenditure by educational institutions largely reflect changes in the size of the school-age population and in teachers' salaries. These tend to rise over time in real terms: teachers' salaries, the main component of costs, have increased in the majority of countries during the past decade (see Indicator D3). The size of the school-age population influences both enrolment levels and the amount of resources and organisational effort a country must invest in its education system. The larger this population, the greater the potential demand for education services. Change in expenditure per student over years may also vary between levels of education within countries, as both enrolment and expenditure may follow different trends at different levels of education. At the tertiary level, compared to other levels of education, expenditure per student decreased in many more countries between 2005 and 2011 (Tables B1.5a and b, and Chart B1.5).

Expenditure per primary, secondary and post-secondary non-tertiary student by educational institutions increased in every country by an average of more than 60% between 1995 and 2011, a time during which student enrolment at these levels was relatively stable. In most countries, the increase was relatively larger over the period 1995-2005 than over the period 2005-11, as a result of the larger increase in expenditure in the former than in the latter period.

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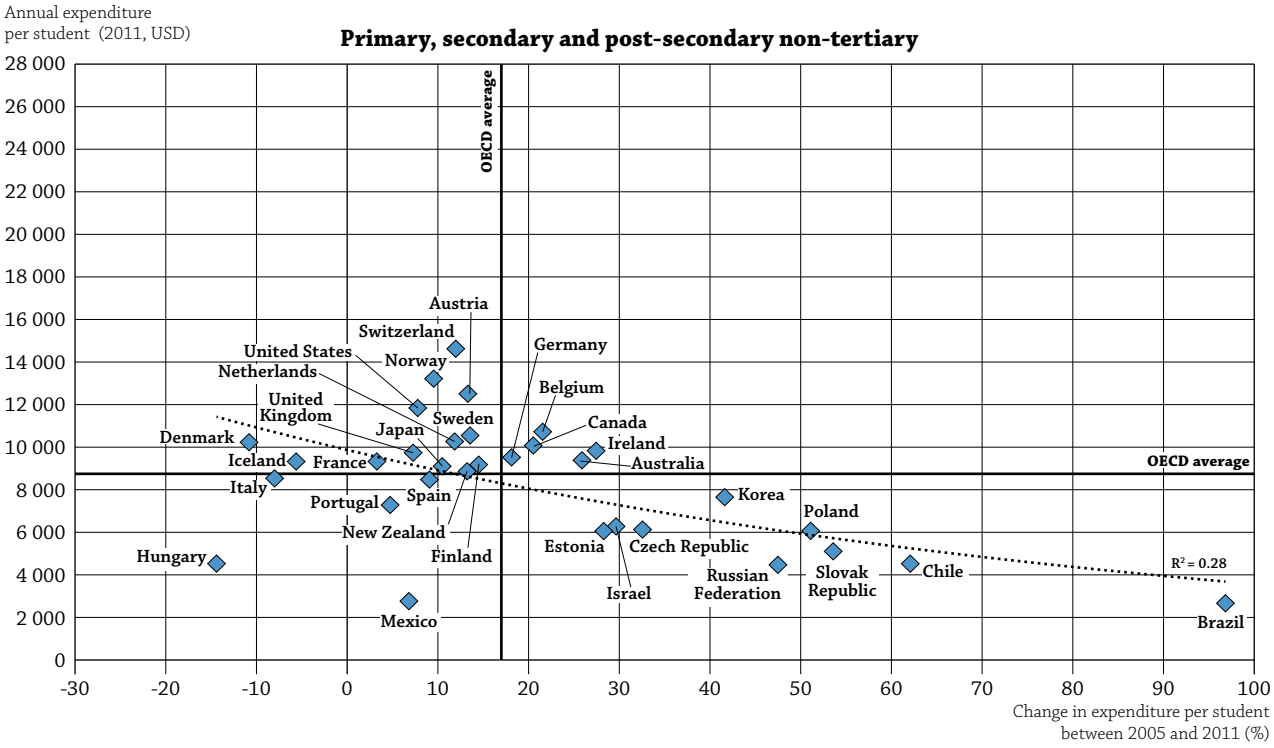
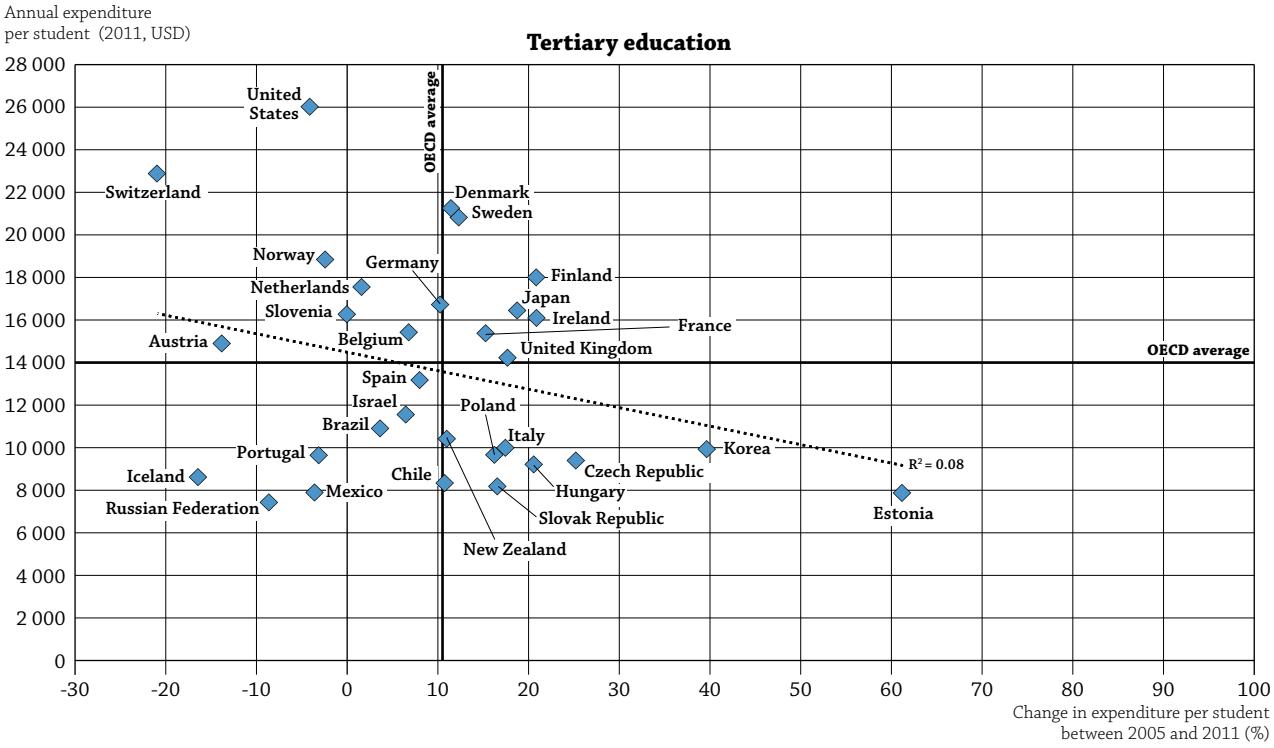
Chart B1.5. Relationship between annual expenditure per student in 2011 and change in expenditure per student between 2005 and 2011

In equivalent USD converted using PPPs, based on full-time equivalents





Source: OECD. Tables B1.2, B1.5a and B1.5b. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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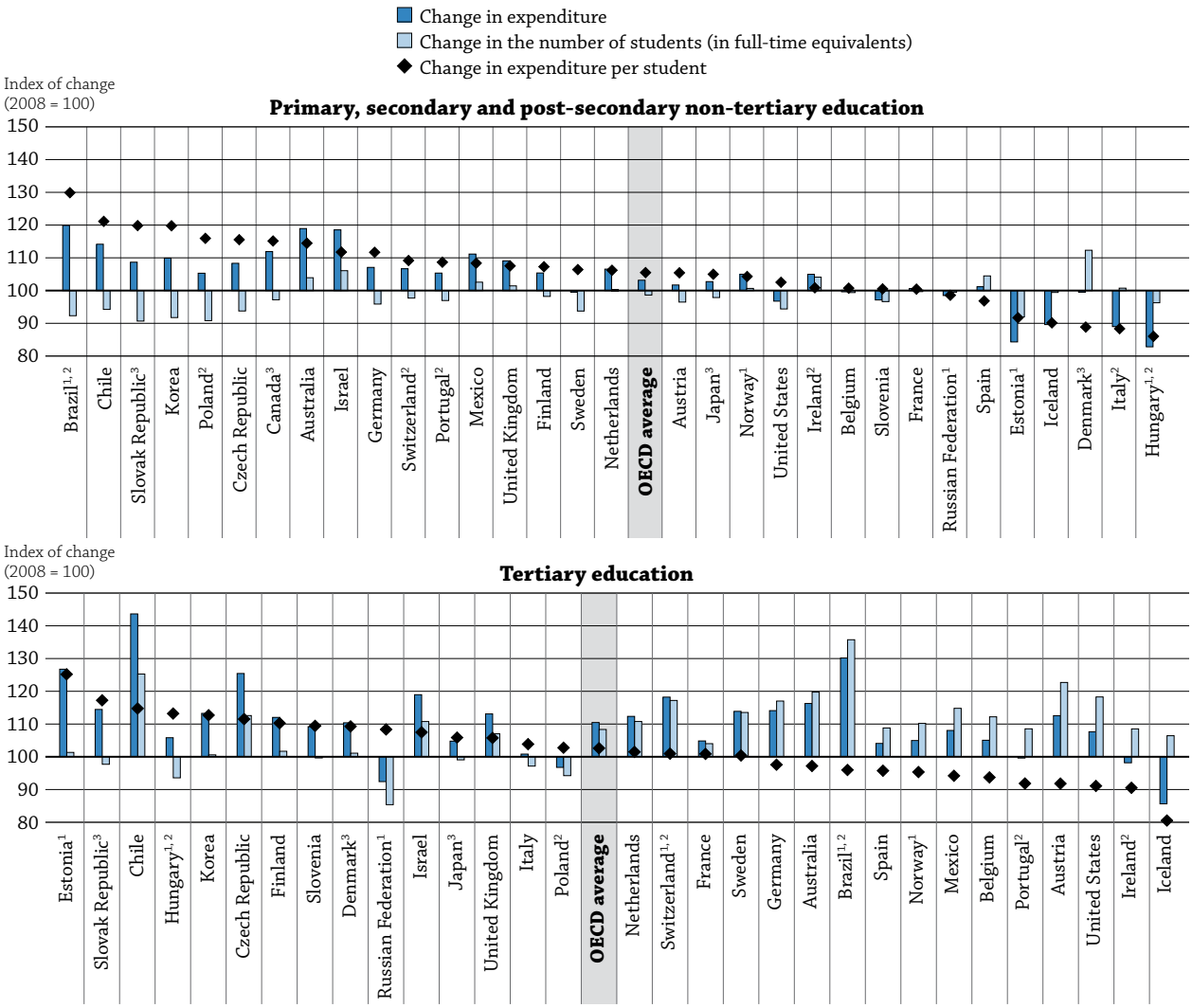
Between 2005 and 2011, in 23 of the 34 countries for which data are available, expenditure per primary, secondary and post-secondary non-tertiary student by educational institutions increased by at least 10%. The increase exceeded 50% in Brazil, Chile, Poland and the Slovak Republic. By contrast, in France and Portugal this expenditure increased by only 5% or less. Only Denmark, Hungary, Iceland and Italy showed a decrease in expenditure per primary, secondary and post-secondary non-tertiary student during this period (Table B1.5a).

In Brazil, Chile, Poland, the Russian Federation and the Slovak Republic, increases in expenditure per student over 2005-11 are among the largest, but these countries were still among those with the lowest expenditure per student in 2011. The correlation between the level of expenditure per student and its variation over time is weak. For example, Hungary and Mexico, with similar levels of expenditure per student in 2011, did not increase expenditure per student in similar ways. Expenditure per student decreased in Hungary over the period as a result of a drop in both expenditure and enrolment. In Hungary, decreases in enrolments do not seem to have been the main factor behind changes in expenditure per student (Table B1.5a and Chart B1.5).

Chart B1.6. Change in expenditure per student by educational institutions, by level of education (2008, 2011)

Index of change between 2008 and 2011 (2008 = 100, 2011 constant prices)



1. Public expenditure only.
2. Public institutions only.
3. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.

Countries are ranked in descending order of change in expenditure per student by educational institutions.

Source: OECD. Tables B1.5a and B1.5b. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933117155

Since the beginning of the economic crisis in 2008, however, expenditure per primary, secondary and post-secondary non-tertiary student decreased in a few countries, namely Denmark, Estonia, Hungary, Iceland, Italy, the Russian Federation and Spain. Excluding Spain, this decrease resulted from a decrease in expenditure (combined with a large increase in enrolments in Denmark). In most other countries, expenditure continued to increase even as enrolments dropped (except in Australia and Israel), resulting in greater expenditure per student. This demonstrates that, in most countries, the global economic crisis had not yet affected the overall investment in education (Chart B1.6).

The pattern is different at the tertiary level. Spending per student increased between 1995 and 2011 in most countries, except in Australia, Brazil, the Czech Republic, Hungary, Israel and Switzerland, where expenditure did not keep up with expanding enrolments. On average across OECD countries, expenditure per tertiary student by educational institutions remained stable from 1995 to 2000 but then increased at similar rates (5% to 10%) both between 2000 and 2005 and between 2005 and 2011.

Between 2005 and 2011, expenditure per tertiary student increased in most countries, and by an average of 10% among OECD countries with available data. The increase reached 40% or more in Estonia and Korea as a result of a large increase in expenditure combined with constant enrolment. By contrast, over this period, expenditure per student decreased in a quarter of countries (8 of the 32 countries with available data), particularly in Austria, Iceland and Switzerland (by 14% or more). In all of these countries, the decline was mainly the result of a rapid increase in the number of tertiary students (Table B1.5b and Chart B1.5).

Since the beginning of the economic crisis in 2008, expenditure on tertiary institutions has decreased in 4 of the 32 countries with available data: Iceland, Ireland, Poland and the Russian Federation. This led to a drop in expenditure per student in all of these countries except Poland and the Russian Federation, where tertiary enrolment fell even faster. Globally, expenditure per student decreased in more than a third of countries between 2008 and 2011, mainly as enrolment increased faster than expenditure (Chart B1.6).

Definition

Ancillary services are services provided by educational institutions that are peripheral to the main educational mission. The main component of ancillary services is student welfare services. In primary, secondary and post-secondary non-tertiary education, student welfare services include meals, school health services and transportation to and from school. At the tertiary level, they include residence halls (dormitories), dining halls and health care.

Core educational services are directly related to instruction in educational institutions, including teachers' salaries, construction and maintenance of school buildings, teaching materials, books and administration of schools.

Research and development (R&D) includes research performed at universities and other tertiary educational institutions, regardless of whether the research is financed from general institutional funds or through separate grants or contracts from public or private sponsors.

Methodology

Data refer to the financial year 2011 and are based on the UOE data collection on education statistics administered by the OECD in 2013 (for details see Annex 3 at *www.oecd.org/edu/eag.htm*).

Tables B1.5a and b show the changes in expenditure per student by educational institutions between the financial years 1995, 2000, 2005, 2008, 2009, 2010 and 2011. OECD countries were asked to collect 1995, 2000, 2005, 2008, 2009 and 2010 data according to the definitions and coverage of UOE 2013 data collection. All expenditure data and GDP information for 1995, 2000, 2005, 2008, 2009 and 2010 are adjusted to 2011 prices using the GDP price deflator.

The indicator shows direct public and private expenditure by educational institutions in relation to the number of full-time equivalent students enrolled. Public subsidies for students' living expenses outside educational institutions have been excluded to ensure international comparability.

Core educational services are estimated as the residual of all expenditure, that is, total expenditure on educational institutions net of expenditure on R&D and ancillary services. The classification of R&D expenditure is based on data collected from the institutions carrying out R&D, rather than on the sources of funds.

Expenditure per student by educational institutions at a particular level of education is calculated by dividing total expenditure by educational institutions at that level by the corresponding full-time equivalent enrolment. Only educational institutions and programmes for which both enrolment and expenditure data are available are taken into account. Expenditure in national currency is converted into equivalent USD by dividing the national currency figure

by the purchasing power parity (PPP) index for GDP. The PPP exchange rate is used because the market exchange rate is affected by many factors (interest rates, trade policies, expectations of economic growth, etc.) that have little to do with current relative domestic purchasing power in different OECD countries (see Annex 2 for further details).

Expenditure data for students in private educational institutions are not available for certain countries, and some other countries provide incomplete data on independent private institutions. Where this is the case, only expenditure on public and government-dependent private institutions has been taken into account.

Expenditure per student by educational institutions relative to GDP per capita is calculated by expressing expenditure per student by educational institutions in units of national currency as a percentage of GDP per capita, also in national currency. In cases where the educational expenditure data and the GDP data pertain to different reference periods, the expenditure data are adjusted to the same reference period as the GDP data, using inflation rates for the OECD country in question (see Annex 2).

Cumulative expenditure over the average duration of tertiary studies (Table B1.3a) is calculated by multiplying current annual expenditure by the typical duration of tertiary studies. The methodology used to estimate the typical duration of tertiary studies is described in Annex 3 (*www.oecd.org/edu/eag.htm*). For estimates of the duration of tertiary education, data are based on a survey carried out in OECD countries in 2013.

Full-time equivalent student: The ranking of OECD countries by annual expenditure on educational services per student is affected by differences in how countries define full-time, part-time and full-time equivalent enrolment. Some OECD countries count every participant at the tertiary level as a full-time student, while others determine a student's intensity of participation by the credits that he/she obtains for successful completion of specific course units during a specified reference period. OECD countries that can accurately account for part-time enrolment have higher apparent expenditure per full-time equivalent student by educational institutions than OECD countries that cannot differentiate among the different types of student attendance.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Tables of Indicator B1

StatLink http://dx.doi.org/10.1787/888933116908

	Table B1.1a	Annual expenditure per student by educational institutions for all services (2011)
WEB	Table B1.1b	Annual expenditure per student by educational institutions for core services (2011)
	Table B1.2	Annual expenditure per student by educational institutions for core services, ancillary services and R&D (2011)
	Table B1.3a	Cumulative expenditure per student by educational institutions for all services over the average duration of tertiary studies (2011)
WEB	Table B1.3b	Cumulative expenditure per student by educational institutions for all services over the theoretical duration of primary and secondary studies (2011)
	Table B1.4	Annual expenditure per student by educational institutions for all services, relative to GDP per capita (2011)
	Table B1.5a	Change in expenditure per student by educational institutions for all services, relative to different factors, at the primary, secondary and post-secondary non-tertiary levels of education (1995, 2000, 2005, 2008, 2009, 2010, 2011)
	Table B1.5b	Change in expenditure per student by tertiary educational institutions for all services, relative to different factors (1995, 2000, 2005, 2008, 2009, 2010, 2011)
	Table B1.6	Annual expenditure per student by secondary educational institutions for all services, by type of programme (2011)
WEB	Table B1.7	Percentage of expenditure by educational institutions compared to the proportion of students enrolled at each level of education (2011)

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Table B1.1a. Annual expenditure per student by educational institutions for all services (2011)

In equivalent USD converted using PPPs for GDP, by level of education, based on full-time equivalents

		Pre-primary education (for children aged 3 and older)	Primary education	Secondary education			Post-secondary non-tertiary education	Tertiary education (including R&D activities)			All tertiary education (excluding R&D activities)	Primary to tertiary education (including R&D activities)
				Lower secondary education	Upper secondary education	All secondary education		Tertiary-type B education	Tertiary-type A and advanced research programmes	All tertiary education		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
OECD	Australia	10 734	8 671	10 689	9 859	10 354	6 728	8 495	18 038	16 267	10 068	**10 711**
	Austria	8 933	10 600	13 547	13 666	13 607	5 917	6 944	14 967	14 895	10 487	**13 116**
	Belgium	6 333	9 281	x(5)	x(5)	11 732	x(5)	x(9)	x(9)	15 420	10 075	**11 585**
	Canada[1, 2]	x(2)	9 232	x(2)	11 607	m	m	15 729	27 373	23 226	17 006	**m**
	Chile[3]	5 083	4 551	4 494	4 496	4 495	a	5 045	11 082	8 333	7 897	**5 522**
	Czech Republic	4 302	4 587	7 730	6 886	7 270	2 205	3 350	9 856	9 392	6 320	**6 931**
	Denmark	14 148	9 434	10 971	10 908	10 937	x(4,9)	x(9)	x(9)	21 254	4 827	**12 136**
	Estonia	2 618	5 328	6 009	6 688	6 389	8 333	6 628	8 450	7 868	4 827	**6 563**
	Finland	5 700	8 159	12 545	8 467	9 792	x(5)	n	18 002	18 002	10 973	**10 905**
	France	6 615	6 917	9 668	13 071	11 109	m	12 554	16 328	15 375	10 470	**10 454**
	Germany	8 351	7 579	9 247	12 022	10 275	9 694	8 891	18 348	16 723	10 164	**10 904**
	Greece	m	m	m	m	m	m	m	m	m	m	**m**
	Hungary[2]	4 564	4 566	4 709	4 455	4 574	3 165	5 213	9 521	9 210	7 153	**5 410**
	Iceland	9 138	10 339	10 160	7 461	8 470	x(5)	x(9)	x(9)	8 612	m	**9 180**
	Ireland[2]	m	8 520	11 442	11 576	11 502	11 636	x(9)	x(9)	16 095	11 938	**10 857**
	Israel	4 058	6 823	x(5)	x(5)	5 712	2 834	6 474	12 711	11 554	m	**7 167**
	Italy[2]	7 868	8 448	8 686	8 519	8 585	m	9 134	9 993	9 990	6 482	**8 790**
	Japan	5 591	8 280	9 677	10 093	9 886	x(4,9)	10 181	18 110	16 446	m	**10 646**
	Korea	6 861	6 976	6 674	9 698	8 199	a	5 692	11 230	9 927	8 168	**8 382**
	Luxembourg[4]	25 074	23 871	16 125	16 238	16 182	m	m	m	m	m	**m**
	Mexico	2 568	2 622	2 344	4 034	2 943	a	x(9)	x(9)	7 889	6 476	**3 286**
	Netherlands	8 020	8 036	12 031	12 171	12 100	11 532	10 208	17 561	17 549	10 665	**11 701**
	New Zealand	11 088	8 084	8 670	10 023	9 312	9 898	8 863	10 995	10 582	9 039	**9 163**
	Norway	6 730	12 459	12 769	14 838	13 939	x(5)	x(9)	x(9)	18 840	11 036	**14 288**
	Poland[2]	6 409	6 233	5 995	5 764	5 870	10 620	6 851	9 686	9 659	7 916	**6 796**
	Portugal[2]	5 674	5 865	8 294	9 139	8 676	m	x(9)	x(9)	9 640	5 219	**7 741**
	Slovak Republic	4 653	5 517	5 109	4 783	4 938	x(4)	x(4)	8 177	8 177	6 436	**5 667**
	Slovenia	8 136	9 260	9 947	7 724	8 568	x(4)	x(9)	x(9)	10 413	8 279	**9 233**
	Spain	6 725	7 288	9 335	10 090	9 615	a	10 042	13 933	13 173	9 436	**9 454**
	Sweden	6 915	10 295	10 823	11 022	10 938	4 029	6 604	22 090	20 818	9 922	**12 426**
	Switzerland[2]	5 267	12 907	15 124	16 521	15 891	x(4)	6 371	24 287	22 882	10 017	**16 090**
	Turkey	2 412	2 218	2 250	3 239	2 736	a	x(9)	x(9)	8 193	m	**3 240**
	United Kingdom	9 692	9 857	13 894	6 491	9 649	a	x(9)	x(9)	14 223	10 570	**10 412**
	United States	10 010	10 958	12 338	13 143	12 731	m	x(9)	x(9)	26 021	23 094	**15 345**
	OECD average	7 428	8 296	9 377	9 506	9 280	4 811	~	~	13 958	9 635	**9 487**
	OECD total	7 044	7 900	9 111	9 953	9 505	~	~	~	17 929	14 596	**10 561**
	EU21 average	7 933	8 482	9 795	9 457	9 615	6 103	~	~	13 572	8 741	**9 531**
Partners	Argentina[2]	1 979	2 167	2 947	3 184	3 034	a	2 255	m	m	m	**m**
	Brazil[2]	2 349	2 673	2 700	2 605	2 662	a	x(9)	x(9)	10 902	10 140	**3 066**
	China	m	m	m	m	m	m	m	m	m	m	**m**
	Colombia[2, 3]	3 491	2 041	2 164	2 326	2 207	a	x(9)	x(9)	3 030	m	**m**
	India	m	m	m	m	m	m	m	m	m	m	**m**
	Indonesia[3]	205	587	449	617	522	a	1 888	1 012	1 173	m	**625**
	Latvia	4 359	4 982	5 019	4 983	4 998	5 452	7 389	7 578	7 552	5 832	**5 624**
	Russian Federation	m	x(5)	x(5)	x(5)	4 470	x(5)	4 446	8 095	7 424	6 898	**5 328**
	Saudi Arabia	m	m	m	m	m	m	m	m	m	m	**m**
	South Africa	m	m	m	m	m	m	m	m	m	m	**m**
	G20 average	m	m	m	m	m	m	m	m	m	m	**m**

1. Year of reference 2010.
2. Public institutions only (for Canada and Colombia, in tertiary education only; for Italy, except in tertiary education).
3. Year of reference 2012.
4. Pre-primary and primary education include reimbursements from local authorities for previous years.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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B1

Table B1.2. Annual expenditure per student by educational institutions for core services, ancillary services and R&D (2011)

In equivalent USD converted using PPPs for GDP, by level of education and type of service, based on full-time equivalents

		Primary, secondary and post-secondary non-tertiary education			Tertiary education				Primary to tertiary education		
		Educational core services	Ancillary services (transport, meals, housing provided by institutions)	Total	Educational core services	Ancillary services (transport, meals, housing provided by institutions)	R&D	Total	Educational core services	Ancillary services (transport, meals, housing provided by institutions) and R&D	Total
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
OECD	Australia	9 221	162	**9 383**	9 571	496	6 200	**16 267**	9 288	1 422	**10 711**
	Austria	11 956	552	**12 509**	10 368	119	4 408	**14 895**	11 552	1 565	**13 116**
	Belgium	10 430	293	**10 722**	9 726	350	5 345	**15 420**	10 300	1 284	**11 585**
	Canada[1, 2, 3]	9 586	492	**10 078**	17 006	1 187	6 219	**23 226**	m	m	**m**
	Chile[4]	4 522	a	**4 522**	7 897	x(4)	436	**8 333**	5 407	114	**5 522**
	Czech Republic	5 699	430	**6 128**	6 241	79	3 072	**9 392**	5 832	1 099	**6 931**
	Denmark[1]	10 230	a	**10 230**	x(7)	a	x(7)	**21 254**	x(10)	x(10)	**12 136**
	Estonia	x(3)	x(3)	**6 055**	4 827	x(4)	3 041	**7 868**	x(10)	x(10)	**6 563**
	Finland	8 222	958	**9 180**	10 973	n	7 029	**18 002**	8 759	2 145	**10 905**
	France	8 091	1 238	**9 329**	9 662	808	4 905	**15 375**	8 384	2 071	**10 454**
	Germany	9 260	260	**9 521**	9 457	707	6 559	**16 723**	9 298	1 606	**10 904**
	Greece	m	m	**m**	m	m	m	**m**	m	m	**m**
	Hungary[3]	4 002	525	**4 527**	5 959	1 194	2 056	**9 210**	4 371	1 039	**5 410**
	Iceland	x(3)	x(3)	**9 326**	x(7)	x(7)	x(7)	**8 612**	x(10)	x(10)	**9 180**
	Ireland[3]	9 830	m	**9 830**	11 938	m	4 157	**16 095**	10 175	681	**10 857**
	Israel	5 969	308	**6 277**	10 296	1 258	m	**11 554**	6 699	468	**7 167**
	Italy[3, 5]	8 133	401	**8 534**	6 114	368	3 509	**9 990**	7 659	1 131	**8 790**
	Japan[1]	x(3)	x(3)	**9 102**	x(7)	x(7)	x(7)	**16 446**	x(10)	x(10)	**10 646**
	Korea	6 668	984	**7 652**	8 093	75	1 758	**9 927**	7 125	1 257	**8 382**
	Luxembourg	18 160	1 237	**19 600**	m	m	m	**m**	m	m	**m**
	Mexico	x(3)	x(3)	**2 765**	6 476	m	1 413	**7 889**	3 142	144	**3 286**
	Netherlands	10 268	n	**10 268**	10 665	n	6 884	**17 549**	10 346	1 355	**11 701**
	New Zealand	x(3)	x(3)	**8 831**	9 039	x(4)	1 543	**10 582**	x(10)	x(10)	**9 163**
	Norway	x(3)	x(3)	**13 219**	10 850	187	7 804	**18 840**	x(10)	x(10)	**14 288**
	Poland[3]	6 038	28	**6 066**	7 916	n	1 743	**9 659**	6 420	376	**6 796**
	Portugal[3]	7 102	180	**7 282**	5 219	x(4)	4 421	**9 640**	6 735	1 006	**7 741**
	Slovak Republic[1]	4 390	715	**5 105**	5 036	1 401	1 741	**8 177**	4 508	1 159	**5 667**
	Slovenia	8 267	600	**8 867**	8 248	31	2 134	**10 413**	8 262	971	**9 233**
	Spain	8 010	466	**8 476**	8 939	496	3 737	**13 173**	8 203	1 250	**9 454**
	Sweden	9 435	1 113	**10 548**	9 922	n	10 896	**20 818**	9 524	2 902	**12 426**
	Switzerland[3]	x(3)	x(3)	**14 623**	10 017	x(4)	12 864	**22 882**	x(10)	x(10)	**16 090**
	Turkey	2 423	78	**2 501**	x(7)	x(7)	m	**8 193**	x(10)	x(10)	**3 240**
	United Kingdom	8 938	800	**9 738**	8 975	1 595	3 653	**14 223**	8 944	1 469	**10 412**
	United States	10 879	961	**11 841**	19 896	3 198	2 928	**26 021**	13 107	2 237	**15 345**
	OECD average	8 297	511	**8 868**	9 262	616	4 461	**13 958**	8 002	1 250	**9 487**
	EU21 average	8 761	544	**9 126**	8 344	447	4 405	**13 572**	8 193	1 359	**9 531**
Partners	Argentina[3]	x(3)	x(3)	**2 578**	x(7)	x(7)	x(7)	**m**	x(10)	x(10)	**m**
	Brazil[3]	x(3)	x(3)	**2 667**	10 140	x(4)	762	**10 902**	3 029	37	**3 066**
	China	m	m	**m**	m	m	m	**m**	m	m	**m**
	Colombia[3, 4]	x(3)	x(3)	**2 122**	x(7)	x(7)	x(7)	**3 030**	m	m	**m**
	India	m	m	**m**	m	m	m	**m**	m	m	**m**
	Indonesia	x(3)	x(3)	**560**	x(7)	x(7)	x(7)	**1 173**	x(10)	x(10)	**625**
	Latvia	x(3)	x(3)	**4 995**	5 832	x(4)	1 720	**7 552**	x(10)	x(10)	**5 624**
	Russian Federation	x(3)	x(3)	**4 470**	x(7)	x(7)	526	**7 424**	x(10)	x(10)	**5 328**
	Saudi Arabia	m	m	**m**	m	m	m	**m**	m	m	**m**
	South Africa	m	m	**m**	m	m	m	**m**	m	m	**m**
	G20 average	m	m	**m**	m	m	m	**m**	m	m	**m**

1. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.
2. Year of reference 2010.
3. Public institutions only (for Canada and Colombia, in tertiary education only; for Italy, except in tertiary education).
4. Year of reference 2012.
5. Excludes post-secondary non-tertiary education.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116946

Table B1.3a. Cumulative expenditure per student by educational institutions for all services over the average duration of tertiary studies (2011)

In equivalent USD converted using PPPs for GDP, by type of programme

		Method[1]	Average duration of tertiary studies in 2011 (in years)			Cumulative expenditure per student over the average duration of tertiary studies (in USD)		
			Tertiary-type B education	Tertiary-type A and advanced research programmes	All tertiary education	Tertiary-type B education	Tertiary-type A and advanced research programmes	All tertiary education
			(1)	(2)	(3)	(4)	(5)	(6)
OECD	Australia		m	m	**m**	m	m	**m**
	Austria	CM	2.34	6.10	**5.34**	16 248	91 300	**79 539**
	Belgium[2]	CM	2.41	3.67	**2.99**	x(6)	x(6)	**46 107**
	Canada		m	m	**m**	m	m	**m**
	Chile		m	m	**m**	m	m	**m**
	Czech Republic[3]	CM	2.36	4.34	**4.10**	m	42 777	**m**
	Denmark	AF	2.74	5.49	**5.20**	x(6)	x(6)	**110 520**
	Estonia	CM	3.29	4.97	**4.42**	21 808	41 978	**34 810**
	Finland	CM	a	4.74	**4.74**	a	85 328	**85 328**
	France[3]	CM	3.00	4.74	**4.02**	37 662	77 397	**61 807**
	Germany	CM	2.41	4.95	**4.19**	21 427	90 821	**70 069**
	Greece		m	m	**m**	m	m	**m**
	Hungary[4]	AF	1.85	3.71	**3.29**	9 664	35 335	**30 292**
	Iceland	CM	x(3)	x(3)	**4.49**	x(6)	x(6)	**38 668**
	Ireland[4]	CM	2.21	4.02	**3.24**	x(6)	x(6)	**52 148**
	Israel	CM	m	3.03	**m**	m	38 513	**m**
	Italy	AF	m	4.52	**m**	m	45 168	**m**
	Japan	CM	2.09	4.63	**4.46**	21 312	83 893	**73 364**
	Korea	CM	2.07	4.22	**3.43**	11 782	47 392	**34 048**
	Luxembourg		m	m	**m**	m	m	**m**
	Mexico	AF	1.72	3.49	**3.35**	x(6)	x(6)	**26 428**
	Netherlands	CM	m	5.26	**5.26**	m	92 373	**92 310**
	New Zealand	CM	1.93	4.06	**3.37**	17 137	44 584	**35 655**
	Norway		m	m	**m**	m	m	**m**
	Poland[4]	CM	m	3.68	**m**	m	35 644	**m**
	Portugal		m	m	**m**	m	m	**m**
	Slovak Republic	AF	2.47	3.90	**3.82**	m	31 892	**m**
	Slovenia	AF	2.63	3.64	**3.21**	x(6)	x(6)	**33 409**
	Spain	CM	2.15	5.54	**4.66**	21 590	77 190	**61 386**
	Sweden	CM	2.44	4.70	**4.51**	16 095	103 827	**93 890**
	Switzerland[4]	CM	2.19	5.45	**3.62**	13 932	132 433	**82 929**
	Turkey	CM	1.94	2.73	**2.65**	x(6)	x(6)	**21 746**
	United Kingdom[3]	CM	x(3)	x(3)	**2.74**	x(6)	x(6)	**38 971**
	United States	AF	x(3)	x(3)	**3.17**	x(6)	x(6)	**82 488**
	OECD average		2.21	4.40	**3.93**	~	~	**58 450**
	EU21 average		2.31	4.59	**4.11**	~	~	**63 613**
Partners	Argentina		m	m	**m**	m	m	**m**
	Brazil		m	m	**m**	m	m	**m**
	China		m	m	**m**	m	m	**m**
	Colombia		m	m	**m**	m	m	**m**
	India		m	m	**m**	m	m	**m**
	Indonesia		m	m	**m**	m	m	**m**
	Latvia		m	m	**m**	m	m	**m**
	Russian Federation		m	m	**m**	m	m	**m**
	Saudi Arabia		m	m	**m**	m	m	**m**
	South Africa		m	m	**m**	m	m	**m**
	G20 average		m	m	**m**	m	m	**m**

1. Either the Chain Method (CM) or an Approximation Formula (AF) was used to estimate the duration of tertiary studies.
2. Year of reference 2008.
3. Average duration of tertiary studies is estimated based on national data.
4. Public institutions only (for Hungary, average duration for public and private institutions).

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933116965

B1

Table B1.4. Annual expenditure per student by educational institutions for all services, relative to GDP per capita (2011)

By level of education, based on full-time equivalents

		Pre-primary education (for children 3 years and older)	Primary education	Secondary education			Post-secondary non-tertiary education	Tertiary education (including R&D activities)			All tertiary education (excluding R&D activities)	Primary to tertiary education (including R&D activities)
				Lower secondary education	Upper secondary education	All secondary education		Tertiary-type B education	Tertiary-type A and advanced research programmes	All tertiary education		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
OECD	Australia	25	20	25	23	24	16	20	42	38	23	**25**
	Austria	21	25	32	32	32	14	16	35	35	24	**31**
	Belgium	16	23	x(5)	x(5)	29	x(5)	x(9)	x(9)	38	25	**29**
	Canada[1, 2]	x(2)	25	x(2)	31	m	m	42	73	62	45	**m**
	Chile[3]	24	21	21	21	21	a	23	52	39	37	**26**
	Czech Republic	16	17	29	25	27	8	12	36	35	23	**26**
	Denmark	34	23	26	26	26	x(4, 9)	x(9)	x(9)	51	m	**29**
	Estonia	11	23	26	29	28	36	29	37	34	21	**28**
	Finland	15	21	32	22	25	x(5)	n	47	47	28	**28**
	France	18	19	27	36	31	m	34	45	42	29	**29**
	Germany	20	18	23	29	25	24	22	45	41	25	**27**
	Greece	m	m	m	m	m	m	m	m	m	m	**m**
	Hungary[2]	20	20	21	20	20	14	23	42	41	32	**24**
	Iceland	24	27	27	20	22	x(5)	x(9)	x(9)	23	m	**24**
	Ireland[2]	m	20	27	27	27	27	x(9)	x(9)	37	28	**25**
	Israel	13	23	x(5)	x(5)	19	9	21	42	38	m	**24**
	Italy[2]	23	25	26	25	25	m	27	30	29	19	**26**
	Japan	16	24	28	29	28	x(4, 9)	29	52	47	m	**30**
	Korea	24	24	23	33	28	a	20	39	34	28	**29**
	Luxembourg	28	27	18	18	18	m	m	m	m	m	**m**
	Mexico	15	15	14	24	17	a	x(9)	x(9)	46	38	**19**
	Netherlands	19	19	28	28	28	27	24	41	41	25	**27**
	New Zealand	35	26	28	32	30	31	28	35	34	29	**29**
	Norway	14	27	27	32	30	x(5)	x(9)	x(9)	40	24	**31**
	Poland[2]	29	29	28	26	27	49	31	45	44	36	**31**
	Portugal[2]	22	23	32	36	34	m	x(9)	x(9)	38	20	**30**
	Slovak Republic	19	22	20	19	20	x(4)	x(4)	33	33	26	**23**
	Slovenia	29	33	35	27	30	x(4)	x(9)	x(9)	37	29	**33**
	Spain	21	23	29	31	30	a	31	43	41	29	**29**
	Sweden	17	25	26	26	26	10	16	53	50	24	**30**
	Switzerland[2]	10	25	29	32	31	x(4)	12	47	44	19	**31**
	Turkey	14	12	13	18	15	a	x(9)	x(9)	46	m	**18**
	United Kingdom	29	29	41	19	28	a	x(9)	x(9)	42	31	**31**
	United States	20	22	25	27	26	m	x(9)	x(9)	53	47	**31**
	OECD average	21	23	26	27	26	15	23	43	41	28	**27**
	EU21 average	20	22	26	27	26	13	22	41	39	28	**27**
Partners	Argentina[2]	18	20	27	29	28	a	21	m	m	m	**m**
	Brazil[2]	20	23	23	22	23	a	x(9)	x(9)	93	86	**26**
	China	m	m	m	m	m	m	m	m	m	m	**m**
	Colombia[2, 3]	34	20	21	23	21	a	x(9)	x(9)	29	m	**m**
	India	m	m	m	m	m	m	m	m	m	m	**m**
	Indonesia	m	m	m	m	m	m	m	m	m	m	**m**
	Latvia	22	25	25	25	25	27	37	38	38	29	**28**
	Russian Federation	m	x(5)	x(5)	x(5)	20	a	20	36	33	31	**24**
	Saudi Arabia	m	m	m	m	m	m	m	m	m	m	**m**
	South Africa	m	m	m	m	m	m	m	m	m	m	**m**
	G20 average	m	m	m	m	m	m	m	m	m	m	**m**

1. Year of reference 2010.
2. Public institutions only (for Canada and Colombia, in tertiary education only. For Italy, except in tertiary education).
3. Year of reference 2012.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table B1.5a. Change in expenditure per student by educational institutions for all services, relative to different factors, at the primary, secondary and post-secondary non-tertiary levels of education (1995, 2000, 2005, 2008, 2009, 2010, 2011)

Index of change (GDP deflator 2005 = 100, constant prices)

	Primary, secondary and post-secondary non-tertiary education											
	Change in expenditure (2005 = 100)				Change in the number of students (2005 = 100)				Change in expenditure per student (2005 = 100)			
	2000	2008	2010	2011	2000	2008	2010	2011	2000	2008	2010	2011
	(2)	(3)	(5)	(6)	(8)	(9)	(11)	(12)	(14)	(15)	(17)	(18)
OECD												
Australia	83	110	133	130	93	100	101	103	**89**	**110**	**131**	**126**
Austria	97	105	105	107	101	98	95	94	**95**	**107**	**110**	**113**
Belgium	94	116	115	116	91	96	95	96	**103**	**121**	**121**	**122**
Canada[1, 2]	86	104	117	117	99	100	98	97	**87**	**105**	**119**	**121**
Chile[3]	96	129	126	147	99	96	93	91	**97**	**134**	**135**	**162**
Czech Republic	76	106	111	115	107	93	89	87	**71**	**115**	**125**	**133**
Denmark[1]	86	99	107	99	95	99	105	111	**91**	**100**	**102**	**89**
Estonia[4]	80	126	112	107	121	90	85	83	**66**	**140**	**132**	**128**
Finland	81	107	112	113	95	101	100	99	**85**	**107**	**112**	**114**
France	100	102	105	103	102	100	100	100	**98**	**103**	**105**	**103**
Germany	100	101	109	108	102	95	93	91	**97**	**106**	**117**	**118**
Greece[1]	78	m	m	m	101	m	m	m	**77**	**m**	**m**	**m**
Hungary[4]	69	95	84	79	104	96	94	92	**66**	**99**	**90**	**86**
Iceland	72	106	92	95	94	101	101	101	**77**	**105**	**91**	**94**
Ireland[5]	68	132	140	138	97	104	108	109	**70**	**126**	**130**	**127**
Israel	95	121	130	144	94	104	108	111	**101**	**116**	**120**	**130**
Italy[5, 6]	96	104	97	93	99	100	100	101	**97**	**104**	**97**	**92**
Japan[1]	99	102	105	105	109	97	96	95	**90**	**105**	**109**	**110**
Korea	69	116	126	127	102	98	93	90	**68**	**118**	**135**	**142**
Luxembourg[4, 5, 7]	m	m	104	100	m	m	m	m	**m**	**m**	**m**	**m**
Mexico	80	102	110	113	95	103	105	106	**85**	**99**	**104**	**107**
Netherlands	83	107	116	114	97	101	102	102	**86**	**105**	**114**	**112**
New Zealand	m	m	m	m	m	100	100	99	**m**	**m**	**m**	**m**
Norway[4]	87	107	113	112	95	102	102	102	**92**	**105**	**111**	**110**
Poland	89	115	123	121	110	88	83	80	**81**	**130**	**149**	**151**
Portugal[5]	98	96	109	101	111	100	99	97	**88**	**96**	**110**	**105**
Slovak Republic[1]	73	115	135	125	108	90	84	82	**68**	**128**	**159**	**154**
Slovenia	m	104	104	101	m	93	90	90	**m**	**113**	**115**	**113**
Spain	93	115	119	116	107	102	105	107	**87**	**113**	**113**	**109**
Sweden	88	103	103	103	98	97	91	91	**90**	**107**	**113**	**114**
Switzerland[5]	88	101	106	108	98	99	98	97	**89**	**103**	**109**	**112**
Turkey	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**
United Kingdom	70	100	107	109	113	100	100	102	**62**	**100**	**108**	**107**
United States	86	111	113	107	98	106	100	100	**88**	**105**	**114**	**108**
OECD average	85	109	112	112	101	98	97	97	**85**	**111**	**117**	**117**
EU21 average	85	108	111	108	103	96	95	95	**83**	**112**	**117**	**115**
Partners												
Argentina	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**
Brazil[4, 5]	66	146	170	175	98	96	91	89	**67**	**152**	**187**	**197**
China	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**
Colombia	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**
India	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**
Indonesia	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**
Latvia	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**
Russian Federation	66	132	126	130	m	88	87	88	**m**	**150**	**144**	**147**
Saudi Arabia	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**
South Africa	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**
G20 average	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**

Note: Years 1995 and 2009 (columns 1, 4, 7, 10, 13 and 16) are available for consultation on line (see *Statlink* below).

1. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.
2. Year of reference 2010 instead of 2011.
3. Year of reference 2012 instead of 2011. Year of reference 2006 instead of 2005.
4. Public expenditure only.
5. Public institutions only.
6. Excluding post-secondary non-tertiary education.
7. Including pre-primary education.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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B1

Table B1.5b. Change in expenditure per student by tertiary educational institutions for all services, relative to different factors (1995, 2000, 2005, 2008, 2009, 2010, 2011)

Index of change (GDP deflator 2005 = 100, constant prices)

		Tertiary education											
		Change in expenditure (2005 = 100)				Change in the number of students (2005 = 100)				Change in expenditure per student (2005 = 100)			
		2000	2008	2010	2011	2000	2008	2010	2011	2000	2008	2010	2011
		(2)	(3)	(5)	(6)	(8)	(9)	(11)	(12)	(14)	(15)	(17)	(18)
OECD	Australia	84	111	126	129	m	108	125	129	**m**	**103**	**101**	**100**
	Austria	75	111	126	125	103	118	139	145	**73**	**94**	**90**	**86**
	Belgium	98	118	124	124	94	103	112	116	**104**	**114**	**110**	**107**
	Canada[1, 2, 3]	86	108	117	116	m	m	m	m	**m**	**m**	**m**	**m**
	Chile[4]	84	128	170	184	73	133	161	166	**115**	**97**	**106**	**111**
	Czech Republic	65	133	141	167	72	118	132	133	**90**	**112**	**107**	**125**
	Denmark[1]	86	102	110	113	98	100	108	101	**88**	**102**	**102**	**111**
	Estonia[5]	92	128	140	162	85	99	100	101	**108**	**129**	**139**	**161**
	Finland	86	108	116	120	95	98	99	100	**91**	**110**	**118**	**121**
	France	93	113	117	118	95	99	102	103	**98**	**114**	**115**	**115**
	Germany	94	115	126	131	93	102	113	119	**101**	**113**	**111**	**110**
	Greece[1]	42	m	m	m	68	m	m	m	**63**	**m**	**m**	**m**
	Hungary[3, 5]	81	105	96	112	66	99	86	93	**122**	**107**	**111**	**121**
	Iceland	69	114	101	98	68	110	117	117	**103**	**104**	**86**	**84**
	Ireland[3]	101	135	136	132	85	101	109	109	**118**	**134**	**125**	**121**
	Israel	90	100	107	118	82	101	108	111	**110**	**99**	**99**	**106**
	Italy	93	113	112	114	90	100	98	97	**103**	**113**	**114**	**117**
	Japan[1]	94	109	110	115	99	98	96	97	**95**	**112**	**114**	**119**
	Korea	79	127	138	144	93	103	102	103	**84**	**124**	**135**	**140**
	Luxembourg	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**
	Mexico	73	113	127	122	83	110	120	126	**88**	**102**	**105**	**96**
	Netherlands	86	110	121	124	85	110	119	122	**100**	**100**	**102**	**102**
	New Zealand	m	m	m	m	m	126	133	133	**m**	**m**	**m**	**m**
	Norway[5]	83	102	105	107	88	99	106	109	**95**	**102**	**100**	**98**
	Poland	57	112	120	108	60	99	95	93	**96**	**113**	**126**	**116**
	Portugal[3]	70	107	114	107	90	101	107	110	**78**	**106**	**107**	**97**
	Slovak Republic[1]	67	123	128	141	71	124	124	121	**94**	**99**	**103**	**117**
	Slovenia	m	103	108	113	m	102	104	102	**m**	**101**	**105**	**111**
	Spain	88	119	127	124	107	105	111	114	**82**	**113**	**114**	**108**
	Sweden	86	105	117	120	82	94	103	106	**105**	**112**	**114**	**112**
	Switzerland[3, 5]	77	90	102	107	79	115	128	135	**98**	**78**	**79**	**79**
	Turkey	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**
	United Kingdom	66	115	105	130	93	103	110	110	**70**	**111**	**95**	**118**
	United States	78	112	118	120	89	106	123	126	**88**	**105**	**96**	**96**
	OECD average	81	113	120	125	85	106	113	115	**95**	**108**	**108**	**110**
	EU21 average	80	115	120	125	86	104	109	110	**94**	**110**	**111**	**115**
Partners	Argentina	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**
	Brazil[3, 5]	79	119	148	155	70	110	125	150	**112**	**108**	**119**	**104**
	China	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**
	Colombia	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**
	India	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**
	Indonesia	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**
	Latvia	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**
	Russian Federation	44	147	145	136	m	175	156	149	**m**	**84**	**93**	**91**
	Saudi Arabia	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**
	South Africa	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**
	G20 average	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**

Notes: Years 1995 and 2009 (columns 1, 4, 7, 10, 13 and 16) are available for consultation on line (see *Statlink* below).

1. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.
2. Year of reference 2010 instead of 2011.
3. Public institutions only.
4. Year of reference 2012 instead of 2011. Year of reference 2006 instead of 2005.
5. Public expenditure only.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933117022

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Table B1.6. Annual expenditure per student by secondary educational institutions for all services, by type of programme (2011)

In equivalent USD converted using PPPs for GDP, by level of education, based on full-time equivalents

		Secondary education								
		Lower secondary education			Upper secondary education			All secondary education		
		All programmes	General programmes	Vocational/ Pre-vocational programmes	All programmes	General programmes	Vocational/ Pre-vocational programmes	All programmes	General programmes	Vocational/ Pre-vocational programmes
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OECD	Australia	**10 689**	11 068	6 728	**9 859**	11 337	6 727	**10 354**	11 158	6 727
	Austria	**13 547**	13 547	a	**13 666**	12 668	14 022	**13 607**	13 362	14 022
	Belgium[1]	**x(7)**	x(7)	x(7)	**x(7)**	x(7)	x(7)	**11 732**	x(7)	x(7)
	Canada[1, 2]	**m**	m	m	**11 607**	x(4)	x(4)	**m**	m	m
	Chile[3]	**4 494**	4 494	a	**4 496**	3 840	5 900	**4 495**	4 113	5 900
	Czech Republic	**7 730**	7 699	x(1)	**6 886**	5 867	7 264	**7 270**	7 249	7 302
	Denmark	**10 971**	10 971	a	**10 908**	x(4)	x(4)	**10 937**	x(7)	x(7)
	Estonia	**6 009**	x(1)	x(1)	**6 688**	6 153	7 651	**6 389**	6 074	7 651
	Finland[1]	**12 545**	12 545	a	**8 467**	7 407	8 887	**9 792**	10 639	8 887
	France	**9 668**	9 668	a	**13 071**	12 735	13 587	**11 109**	10 612	13 587
	Germany	**9 247**	9 247	a	**12 022**	9 975	13 995	**10 275**	9 410	13 995
	Greece	**m**	m	m	**m**	m	m	**m**	m	m
	Hungary[4]	**4 709**	4 733	1 931	**4 455**	4 989	3 094	**4 574**	4 848	3 064
	Iceland[1]	**10 160**	10 160	a	**7 461**	x(4)	x(4)	**8 470**	x(7)	x(7)
	Ireland[4]	**11 442**	x(1)	x(1)	**11 576**	x(4)	x(4)	**11 502**	x(7)	x(7)
	Israel	**x(7)**	x(8)	x(9)	**x(7)**	x(8)	x(9)	**5 712**	4 128	13 905
	Italy[4]	**8 686**	8 681	9 646	**8 519**	x(4)	x(4)	**8 585**	x(7)	x(7)
	Japan[1]	**9 677**	9 677	a	**10 093**	x(4)	x(4)	**9 886**	x(7)	x(7)
	Korea	**6 674**	6 674	a	**9 698**	x(4)	x(4)	**8 199**	x(7)	x(7)
	Luxembourg	**16 125**	16 125	a	**16 238**	16 701	15 942	**16 182**	16 289	15 942
	Mexico	**2 344**	2 805	516	**4 034**	3 986	4 522	**2 943**	3 260	1 302
	Netherlands	**12 031**	10 646	15 632	**12 171**	10 028	13 167	**12 100**	10 460	13 890
	New Zealand	**8 670**	8 670	a	**10 023**	9 747	11 033	**9 312**	9 117	11 033
	Norway[1]	**12 769**	12 769	a	**14 838**	x(4)	x(4)	**13 939**	x(7)	x(7)
	Poland[4]	**5 995**	x(1)	x(1)	**5 764**	5 709	5 376	**5 870**	x(7)	x(7)
	Portugal[4]	**8 294**	x(1)	x(1)	**9 139**	x(4)	x(4)	**8 676**	x(7)	x(7)
	Slovak Republic[1]	**5 109**	5 109	x(6)	**4 783**	3 803	5 245	**4 938**	4 769	5 245
	Slovenia[1]	**9 947**	9 947	a	**7 724**	x(4)	x(4)	**8 568**	x(7)	x(7)
	Spain	**9 335**	x(1)	x(1)	**10 090**	x(4)	x(4)	**9 615**	x(7)	x(7)
	Sweden	**10 823**	10 894	m	**11 022**	10 771	11 208	**10 938**	10 848	11 208
	Switzerland[1, 4]	**15 124**	15 124	a	**16 521**	16 035	16 730	**15 891**	15 368	16 730
	Turkey	**2 250**	x(1)	a	**3 239**	3 292	3 181	**2 736**	2 599	3 181
	United Kingdom[1]	**x(7)**	x(7)	x(7)	**x(7)**	x(7)	x(7)	**9 649**	x(7)	x(7)
	United States	**12 338**	12 338	a	**13 143**	13 143	a	**12 731**	12 731	a
	OECD average	**9 377**	~	~	**9 506**	8 613	9 307	**9 280**	8 572	9 643
	EU21 average	**9 568**	~	~	**9 622**	8 900	9 953	**9 615**	9 506	10 436
Partners	Argentina[4]	**2 947**	2 947	a	**3 184**	x(4)	x(4)	**3 034**	x(7)	x(7)
	Brazil[4]	**2 700**	2 700	a	**2 605**	x(4)	x(4)	**2 662**	x(7)	x(7)
	China	**m**	m	m	**m**	m	m	**m**	m	m
	Colombia[3]	**2 164**	x(1)	x(1)	**2 326**	x(4)	x(4)	**2 207**	x(7)	x(7)
	India	**m**	m	m	**m**	m	m	**m**	m	m
	Indonesia[3]	**449**	449	a	**617**	853	307	**522**	571	307
	Latvia	**5 019**	5 025	4 226	**4 983**	5 241	4 599	**4 998**	5 123	4 594
	Russian Federation[1]	**x(7)**	x(8)	a	**x(7)**	x(8)	x(9)	**4 470**	4 492	4 299
	Saudi Arabia	**m**	m	m	**m**	m	m	**m**	m	m
	South Africa	**m**	m	m	**m**	m	m	**m**	m	m
	G20 average	**m**	m	m	**m**	m	m	**m**	m	m

1. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.
2. Year of reference 2010.
3. Year of reference 2012.
4. Public institutions only.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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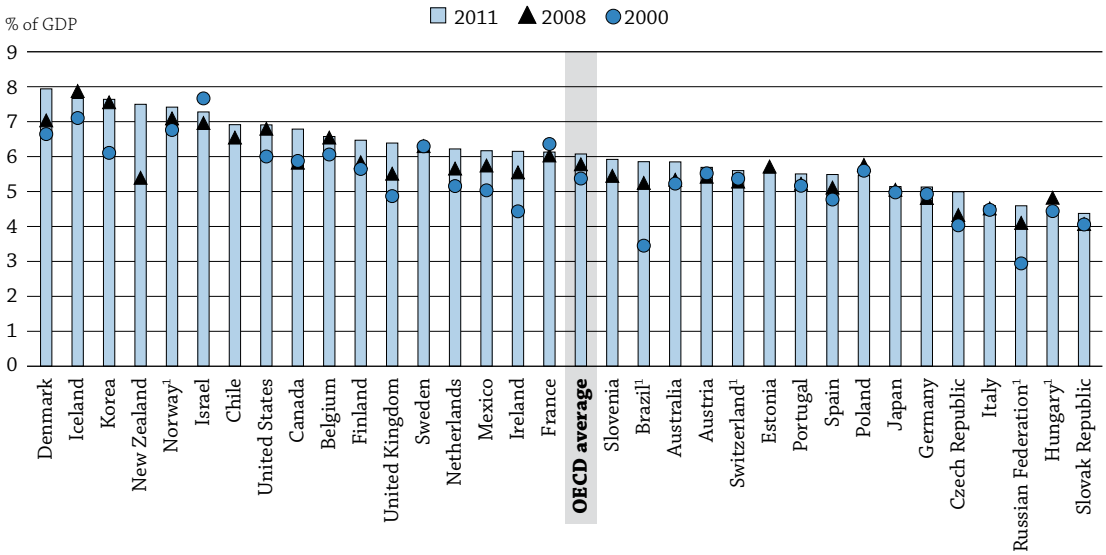
WHAT PROPORTION OF NATIONAL WEALTH IS SPENT ON EDUCATION?

- In 2011, OECD countries spent an average of 6.1% of their GDP on educational institutions; seven countries (Argentina, Denmark, Iceland, Israel, Korea, New Zealand and Norway) spent more than 7%.
- Between 2000 and 2011, expenditure on all levels of education combined increased at a faster rate than GDP growth in almost all countries for which data are available.
- Since the beginning of the economic crisis in 2008 and up to 2011, the GDP rose, in real terms, in half of the countries with available data, while public expenditure on educational institutions fell in only six countries. In the shorter period between 2009 and 2011, GDP rose, in real terms, in most countries, and public expenditure on educational institutions fell in one-third of OECD countries, probably as a consequence of fiscal consolidation policies.

Chart B2.1. Expenditure on educational institutions as a percentage of GDP for all levels of education (2000, 2008 and 2011)



1. Public expenditure only (for Switzerland, in tertiary education only; for Norway, in primary, secondary and post-secondary non-tertiary education only; for the Russian Federation, for 2000 only).

Countries are ranked in descending order of expenditure from both public and private sources on educational institutions in 2011.

Source: OECD. Table B2.2. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933117288

Context

This indicator presents a measure of expenditure on educational institutions relative to a nation's wealth. The national wealth is estimated based on the GDP, and expenditure on education includes spending by governments, enterprises and individual students and their families.

Countries invest in educational institutions to help foster economic growth, enhance productivity, contribute to personal and social development, and reduce social inequality, among other reasons. The proportion of education expenditure relative to GDP depends on the different preferences of various public and private actors. Nevertheless, expenditure on education largely comes from public budgets and is closely scrutinised by governments. During times of financial crisis, even core sectors like education can be subject to budget cuts.

The level of expenditure on educational institutions is affected by the size of a country's school-age population, enrolment rates, level of teachers' salaries, and the organisation and delivery of instruction. At the primary and lower secondary levels of education (corresponding broadly to

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the 5-14 year-old population), enrolment rates are close to 100% in OECD countries, and changes in the number of students are closely related to demographic changes. This is not as much the case in upper secondary and tertiary education, because part of the concerned population has left the education system (see Indicator C1).

Other findings

- **Expenditure on pre-primary education accounts for nearly one-tenth of expenditure on educational institutions**, or 0.6% of the GDP, on average across OECD countries. There are large differences among countries. For instance, expenditure on pre-primary education is less than 0.2% of GDP in Australia and Switzerland but about 1% or more in Denmark and Iceland.
- **Primary, secondary and post-secondary non-tertiary education accounts for nearly two-thirds of expenditure on educational institutions**, or 3.8% of the GDP, on average across OECD countries. Argentina and New Zealand spend the most among OECD and partner countries, with 5% or more of the GDP devoted to these levels of education, while the Czech Republic, Hungary, Japan, Latvia, the Russian Federation, the Slovak Republic and Turkey spend 3% or less of their GDP on these levels.
- **Tertiary education accounts for one-quarter of expenditure on educational institutions**, or 1.6% of GDP, on average across OECD countries. Canada, Chile, Korea and the United States spend between 2.4% and 2.8% of their GDP on tertiary institutions.
- **Private expenditure on educational institutions as a percentage of GDP is highest at the tertiary level, on average across OECD countries.** This share is the highest in Chile, Korea and the United States where it ranges from 1.7% to 1.9% of GDP.

Trends

For all levels of education combined, public investment in education increased by an average of 7% across OECD countries between 2008 and 2011. However, the annual growth of public expenditure on educational institutions slowed during this period, from 4% in 2008-09 to 1% in 2009-10 and 2010-11, on average across OECD countries.

Over the whole period 2008-11, only Estonia, Hungary, Iceland, Italy, the Russian Federation and the United States cut (in real terms) public expenditure on educational institutions; but public expenditure decreased in only five countries in the period 2008-09, and in ten countries between 2009 and 2011. In Hungary, Iceland, Italy, Portugal and the Russian Federation, public expenditure dropped by 5% or more between 2009 and 2011.

B2

Analysis

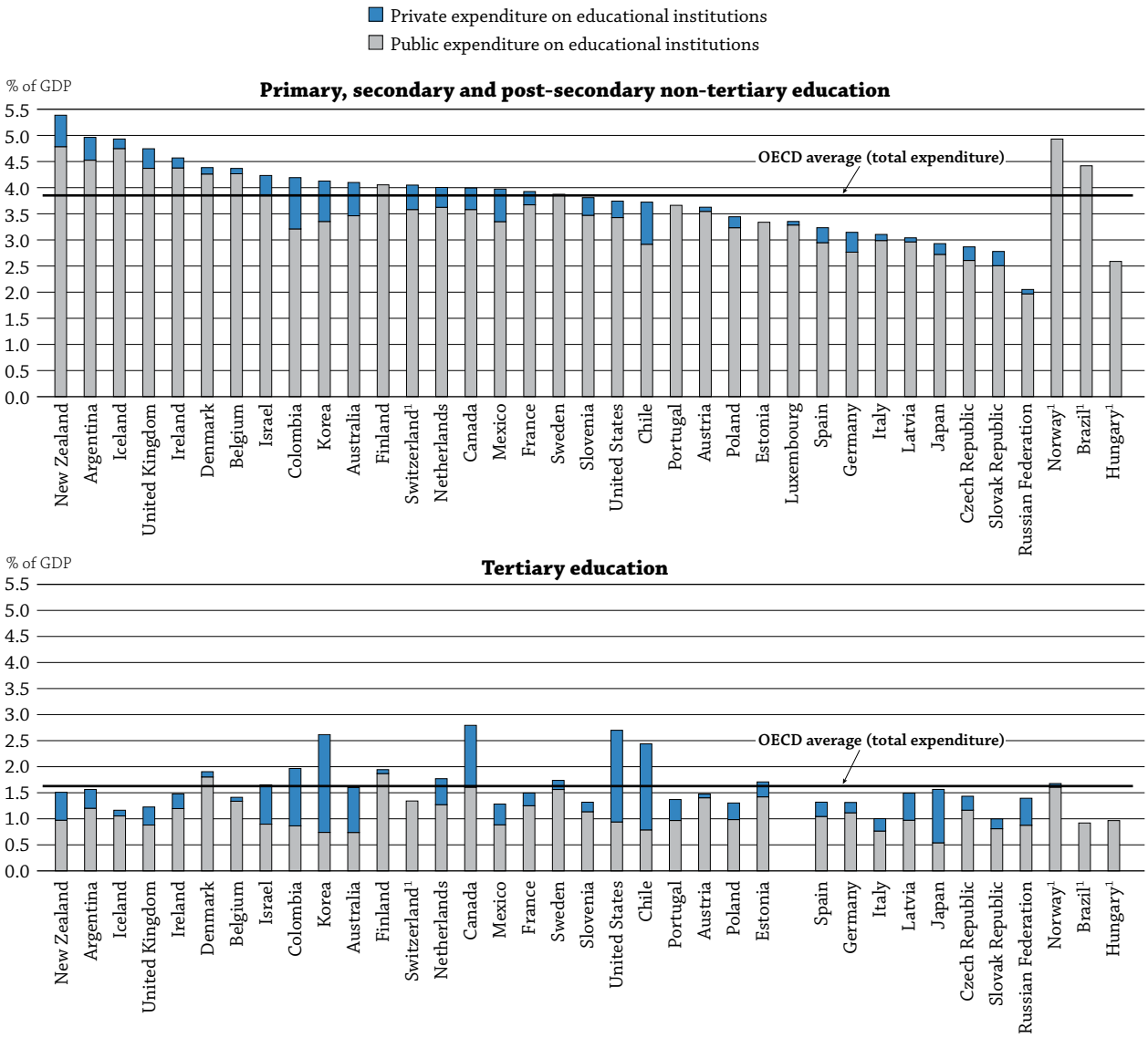
Overall investment relative to GDP

The share of national wealth devoted to educational institutions is substantial in all OECD and partner countries with available data. In 2011, OECD countries spent an average of 6.1% of their GDP on educational institutions; and OECD countries as a whole also spent 6.1% of their combined GDP on educational institutions, taking into account both public and private sources of funds.

In 2011, expenditure on educational institutions (all levels combined) relative to GDP was greater than 6% in half of the OECD and partner countries with available data, and even above 7% in seven of them: Argentina, Denmark, Iceland, Israel, Korea, New Zealand and Norway. At the other end of the spectrum, Hungary, Italy, the Russian Federation, the Slovak Republic and Turkey spent less than 5% of their GDP on education (Table B2.1).

Chart B2.2. Expenditure on educational institutions as a percentage of GDP (2011)

From public and private sources, by level of education and source of funds



1. Public expenditure only (for Switzerland, in tertiary education only; for Norway, in primary, secondary and post-secondary non-tertiary education only).

Countries are ranked in descending order of expenditure from both public and private sources on educational institutions in primary, secondary and post-secondary non-tertiary education.

Source: OECD. Table B2.3. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933117307

Expenditure on educational institutions by level of education

An average of nearly two-thirds of the expenditure on education in all OECD countries is devoted to primary, secondary and post-secondary non-tertiary education, while a quarter goes to tertiary education, and nearly one-tenth to pre-primary education. Primary and lower secondary education receive 42% of the educational expenditure in OECD countries, on average. Expenditure on educational institutions depends on the age of the population. In most cases, countries with above-average expenditure on educational institutions relative to GDP are usually those with an above-average proportion of people whose age corresponds to primary and lower secondary education (Table B2.2 and see Indicator C1).

In all OECD and partner countries with available data, the level of national resources devoted to primary, secondary and post-secondary non-tertiary education combined is the largest share of the total expenditure on educational institutions (compared with the share devoted to pre-primary and tertiary education). This share exceeds 50% in nearly all countries except the Russian Federation (45%). For primary, secondary and post-secondary non-tertiary education, expenditure as a percentage of GDP ranges from 3% or less in the Czech Republic, Hungary, Japan, Latvia, the Russian Federation, the Slovak Republic and Turkey to 5% or more in Argentina and New Zealand.

Expenditure on primary and lower secondary education amounts to 1.5% or more of GDP in all countries, and reaches 3% or more in Argentina, Australia, Brazil, Colombia, Denmark, Iceland, Ireland, Mexico, New Zealand, Norway and the United Kingdom (Table B2.1).

Every country except Denmark and Iceland spends less than 1% of GDP on pre-primary education. Nevertheless, data on pre-primary education should be analysed with care because there are large differences among countries in enrolment rates, the age at which pre-primary education begins, and the extent to which privately funded early childhood education is accounted for (see Indicator C1).

Expenditure on tertiary education amounts to at least 1.5% of GDP in more than half of all countries, and exceeds 2.4% in Canada, Chile, Korea and the United States. Four countries devote 1% or less of GDP to tertiary education, namely Brazil, Hungary, Italy and the Slovak Republic (Table B2.1 and Chart B2.2).

Changes in overall spending on educational institutions between 2000 and 2011

The increase in the number of students enrolled in upper secondary and tertiary education between 2000 and 2011 was accompanied in most countries by an increase in the financial investment at these levels.

Over the period 2000-11, in countries with comparable data, both expenditure on educational institutions (all levels of education combined) and GDP increased (see Table X2.3, Annex 2). In France, Israel and Poland, expenditure on education increased less than GDP, leading to a decrease in expenditure as a proportion of GDP of up to 0.4 percentage point. In all other countries with comparable data, expenditure on educational institutions (all levels of education combined) increased at a faster rate than GDP, resulting in an increase in expenditure on educational institutions as a percentage of GDP (Chart B2.1). The increase was more than one percentage point in Brazil (from 3.5% to 5.9%), Denmark (from 6.6% to 7.9%), Ireland (from 4.4% to 6.2%), Korea (from 6.1% to 7.6%), Mexico (from 5.0% to 6.2%), the Netherlands (from 5.2% to 6.2%), the Russian Federation (from 2.9% to 4.6%), Turkey (from 2.5% to 4.2%) and the United Kingdom (from 4.9% to 6.4%) (Table B2.2).

There were similar changes in expenditure on primary, secondary and post-secondary non-tertiary education combined, as well as on tertiary education.

Effect of the financial crisis on public expenditure on educational institutions between 2008 and 2011

The global economic crisis that began in 2008 had – and is still having – major adverse effects on the different sectors of the economy. With only 2008 to 2011 data, the full impact of the crisis on the funding of educational institutions cannot be assessed, but its first effects on the broader economy can already be observed.

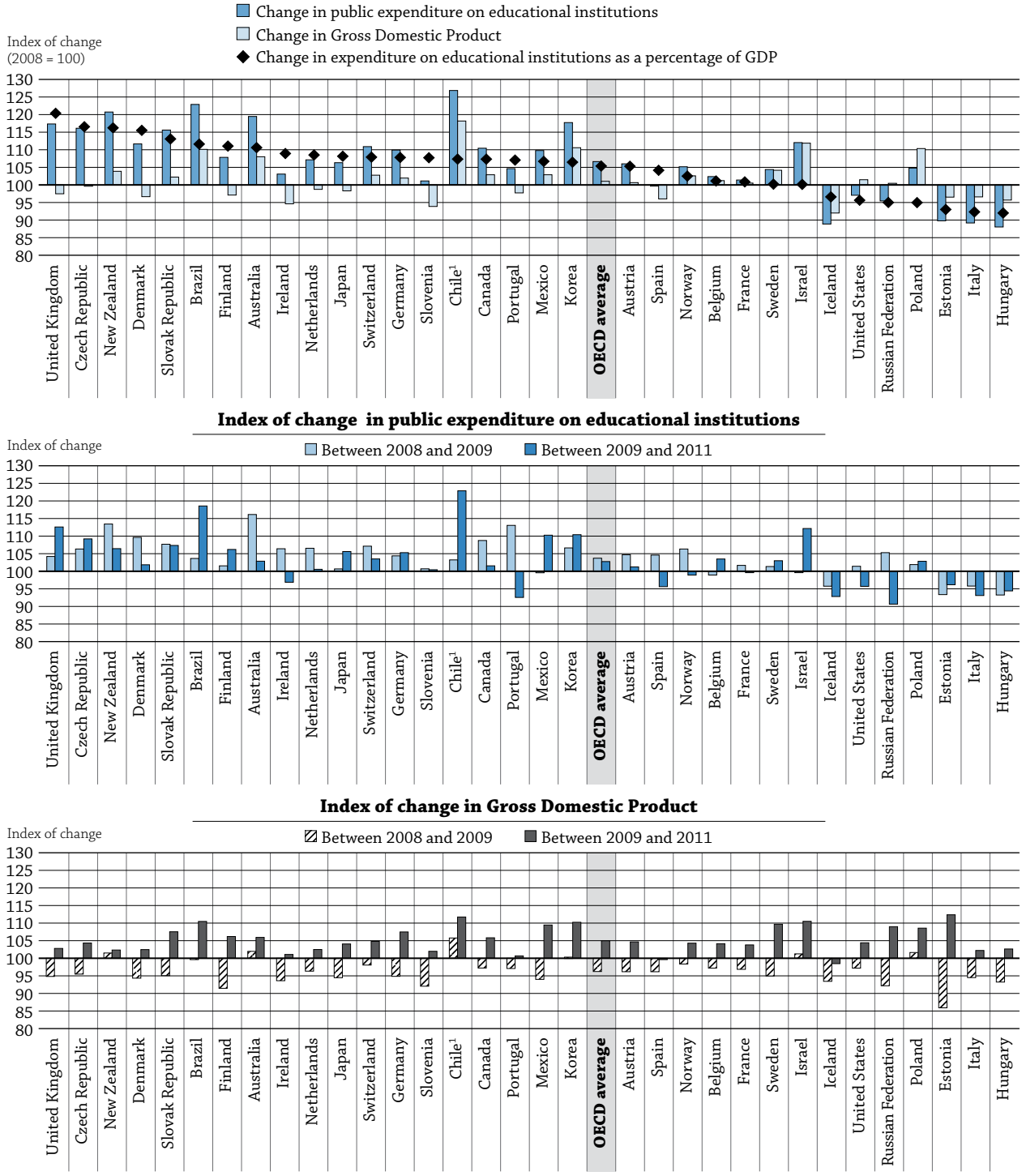
Between 2008 and 2011, GDP (expressed in constant prices) fell in more than one-third of the countries with available data (15 out of 36), and by 5% or more in four countries: Greece, Iceland, Ireland and Slovenia. As more than three-quarters of education expenditure in most countries comes from public sources, how did the downturn in GDP growth affect public spending on education? Available figures show that the education sector was still relatively untouched by early budget cuts.

Since public budgets in most countries are approved many months before the funds are actually spent, there are certain built-in rigidities to the funding of education. Moreover, most governments try to protect education from dramatic reductions in public investment.

B2

Chart B2.3. Impact of the economic crisis on public expenditure on education

Index of change between 2008 and 2011 in expenditure on educational institutions as a percentage of GDP, for all levels of education (2008 = 100, 2011 constant prices)



1. Data refer to 2009-12 instead of 2008-11.

Countries are ranked in descending order of the change in expenditure on educational institutions as a percentage of GDP.

Source: OECD. Table B2.5. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933117326

How to read this chart

The chart shows the change in public investment in education, and in the proportion of national income, between 2008 and 2011, the resulting change in public expenditure on educational institutions as a percentage of GDP, and changes in public spending on educational institutions and in GDP between 2008-09 and 2009-11.

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Among the 34 countries with available data for the 2008-11 period, only six countries cut (in real terms) public expenditure on educational institutions: Estonia (by 10%), Hungary (by 12%), Iceland (by 11%), Italy (by 11%), the Russian Federation (by 5%) and the United States (by 3%). In these countries, this translated into a decrease in expenditure on educational institutions as a percentage of GDP (as the decrease in expenditure was larger than the decrease in GDP or as GDP increased at the same time). In all other countries, public expenditure on educational institutions increased, while GDP decreased in some of them. As a result, the share of GDP devoted to education continued to rise between 2008 and 2011. Exception to this trend is Poland, where GDP increased at a faster rate than public expenditure on educational institutions, resulting in a decrease of public expenditure on educational institution as a percentage of GDP (Chart B2.3).

The overall changes over the three-year period 2008-11 mask different patterns of variations when the periods 2008-09 and 2009-11 are analysed separately.

While GDP decreased between 2008 and 2009 in most of the 30 countries with available data (except Australia, Chile, Israel, Korea, New Zealand and Poland), it increased again in 2010 and/or in 2011 in most countries, leading to an overall increase of GDP between 2009 and 2011 in all countries except two: Greece, where GDP fell in both years and decreased by 12% between 2009 and 2011; and Iceland, where the increase in GDP between 2010 and 2011 did not compensate for the decrease between 2009 and 2010 (a decrease of 2% between 2009 and 2011).

Meanwhile, public expenditure on educational institutions started to decrease with some delay compared to GDP, as a result of the necessary time gap between the beginning of the crisis and the adjustment of public budgets. While GDP decreased in most countries between 2008 and 2009, public expenditure on educational institutions increased in most countries during this period, and by 4% on average across OECD countries. Nevertheless public expenditure decreased by 4% or more in Estonia, Hungary, Iceland and Italy. As GDP fell even more in these countries, public expenditure as a percentage of GDP increased in most countries. This share only decreased slightly (by less than 2%) in Chile and Israel.

Over the period 2009-11, public expenditure decreased between 2009 and 2010, or between 2010 and 2011, or continuously over the two-year period in a larger number of countries than between 2008 and 2009. Over the whole period 2009-11, public expenditure decreased in 10 countries (by more than 5% in Hungary, Iceland, Italy, Portugal and the Russian Federation), while GDP increased in most countries. Combined with the increase in GDP, this led to a decrease of public expenditure on education as a percentage of GDP in all these countries, most significantly in Estonia (by 14%) and the Russian Federation (by 17%). However, in 12 other countries, the increase in public expenditure on education between 2009 and 2011 did not keep up with the increase in GDP, thus public expenditure on education as a percentage of GDP shrank too – by 5% or more in Poland and Sweden.

Expenditure on instruction, research and development, and ancillary services

On average across OECD countries, 90% of all expenditure on primary, secondary and post-secondary non-tertiary education combined is devoted to core services. This share is significantly smaller at the tertiary level (an OECD average of 70%), because other services, particularly those related to research and development (R&D), can represent a large proportion of total spending on education.

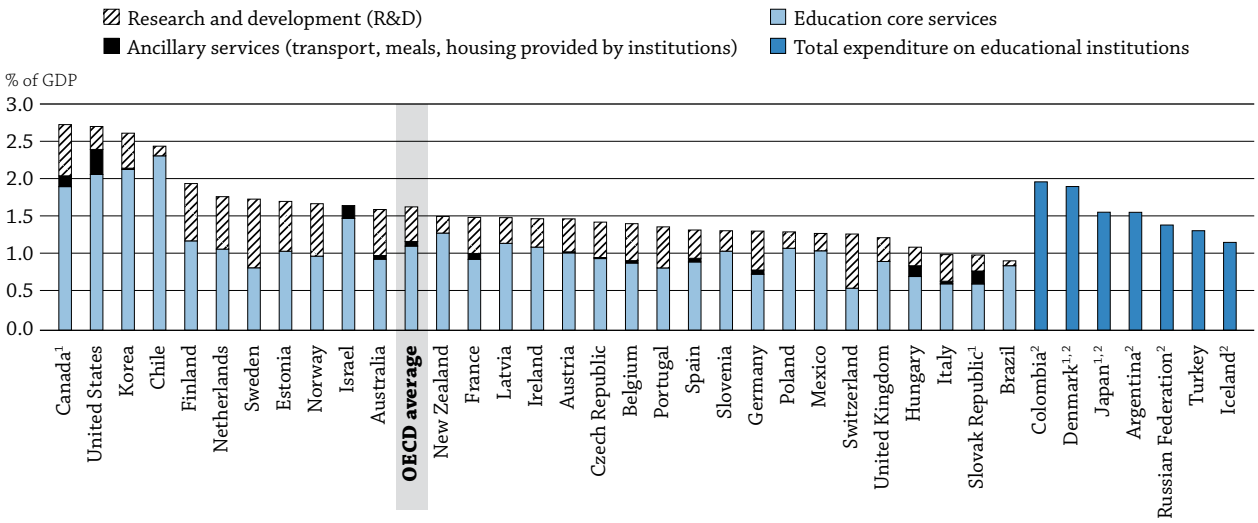
At the tertiary level, the share of R&D expenditure as a percentage of GDP ranges from below 0.2% in Brazil and Chile to more than 0.6% in Australia, Canada, Estonia, Finland, the Netherlands, Norway and Switzerland, and more than 0.9% in Sweden. These differences help to explain variations between countries in overall expenditure per tertiary student (Table B2.4 and Chart B2.4). For example, the high levels of R&D spending in the above mentioned countries imply that spending on educational institutions per student in these countries would be considerably lower if the R&D component were excluded (see Table B1.2).

In many OECD countries, schools and universities provide student welfare services, and in some cases, services for the general public. This expenditure on ancillary services is defrayed by the public sector and by fees paid by students and their families. Some 0.22% of GDP is spent on ancillary services at the primary, secondary and post-secondary non-tertiary levels of education combined, on average across OECD countries (Table B2.4). This proportion is more than 0.4% in Finland, France, Korea and Sweden.

Ancillary services are financed by private users more often at the tertiary level than at any other level. Across OECD countries, an average of 0.06% of GDP is devoted to ancillary services at the tertiary level. This proportion is more than 0.1% in Canada, Hungary, Israel and the Slovak Republic and reaches 0.33% in the United States.

B2

Chart B2.4. Expenditure on educational institutions for core services, R&D and ancillary services as a percentage of GDP, at the tertiary level of education (2011)



1. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.
2. Total expenditure at the tertiary level including expenditure on research and development (R&D).
Countries are ranked in descending order of total expenditure on tertiary education institutions.
Source: OECD. Table B2.4. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933117345

Expenditure on educational institutions by source of funding

Education is funded from both public and private sources. Increased expenditure on educational institutions in response to enrolment growth and other factors implies a heavier financial burden for society as a whole. However, this burden does not fall entirely on public funding (see Indicator A7). On average, of the 6.1% of the combined GDP in the OECD area devoted to education, three-quarters (5.3% of the combined GDP) come from public sources for all levels of education combined (Table B2.3). Public funds are the major source of funding for education in all countries and account for at least 62% (Chile) to nearly 98% (Finland) of total expenditure. However, differences among countries in the breakdown of education expenditure by source of funding and by level of education are great (see Indicator B3).

Definitions

Ancillary services are services provided by educational institutions that are peripheral to the main education mission. The main component of ancillary services is student welfare services. In primary, secondary and post-secondary non-tertiary education, student welfare services include meals, school health services, and transportation to and from school. At the tertiary level, they include residence halls, dining halls and health care.

Core education services include all services that are directly related to instruction in educational institutions, including teachers, school buildings, teaching materials, books and administration of schools.

Expenditure on R&D includes all expenditure on research performed at universities and other tertiary educational institutions, regardless of whether the research is financed from general institutional funds or through separate grants or contracts from public or private sponsors. The classification of expenditure is based on data collected from the institutions carrying out R&D, rather than on the sources of funds.

Private payments for instruction services/goods outside educational institutions include the education goods and services purchased outside the educational institutions. For example, families may purchase textbooks and materials themselves or seek private tutoring for their children.

Methodology

Data refer to the financial year 2011 and are based on the UOE data collection on education statistics administered by the OECD in 2013 (for details, see Annex 3 at *www.oecd.org/edu/eag.htm*).

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Tables of Indicator B2

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Table B2.1	**Expenditure on educational institutions as a percentage of GDP, by level of education (2011)**
Table B2.2	**Trends in expenditure on educational institutions as a percentage of GDP, by level of education (1995, 2000, 2005, 2008, 2009, 2010, 2011)**
Table B2.3	**Expenditure on educational institutions as a percentage of GDP, by source of fund and level of education (2011)**
Table B2.4	**Expenditure on educational institutions, by service category, as a percentage of GDP (2011)**
Table B2.5	**Change in public expenditure on educational institutions as a percentage of GDP (2008, 2009, 2010, 2011)**

B2

Table B2.1. Expenditure on educational institutions as a percentage of GDP, by level of education (2011)

From public and private sources of funds [1]

		Pre-primary education (for children aged 3 and older)	Primary, secondary and post-secondary non-tertiary education				Tertiary education			All levels of education combined (including undistributed programmes)
			All primary, secondary and post-secondary non-tertiary education	Primary and lower secondary education	Upper secondary education	Post-secondary non-tertiary education	All tertiary education	Tertiary-type B education	Tertiary-type A education and advanced research programmes	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OECD	Australia	0.1	4.1	3.2	0.8	0.1	1.6	0.2	1.4	**5.8**
	Austria	0.6	3.6	2.3	1.3	n	1.5	n	1.5	**5.7**
	Belgium[2]	0.6	4.4	1.6	2.8	x(4)	1.4	x(6)	x(6)	**6.6**
	Canada[3]	x(3)	4.0	2.4	1.6	x(7)	2.8	0.9	1.9	**6.8**
	Chile[4]	0.8	3.7	2.5	1.3	a	2.4	0.7	1.8	**6.9**
	Czech Republic	0.5	2.9	1.8	1.1	n	1.4	n	1.4	**5.0**
	Denmark	1.4	4.4	3.1	1.3	x(4, 6)	1.9	x(6)	x(6)	**7.9**
	Estonia	0.4	3.4	2.0	1.1	0.3	1.7	0.5	1.2	**5.5**
	Finland	0.4	4.1	2.5	1.6	x(4)	1.9	n	1.9	**6.5**
	France	0.7	3.9	2.6	1.3	n	1.5	0.3	1.2	**6.1**
	Germany	0.6	3.1	2.0	1.0	0.2	1.3	0.1	1.2	**5.1**
	Greece	m	m	m	m	m	m	m	m	**m**
	Hungary[5]	0.6	2.6	1.5	1.0	0.1	1.0	n	0.9	**4.4**
	Iceland	1.0	4.9	3.6	1.3	x(4)	1.2	x(6)	1.2	**7.7**
	Ireland	x(9)	4.6	3.3	0.9	0.4	1.5	x(6)	x(6)	**6.2**
	Israel	0.7	4.2	2.4	1.8	n	1.7	0.3	1.4	**7.3**
	Italy	0.5	3.1	1.9	1.2	0.1	1.0	n	1.0	**4.6**
	Japan	0.2	2.9	2.1	0.9	x(4, 6)	1.6	0.2	1.3	**5.1**
	Korea	0.3	4.1	2.7	1.5	a	2.6	0.3	2.3	**7.6**
	Luxembourg	0.8	3.4	2.5	0.8	n	m	m	m	**m**
	Mexico	0.6	4.0	3.1	0.9	a	1.3	x(6)	x(6)	**6.2**
	Netherlands	0.4	4.0	2.7	1.3	n	1.8	n	1.8	**6.2**
	New Zealand	0.6	5.4	3.6	1.6	0.2	1.5	0.2	1.3	**7.5**
	Norway[5]	0.5	4.9	3.3	1.6	x(4)	1.7	x(6)	x(6)	**7.4**
	Poland	0.7	3.4	2.4	1.0	n	1.3	n	1.3	**5.5**
	Portugal	0.4	3.7	2.6	1.1	m	1.4	x(6)	x(6)	**5.5**
	Slovak Republic	0.5	2.8	1.8	1.0	x(4)	1.0	x(4)	1.0	**4.4**
	Slovenia	0.8	3.8	2.7	1.1	x(4)	1.3	x(6)	x(6)	**5.9**
	Spain	0.9	3.2	2.5	0.7	a	1.3	0.2	1.1	**5.5**
	Sweden	0.7	3.9	2.6	1.3	n	1.7	x(6)	x(6)	**6.3**
	Switzerland[5]	0.2	4.0	2.6	1.4	x(4)	1.3	n	1.2	**5.6**
	Turkey[5]	0.2	2.7	1.8	0.9	a	1.3	x(6)	x(6)	**4.2**
	United Kingdom	0.4	4.7	3.7	1.0	a	1.2	x(6)	x(6)	**6.4**
	United States	0.5	3.7	2.7	1.0	m	2.7	x(6)	x(6)	**6.9**
	OECD average	0.6	3.8	2.5	1.2	n	1.6	0.2	1.4	**6.1**
	OECD total	0.5	3.6	2.5	1.1	n	1.9	0.2	1.4	**6.1**
	EU21 average	0.6	3.6	2.4	1.2	n	1.4	0.1	1.3	**5.8**
Partners	Argentina	0.7	5.0	3.8	1.1	a	1.6	0.5	1.1	**7.2**
	Brazil[5]	0.5	4.4	3.4	1.0	a	0.9	x(6)	x(6)	**5.9**
	China	m	m	m	m	m	m	m	m	**m**
	Colombia[4]	0.5	4.2	3.6	0.6	a	2.0	x(6)	x(6)	**6.7**
	India	m	m	m	m	m	m	m	m	**m**
	Indonesia	m	m	m	m	m	m	m	m	**m**
	Latvia	0.8	3.0	2.1	0.9	n	1.5	0.2	1.3	**5.4**
	Russian Federation	0.8	2.1	x(2)	x(2)	x(2)	1.4	0.2	1.2	**4.6**
	Saudi Arabia	m	m	m	m	m	m	m	m	**m**
	South Africa	m	m	m	m	m	m	m	m	**m**
	G20 average	m	m	m	m	m	m	m	m	**m**

1. Including international sources.
2. Column 3 only refers to primary education and column 4 refers to all secondary education.
3. Year of reference 2010.
4. Year of reference 2012.
5. Public expenditure only (for Switzerland, in tertiary education only; for Norway, in primary, secondary and post-secondary non-tertiary education only).

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table B2.2. Trends in expenditure on educational institutions as a percentage of GDP, by level of education (1995, 2000, 2005, 2008, 2009, 2010, 2011)

From public and private sources, by year

	Primary, secondary and post-secondary non-tertiary education					Tertiary education					Total all levels of education				
	2000	2005	2008	2010	2011	2000	2005	2008	2010	2011	2000	2005	2008	2010	2011
	(2)	(3)	(4)	(6)	(7)	(9)	(10)	(11)	(13)	(14)	(16)	(17)	(18)	(20)	(21)
OECD															
Australia	3.6	3.7	3.7	4.3	4.1	1.4	1.5	1.5	1.6	1.6	**5.2**	**5.3**	**5.3**	**6.1**	**5.8**
Austria	3.9	3.7	3.6	3.7	3.6	1.1	1.3	1.3	1.5	1.5	**5.5**	**5.5**	**5.4**	**5.8**	**5.7**
Belgium	4.1	4.1	4.4	4.4	4.4	1.3	1.2	1.4	1.4	1.4	**6.1**	**6.0**	**6.5**	**6.6**	**6.6**
Canada[1, 2]	3.3	3.4	3.4	3.7	4.0	2.3	2.4	2.5	2.6	2.8	**5.9**	**5.8**	**5.8**	**6.4**	**6.8**
Chile[3]	4.2	3.2	3.9	3.4	3.7	2.0	1.7	2.0	2.4	2.4	**6.5**	**5.4**	**6.5**	**6.4**	**6.9**
Czech Republic	2.7	2.9	2.6	2.8	2.9	0.8	1.0	1.1	1.2	1.4	**4.0**	**4.5**	**4.3**	**4.7**	**5.0**
Denmark[2]	4.1	4.5	4.2	4.8	4.4	1.6	1.7	1.7	1.9	1.9	**6.6**	**7.4**	**7.0**	**8.0**	**7.9**
Estonia	m	3.5	3.9	3.9	3.4	m	1.2	1.3	1.6	1.7	**m**	**5.0**	**5.7**	**6.0**	**5.5**
Finland	3.6	3.9	3.8	4.1	4.1	1.7	1.7	1.7	1.9	1.9	**5.6**	**6.0**	**5.8**	**6.5**	**6.5**
France	4.3	4.0	3.9	4.1	3.9	1.3	1.3	1.4	1.5	1.5	**6.4**	**6.0**	**6.0**	**6.3**	**6.1**
Germany	3.3	3.2	3.0	3.3	3.1	1.1	1.1	1.2	1.3	1.3	**4.9**	**5.0**	**4.8**	**5.3**	**5.1**
Greece[2]	2.7	2.8	m	m	m	0.8	1.5	m	m	m	**3.6**	**4.3**	**m**	**m**	**m**
Hungary[4]	2.8	3.3	3.0	2.8	2.6	0.9	0.9	0.9	0.8	1.0	**4.4**	**5.1**	**4.8**	**4.6**	**4.4**
Iceland	4.8	5.4	5.1	4.9	4.9	1.1	1.2	1.3	1.2	1.2	**7.1**	**8.0**	**7.9**	**7.8**	**7.7**
Ireland	2.9	3.4	4.1	4.7	4.6	1.5	1.1	1.4	1.6	1.5	**4.4**	**4.5**	**5.5**	**6.4**	**6.2**
Israel	4.3	4.1	4.0	4.0	4.2	1.9	1.9	1.5	1.6	1.7	**7.7**	**7.5**	**7.0**	**7.0**	**7.3**
Italy	3.1	3.1	3.2	3.1	3.1	0.9	0.9	1.0	1.0	1.0	**4.5**	**4.4**	**4.5**	**4.4**	**4.6**
Japan[2]	3.0	2.9	2.8	2.9	2.9	1.4	1.4	1.5	1.5	1.6	**5.0**	**4.9**	**5.0**	**5.1**	**5.1**
Korea	3.5	4.1	4.2	4.2	4.1	2.2	2.3	2.6	2.6	2.6	**6.1**	**6.7**	**7.6**	**7.6**	**7.6**
Luxembourg	m	3.7	m	3.6	3.4	m	m	m	m	m	**m**	**m**	**m**	**m**	**m**
Mexico	3.5	4.0	3.7	4.0	4.0	1.0	1.2	1.2	1.4	1.3	**5.0**	**5.9**	**5.7**	**6.2**	**6.2**
Netherlands	3.4	3.8	3.7	4.1	4.0	1.4	1.5	1.6	1.7	1.8	**5.2**	**5.8**	**5.7**	**6.3**	**6.2**
New Zealand	m	3.9	3.8	4.4	5.4	m	0.9	1.1	1.0	1.5	**m**	**5.1**	**5.4**	**5.9**	**7.5**
Norway[4]	5.0	5.1	4.8	5.1	4.9	1.6	1.7	1.6	1.6	1.7	**6.8**	**7.5**	**7.1**	**7.4**	**7.4**
Poland	3.9	3.7	3.6	3.7	3.4	1.1	1.6	1.5	1.5	1.3	**5.6**	**5.9**	**5.8**	**5.8**	**5.5**
Portugal	3.7	3.7	3.4	3.9	3.7	1.0	1.3	1.3	1.5	1.4	**5.2**	**5.5**	**5.2**	**5.8**	**5.5**
Slovak Republic[2]	2.7	2.9	2.6	3.1	2.8	0.8	0.9	0.9	0.9	1.0	**4.1**	**4.4**	**4.1**	**4.6**	**4.4**
Slovenia	m	4.1	3.7	3.9	3.8	m	1.3	1.1	1.3	1.3	**m**	**6.0**	**5.4**	**5.9**	**5.9**
Spain	3.2	2.9	3.1	3.3	3.2	1.1	1.1	1.2	1.4	1.3	**4.8**	**4.6**	**5.1**	**5.6**	**5.5**
Sweden	4.2	4.2	4.0	4.0	3.9	1.6	1.6	1.6	1.8	1.7	**6.3**	**6.4**	**6.3**	**6.5**	**6.3**
Switzerland[4]	4.0	4.2	3.9	4.0	4.0	1.1	1.4	1.1	1.2	1.3	**5.4**	**5.9**	**5.3**	**5.6**	**5.6**
Turkey[4]	1.8	m	m	2.5	2.7	0.7	m	m	m	1.3	**2.5**	**m**	**m**	**m**	**4.2**
United Kingdom	3.5	4.3	4.1	4.5	4.7	1.0	1.3	1.4	1.3	1.2	**4.9**	**5.9**	**5.5**	**6.2**	**6.4**
United States	3.6	3.6	3.9	4.0	3.7	2.1	2.3	2.5	2.7	2.7	**6.0**	**6.4**	**6.8**	**7.0**	**6.9**
OECD average	3.6	3.7	3.7	3.9	3.8	1.3	1.4	1.5	1.6	1.6	**5.4**	**5.7**	**5.8**	**6.1**	**6.1**
OECD total	3.5	3.6	3.6	3.7	3.6	1.6	1.7	1.8	1.9	1.9	**5.5**	**5.8**	**6.0**	**6.2**	**6.1**
EU21 average	3.5	3.6	3.6	3.8	3.6	1.1	1.3	1.3	1.4	1.4	**5.1**	**5.4**	**5.5**	**5.9**	**5.8**
OECD mean for 25 countries with data for all reference years	3.6	3.7	3.6	3.8	3.7	1.3	1.4	1.5	1.6	1.6	**5.4**	**5.7**	**5.6**	**6.0**	**6.0**
Partners															
Argentina	m	m	m	m	5.0	m	m	m	m	1.6	**m**	**m**	**m**	**m**	**7.2**
Brazil[4]	2.4	3.2	4.1	4.3	4.4	0.7	0.8	0.8	0.9	0.9	**3.5**	**4.4**	**5.2**	**5.6**	**5.9**
China	m	m	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**	**m**
Colombia[3]	m	m	m	m	4.2	m	m	m	m	2.0	**m**	**m**	**m**	**m**	**6.7**
India	m	m	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**	**m**
Indonesia	m	m	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**	**m**
Latvia	m	m	m	m	3.0	m	m	m	m	1.5	**m**	**m**	**m**	**m**	**5.4**
Russian Federation[4]	1.7	1.9	2.0	2.0	2.1	0.5	0.8	0.9	1.0	1.4	**2.9**	**3.8**	**4.1**	**4.0**	**4.6**
Saudi Arabia	m	m	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**	**m**
South Africa	m	m	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**	**m**
G20 average	m	m	m	m	m	m	m	m	m	m	**m**	**m**	**m**	**m**	**m**

Notes: Years 1995 and 2009 (columns 1, 5, 8, 12, 15 and 19) are available for consultation on line (see *Statlink* below). Columns "Total all levels of education" include pre-primary education that is not shown in separate columns in this table.

1. Year of reference 2010 instead of 2011.
2. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.
3. Year of reference 2012 instead of 2011. Year of reference 2006 instead of 2005.
4. Public expenditure only (for Switzerland, in tertiary education only; for Norway, in primary, secondary and post-secondary non-tertiary education only; the Russian Federation, data available for 1995 and 2000 only).

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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B2

Table B2.3. Expenditure on educational institutions as a percentage of GDP, by source of fund and level of education (2011)

From public and private sources of funds

	Pre-primary education			Primary, secondary and post-secondary non-tertiary education			Tertiary education			Total all levels of education		
	Public[1]	Private[2]	Total	Public[1]	Private[2]	Total	Public[1]	Private[2]	Total	Public[1]	Private[2]	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD												
Australia	0.11	0.04	**0.15**	3.5	0.6	**4.1**	0.7	0.9	**1.6**	4.3	1.5	**5.8**
Austria	0.59	n	**0.59**	3.5	0.1	**3.6**	1.4	0.1	**1.5**	5.5	0.2	**5.7**
Belgium	0.63	0.02	**0.64**	4.3	0.1	**4.4**	1.3	0.1	**1.4**	6.4	0.2	**6.6**
Canada[3, 4]	x(4)	x(5)	**x(6)**	3.6	0.4	**4.0**	1.6	1.2	**2.8**	5.2	1.6	**6.8**
Chile[5]	0.63	0.12	**0.75**	2.9	0.8	**3.7**	0.8	1.7	**2.4**	4.3	2.6	**6.9**
Czech Republic	0.47	0.04	**0.51**	2.6	0.3	**2.9**	1.2	0.3	**1.4**	4.4	0.6	**5.0**
Denmark[4]	1.30	0.11	**1.41**	4.3	0.1	**4.4**	1.8	0.1	**1.9**	7.5	0.4	**7.9**
Estonia	0.42	0.01	**0.42**	3.3	n	**3.4**	1.4	0.3	**1.7**	5.2	0.3	**5.5**
Finland	0.40	0.04	**0.45**	4.1	n	**4.1**	1.9	0.1	**1.9**	6.3	0.1	**6.5**
France	0.66	0.04	**0.71**	3.7	0.3	**3.9**	1.3	0.2	**1.5**	5.6	0.5	**6.1**
Germany	0.47	0.12	**0.59**	2.8	0.4	**3.1**	1.1	0.2	**1.3**	4.4	0.7	**5.1**
Greece	m	m	**m**	m	m	**m**	m	m	**m**	m	m	**m**
Hungary	0.63	m	**m**	2.6	m	**m**	1.0	m	**m**	4.4	m	**m**
Iceland	0.73	0.23	**0.96**	4.7	0.2	**4.9**	1.1	0.1	**1.2**	6.9	0.7	**7.7**
Ireland	m	m	**m**	4.4	0.2	**4.6**	1.2	0.3	**1.5**	5.7	0.5	**6.2**
Israel	0.60	0.11	**0.71**	3.8	0.4	**4.2**	0.9	0.8	**1.7**	5.6	1.7	**7.3**
Italy	0.44	0.05	**0.49**	3.0	0.1	**3.1**	0.8	0.2	**1.0**	4.2	0.4	**4.6**
Japan[4]	0.10	0.12	**0.22**	2.7	0.2	**2.9**	0.5	1.0	**1.6**	3.6	1.6	**5.1**
Korea	0.16	0.13	**0.29**	3.4	0.8	**4.1**	0.7	1.9	**2.6**	4.9	2.8	**7.6**
Luxembourg	0.76	0.01	**0.76**	3.3	0.1	**3.4**	m	m	**m**	m	m	**m**
Mexico	0.54	0.10	**0.64**	3.3	0.6	**4.0**	0.9	0.4	**1.3**	5.0	1.1	**6.2**
Netherlands	0.41	0.03	**0.44**	3.6	0.4	**4.0**	1.3	0.5	**1.8**	5.3	0.9	**6.2**
New Zealand	0.51	0.09	**0.60**	4.8	0.6	**5.4**	1.0	0.5	**1.5**	6.3	1.2	**7.5**
Norway	0.48	0.03	**0.51**	4.9	m	**m**	1.6	0.1	**1.7**	7.3	m	**m**
Poland	0.54	0.17	**0.71**	3.2	0.2	**3.4**	1.0	0.3	**1.3**	4.8	0.7	**5.5**
Portugal	0.39	n	**0.39**	3.7	n	**3.7**	1.0	0.4	**1.4**	5.1	0.4	**5.5**
Slovak Republic[4]	0.41	0.08	**0.49**	2.5	0.3	**2.8**	0.8	0.2	**1.0**	3.8	0.5	**4.4**
Slovenia	0.64	0.15	**0.79**	3.5	0.3	**3.8**	1.1	0.2	**1.3**	5.3	0.7	**5.9**
Spain	0.67	0.27	**0.93**	2.9	0.3	**3.2**	1.0	0.3	**1.3**	4.7	0.8	**5.5**
Sweden	0.72	n	**0.72**	3.9	n	**3.9**	1.6	0.2	**1.7**	6.2	0.2	**6.3**
Switzerland	0.19	m	**m**	3.6	0.5	**4.0**	1.3	m	**m**	5.2	0.4	**5.6**
Turkey	m	m	**m**	m	m	**m**	m	m	**m**	m	m	**m**
United Kingdom	0.34	0.08	**0.42**	4.4	0.4	**4.7**	0.9	0.3	**1.2**	5.6	0.8	**6.4**
United States	0.33	0.14	**0.47**	3.4	0.3	**3.7**	0.9	1.8	**2.7**	4.7	2.2	**6.9**
OECD average	0.51	0.08	**0.60**	3.6	0.3	**3.9**	1.1	0.5	**1.6**	5.3	0.9	**6.1**
OECD total	0.38	0.11	**0.49**	3.3	0.3	**3.7**	1.0	1.0	**2.0**	4.8	1.5	**6.2**
EU21 average	0.57	0.07	**0.64**	3.5	0.2	**3.7**	1.2	0.2	**1.5**	5.3	0.5	**5.8**
Partners												
Argentina	0.51	0.18	**0.68**	4.5	0.4	**5.0**	1.2	0.4	**1.6**	6.2	1.0	**7.2**
Brazil	0.52	m	**m**	4.4	m	**m**	0.9	m	**m**	5.9	m	**m**
China	m	m	**m**	m	m	**m**	m	m	**m**	m	m	**m**
Colombia[5]	0.27	0.23	**0.50**	3.2	1.0	**4.2**	0.9	1.1	**2.0**	4.3	2.3	**6.7**
India	m	m	**m**	m	m	**m**	m	m	**m**	m	m	**m**
Indonesia	m	m	**m**	m	m	**m**	m	m	**m**	m	m	**m**
Latvia	0.81	0.02	**0.83**	3.0	0.1	**3.0**	1.0	0.5	**1.5**	4.7	0.6	**5.4**
Russian Federation	0.71	0.09	**0.80**	2.0	0.1	**2.1**	0.9	0.5	**1.4**	3.9	0.7	**4.6**
Saudi Arabia	m	m	**m**	m	m	**m**	m	m	**m**	m	m	**m**
South Africa	m	m	**m**	m	m	**m**	m	m	**m**	m	m	**m**
G20 average	m	m	**m**	m	m	**m**	m	m	**m**	m	m	**m**

1. Including public subsidies to households attributable for educational institutions, and direct expenditure on educational institutions from international sources.
2. Net of public subsidies attributable for educational institutions.
3. Year of reference 2010.
4. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.
5. Year of reference 2012.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table B2.4. Expenditure on educational institutions, by service category, as a percentage of GDP (2011)

Expenditure on instruction, R&D and ancillary services in educational institutions and private expenditure on educational goods purchased outside educational institutions

		Primary, secondary and post-secondary non-tertiary education				Tertiary education				
		Expenditure on educational institutions			Private payments on instructional services/ goods outside educational institutions	Expenditure on educational institutions				Private payments on instruction services/ goods outside educational institutions
		Core education services	Ancillary services (transport, meals, housing provided by institutions)	Total		Core education services	Ancillary services (transport, meals, housing provided by institutions)	Research & development at tertiary institutions	Total	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OECD	Australia	4.03	0.07	**4.10**	0.08	0.94	0.05	0.61	**1.60**	0.15
	Austria	3.47	0.16	**3.63**	m	1.03	0.01	0.44	**1.48**	m
	Belgium	4.25	0.12	**4.37**	0.14	0.89	0.03	0.49	**1.41**	0.22
	Canada[1, 2, 3]	3.80	0.19	**3.99**	m	1.90	0.14	0.68	**2.79**	0.11
	Chile[4]	3.72	m	**3.72**	m	2.31	x(5)	0.13	**2.44**	m
	Czech Republic	2.67	0.20	**2.87**	0.05	0.95	0.01	0.47	**1.43**	0.03
	Denmark[2]	x(3)	x(3)	**4.38**	m	x(8)	a	x(8)	**1.90**	m
	Estonia	x(3)	x(3)	**3.38**	m	1.05	x(5)	0.66	**1.71**	m
	Finland	3.65	0.43	**4.08**	m	1.18	a	0.76	**1.94**	m
	France	3.40	0.52	**3.93**	0.16	0.94	0.08	0.48	**1.49**	0.07
	Germany	3.06	0.09	**3.15**	0.14	0.74	0.06	0.52	**1.31**	0.08
	Greece	m	m	**m**	m	m	m	m	**m**	m
	Hungary[3]	2.06	0.27	**2.33**	m	0.71	0.14	0.25	**1.10**	m
	Iceland	x(3)	x(3)	**4.93**	n	x(8)	x(8)	x(8)	**1.16**	n
	Ireland[3]	4.57	m	**4.57**	0.03	1.10	m	0.38	**1.48**	m
	Israel	4.04	0.21	**4.24**	0.26	1.48	0.17	m	**1.65**	n
	Italy	2.96	0.14	**3.10**	0.42	0.62	0.03	0.35	**1.00**	0.14
	Japan[2]	x(3)	x(3)	**2.93**	0.78	x(8)	x(8)	x(8)	**1.56**	0.04
	Korea	3.60	0.53	**4.13**	m	2.13	0.02	0.46	**2.62**	m
	Luxembourg	3.14	0.21	**3.35**	0.06	m	m	m	**m**	m
	Mexico	3.97	m	**3.97**	0.17	1.05	m	0.23	**1.28**	0.05
	Netherlands	4.00	n	**4.00**	0.14	1.08	n	0.69	**1.77**	0.07
	New Zealand	x(3)	x(3)	**5.39**	0.02	1.29	x(8)	0.22	**1.51**	m
	Norway	x(3)	x(3)	**4.93**	m	0.98	n	0.69	**1.68**	m
	Poland[3]	3.43	0.02	**3.44**	0.23	1.09	n	0.22	**1.30**	0.04
	Portugal[3]	3.58	0.08	**3.66**	0.10	0.83	x(8)	0.54	**1.37**	m
	Slovak Republic[2]	2.39	0.39	**2.78**	0.30	0.61	0.17	0.21	**1.00**	0.15
	Slovenia	3.55	0.26	**3.81**	m	1.05	n	0.27	**1.32**	m
	Spain	3.06	0.17	**3.23**	m	0.91	0.05	0.37	**1.32**	m
	Sweden	3.46	0.41	**3.87**	m	0.83	n	0.91	**1.74**	m
	Switzerland[3]	x(3)	x(3)	**4.05**	m	0.56	x(8)	0.72	**1.28**	m
	Turkey	2.61	0.08	**2.70**	0.85	x(8)	x(8)	m	**1.32**	m
	United Kingdom	x(3)	x(3)	**4.74**	m	0.91	x(8)	0.31	**1.23**	0.15
	United States	3.44	0.30	**3.74**	m	2.06	0.33	0.30	**2.70**	a
	OECD average	3.44	0.22	**3.80**	0.22	1.12	0.06	0.46	**1.59**	0.08
	EU21 average	3.34	0.22	**3.63**	0.16	0.92	0.04	0.46	**1.44**	0.11
Partners	Argentina	x(3)	x(3)	**4.96**	m	x(8)	x(8)	x(8)	**1.56**	m
	Brazil[3]	x(3)	x(3)	**4.42**	m	0.86	x(5)	0.06	**0.92**	m
	China	m	m	**m**	m	m	m	m	**m**	m
	Colombia[4]	x(3)	x(3)	**4.19**	0.07	x(8)	x(8)	x(8)	**1.97**	0.14
	India	m	m	**m**	m	m	m	m	**m**	m
	Indonesia	m	m	**m**	m	m	m	m	**m**	m
	Latvia	x(3)	x(3)	**3.04**	0.30	1.15	x(5)	0.34	**1.49**	0.17
	Russian Federation	x(3)	x(3)	**2.11**	m	x(8)	x(8)	x(8)	**1.39**	m
	Saudi Arabia	m	m	**m**	m	m	m	m	**m**	m
	South Africa	m	m	**m**	m	m	m	m	**m**	m
	G20 average	m	m	**m**	m	m	m	m	**m**	m

1. Year of reference 2010.
2. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.
3. Public institutions only (for Canada, in tertiary education only; for Italy, except in tertiary education).
4. Year of reference 2012.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table B2.5. Change in public expenditure on educational institutions as a percentage of GDP (2008, 2009, 2010, 2011)

Index of change between 2008 and 2011 in public expenditure on educational institutions as a percentage of GDP, for all levels of education (2011 constant prices)

		Change in public[1] expenditure on educational institutions for all levels of education					Change in Gross Domestic Product					Change in public[1] expenditure on educational institutions in percentage of GDP				
			Between 2009 and 2011					Between 2009 and 2011					Between 2009 and 2011			
		Between 2008 and 2009 (2008=100)	Between 2009 and 2010 (2009=100)	Between 2010 and 2011 (2010=100)	Between 2009 and 2011 (2009=100)	Between 2008 and 2011 (2008=100)	Between 2008 and 2009 (2008=100)	Between 2009 and 2010 (2009=100)	Between 2010 and 2011 (2010=100)	Between 2009 and 2011 (2009=100)	Between 2008 and 2011 (2008=100)	Between 2008 and 2009 (2008=100)	Between 2009 and 2010 (2009=100)	Between 2010 and 2011 (2010=100)	Between 2009 and 2011 (2009=100)	Between 2008 and 2011 (2008=100)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
OECD	Australia	116	106	97	**103**	**119**	102	102	104	**106**	**108**	114	104	93	**97**	**111**
	Austria	105	100	101	**101**	**106**	96	102	103	**105**	**101**	109	98	98	**97**	**105**
	Belgium	99	102	101	**103**	**102**	97	102	102	**104**	**101**	102	100	99	**99**	**101**
	Canada	109	101	101	**102**	**110**	97	103	103	**106**	**103**	112	98	98	**96**	**107**
	Chile[2]	103	104	119	**123**	**127**	106	106	106	**112**	**118**	98	98	112	**110**	**107**
	Czech Republic	106	101	109	**109**	**116**	95	102	102	**104**	**100**	111	98	107	**105**	**117**
	Denmark	110	102	100	**102**	**112**	94	101	101	**102**	**97**	116	100	99	**99**	**116**
	Estonia	93	96	101	**96**	**90**	86	103	110	**112**	**97**	109	93	92	**86**	**93**
	Finland	102	104	102	**106**	**108**	91	103	103	**106**	**97**	111	101	99	**100**	**111**
	France	102	101	99	**100**	**101**	97	102	102	**104**	**101**	105	99	97	**96**	**101**
	Germany	104	104	101	**105**	**110**	95	104	103	**107**	**102**	110	100	98	**98**	**108**
	Greece	m	m	m	**m**	**m**	97	95	93	**88**	**86**	m	m	m	**m**	**m**
	Hungary	93	97	98	**94**	**88**	93	101	102	**103**	**96**	100	96	96	**92**	**92**
	Iceland	96	92	101	**93**	**89**	93	96	103	**98**	**92**	102	95	99	**94**	**97**
	Ireland	106	99	98	**97**	**103**	94	99	102	**101**	**95**	114	100	96	**96**	**109**
	Israel	100	107	105	**112**	**112**	101	106	105	**110**	**112**	99	101	100	**102**	**100**
	Italy	96	97	96	**93**	**89**	95	102	100	**102**	**97**	101	95	96	**91**	**92**
	Japan	101	104	101	**106**	**106**	94	105	99	**104**	**98**	107	100	102	**101**	**108**
	Korea	107	104	106	**110**	**118**	100	106	104	**110**	**111**	106	98	102	**100**	**106**
	Luxembourg	m	m	m	**m**	**m**	94	103	102	**105**	**99**	m	m	m	**m**	**m**
	Mexico	100	107	103	**110**	**110**	94	105	104	**109**	**103**	106	102	99	**101**	**107**
	Netherlands	107	102	99	**101**	**107**	96	102	101	**102**	**99**	111	100	98	**98**	**109**
	New Zealand	113	99	108	**106**	**121**	101	100	102	**102**	**104**	112	99	105	**104**	**116**
	Norway	106	99	100	**99**	**105**	98	102	103	**104**	**103**	108	97	98	**95**	**103**
	Poland	102	103	100	**103**	**105**	102	104	105	**109**	**110**	100	99	96	**95**	**95**
	Portugal	113	100	93	**93**	**105**	97	102	99	**101**	**98**	116	98	94	**92**	**107**
	Slovak Republic	108	108	99	**107**	**116**	95	104	103	**108**	**102**	113	104	96	**100**	**113**
	Slovenia	101	101	100	**100**	**101**	92	101	101	**102**	**94**	109	99	99	**98**	**108**
	Spain	105	99	97	**96**	**100**	96	100	100	**100**	**96**	109	99	97	**96**	**104**
	Sweden	101	102	101	**103**	**104**	95	107	103	**110**	**104**	107	96	98	**94**	**100**
	Switzerland	107	101	102	**104**	**111**	98	103	102	**105**	**103**	109	98	101	**99**	**108**
	Turkey	m	m	m	**m**	**m**	95	109	109	**119**	**113**	m	m	m	**m**	**m**
	United Kingdom	104	102	110	**113**	**117**	95	102	101	**103**	**97**	110	100	109	**110**	**120**
	United States	101	98	98	**96**	**97**	97	103	102	**104**	**101**	104	96	96	**92**	**96**
	OECD average	104	101	101	**103**	**107**	96	103	102	**105**	**101**	108	99	99	**98**	**105**
	EU21 average	103	101	100	**101**	**104**	95	102	102	**104**	**98**	109	99	98	**97**	**105**
Partners	Argentina	m	m	m	**m**	**m**	m	m	m	**m**	**m**	m	m	m	**m**	**m**
	Brazil	104	114	104	**119**	**123**	100	110	101	**110**	**110**	104	104	104	**107**	**112**
	China	m	m	m	**m**	**m**	m	m	m	**m**	**m**	m	m	m	**m**	**m**
	Colombia	m	m	m	**m**	**m**	m	m	m	**m**	**m**	m	m	m	**m**	**m**
	India	m	m	m	**m**	**m**	m	m	m	**m**	**m**	m	m	m	**m**	**m**
	Indonesia	m	m	m	**m**	**m**	m	m	m	**m**	**m**	m	m	m	**m**	**m**
	Latvia	m	m	m	**m**	**m**	m	m	m	**m**	**m**	m	m	m	**m**	**m**
	Russian Federation	105	89	102	**91**	**95**	92	105	104	**109**	**100**	114	85	98	**83**	**95**
	Saudi Arabia	m	m	m	**m**	**m**	m	m	m	**m**	**m**	m	m	m	**m**	**m**
	South Africa	m	m	m	**m**	**m**	m	m	m	**m**	**m**	m	m	m	**m**	**m**
	G20 average	m	m	m	**m**	**m**	m	m	m	**m**	**m**	m	m	m	**m**	**m**

1. Excluding subsidies attributable to payments to educational institutions received from public sources.
2. Data refer to 2009-2012 instead of 2008-2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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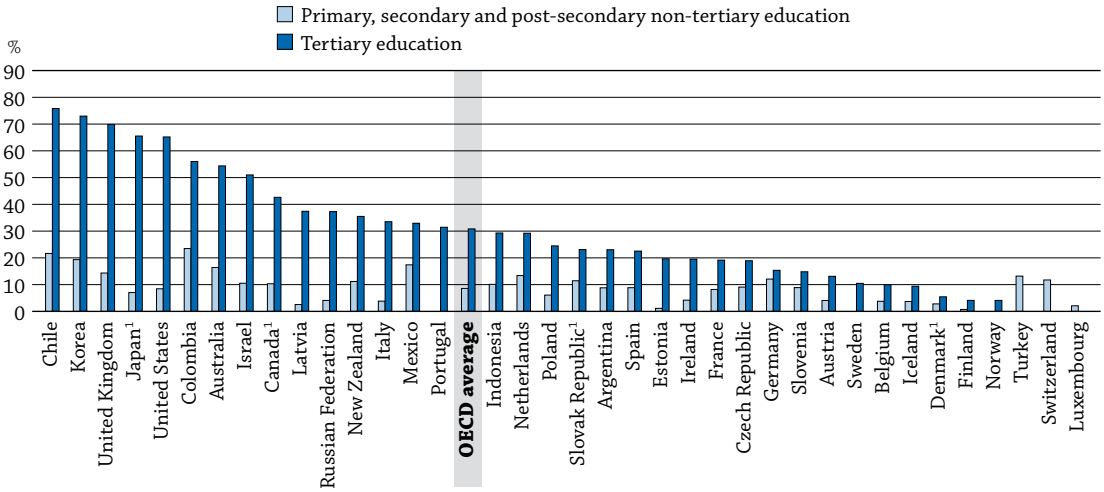
HOW MUCH PUBLIC AND PRIVATE INVESTMENT IN EDUCATION IS THERE?

- Public funding accounts for 84% of all funds for educational institutions, on average across OECD countries.
- Nearly 92% of the funds for primary, secondary and post-secondary non-tertiary educational institutions come from public sources, on average across OECD countries; only in Chile and Colombia is this share less than 80%.
- Tertiary institutions and, to a lesser extent, pre-primary institutions obtain the largest proportions of funds from private sources: 31% and 19%, respectively. Public funding for educational institutions, for all levels combined, increased between 2000 and 2011 in all countries (except Italy) for which comparable data are available. However, with more households sharing the cost of education, private funding increased at an even greater rate in more than three-quarters of countries.

Chart B3.1. Share of private expenditure on educational institutions (2011)



1. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.

Countries are ranked in descending order of the share of private expenditure on educational institutions for tertiary education.

Source: OECD. Table B3.1. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933117478

How to read this chart

The chart shows private spending on educational institutions as a percentage of total spending on educational institutions. This includes all money transferred to educational institutions from private sources, including public funding via subsidies to households, private fees for education services, or other private spending (e.g. on room and board) that goes through the educational institution.

Context

More people are participating in a wider range of educational programmes offered by increasing numbers of providers than ever before. As a result, the question of who should support an individual's efforts to acquire more education – governments or the individuals themselves – is becoming increasingly important. In the current economic environment, many governments are finding it difficult to provide the necessary resources to support the increased demand for education in their countries through public funds alone. In addition, some policy makers assert that those who benefit the most from education – the individuals who receive it – should bear at least some of the costs. While public funding still represents a large part of countries' investment in education, the role of private sources of funding is becoming increasingly prominent.

The balance between public and private financing of education is an important policy issue in many OECD countries, especially at the pre-primary and tertiary levels of education, for which full or nearly full public funding is less common. At these levels, private funding comes mainly from households,

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raising concerns about equity of access to education. The debate is particularly intense with respect to funding for tertiary education. Some stakeholders are concerned that the balance between public and private funding should not become so tilted as to discourage potential students from entering tertiary education. Others believe that countries should significantly increase public support to students, while still others support efforts to increase the amount of funding to tertiary education provided by private enterprises. By contrast, primary, secondary and post-secondary non-tertiary education, which is mainly compulsory, is usually conceived as a public good and is thus mainly financed by public funds.

Other findings

- Public funds are mainly allocated to public institutions, but also to private institutions to varying degrees. **For all levels of education combined, public expenditure on public institutions, per student, is nearly twice the level of public expenditure on private institutions, on average across OECD countries**. However, the ratio varies from less than twice for primary, secondary and post-secondary non-tertiary education (1.8) and at the pre-primary level (1.8), to nearly three times (2.9) at the tertiary level.
- **The countries with the lowest amounts of public expenditure per student, in public and private tertiary institutions, are also those with the fewest students enrolled in public tertiary institutions, except Colombia, Mexico and Poland**.
- In most countries for which data are available, **individual households account for most of the private expenditure on tertiary education**. Argentina, Austria, Belgium, Canada, the Czech Republic and Sweden are the exceptions, where private expenditure from entities other than households (e.g. private businesses and non-profit organisations) is more significant than private expenditure from households, mainly because tuition fees charged by tertiary institutions are low or negligible in these countries (with the exception of Canada).

Trends

Between 2000 and 2011, the average share of public funding for tertiary institutions decreased from 73.7% in 2000, to 69.1% in 2005 and then slightly to 68.3% in 2011 (on average across the 20 OECD countries for which trend data are available for all years) (Table B3.2c). This trend is mainly influenced by some European countries, where significant changes in tuition fees took place and where enterprises participate more actively in providing grants to finance tertiary institutions.

Between 2000 and 2011, the share of private funding for tertiary education increased in more than three-quarters of the countries for which comparable data are available (21 of 26 countries). This share increased by six percentage points, on average across OECD countries, and by more than nine percentage points in Austria, Israel, Italy, Mexico, Portugal, the Slovak Republic and the United Kingdom (Table B3.2c). In these countries, except Italy, the private share of funding increased the most between 2000 and 2008, as a result of a much larger increase in private funding than in public funding.

Between 2000 and 2011, the share of private funding also rose at the primary, secondary, post-secondary non-tertiary levels and at all levels of education combined, on average across OECD countries, most significantly in the Slovak Republic and the United Kingdom (for all levels of education combined) (Tables B3.2a and b).

Analysis

Public and private expenditure on educational institutions

Educational institutions in OECD countries are mainly publicly funded, although there is a substantial – and growing – level of private funding at the tertiary level. On average across OECD countries, 84% of all funds for educational institutions come directly from public sources; 16% come from private sources (Table B3.1).

However, the share of public and private funding varies widely among countries. Comparing expenditure on all levels of education, the share of private funds exceeds 19% in Canada, Israel and Mexico, 25% in Australia, Colombia, Japan, the United Kingdom and the United States, and 35% in Chile and Korea. By contrast, in Finland and Sweden less than 3% of expenditure on education comes from private sources (Table B3.1).

Private spending on education for all levels of education combined increased between 2000 and 2011, on average across OECD countries with available data for all years; and in most countries, private expenditure as a percentage of total expenditure on educational institutions also increased. As a result, the share of public funding for educational institutions decreased by at least three percentage points in nearly a quarter of OECD countries (Canada, Israel, Italy, Mexico, Portugal and the United States), and by more than ten percentage points in the Slovak Republic and the United Kingdom. These decreases are mainly due to significant increases in the level of private expenditure during this period. For example, in Portugal and the United Kingdom, the tuition fees charged by tertiary educational institutions increased substantially (Tables B3.2a and c).

However, decreases in the public share of total expenditure on educational institutions (and consequent increases in the share of private expenditure) have not gone hand-in-hand with cuts (in real terms) in public expenditure on educational institutions, as only Italy saw a decrease in public expenditure between 2000 and 2011 (Table B3.2a). In fact, many of the OECD countries with the greatest growth in private spending have also had the largest increases in public funding. This indicates that an increase in private spending tends to complement public investment, rather than replace it. However, in most countries there had been a much larger increase in private funding than in public funding between 2000 and 2005 than between 2005 and 2011. As a result, the average share of public funding for countries with available data for all years decreased from 86.0% in 2000 to 83.5% in 2005 and then remained stable until 2011 (83.2%).

However, the shares of public and private expenditure on educational institutions vary across countries and by level of education.

Public and private expenditure on primary, secondary and post-secondary non-tertiary educational institutions

Public funding dominates primary, secondary and post-secondary non-tertiary education in all countries. Less than 10% of funding for these levels of education comes from private sources, except in Australia, Canada, Chile, Colombia, Germany, Indonesia, Israel, Korea, Mexico, the Netherlands, New Zealand, the Slovak Republic, Switzerland, Turkey and the United Kingdom (Table B3.2b and Chart B3.2). In most countries, the largest share of private expenditure at these levels comes from households and goes mainly towards tuition. In the Netherlands and Switzerland, however, most private expenditure takes the form of contributions from the business sector to the dual system of apprenticeship in upper secondary and post-secondary non-tertiary education (see Box B3.1 in *Education at a Glance 2011*).

Between 2000 and 2011, the share of public funding for primary, secondary and post-secondary non-tertiary education decreased slightly among the 20 countries with available data for all years (from 91.6% in 2000 to 91.0% in 2011). This share shrank by two percentage points or more in Canada, Israel, Mexico and the United Kingdom, and by up to nine percentage points in the Slovak Republic. In the other countries, shifts in the opposite direction, i.e. towards public funding, exceeded three percentage points between 2000 and 2011 in Chile (from 68.4% to 78.3%) and Japan (89.8% to 93.0%) (Table B3.2b).

Public and private expenditure on tertiary educational institutions

High private returns to tertiary education (see Indicator A7) suggest that a greater contribution to the costs of education by individuals and other private entities may be justified, as long as there are ways to ensure that funding is available to students regardless of their economic backgrounds (see Indicator B5). In all countries, the proportion of private expenditure on education is far higher for tertiary education – an average of 31% of total expenditure at this level – than it is for primary, secondary and post-secondary non-tertiary education (Table B3.1).

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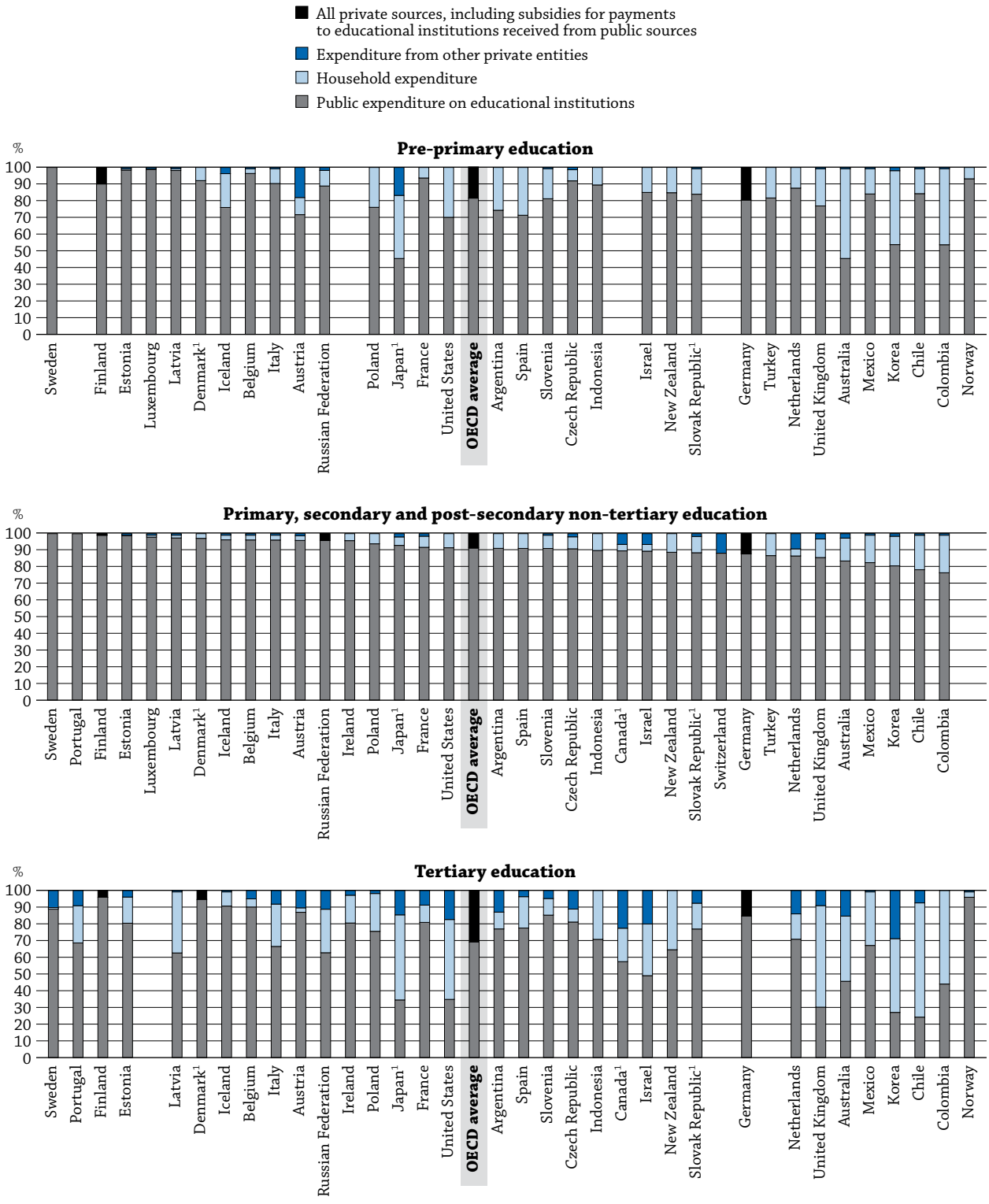
Chart B3.2. Distribution of public and private expenditure on educational institutions (2011)

By level of education



1. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.

Countries are ranked in descending order of the proportion of public expenditure on educational institutions in primary, secondary and post-secondary non-tertiary education.

Source: OECD. Table B3.1. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933117497

The proportion of expenditure on tertiary institutions covered by individuals, businesses and other private sources, including subsidised private payments, ranges from less than 6% in Denmark, Finland and Norway (tuition fees charged by tertiary institutions are low or negligible in these countries) to more than 40% in Australia, Canada, Colombia, Israel, Japan and the United States, and to nearly 70% or more in Chile, Korea and the United Kingdom (Chart B3.2 and Table B3.1). Of these countries, in Korea and the United Kingdom, most students are enrolled in private institutions (around 80% in private universities in Korea; 100% in government-dependent private institutions in the United Kingdom). In Korea more than 40% of the educational budget comes from tuition fees. In the United Kingdom tertiary education is funded via a combination of tuition fees, paid by students directly to the institution, and central government grants paid indirectly from a higher education funding agency (see Indicators B5 and C7).

The contribution from private entities other than households to financing educational institutions is higher for tertiary education than for other levels of education, on average across OECD countries. In more than one-third of OECD countries with available data (Australia, Austria, Canada, the Czech Republic, Israel, Japan, Korea, the Netherlands, Sweden and the United States) and in Argentina and the Russian Federation, 10% or more of expenditure on tertiary institutions is covered by private entities other than households. In Sweden, these contributions are largely directed to sponsoring research and development.

In many OECD countries, greater participation in tertiary education (see Indicator C1) reflects strong individual and social demand. The increases in enrolment have been accompanied by increases in investment from both public and private sources, and changes in the proportions of public and private expenditure. On average across the 20 OECD countries for which trend data are available for all reference years, the share of public funding for tertiary institutions decreased from 73.7% in 2000 to 69.1% in 2005, and continued to gradually decrease over the following years to 68.3% in 2011. The decrease in this share is particularly large in some countries, mostly European countries, where there had been large increases in private funding, from tuition fees and/or as enterprises participate more actively, largely through grants to tertiary institutions. In most countries with available data for the different years, the change in the share of public/private funding had been smaller since 2008. In some countries, most notably Austria, Chile, the Czech Republic, Portugal and the Slovak Republic, the share of public funding decreased between 2000 and 2008, then increased between 2008 and 2011 (Table B3.2c, Chart B3.3 and see Indicator B5).

Twenty-one of the 26 countries for which comparable data are available for 2000 and 2011 showed an increase in the share of private funding for tertiary education. This increase exceeded 9 percentage points in Austria, Israel, Italy, Mexico, Portugal and the Slovak Republic, and 37 percentage points in the United Kingdom. In Australia, the increase was particular large between 1995 and 2000, due to changes to the Higher Education Contribution Scheme/Higher Education Loan Programme implemented in 1997. In the United Kingdom, the huge increase is the result of successive increases in tuition fees during the past decade (for more details, see Indicator B5 and Annex 3). By contrast, Chile, Ireland, Korea, Poland and Spain show a significant decrease in the share of private expenditure on tertiary educational institutions between 2000 and 2011. In Ireland, tuition fees for tertiary first-degree programmes have gradually been eliminated over the past decade, leading to a reduction in the share of private spending at this level.

In some countries, trends in the changes in the share of public/private funding move in opposite directions, before and after 2008. In Ireland, Spain and the United States for example, the share of private funds decreased between 2000 and 2008 and then increased between 2008 and 2011, to a lesser extent, except in the United States. By contrast, in Australia, Austria, Chile, the Czech Republic, Japan, Korea, Portugal, the Slovak Republic (and, to a lesser extent, in Belgium, Finland and Sweden) the share of private funds increased between 2000 and 2008, and then decreased between 2008 and 2011, but overall the share of private funds increased between 2000 and 2011 in all these countries except Chile and Korea. Poland is the only country in which the share of private funding decreased in both the 2000-08 and 2008-11 periods (Chart B3.3).

Between 2000 and 2011, private expenditure on educational institutions generally increased faster than public expenditure. Nevertheless, public investment in tertiary education also increased in all countries for which 2000 and 2011 data are available, regardless of the changes in private spending. Four of the ten countries with the largest increases in private expenditure during this period (Austria, Chile, the Czech Republic and the Slovak Republic) are also among the ten countries with the largest increases in public expenditure (Table B3.2c).

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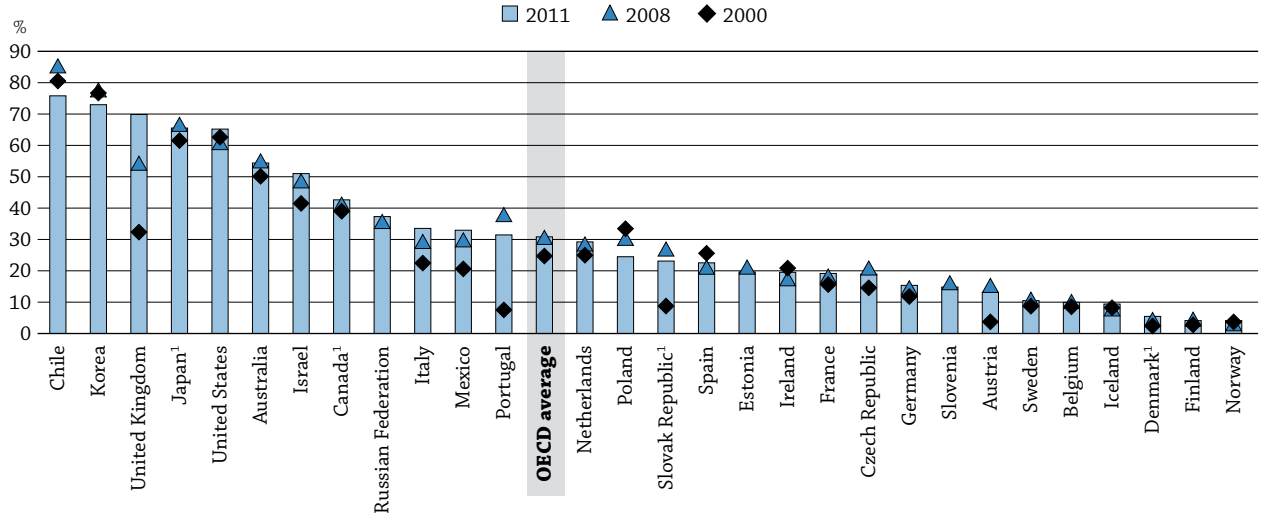
Public expenditure on educational institutions per student, by type of institution

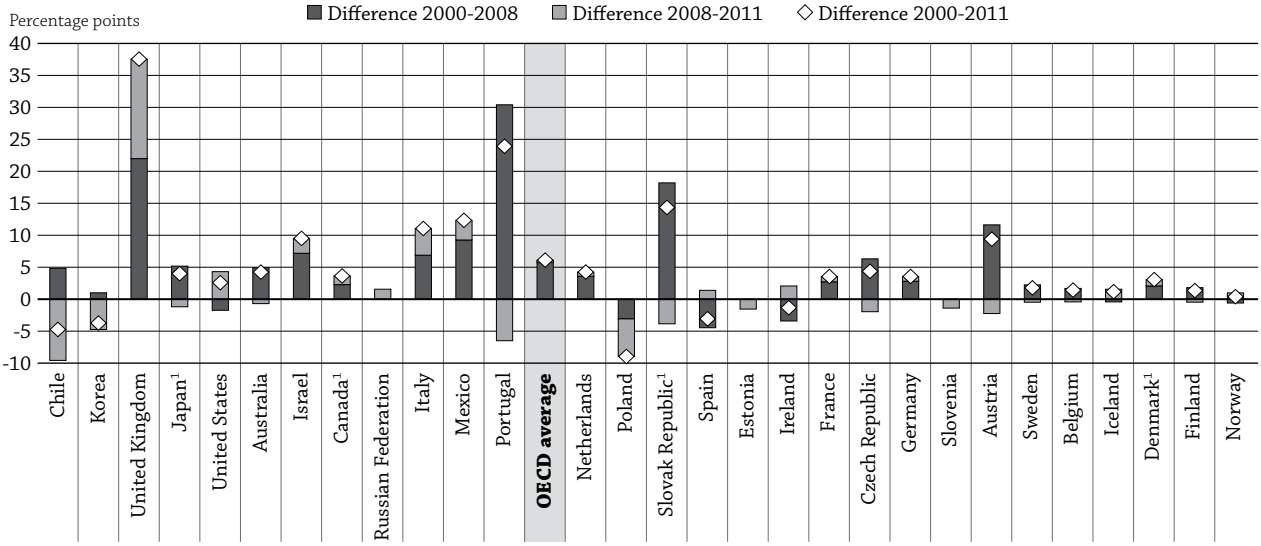
The level of public expenditure partly shows the degree to which governments value education (see Indicators B2 and B4). Naturally, public funds go to public institutions; but in some cases a significant part of the public budget may be devoted to private educational institutions.

Table B3.3 shows public investment in educational institutions relative to the size of the education system, focusing on public expenditure, per student, on public and private educational institutions (private funds are excluded from Table B3.3, although in some countries they represent a significant share of the resources of educational institutions, especially at the tertiary level). This can be considered a measure that complements public expenditure relative to national income (see Indicator B2).

Chart B3.3. Share of private expenditure on tertiary educational institutions (2000, 2008 and 2011) and change, in percentage points, in the share of private expenditure between 2000 and 2011



Change (in percentage points) in the proportion of private expenditure between 2000 and 2011



1. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.

Countries are ranked in descending order of the share of private expenditure on educational institutions in 2011.

Source: OECD. Table B3.2c. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

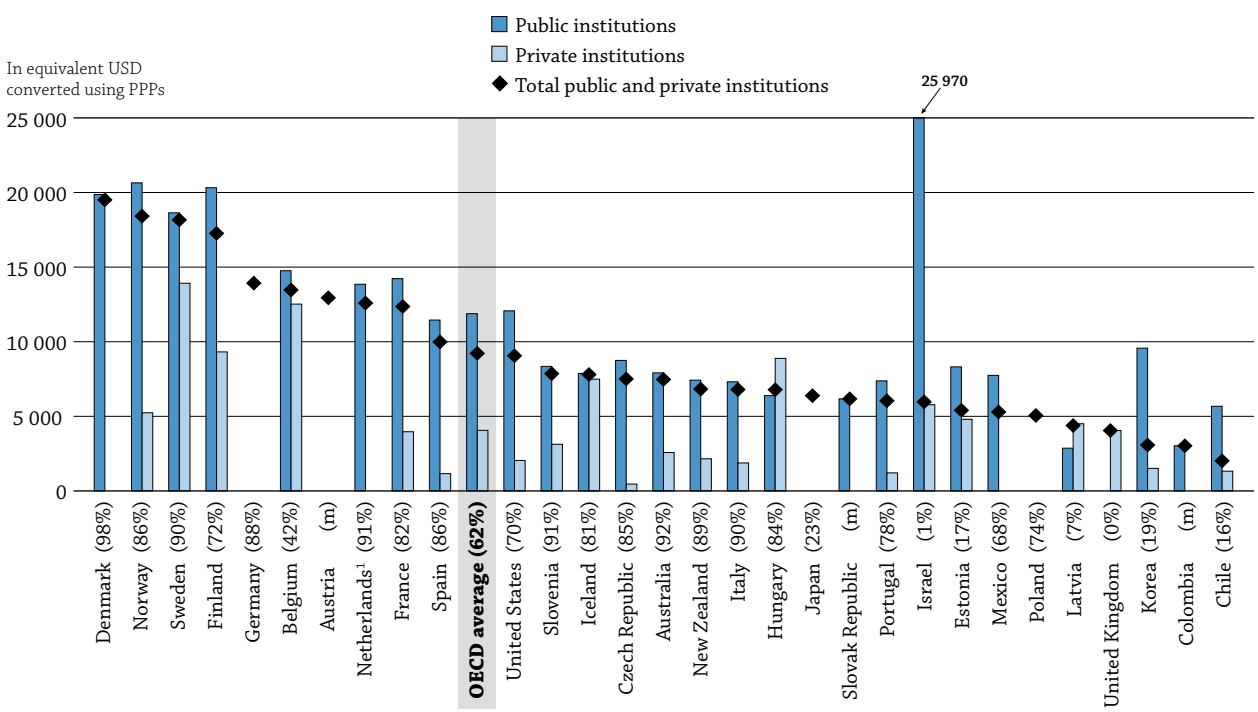
StatLink http://dx.doi.org/10.1787/888933117516

On average across OECD countries, at all levels of education combined, public expenditure, per student, on public institutions is nearly twice the public expenditure, per student, on private institutions (USD 8 952 and USD 4 614, respectively). However, the difference varies according to the level of education. At the pre-primary level, public expenditure, per student, on public institutions is around 1.8 times that on private institutions (USD 6 502 and USD 3 618, respectively) as it is for primary, secondary and post-secondary non-tertiary education (USD 8 762 and USD 4 918, respectively). At the tertiary level, public expenditure, per student, on public institutions is nearly three times that on private institutions (USD 11 877 and USD 4 061, respectively).

At the pre-primary level, public expenditure per student on both public and private institutions averages USD 6 043 in OECD countries, but varies from less than USD 2 000 in Turkey and in partner country Colombia, to more than USD 22 000 in Luxembourg. Public expenditure per pupil is usually higher for public institutions than for private institutions, but private institutions generally enrol fewer pupils than public institutions. For example, in Mexico, public expenditure per pupil on private institutions is negligible, and a relatively small proportion of pupils is enrolled in private institutions. In contrast, nearly all pupils in New Zealand are enrolled in private institutions, and public expenditure per student on private institutions is higher than average (USD 9 526) (Tables B3.3 and see Table C2.2).

At the primary, secondary and post-secondary non-tertiary levels of education (the levels with the largest proportion of public funds, Table B3.2b), public expenditure per student on both public and private institutions averages USD 7 996 in OECD countries, but varies from less than USD 2 300 in Mexico, Turkey and partner country Colombia to more than USD 10 000 in Austria, Belgium, Luxembourg, Norway, Sweden and the United States. At this level, most students are enrolled in public institutions, and public expenditure per student is usually higher on public than on private institutions, except in Colombia, Finland, Israel and Norway (Table B3.3). In the three OECD countries, between 7% and 25% of pupils are enrolled in private institutions. In Mexico and the Netherlands, the amount of public expenditure, per student, on private institutions is small or negligible, as the private sector is marginal and receives little or no public funds (see Table C1.4).

Chart B3.4. Annual public expenditure on educational institutions per student in tertiary education, by type of institution (2011)



Note: The figures in brackets represent the percentage of students enrolled in public institutions in tertiary education, based on full-time equivalents.
1. Government-dependent private institutions are included with public institutions.
Countries are ranked in descending order of public expenditure on public and private educational institutions per student.
Source: OECD. Table B3.3. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933117535

At the tertiary level, public expenditure per student on both public and private institutions averages USD 9 221 in OECD countries, but varies from about USD 2 000 in Chile to more than USD 17 000 in Denmark, Finland, Norway and Sweden, four countries in which the share of private expenditure is small or negligible. In all countries with available data except Hungary and Latvia, public expenditure per student is higher on public than on private institutions (Table B3.3 and Chart B3.4).

At this level, patterns in the allocation of public funds to public and private institutions differ. In Denmark and the Netherlands, at least 90% of students are enrolled in public institutions, and most public expenditure goes to these institutions. Public expenditure, per student, on public institutions is higher than the OECD average, and public expenditure per student on private institutions is negligible. In these countries, private funds complement public funds to varying degrees: private expenditure is less than 6% of total expenditure for public and private educational institutions in Denmark and above 28% in the Netherlands (Chart B3.4 and Table B3.1).

In Belgium, Estonia, Hungary, Iceland and Sweden, public expenditure goes to both public and private institutions, and public expenditure, per student, on private institutions represents at least 58% – and up to more than 100% – of the level of public expenditure, per student, on public tertiary institutions (Table B3.3). However, these countries show different participation patterns. In Hungary, Iceland and Sweden, at least 80% of students are enrolled in public institutions, whereas in Belgium and Estonia, tertiary students are mainly enrolled in government-dependent private institutions. In all these countries, the share of private expenditure on tertiary institutions is below the OECD average. In the remaining countries, public expenditure goes mainly to public institutions (Chart B3.4 and Table B3.3).

Definitions

Other private entities include private businesses and non-profit organisations, e.g. religious organisations, charitable organisations and business and labour associations.

Private spending includes all direct expenditure on educational institutions, whether partially covered by public subsidies or not. Expenditure by private companies on the work-based element of school- and work-based training of apprentices and students is also taken into account. Public subsidies attributable to households, included in private spending, are shown separately.

The **public and private proportions of expenditure on educational institutions** are the percentages of total spending originating in, or generated by, the public and private sectors.

Public expenditure is related to all students at public and private institutions, whether these institutions receive public funding or not.

Methodology

Data refer to the financial year 2011 and are based on the UOE data collection on education statistics administered by the OECD in 2013 (for details see Annex 3 at *www.oecd.org/edu/eag.htm*).

Not all spending on instructional goods and services occurs within educational institutions. For example, families may purchase commercial textbooks and materials or seek private tutoring for their children outside educational institutions. At the tertiary level, students' living expenses and foregone earnings can also account for a significant proportion of the costs of education. All expenditure outside educational institutions, even if publicly subsidised, is excluded from this indicator. Public subsidies for educational expenditure outside institutions are discussed in Indicators B4 and B5.

A portion of the budgets of educational institutions is related to ancillary services offered to students, including student welfare services (student meals, housing and transport). Part of the cost of these services is covered by fees collected from students and is included in the indicator.

The data on expenditure for 1995 and 2000 were obtained by a survey updated in 2012, in which expenditure for 1995 and 2000 were adjusted to the methods and definitions used in the current UOE data collection.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

B3

Tables of Indicator B3

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Table B3.1	Relative proportions of public and private expenditure on educational institutions, by level of education (2011)
Table B3.2a	Trends in relative proportion of public expenditure on educational institutions and index of change in public and private expenditure, for all levels of education (1995, 2000, 2005, 2008 to 2011)
Table B3.2b	Trends in relative proportion of public expenditure on educational institutions and index of change in public and private expenditure, at primary, secondary, post-secondary non-tertiary level (1995, 2000, 2005, 2008 to 2011)
Table B3.2c	Trends in relative proportion of public expenditure on tertiary educational institutions and index of change in public and private expenditure (1995, 2000, 2005, 2008 to 2011)
Table B3.3	Annual public expenditure on educational institutions per student, by type of institution (2011)

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Table B3.1. Relative proportions of public and private expenditure on educational institutions, by level of education (2011)

Distribution of public and private sources of funds for educational institutions after transfers from public sources

	Primary, secondary and post-secondary non-tertiary education					Tertiary education					All levels				
		Private sources					Private sources					Private sources			
	Public sources	Household expenditure	Expenditure of other private entities	All private sources[1]	Private: of which, subsidised	Public sources	Household expenditure	Expenditure of other private entities	All private sources[1]	Private: of which, subsidised	Public sources	Household expenditure	Expenditure of other private entities	All private sources[1]	Private: of which, subsidised
	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
OECD															
Australia	**83.6**	13.8	2.6	**16.4**	0.9	**45.6**	39.0	15.4	**54.4**	0.5	**72.2**	21.7	6.1	**27.8**	1.4
Austria	**95.9**	2.8	1.3	**4.1**	1.8	**86.9**	2.7	10.5	**13.1**	8.2	**91.1**	3.5	5.4	**8.9**	6.2
Belgium	**96.2**	3.7	0.1	**3.8**	1.4	**90.1**	4.9	5.1	**9.9**	4.5	**95.0**	3.8	1.1	**5.0**	2.0
Canada[2, 3]	**89.7**	3.9	6.4	**10.3**	x(6)	**57.4**	20.0	22.6	**42.6**	1.1	**76.4**	10.5	13.1	**23.6**	0.5
Chile[4]	**78.3**	20.8	0.9	**21.7**	a	**24.2**	68.3	7.5	**75.8**	8.1	**59.9**	36.9	3.2	**40.1**	2.8
Czech Republic	**90.9**	7.2	1.9	**9.1**	n	**81.1**	7.8	11.2	**18.9**	n	**88.1**	7.5	4.5	**11.9**	n
Denmark[3]	**97.2**	2.8	n	**2.8**	n	**94.5**	x(14)	x(14)	**5.5**	n	**94.5**	4.2	1.2	**5.5**	m
Estonia	**98.9**	0.9	0.2	**1.1**	m	**80.4**	15.6	4.0	**19.6**	m	**93.7**	5.0	1.3	**6.3**	m
Finland	**99.3**	x(9)	x(9)	**0.7**	n	**95.9**	x(14)	x(14)	**4.1**	0.2	**97.6**	x(19)	x(19)	**2.4**	n
France	**91.8**	6.7	1.5	**8.2**	1.7	**80.8**	10.4	8.8	**19.2**	2.6	**89.4**	7.5	3.1	**10.6**	m
Germany	**87.9**	x(9)	x(9)	**12.1**	m	**84.7**	x(14)	x(14)	**15.3**	m	**86.4**	x(19)	x(19)	**13.6**	m
Greece	**m**	m	m	**m**	m	**m**	m	m	**m**	m	**m**	m	m	**m**	m
Hungary	**m**	m	m	**m**	n	**m**	m	m	**m**	n	**m**	m	m	**m**	m
Iceland	**96.3**	3.5	0.2	**3.7**	a	**90.6**	8.7	0.7	**9.4**	a	**90.3**	8.4	1.3	**9.7**	a
Ireland	**95.8**	4.2	m	**4.2**	n	**80.5**	16.6	2.9	**19.5**	n	**92.3**	7.1	0.7	**7.7**	n
Israel	**89.5**	4.0	6.5	**10.5**	1.2	**49.0**	30.9	20.1	**51.0**	5.3	**75.1**	15.7	9.2	**24.9**	2.0
Italy	**96.2**	3.6	0.2	**3.8**	n	**66.5**	25.3	8.2	**33.5**	9.1	**89.2**	8.9	1.9	**10.8**	2.0
Japan[3]	**93.0**	5.1	2.0	**7.0**	m	**34.5**	50.9	14.6	**65.5**	m	**69.5**	20.5	9.9	**30.5**	m
Korea	**80.7**	17.8	1.5	**19.3**	0.6	**27.0**	44.1	28.9	**73.0**	1.2	**62.8**	26.4	10.9	**37.2**	1.1
Luxembourg	**97.9**	1.8	0.3	**2.1**	n	**m**	m	m	**m**	m	**m**	m	m	**m**	m
Mexico	**82.6**	17.3	0.1	**17.4**	1.7	**67.1**	32.6	0.4	**32.9**	1.9	**80.3**	19.6	0.2	**19.7**	1.5
Netherlands	**86.6**	4.3	9.1	**13.4**	3.9	**70.8**	15.2	14.1	**29.2**	0.3	**82.3**	7.9	9.8	**17.7**	3.0
New Zealand	**88.8**	11.2	x(7)	**11.2**	m	**64.5**	35.5	x(12)	**35.5**	m	**83.6**	16.4	x(17)	**16.4**	m
Norway	**m**	m	m	**m**	m	**95.9**	3.4	0.7	**4.1**	m	**m**	m	m	**m**	m
Poland	**93.9**	6.1	m	**6.1**	m	**75.5**	22.6	1.9	**24.5**	n	**87.2**	x(19)	x(19)	**12.8**	m
Portugal	**99.9**	n	m	**n**	m	**68.6**	22.3	9.2	**31.4**	m	**92.5**	5.3	2.2	**7.5**	m
Slovak Republic[3]	**88.6**	9.8	1.6	**11.4**	1.7	**76.9**	15.4	7.7	**23.1**	3.8	**85.7**	11.5	2.8	**14.3**	2.1
Slovenia	**91.1**	8.2	0.7	**8.9**	n	**85.2**	9.9	4.9	**14.8**	n	**88.5**	10.0	1.5	**11.5**	n
Spain	**91.1**	8.9	a	**8.9**	a	**77.5**	18.7	3.8	**22.5**	1.7	**84.5**	14.6	0.9	**15.5**	0.4
Sweden	**100.0**	n	a	**n**	a	**89.5**	0.2	10.3	**10.5**	n	**97.2**	n	2.7	**2.8**	n
Switzerland	**88.3**	n	11.7	**11.7**	0.2	**m**	m	m	**m**	m	**m**	m	m	**m**	m
Turkey	**86.8**	13.2	a	**13.2**	a	**m**	m	m	**m**	m	**m**	m	m	**m**	m
United Kingdom	**85.7**	11.2	3.2	**14.3**	6.4	**30.2**	60.7	9.1	**69.8**	39.9	**74.9**	21.0	4.1	**25.1**	12.4
United States	**91.6**	8.4	m	**8.4**	m	**34.8**	47.8	17.4	**65.2**	m	**67.9**	25.3	6.8	**32.1**	m
OECD average	**91.4**	~	~	**8.6**	0.9	**69.2**	~	~	**30.8**	3.8	**83.9**	~	~	**16.1**	2.0
EU21 average	**93.9**	~	~	**6.1**	1.1	**78.6**	~	~	**21.4**	4.4	**89.4**	~	~	**10.6**	2.3
Partners															
Argentina	**91.2**	8.8	a	**8.8**	m	**76.9**	10.0	13.0	**23.1**	m	**86.5**	10.7	2.8	**13.5**	n
Brazil	**m**	m	m	**m**	m	**m**	m	m	**m**	m	**m**	m	m	**m**	m
China	**m**	m	m	**m**	m	**m**	m	m	**m**	m	**m**	m	m	**m**	m
Colombia[4]	**76.5**	23.3	0.2	**23.5**	m	**44.0**	56.0	n	**56.0**	m	**65.1**	34.7	0.2	**34.9**	m
India	**m**	m	m	**m**	m	**m**	m	m	**m**	m	**m**	m	m	**m**	m
Indonesia[4]	**89.9**	10.1	a	**10.1**	m	**70.7**	29.3	m	**29.3**	m	**87.0**	13.0	m	**13.0**	m
Latvia	**97.4**	2.4	0.2	**2.6**	m	**62.6**	37.2	0.2	**37.4**	m	**88.3**	11.5	0.2	**11.7**	m
Russian Federation	**95.9**	x(9)	x(9)	**4.1**	a	**62.7**	26.0	11.3	**37.3**	a	**84.9**	x(19)	x(19)	**15.1**	a
Saudi Arabia	**m**	m	m	**m**	m	**m**	m	m	**m**	m	**m**	m	m	**m**	m
South Africa	**m**	m	m	**m**	m	**m**	m	m	**m**	m	**m**	m	m	**m**	m
G20 average	**m**	m	m	**m**	m	**m**	m	m	**m**	m	**m**	m	m	**m**	m

Note: Pre-primary level (columns 1, 2, 3, 4 and 5) is available for consultation on line (see *StatLink* below).

1. Including subsidies attributable to payments to educational institutions received from public sources.
2. Year of reference 2010 instead of 2011.
3. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.
4. Year of reference 2012 instead of 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933117383

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Table B3.2a. Trends in relative proportion of public expenditure[1] on educational institutions and index of change in public and private expenditure, for all levels of education (1995, 2000, 2005, 2008 to 2011)

Index of change of public sources of funds for educational institutions after transfers from public sources, by year

	Share of public expenditure on educational institutions (%)					Index of change between 1995 and 2011 in expenditure on educational institutions (2005 = 100, constant prices)							
						Public sources				Private sources[2]			
	2000	2005	2008	2010	2011	2000	2008	2010	2011	2000	2008	2010	2011
	(2)	(3)	(4)	(6)	(7)	(9)	(10)	(12)	(13)	(15)	(16)	(18)	(19)
OECD													
Australia	74.1	72.7	71.6	74.1	72.2	85	109	134	130	79	115	125	133
Austria	94.0	91.4	90.8	91.0	91.1	95	107	112	113	64	116	118	118
Belgium	94.3	94.2	94.3	94.8	95.0	93	116	118	119	92	113	104	100
Canada[3]	79.9	75.5	76.0	75.8	76.4	94	107	117	118	73	104	115	112
Chile[4]	55.2	52.8	58.9	57.9	59.9	92	146	157	186	83	114	127	139
Czech Republic	89.9	87.6	87.3	87.7	88.1	76	112	120	131	60	116	119	125
Denmark	96.0	92.3	92.2	94.5	94.5	88	98	109	110	44	100	76	76
Estonia	m	92.4	94.7	93.0	93.7	83	131	117	118	m	90	107	96
Finland	98.0	97.8	97.4	97.6	97.6	83	107	114	116	76	126	121	124
France	91.2	90.8	90.0	89.8	89.4	98	104	107	105	94	115	120	124
Germany	86.1	85.7	85.4	85.9	86.4	97	105	114	115	94	107	112	108
Greece	93.8	94.0	m	m	m	68	m	m	m	70	m	m	m
Hungary	88.3	91.3	m	m	m	71	99	89	87	99	m	m	m
Iceland	90.0	89.6	90.9	90.4	90.3	72	112	98	99	69	96	90	92
Ireland	90.5	93.7	93.8	92.5	92.3	74	133	139	137	115	129	167	170
Israel	79.8	74.9	78.0	77.6	75.1	98	120	128	134	74	101	110	133
Italy	94.3	91.4	91.4	90.1	89.2	98	106	98	95	63	106	115	123
Japan	71.0	68.6	66.4	70.2	69.5	99	103	108	109	89	114	100	105
Korea	59.2	58.9	59.6	61.6	62.8	73	128	143	151	72	125	128	128
Luxembourg	m	m	m	m	m	m	m	m	m	m	m	m	m
Mexico	85.3	80.3	80.8	80.5	80.3	82	107	114	118	57	104	113	118
Netherlands	84.0	84.3	83.3	83.3	82.3	83	106	115	113	85	113	123	131
New Zealand	m	78.4	82.4	82.6	83.6	89	110	123	133	m	85	94	94
Norway	95.0	m	98.2	98.1	m	79	106	111	111	m	m	m	m
Poland	89.0	90.7	87.1	86.2	87.2	80	111	117	116	96	160	182	167
Portugal	98.6	92.6	90.5	92.6	92.5	96	96	108	100	18	126	108	101
Slovak Republic	96.4	83.9	82.5	84.2	85.7	84	114	133	132	16	126	129	114
Slovenia	m	87.0	88.4	88.4	88.5	m	108	109	109	m	94	96	94
Spain	87.4	88.6	87.1	85.4	84.5	87	118	122	118	97	136	161	168
Sweden	97.0	97.0	97.3	97.5	97.2	87	106	110	111	89	97	93	104
Switzerland	m	m	m	m	m	86	98	106	108	74	107	97	97
Turkey	98.6	m	m	m	m	m	m	m	m	m	m	m	m
United Kingdom	85.2	80.0	69.5	68.6	74.9	76	85	91	100	53	150	167	134
United States	72.0	71.8	71.5	69.4	67.9	83	111	110	108	83	112	124	129
OECD average	86.7	84.3	84.0	84.2	83.9	85	110	116	118	74	114	119	119
OECD average for 21 countries with data available for all reference years	86.0	83.5	82.9	83.2	83.2	88	110	117	119	72	116	121	123
EU21 average	91.9	90.3	89.1	89.1	89.4	85	109	113	113	74	118	123	121
Partners													
Argentina	m	m	m	m	86.5	m	m	m	m	m	m	m	m
Brazil	m	m	m	m	m	69	140	165	172	m	m	m	m
China	m	m	m	m	m	m	m	m	m	m	m	m	m
Colombia[4]	m	m	m	m	65.1	m	m	m	m	m	m	m	m
India	m	m	m	m	m	m	m	m	m	m	m	m	m
Indonesia[4]	m	m	m	m	87.0	m	m	m	m	m	m	m	m
Latvia	m	m	m	m	88.3	m	m	m	m	m	m	m	m
Russian Federation	m	m	85.8	84.2	84.9	58	134	126	128	m	m	m	m
Saudi Arabia	m	m	m	m	m	m	m	m	m	m	m	m	m
South Africa	m	m	m	m	m	m	m	m	m	m	m	m	m
G20 average	m	m	m	m	m	m	m	m	m	m	m	m	m

Note: Years 1995 and 2009 (columns 1, 5, 8, 11, 14 and 17) are available for consultation on line (see *StatLink* below).

1. Excluding international funds in public and total expenditure on educational institutions.
2. Including subsidies attributable to payments to educational institutions received from public sources.
3. Year of reference 2010 instead of 2011.
4. Year of reference 2012 instead of 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933117402

Table B3.2b. Trends in relative proportion of public expenditure[1] on educational institutions and index of change in public and private expenditure, at primary, secondary, post-secondary non-tertiary level (1995, 2000, 2005, 2008 to 2011)

Index of change of public sources of funds for educational institutions after transfers from public sources, by year

	Share of public expenditure on educational institutions (%)					Index of change between 1995 and 2011 in expenditure on educational institutions (2005 = 100, constant prices)							
						Public sources				Private sources[2]			
	2000	2005	2008	2010	2011	2000	2008	2010	2011	2000	2008	2010	2011
	(2)	(3)	(4)	(6)	(7)	(9)	(10)	(12)	(13)	(15)	(16)	(18)	(19)
OECD													
Australia	83.7	83.5	82.5	84.7	83.6	83	108	135	130	82	116	123	129
Austria	95.8	94.3	95.9	95.5	95.9	98	107	106	109	71	75	83	76
Belgium	94.7	94.7	95.2	96.0	96.2	94	117	117	118	94	106	88	83
Canada[3, 4]	92.4	89.9	88.6	89.3	89.7	88	103	116	116	65	117	123	119
Chile[5]	68.4	69.8	78.4	78.6	78.3	94	145	141	165	100	92	89	105
Czech Republic	91.7	89.9	90.4	90.8	90.9	78	107	112	116	63	101	101	104
Denmark[3]	97.8	97.9	97.6	97.6	97.2	86	99	107	98	89	112	123	133
Estonia	m	98.9	99.0	98.7	98.9	80	126	112	107	0	121	133	111
Finland	99.3	99.2	99.0	99.2	99.3	82	107	112	113	65	126	105	98
France	92.6	92.5	92.3	92.0	91.8	100	102	104	102	98	105	111	112
Germany	87.1	87.5	87.1	87.8	87.9	99	100	109	108	103	104	106	104
Greece	91.7	92.5	m	m	m	77	m	m	m	86	m	m	m
Hungary	92.7	95.5	m	m	m	69	95	84	79	114	m	m	m
Iceland	96.4	96.2	96.4	96.2	96.3	73	106	92	95	69	102	93	93
Ireland	96.0	96.8	97.7	95.9	95.8	67	133	138	137	86	97	179	183
Israel	94.1	93.0	93.0	92.4	89.5	96	121	129	138	79	121	142	216
Italy	97.8	96.3	97.1	96.6	96.2	94	105	98	93	55	81	89	96
Japan[3]	89.8	90.1	90.0	93.0	93.0	98	102	108	108	101	103	73	74
Korea	80.8	77.0	77.8	78.5	80.7	72	117	128	133	58	112	118	107
Luxembourg	m	m	m	97.9	97.9	m	m	104	100	m	m	m	m
Mexico	86.1	82.9	82.9	82.7	82.6	83	102	109	113	65	102	111	115
Netherlands	86.1	87.1	86.6	86.9	86.6	82	106	115	113	90	111	118	118
New Zealand	m	84.9	85.7	87.4	88.8	91	102	118	132	m	96	96	93
Norway	99.0	m	m	m	m	87	107	113	112	m	m	m	m
Poland	95.4	98.2	94.7	93.8	93.9	87	111	118	116	225	339	422	407
Portugal	99.9	99.9	99.9	100.0	99.9	98	96	109	101	99	90	87	89
Slovak Republic[3]	97.6	86.2	84.8	88.0	88.6	84	113	138	129	13	126	117	104
Slovenia	m	91.9	91.7	91.3	91.1	m	104	103	101	m	107	111	111
Spain	93.0	93.5	93.1	91.8	91.1	93	114	117	113	100	121	149	158
Sweden	99.9	99.9	99.9	99.9	100.0	88	103	103	103	106	90	66	m
Switzerland	88.9	86.9	86.3	88.1	88.3	90	101	108	110	74	107	97	97
Turkey	m	m	m	m	86.8	m	m	m	m	m	m	m	m
United Kingdom	88.7	83.0	77.9	78.9	85.7	75	94	102	113	47	130	133	92
United States	91.7	91.8	91.8	92.5	91.6	86	111	114	107	87	111	103	110
OECD average	92.1	91.0	90.8	91.4	91.4	86	109	113	113	85	115	120	123
OECD average for 20 countries with data available for all reference years	91.6	90.4	90.5	90.9	91.0	88	109	116	117	80	108	112	118
EU21 average	94.3	93.8	93.3	93.6	93.9	86	107	110	108	84	119	129	128
Partners													
Argentina	m	m	m	m	91.2	m	m	m	m	m	m	m	m
Brazil	m	m	m	m	m	66	146	170	175	m	m	m	m
China	m	m	m	m	m	m	m	m	m	m	m	m	m
Colombia[5]	m	m	m	m	76.5	m	m	m	m	m	m	m	m
India	m	m	m	m	m	m	m	m	m	m	m	m	m
Indonesia[5]	m	m	m	m	89.9	m	m	m	m	m	m	m	m
Latvia	m	m	m	m	97.4	m	m	m	m	m	m	m	m
Russian Federation	m	m	96.8	96.9	95.9	66	132	126	130	m	m	m	m
Saudi Arabia	m	m	m	m	m	m	m	m	m	m	m	m	m
South Africa	m	m	m	m	m	m	m	m	m	m	m	m	m
G20 average	m	m	m	m	m	m	m	m	m	m	m	m	m

Note: Years 1995 and 2009 (columns 1, 5, 8, 11, 14 and 17) are available for consultation on line (see *StatLink* below).

1. Excluding international funds in public and total expenditure on educational institutions.
2. Including subsidies attributable to payments to educational institutions received from public sources.
3. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.
4. Year of reference 2010 instead of 2011.
5. Year of reference 2012 instead of 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933117421

B3

Table B3.2c. Trends in relative proportion of public expenditure[1] on tertiary educational institutions and index of change in public and private expenditure (1995, 2000, 2005, 2008 to 2011)

Index of change of public sources of funds for educational institutions after transfers from public sources, by year

	Share of public expenditure on educational institutions (%)					Index of change between 1995 and 2011 in expenditure on educational institutions (2005 = 100, constant prices)							
						Public sources				Private sources[2]			
	2000	2005	2008	2010	2011	2000	2008	2010	2011	2000	2008	2010	2011
	(2)	(3)	(4)	(6)	(7)	(9)	(10)	(12)	(13)	(15)	(16)	(18)	(19)
OECD													
Australia	49.9	45.4	44.9	46.5	45.6	92	110	129	130	77	112	124	129
Austria	96.3	92.9	84.7	87.8	86.9	77	101	119	117	39	240	215	231
Belgium	91.5	90.6	89.8	89.8	90.1	99	116	123	122	89	128	134	130
Canada[3, 4]	61.0	55.1	58.7	56.6	57.4	95	115	120	121	74	99	113	110
Chile[5]	19.5	15.9	14.6	22.1	24.2	103	118	237	279	81	130	158	166
Czech Republic	85.4	81.2	79.1	78.8	81.1	67	128	132	165	50	146	153	167
Denmark[3]	97.6	96.7	95.5	95.0	94.5	87	99	105	107	62	135	163	181
Estonia	m	69.9	78.8	75.4	80.4	92	137	136	164	m	86	103	93
Finland	97.2	96.1	95.4	95.9	95.9	87	107	116	120	62	127	122	128
France	84.4	83.6	81.7	81.9	80.8	94	110	115	114	89	125	129	137
Germany	88.2	85.3	85.4	84.4	84.7	98	115	124	130	76	114	134	137
Greece	99.7	96.7	m	m	m	44	m	m	m	3	m	m	m
Hungary	76.7	78.5	m	m	m	81	105	96	112	90	m	m	m
Iceland	91.8	90.5	92.2	91.2	90.6	70	116	101	98	60	94	94	97
Ireland	79.2	84.0	82.6	81.2	80.5	95	133	132	127	131	147	160	161
Israel	58.5	46.5	51.3	54.2	49.0	113	110	125	125	69	91	92	113
Italy	77.5	73.2	70.7	67.6	66.5	99	108	102	101	78	123	134	140
Japan[3]	38.5	33.7	33.3	34.4	34.5	107	108	112	117	87	110	109	113
Korea	23.3	24.3	22.3	27.3	27.0	76	117	154	160	80	131	132	139
Luxembourg	m	m	m	m	m	m	m	m	m	m	m	m	m
Mexico	79.4	69.0	70.1	69.9	67.1	84	115	128	118	49	109	123	129
Netherlands	75.0	73.0	71.5	71.8	70.8	88	107	118	119	80	116	125	133
New Zealand	m	59.7	70.4	66.3	64.5	84	133	126	121	m	83	95	98
Norway	96.3	m	96.9	96.0	95.9	83	102	105	107	m	m	m	m
Poland	66.6	74.0	69.6	70.6	75.5	52	105	111	111	74	130	132	102
Portugal	92.5	68.1	62.1	69.0	68.6	98	97	113	104	17	127	108	101
Slovak Republic[3]	91.2	77.3	73.1	70.2	76.9	79	114	116	140	26	143	168	144
Slovenia	m	76.5	83.8	84.7	85.2	0	114	120	121	m	72	71	69
Spain	74.4	77.9	78.9	78.2	77.5	84	120	127	123	102	114	125	126
Sweden	91.3	88.2	89.1	90.6	89.5	90	106	120	121	65	97	93	106
Switzerland	m	m	m	m	m	77	90	102	107	m	m	m	m
Turkey	95.4	m	m	m	m	m	m	m	m	m	m	m	m
United Kingdom	67.7	m	45.7	37.1	30.2	m	m	m	m	64	182	227	192
United States	37.4	39.7	39.1	36.3	34.8	74	110	108	105	81	113	125	130
OECD average	75.3	70.5	69.4	69.3	69.2	86	112	122	127	69	122	131	132
OECD average for 20 countries with data available for all reference years	73.7	69.1	68.1	68.6	68.3	91	112	125	129	70	126	134	139
EU21 average	85.1	82.3	78.7	78.3	78.6	80	112	118	123	66	131	139	138
Partners													
Argentina	m	m	m	m	76.9	m	m	m	m	m	m	m	m
Brazil	m	m	m	m	m	79	119	148	155	m	m	m	m
China	m	m	m	m	m	m	m	m	m	m	m	m	m
Colombia[5]	m	m	m	m	44.0	m	m	m	m	m	m	m	m
India	m	m	m	m	m	m	m	m	m	m	m	m	m
Indonesia[5]	m	m	m	m	70.7	m	m	m	m	m	m	m	m
Latvia	m	m	m	m	62.6	m	m	m	m	m	m	m	m
Russian Federation	m	m	64.3	62.2	62.7	44	147	145	136	m	m	m	m
Saudi Arabia	m	m	m	m	m	m	m	m	m	m	m	m	m
South Africa	m	m	m	m	m	m	m	m	m	m	m	m	m
G20 average	m	m	m	m	m	m	m	m	m	m	m	m	m

Notes: Years 1995 and 2009 (columns 1, 5, 8, 11, 14 and 17) are available for consultation on line (see *StatLink* below).

1. Excluding international funds in public and total expenditure on educational institutions.
2. Including subsidies attributable to payments to educational institutions received from public sources.
3. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.
4. Year of reference 2010 instead of 2011.
5. Year of reference 2012 instead of 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933117440

Table B3.3. Annual public expenditure on educational institutions per student, by type of institution (2011)

In equivalent USD converted using PPPs for GDP, by level of education and type of institution

		Pre-primary education			Primary, secondary and post-secondary non-tertiary education			Tertiary education				Total all levels of education		
		Public institutions	Private institutions	Total public and private	Public institutions	Private institutions	Total public and private	Public institutions	Private institutions	Total public and private	*of which: R&D activities*	Public institutions	Private institutions	Total public and private
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
OECD	Australia	x(3)	x(3)	**4 880**	9 188	6 817	**8 387**	7 912	2 575	**7 475**	*5 718*	x(13)	x(13)	**8 122**
	Austria	x(3)	x(3)	**6 406**	x(6)	x(6)	**11 999**	x(9)	x(9)	**12 942**	*4 408*	x(13)	x(13)	**11 395**
	Belgium	6 672	5 595	**6 103**	11 395	9 576	**10 315**	14 758	12 521	**13 468**	*4 149*	11 517	9 478	**10 335**
	Canada[1]	x(4)	m	**m**	9 522	m	**m**	14 312	m	**m**	*m*	10 629	m	**m**
	Chile[2]	5 864	3 490	**4 285**	4 970	2 591	**3 543**	5 675	1 324	**2 016**	*398*	5 152	2 324	**3 276**
	Czech Republic	3 984	2 550	**3 957**	5 710	3 714	**5 572**	8 747	460	**7 507**	*2 999*	6 222	2 403	**5 926**
	Denmark	x(3)	x(3)	**13 031**	10 513	6 393	**9 943**	19 868	a	**19 509**	*x(9)*	12 903	5 436	**12 061**
	Estonia	2 587	2 131	**2 573**	6 033	4 533	**5 974**	8 314	4 801	**5 405**	*2 358*	5 442	4 711	**5 281**
	Finland	5 247	3 945	**5 135**	9 096	9 281	**9 113**	20 321	9 319	**17 260**	*5 713*	10 179	8 832	**10 013**
	France	6 683	2 759	**6 199**	9 315	5 491	**8 558**	14 225	3 967	**12 360**	*4 578*	9 588	4 941	**8 739**
	Germany	x(3)	x(3)	**6 717**	x(6)	x(6)	**8 371**	x(9)	x(9)	**13 927**	*x(9)*	x(13)	x(13)	**9 202**
	Greece	m	m	**m**	m	m	**m**	m	m	**m**	*m*	m	m	**m**
	Hungary	x(3)	x(3)	**4 127**	x(6)	x(6)	**4 270**	6 385	8 883	**6 786**	*1 377*	x(13)	x(13)	**4 928**
	Iceland	7 285	4 426	**6 947**	9 207	6 204	**8 980**	7 873	7 491	**7 802**	*x(9)*	9 291	6 335	**8 994**
	Ireland	x(3)	x(3)	**5 405**	9 492	m	**m**	12 826	m	**m**	*4 157*	10 037	m	**m**
	Israel	3 830	1 876	**3 211**	5 589	6 001	**5 682**	25 970	5 779	**5 971**	*m*	5 613	5 025	**5 400**
	Italy[3]	7 259	444	**5 216**	8 192	1 423	**7 682**	7 314	1 876	**6 795**	*3 226*	7 926	1 098	**7 158**
	Japan	x(3)	x(3)	**2 849**	x(6)	x(6)	**8 579**	x(9)	x(9)	**6 384**	*x(9)*	x(13)	x(13)	**8 106**
	Korea	8 365	2 652	**3 929**	7 090	5 798	**6 856**	9 567	1 511	**3 076**	*1 281*	8 686	2 888	**6 354**
	Luxembourg	23 958	3 757	**22 144**	20 606	6 722	**18 598**	m	m	**m**	*m*	m	m	**m**
	Mexico	2 509	2	**2 160**	2 552	6	**2 284**	7 745	a	**5 291**	*1 413*	3 072	4	**2 677**
	Netherlands[4]	7 321	3 095	**6 983**	8 950	n	**8 753**	13 850	n	**12 590**	*5 355*	9 612	626	**9 252**
	New Zealand	2 450	9 526	**9 409**	8 219	2 537	**7 844**	7 425	2 156	**6 826**	*1 543*	8 067	5 877	**7 769**
	Norway	7 228	5 462	**6 422**	13 244	13 630	**13 263**	20 647	5 238	**18 417**	*7 047*	14 099	10 922	**13 714**
	Poland	x(3)	x(3)	**4 146**	x(6)	x(6)	**5 308**	x(9)	x(9)	**5 056**	*996*	x(13)	x(13)	**5 093**
	Portugal	5 674	m	**m**	7 278	m	**m**	7 377	1 211	**6 043**	*3 003*	7 265	m	**m**
	Slovak Republic	3 941	3 011	**3 906**	4 536	4 356	**4 520**	6 170	m	**6 170**	*1 652*	4 883	4 256	**4 840**
	Slovenia	6 697	2 134	**6 567**	8 060	5 684	**8 027**	8 346	3 127	**7 858**	*1 596*	7 919	3 715	**7 784**
	Spain	6 956	2 083	**5 232**	9 291	3 689	**7 569**	11 452	1 158	**9 987**	*2 687*	9 285	3 080	**7 488**
	Sweden	6 992	6 528	**6 915**	10 634	10 028	**10 548**	18 638	13 920	**18 163**	*8 359*	11 219	9 668	**11 000**
	Switzerland	5 267	m	**m**	12 724	m	**m**	22 882	m	**m**	*m*	13 799	m	**m**
	Turkey	2 102	n	**1 971**	2 233	a	**2 233**	m	m	**m**	*m*	m	m	**m**
	United Kingdom	6 213	12 217	**7 457**	9 936	2 559	**8 336**	a	4 049	**4 049**	*1 667*	9 631	3 627	**7 675**
	United States	10 975	1 909	**7 019**	11 753	1 009	**10 840**	12 069	2 039	**9 057**	*x(9)*	11 760	1 652	**10 062**
	OECD average	6 502	3 618	**6 043**	8 762	4 918	**7 996**	11 877	4 061	**9 221**	*3 290*	8 952	4 614	**7 876**
	EU21 average	7 156	3 865	**6 748**	9 315	5 246	**8 525**	11 162	4 664	**10 326**	*3 428*	8 909	4 759	**8 128**
Partners	Argentina	1 979	m	**m**	2 578	m	**m**	m	m	**m**	*m*	m	m	**m**
	Brazil	2 349	m	**m**	2 667	m	**m**	10 902	m	**m**	*762*	2 985	m	**m**
	China	m	m	**m**	m	m	**m**	m	m	**m**	*m*	m	m	**m**
	Colombia[2]	1 857	2 111	**1 871**	1 608	1 818	**1 619**	3 027	m	**3 027**	*m*	1 063	1 838	**1 084**
	India	m	m	**m**	m	m	**m**	m	m	**m**	*m*	m	m	**m**
	Indonesia	m	m	**m**	m	m	**m**	m	m	**m**	*m*	m	m	**m**
	Latvia	4 407	1 704	**4 269**	4 901	1 885	**4 860**	2 865	4 503	**4 384**	*1 531*	4 752	4 263	**4 653**
	Russian Federation	m	m	**m**	4 322	m	**m**	5 221	m	**m**	*m*	m	m	**m**
	Saudi Arabia	m	m	**m**	m	m	**m**	m	m	**m**	*m*	m	m	**m**
	South Africa	m	m	**m**	m	m	**m**	m	m	**m**	*m*	m	m	**m**
	G20 average	m	m	**m**	m	m	**m**	m	m	**m**	*m*	m	m	**m**

1. Year of reference 2010.
2. Year of reference 2012.
3. Excluding post-secondary non-tertiary education.
4. Government-dependent private institutions are included with public institutions.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

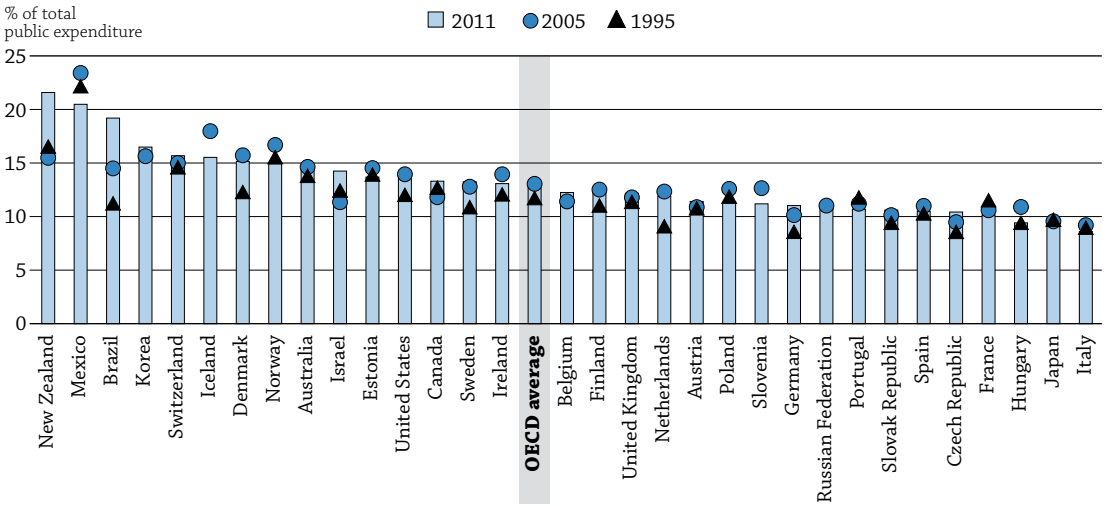
Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933117459

WHAT IS THE TOTAL PUBLIC SPENDING ON EDUCATION?

- Education accounts for 12.9% of total public spending, on average across OECD countries, ranging from less than 10% in Hungary, Italy and Japan, to more than 20% in Indonesia, Mexico and New Zealand.
- The proportion of public expenditure devoted to education increased between 1995 and 2005 in most countries with available data for both years. Only Canada, France, Israel, Japan, New Zealand and Portugal show a different pattern.
- While the proportion of public expenditure devoted to education decreased in two-thirds of countries between 2005 and 2011, during the shorter period 2008-2011 – the height of the economic crisis – public expenditure on education grew at a faster rate (or decreased at a slower rate) than public expenditure on all other services in 16 out of the 31 countries with available data.

Chart B4.1. Total public expenditure on education as a percentage of total public expenditure (1995, 2005, 2011)



Countries are ranked in descending order of total public expenditure on education at all levels of education as a percentage of total public expenditure in 2011.

Source: OECD. Table B4.2. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933117630

Context

Countries' decisions concerning budget allocations to various sectors, including education, health care, social security or defence, depend not only on the countries' priorities, but also on whether markets alone can provide those services adequately, especially at the tertiary level of education. Markets may fail to do so if the public benefits are greater than the private benefits, thus government funding can help increase access to tertiary education.

However, the economic crisis has put pressure on public budgets to the extent that less public resources may be allocated to education. This, in turn, may affect access to, or the outcomes and quality of, education. At the same time, the demand for education and training from people who are not in work may increase, requiring more spending on education. Yet higher expenditure is not necessarily associated with better outcomes or the quality of education. In addition, expenditure levels are affected by many factors (see Indicator B7) that need to be taken into account when comparing countries.

This indicator presents total public spending on education, relative to both the country's total public spending and to its gross domestic product, to account for the relative sizes of public budgets. In addition, it includes data on the different sources of public funding invested in education (central, regional and local government) and on the transfers of funds between these levels of government.

Other findings

- **Most OECD countries and partner countries** (32 out of 37 countries with available data) **spend more than twice as much on primary, secondary and post-secondary non-tertiary education as on tertiary education**.
- **Public funding is more decentralised at the primary, secondary and post-secondary non-tertiary levels than at the tertiary level**. On average across OECD countries, more than 50% of initial public funding for primary, secondary and post-secondary non-tertiary education comes from the central government, while more than 85% of initial public funding for tertiary education comes from this source.
- **At the primary, secondary and post-secondary non-tertiary levels of education, only New Zealand had an entirely centralised public funding system**; while at the tertiary level nine countries (Chile, Estonia, Iceland, Ireland, Latvia, the Netherlands, New Zealand, Norway and the Slovak Republic) have an entirely centralised funding system.

Trends

Between 1995 and 2011, the percentage of total public expenditure devoted to education (all levels of education combined) increased slightly in two-thirds of countries with available data. But the increase was not continuous over the whole period: between 2005 and 2011, public expenditure on education as a percentage of total public expenditure fell in more than one-half of countries with available data. The decrease was especially substantial (1 percentage point or more) in Hungary, Iceland, Mexico, Norway, Poland and Slovenia (Table B4.2).

Similar changes were observed in public expenditure on education as a percentage of GDP between 1995 and 2011; yet, again, the evolution was markedly different between 2005 and 2011. Whereas the share of public expenditure devoted to education decreased in most countries between 2005 and 2011, expenditure on education as a percentage of GDP decreased in fewer than one-third of countries during this period. On average across OECD countries with available data for both years, it increased slightly.

Between 2008 and 2011, in all countries except Estonia, Hungary, Iceland, Italy, the United Kingdom and the United States, both public expenditure on education and total public expenditure for all services increased. However, in 13 of 31 countries, public expenditure on all services grew faster or decreased slower than public expenditure on education (Table B4.2).

Analysis

Overall level of public resources invested in education

In 2011, total public expenditure on education as a percentage of total public expenditure for all services averaged 12.9% in OECD countries, ranging from less than 10% in Hungary (9.4%), Italy (8.6%), and Japan (9.1%) to 20% or more in Indonesia (20.5%), Mexico (20.5%) and New Zealand (21.6%) (Chart B4.1 and Table B4.1).

In most countries, about two-thirds of total public expenditure on education as a percentage of total public expenditure is devoted to primary, secondary and post-secondary non-tertiary education. This is primarily explained by the near-universal enrolment rates at these levels of education (see Indicator C1) and the demographic structure of the population.

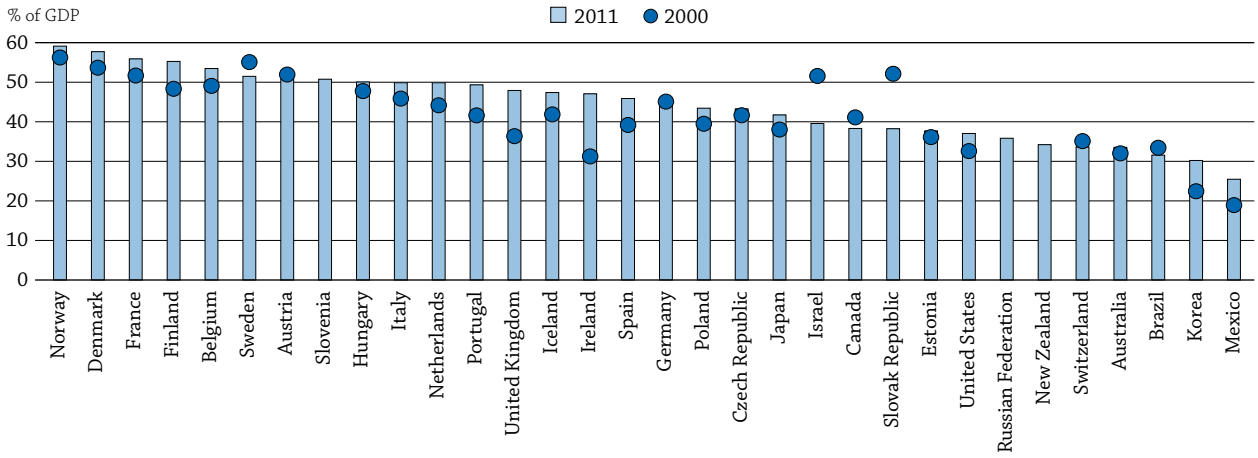
Public expenditure devoted to tertiary education amounts to nearly one-quarter (24.5%) of total public expenditure on education, on average across OECD countries. In OECD and partner countries, the percentages range from less than 16% in Korea (15.6%) to over 30% in Canada (35.6%), Finland (32.0%) and Turkey (37.8%).

When public expenditure on education is considered as a proportion of total public spending, the relative sizes of public budgets must be taken into account. Indeed, the picture is different when looking at public expenditure on education as a percentage of GDP for all levels of education combined, compared with public expenditure on education as a percentage of total public expenditure. The OECD countries Italy (4.3%), Japan (3.8%), the Slovak Republic (4.1%) and Turkey (4.1%) were among those with the lowest rates of public expenditure on education as a proportion of GDP in 2011, as was the partner country, the Russian Federation (3.9%). At the other end of the spectrum, only Denmark and Norway spend more than 8% of their GDP on education (both 8.7%) – well above the OECD average of 5.6% (Table B4.1).

Contrary to expectations, the five countries with the highest total public expenditure on education as a percentage of total public expenditure in 2011 – namely, Brazil, Korea, Mexico, New Zealand and Switzerland (Chart B4.1) – are at the bottom end of the spectrum in total public expenditure on all services as a percentage of GDP (Chart B4.2). Denmark and Norway are the exceptions, with high proportions on both counts.

When looking at total public expenditure on all services (including health, social security, the environment), and not simply public expenditure on education, as a proportion of GDP, rates differ greatly among countries. In 2011, nearly one-third of the countries with available data reported that the proportion of total public expenditure on all services in relation to GDP was more than 50%; in four countries, the proportion was more than 55% (57.7% in Denmark, 55.3% in Finland, 55.9% in France and 59.1% in Norway). At the other extreme, in Korea and Mexico, total public expenditure on all services accounted for 30.2% and 25.5% of GDP respectively (Chart B4.2 and see Annex 2).

Chart B4.2. Total public expenditure on all services as a percentage of GDP (2000, 2011)



Note: This chart represents public expenditure on all services and not simply public expenditure on education.
Countries are ranked in descending order of total public expenditure as a percentage of GDP in 2011.
Source: OECD. Annex 2. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933117649

Changes in total public expenditure on education as a percentage of total public expenditure between 1995 and 2011

A significant increase was observed between 1995 and 2005…

Over a period of 10 years (1995-2005), public expenditure on education (all levels combined) as a percentage of total public expenditure increased in 21 of the 27 OECD countries with available data for both 1995 and 2005 (on average, by 0.9 percentage point in these 27 countries). Only Canada, France, Israel, Japan, New Zealand and Portugal show different patterns.

Between 1995 and 2005, public expenditure on education as a percentage of GDP grew less than public expenditure on education as a percentage of total public expenditure. On average, public expenditure on education as a percentage of GDP increased by 0.1 percentage point between 1995 and 2005, while public expenditure on education as a percentage of total public expenditure increased by 1.4 percentage point over the same period. Relative to GDP, public expenditure on education increased by one percentage point in Denmark, and decreased by more than one percentage point in Canada (Table B4.2).

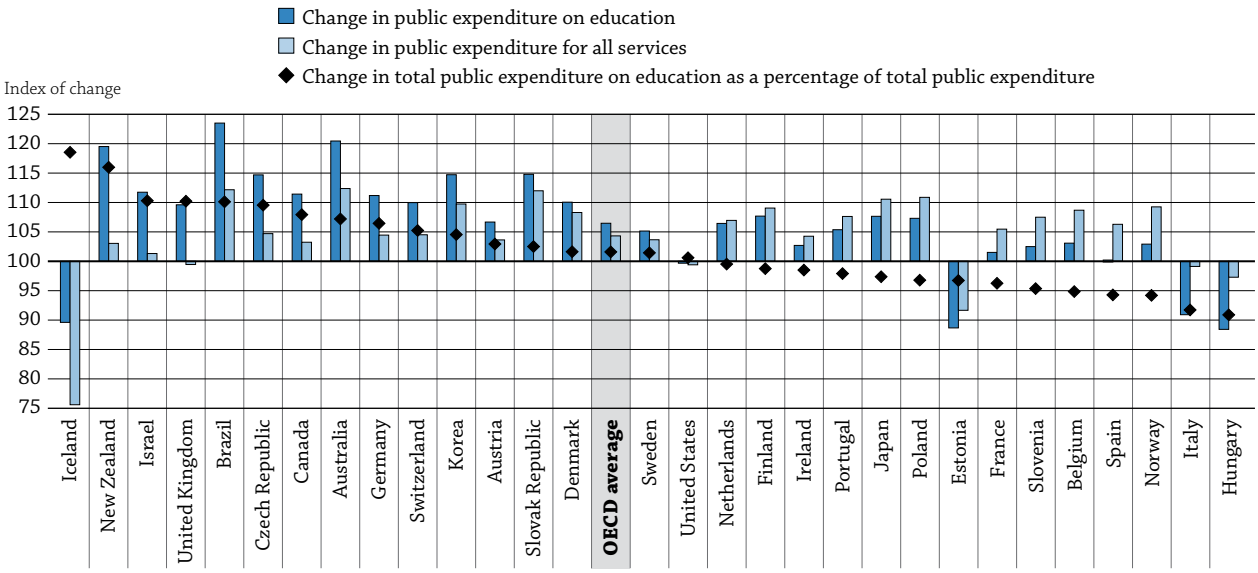
…but a drop was seen after 2005, coinciding with the 2008 financial crisis

Spending patterns changed considerably between 2005 and 2011. During this six-year period, public expenditure on education as a percentage of total public expenditure decreased in more than one-half of countries with available data (18 of 32 countries) by an average of 0.2 percentage point (from 13.1% in 2005 to 12.9% in 2011). The decrease was the largest in Iceland and Mexico (-2.4 and -2.9 percentage points respectively) and was also substantial in Hungary, Norway, Poland and Slovenia (-1 percentage point or more). Exceptions to this pattern are Canada, Israel and New Zealand, all of which showed an increase (by 1.5 to 6.1 percentage points) in expenditure on education as a percentage of total public expenditure from 2005 to 2011, further to a decrease (by 0.9 to 1.1 percentage point) between 1995 and 2005.

Comparing 2011 with 2005 data shows a different pattern, because GDP was also affected by the financial crisis. As a result, public expenditure on education as a percentage of GDP increased or remained stable in most countries. This share decreased by 0.2 percentage point or more in Hungary, Iceland, Norway, Poland and Switzerland between those two years. On average across OECD countries with available data for all years, the increase was 0.3 percentage point (Table B4.2 and see Box B2.1 in Indicator B2).

Chart B4.3. Index of change between 2008 and 2011 in total public expenditure on education as a percentage of total public expenditure for all services

(2008 = 100, 2011 constant prices)



Countries are ranked in descending order of the change in total public expenditure on education as a percentage of total public expenditure.

Source: OECD. Table B4.2. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933117668

First effect of the financial crisis: Public expenditure on education varied at a slower rate than public expenditure for all services in half of the countries

The variations observed between 2008 and 2011 are possibly linked to the first effects of the global economic crisis, which began in 2008. The crisis put more pressure on overall public budgets, requiring governments to prioritise allocations among education and other key public sectors, such as health and social security (Table B4.2 and Chart B4.3).

Between 2008 and 2011, there is no clear global trend concerning the evolution of public expenditure on education as a percentage of total public expenditure, as was the case for the period 1995-2005. Nevertheless, in 25 of 31 countries, public expenditure on education and total public expenditure for all services both increased between 2008 and 2011. In 12 of these 25 countries, public expenditure on all services grew faster than public expenditure on education (Table B4.2 and Chart B4.3). The differences are greatest in Belgium, Norway and Slovenia. In the 13 other countries, public expenditure on education grew faster than public expenditure for all services. Growth in public expenditure for all services ranged in these countries from 1% in Israel to 12% in Australia, Brazil and the Slovak Republic.

In the six remaining countries, Estonia, Hungary, Iceland, Italy, the United Kingdom and the United States, public expenditure on all services declined between 2008 and 2011. In Iceland, where public expenditure on all services shrank by as much as 24%, public expenditure on education also fell, but not as steeply. In the United Kingdom and the United States, public expenditure on all services decreased slightly and public expenditure on education increased (the United Kingdom) or remained steady (the United States). In Estonia, Italy and Hungary, public expenditure on education declined more steeply than public expenditure on all services (Table B4.2 and Chart B4.3).

Sources of public funding invested in education

All government sources, apart from international sources, of expenditure on education are classified in three different levels of government: central, regional and local. In some countries, the funding of education is centralised; in others, funding can become decentralised after transfers among the different levels of government.

In recent years, many schools have become more autonomous and decentralised organisations; they have also become more accountable to students, parents and the public at large for their outcomes. The results from the OECD Programme for International Student Assessment (PISA) suggest that when autonomy and accountability are intelligently combined, they tend to be associated with better student performance.

Public funding is more centralised at the tertiary level than at lower levels of education. In 2011, on average across OECD countries, 50.3% of public funds for primary, secondary and post-secondary non-tertiary education combined came from the central government, before transfers. For tertiary education, 85.1% of public funds came from the central government before transfers (Table B4.3 and Table B4.4, available on line).

For primary, secondary and post-secondary non-tertiary education combined, the share of initial public funds from the central government differed greatly among countries. Three countries reported a share of less than 10%, namely Canada (3.2%), Poland (3.4%) and Switzerland (3.3%). In Canada, funding for primary and secondary education is provided at the provincial/territorial level with the exception of a small amount of federal funding for some First Nations/Aboriginal schools. At the other extreme, public funds came almost exclusively from the central government in Ireland, New Zealand and Turkey, and more than 90% of initial public funds came from the central government in Chile (95.1%), Israel (90.8%), the Netherlands (90.4%) and Slovenia (90.4%).

Nevertheless, this picture changes when transfers among levels of government are taken into account. After these transfers, less than 5% of public funds came from central sources in Argentina (3.7%), Australia (4.5%), Canada (2.7%), Japan (1.8%), Korea (0.8%), Poland (2.4%), Switzerland (0.2%) and the United States (0.5%). Only New Zealand had an entirely centralised funding system even after taking transfers into account (Chart B4.4 and Table B4.3).

The transfer of funds from central to regional and local levels of government at the primary, secondary and post-secondary non-tertiary levels combined are larger than at the tertiary level, on average across OECD countries, extending the scope of decentralisation at these levels of education. On average across OECD countries, 43.4% of public funds for primary, secondary and post-secondary non-tertiary levels combined came from local sources, after transfers, compared with 27.0% before transfers. At the tertiary level, public funds from local sources represented less than 3% of the funds before and after transfers, on average across OECD countries (Table B4.3 and Table B4.4, available on line).

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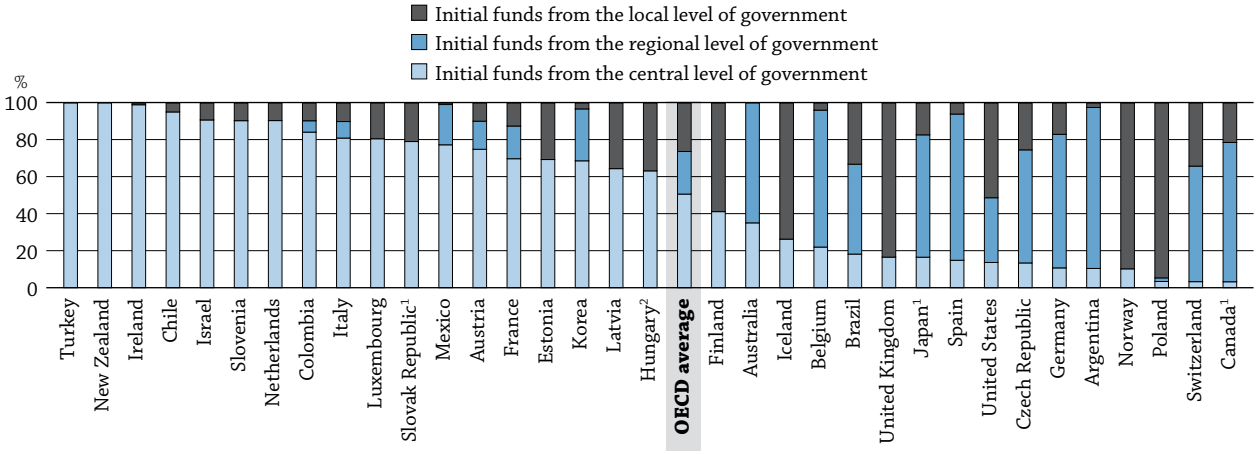
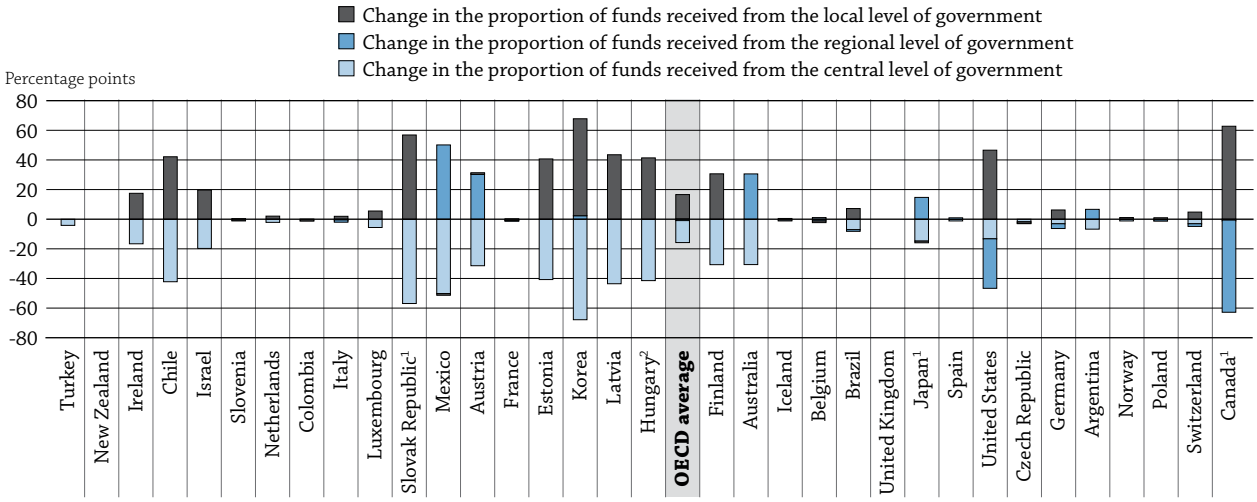
Chart B4.4. Distribution of initial sources of public educational funds by level of government in primary, secondary and post-secondary non-tertiary education (2011)

In percentage



Change in the proportion of educational funds received from the different levels of governement between initial and final purchasers of educational resources, at the primary, secondary and post-secondary non-tertiary levels (2011)

In percentage points



1. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.
2. Funds from the local level include funds from regional level of governement.
Countries are ranked in descending order of the share of initial sources of funds from the central level of government.
Source: OECD. Table B4.3. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933117687

At the primary, secondary and post-secondary non-tertiary levels combined, the extent of transfers of public funds from central to lower levels of government vary widely between countries. The difference after transfers from central to lower levels of government represents more than 40 percentage points in Chile, Estonia, Hungary, Korea, Latvia, Mexico and the Slovak Republic. In Canada and the United States, the difference after transfers from regional to local sources of public funds exceeds 30 percentage points (Chart B4.4).

At the tertiary level, the proportions of public funds coming from the central government are relatively large, both before and after transfers among levels of government. Shares of public funds from the central government are the lowest in Belgium (27.9% and 26.6%, before and after transfers, respectively), Germany (26.8% and 20.4%) and Spain (17.8% and 17.6%). At the other extreme, in 11 countries (Chile, Estonia, Hungary, Iceland, Latvia, the Netherlands, New Zealand, Norway, Portugal, the Slovak Republic and the United Kingdom) these shares reach nearly 100% both before and after transfers (Table B4.4, available on line).

Definitions

Public expenditure on education covers expenditure on educational institutions and support for students' living costs and for other private expenditure outside institutions. It includes expenditure by all public entities, including ministries other than ministries of education, local and regional governments, and other public agencies. OECD countries differ in the ways in which they use public money for education. Public funds may flow directly to institutions or may be channelled to institutions via government programmes or via households. They may also be restricted to the purchase of educational services or be used to support student living costs.

All government sources, apart from international sources, of expenditure on education can be classified into three levels: central (national) government, regional government (province, state, *Bundesland,* etc.), and local government (municipality, district, commune, etc.). The terms "regional" and "local" apply to governments whose responsibilities are exercised within certain geographical subdivisions of a country. They do not apply to government bodies whose roles are not geographically circumscribed, but are defined in terms of responsibility for particular services, functions, or categories of students.

Total public expenditure, also referred to as total public spending, corresponds to the non-repayable current and capital expenditure of all levels of government: central, regional and local. It includes direct public expenditure on educational institutions as well as public support to households (e.g. scholarships and loans to students for tuition fees and student living costs) and to other private entities for education (e.g. subsidies to companies or labour organisations that operate apprenticeship programmes).

Methodology

Data refer to the financial year 2011 and are based on the UOE data collection on education statistics administered by the OECD in 2013 (for details see Annex 3 at *www.oecd.org/edu/eag.htm*).

Figures for total public expenditure and GDP have been taken from the OECD National Accounts Database (see Annex 2) and use the System of National Accounts 1993.

Educational expenditure is expressed as a percentage of a country's total public sector expenditure and as a percentage of GDP.

Though expenditure on debt servicing (e.g. interest payments) is included in total public expenditure, it is excluded from public expenditure on education. The reason is that some countries cannot separate interest payments for education from those for other services. This means that public expenditure on education as a percentage of total public expenditure may be underestimated in countries in which interest payments represent a large proportion of total public expenditure on all services.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Reference

OECD (2013), *PISA 2012 Results: What Makes Schools Successful? (Volume IV): Resources, Policies and Practices,* PISA, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264201156-en.*

Tables of Indicator B4

StatLink http://dx.doi.org/10.1787/888933117554

	Table B4.1	Total public expenditure on education (2011)
	Table B4.2	Trends in total public expenditure on education (1995, 2000, 2005, 2008, 2009, 2010 and 2011)
	Table B4.3	Sources of public funds for primary, secondary and post-secondary non-tertiary education (2011)
WEB	Table B4.4	Sources of public funds for tertiary education, before and after transfers, by level of government (2011)
WEB	Table B4.5	Distribution of total public expenditure on education (2011)
WEB	Table B4.6	Public expenditure on education, by level of education (2011)

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Table B4.1. Total public expenditure on education (2011)

Direct public expenditure on educational institutions plus public subsidies to households[1] and other private entities, as a percentage of total public expenditure and as a percentage of GDP, by level of education

		Public expenditure[1] on education as a percentage of total public expenditure				Public expenditure[1] on education as a percentage of GDP			
		Pre-primary education	Primary, secondary and post-secondary non-tertiary education	Tertiary education	All levels of education combined	Pre-primary education	Primary, secondary and post-secondary non-tertiary education	Tertiary education	All levels of education combined
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
OECD	Australia	0.3	10.8	3.3	**14.4**	0.1	3.6	1.1	**4.8**
	Austria	1.2	7.2	3.1	**11.4**	0.6	3.6	1.6	**5.8**
	Belgium	1.2	8.1	2.7	**12.2**	0.6	4.3	1.4	**6.5**
	Canada[2, 3]	x(2)	8.6	4.7	**13.3**	x(6)	3.6	2.0	**5.6**
	Chile[4]	m	m	m	**m**	0.6	2.9	1.0	**4.5**
	Czech Republic	1.1	6.2	2.7	**10.4**	0.5	2.7	1.2	**4.5**
	Denmark[3]	2.4	8.1	4.2	**15.2**	1.4	4.7	2.4	**8.7**
	Estonia	1.1	9.1	3.4	**13.7**	0.4	3.4	1.3	**5.2**
	Finland	0.7	7.6	3.9	**12.2**	0.4	4.2	2.2	**6.8**
	France	1.2	6.6	2.3	**10.2**	0.7	3.7	1.3	**5.7**
	Germany	1.0	6.7	3.1	**11.0**	0.5	3.0	1.4	**5.0**
	Greece	m	m	m	**m**	m	m	m	**m**
	Hungary	1.3	5.4	2.2	**9.4**	0.6	2.7	1.1	**4.7**
	Iceland	1.5	10.2	3.0	**15.5**	0.7	4.8	1.4	**7.4**
	Ireland	0.2	10.0	2.8	**13.1**	0.1	4.7	1.3	**6.2**
	Israel	1.5	9.7	2.3	**14.2**	0.6	3.8	0.9	**5.6**
	Italy	0.9	6.1	1.7	**8.6**	0.4	3.0	0.8	**4.3**
	Japan[3]	0.2	6.5	1.8	**9.1**	0.1	2.7	0.8	**3.8**
	Korea	0.5	11.2	2.6	**16.5**	0.2	3.4	0.8	**5.0**
	Luxembourg	1.8	7.6	m	**m**	0.8	3.2	m	**m**
	Mexico	2.1	13.6	3.7	**20.5**	0.5	3.5	0.9	**5.2**
	Netherlands	0.8	7.6	3.5	**11.9**	0.4	3.8	1.7	**5.9**
	New Zealand	1.5	14.6	5.5	**21.6**	0.5	5.0	1.9	**7.4**
	Norway	0.8	9.1	4.5	**14.9**	0.5	5.3	2.6	**8.7**
	Poland	1.2	7.5	2.6	**11.4**	0.5	3.3	1.1	**4.9**
	Portugal	0.8	7.6	2.1	**10.7**	0.4	3.8	1.0	**5.3**
	Slovak Republic[3]	1.1	6.8	2.5	**10.6**	0.4	2.6	0.9	**4.1**
	Slovenia	1.3	7.2	2.7	**11.2**	0.6	3.7	1.4	**5.7**
	Spain	1.5	6.6	2.5	**10.5**	0.7	3.0	1.1	**4.8**
	Sweden	1.4	8.0	3.9	**13.2**	0.7	4.1	2.0	**6.8**
	Switzerland	0.6	10.8	4.1	**15.7**	0.2	3.6	1.4	**5.3**
	Turkey	0.4	6.3	4.1	**10.9**	0.2	2.4	1.5	**4.1**
	United Kingdom	0.7	8.8	2.7	**12.2**	0.3	4.4	1.3	**6.0**
	United States	0.9	9.2	3.5	**13.6**	0.3	3.4	1.3	**5.1**
	OECD average	1.1	8.4	3.2	**12.9**	0.6	3.6	1.4	**5.6**
	EU21 average	1.1	7.4	2.9	**11.5**	0.6	3.6	1.4	**5.6**
Partners	Argentina	m	m	m	**m**	0.5	4.5	1.2	**6.3**
	Brazil	1.7	14.3	3.2	**19.2**	0.5	4.5	1.0	**6.1**
	China	m	m	m	**m**	m	m	m	**m**
	Colombia[4]	m	m	m	**m**	0.3	3.3	1.0	**4.5**
	India	m	m	m	**m**	m	m	m	**m**
	Indonesia[4]	x(4)	x(4)	x(4)	**20.5**	m	m	m	**m**
	Latvia	m	m	m	**m**	0.8	3.1	1.0	**4.9**
	Russian Federation	2.0	5.5	2.4	**10.9**	0.7	2.0	0.9	**3.9**
	Saudi Arabia	m	m	m	**m**	m	m	m	**m**
	South Africa	m	m	m	**m**	n	m	m	**m**
	G20 average	m	m	m	**m**	m	m	m	**m**

1. Public expenditure presented in this table includes public subsidies to households for living costs (scholarships and grants to students/households and students loans), which are not spent on educational institutions. Therefore the figures presented here exceed those on public spending on institutions found in Table B2.4.
2. Year of reference 2010 instead of 2011.
3. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.
4. Year of reference 2012 instead of 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933117573

B4

Table B4.2. Trends in total public expenditure on education (1995, 2000, 2005, 2008, 2009, 2010 and 2011)

Direct public expenditure on educational institutions plus public subsidies to households[1] and other private entities, as a percentage of total public expenditure and as a percentage of GDP, for all levels of education combined by year

	Public expenditure[1] on education as a percentage of total public expenditure					Public expenditure[1] on education as a percentage of GDP					Index of change between 2008 and 2011 in: (2008=100, 2011 constant prices)		
	2000	2005	2008	2010	2011	2000	2005	2008	2010	2011	Public expenditure on education	Public expenditure for all services	Total public expenditure on education as a percentage of total public expenditure
	(2)	(3)	(4)	(6)	(7)	(9)	(10)	(11)	(13)	(14)	(15)	(16)	(17)
OECD													
Australia	14.3	14.6	13.5	15.2	14.4	4.6	4.5	4.3	5.1	4.8	120	112	107
Austria	10.7	10.9	11.1	11.2	11.4	5.6	5.4	5.5	5.9	5.8	107	104	103
Belgium	12.0	11.4	12.9	12.5	12.2	5.9	5.9	6.4	6.6	6.5	103	109	95
Canada[2, 3]	12.4	11.8	12.3	13.2	13.3	5.1	4.6	4.7	5.2	5.1	111	103	108
Chile[4]	15.0	16.2	17.2	17.7	m	3.8	3.0	4.2	4.1	4.5	126	m	m
Czech Republic	9.2	9.5	9.5	9.7	10.4	3.8	4.1	3.9	4.2	4.5	115	105	110
Denmark[3]	15.4	15.7	14.9	15.3	15.2	8.3	8.3	7.7	8.8	8.7	110	108	102
Estonia	14.9	14.5	14.2	14.0	13.7	5.4	4.9	5.6	5.7	5.2	89	92	97
Finland	12.5	12.5	12.4	12.3	12.2	6.0	6.3	6.1	6.8	6.8	108	109	99
France	11.6	10.6	10.5	10.4	10.2	6.0	5.7	5.6	5.9	5.7	102	105	96
Germany	10.2	10.1	10.4	10.6	11.0	4.6	4.8	4.6	5.1	5.0	111	104	106
Greece	7.2	m	m	m	m	3.4	m	m	m	m	m	88	m
Hungary	10.4	10.9	10.4	9.8	9.4	5.0	5.5	5.1	4.9	4.7	88	97	91
Iceland	15.9	18.0	13.1	14.7	15.5	6.7	7.6	7.6	7.6	7.4	90	76	119
Ireland	13.6	13.9	13.3	9.8	13.1	4.2	4.7	5.7	6.4	6.2	103	104	99
Israel	12.3	11.3	12.9	13.2	14.2	6.3	5.6	5.6	5.6	5.6	112	101	110
Italy	9.9	9.2	9.4	8.9	8.6	4.5	4.4	4.6	4.5	4.3	91	99	92
Japan[3]	9.5	9.6	9.4	9.3	9.1	3.6	3.5	3.5	3.8	3.8	108	111	97
Korea	16.6	15.6	15.8	16.2	16.5	3.7	4.1	4.8	4.9	5.0	115	110	105
Luxembourg	m	m	m	m	m	m	m	m	m	m	m	109	m
Mexico	23.4	23.4	20.6	20.6	20.5	4.4	5.0	4.9	5.3	5.2	110	110	100
Netherlands	11.3	12.3	11.9	11.6	11.9	5.0	5.5	5.5	6.0	5.9	106	107	100
New Zealand	m	15.5	18.6	20.0	21.6	6.6	6.0	6.4	7.1	7.4	120	103	116
Norway	14.0	16.7	16.1	15.2	15.2	7.8	9.3	8.8	8.8	8.8	103	109	94
Poland	12.7	12.6	11.8	11.4	11.4	5.0	5.5	5.1	5.2	4.9	107	111	97
Portugal	12.5	11.2	10.9	10.9	10.7	5.2	5.2	4.9	5.6	5.3	105	108	98
Slovak Republic[3]	7.5	10.1	10.3	10.6	10.6	3.9	3.8	3.6	4.2	4.1	115	112	102
Slovenia	m	12.7	11.7	11.3	11.2	m	5.7	5.2	5.7	5.7	102	107	95
Spain	10.9	11.0	11.1	10.7	10.5	4.3	4.2	4.6	5.0	4.8	100	106	m
Sweden	13.0	12.8	13.1	13.3	13.2	7.2	6.9	6.8	7.0	6.8	105	104	101
Switzerland	14.4	15.0	14.9	15.8	15.7	5.1	5.5	4.9	5.2	5.3	110	105	105
Turkey	m	m	m	m	10.9	m	m	m	m	3.8	m	116	m
United Kingdom	11.7	11.8	11.0	11.9	12.2	4.2	5.1	5.2	5.9	5.8	110	99	110
United States	13.8	13.9	13.5	12.7	13.6	4.5	4.9	5.1	5.2	5.0	100	99	101
OECD average	12.6	13.1	12.9	12.9	12.9	5.2	5.3	5.4	5.7	5.6	106	104	102
EU21 average	11.4	11.8	11.6	11.4	11.5	5.1	5.4	5.3	5.8	5.6	104	104	99
OECD average (countries with available data for all years)	12.5	12.6	12.4	12.3	12.5	5.2	5.3	5.3	5.6	5.6	~	~	~
Partners													
Argentina	m	m	m	m	m	m	m	m	m	6.3	m	m	m
Brazil	10.5	14.5	17.4	18.1	19.2	3.5	4.5	5.4	5.8	6.1	123	112	110
China	m	m	m	m	m	m	m	m	m	m	m	m	m
Colombia[4]	m	m	m	m	m	m	m	m	m	4.5	m	m	m
India	m	m	m	m	m	m	m	m	m	m	m	m	m
Indonesia	m	m	m	m	20.5	m	m	m	m	m	m	m	m
Latvia	m	m	m	m	m	m	m	m	m	4.9	m	m	m
Russian Federation	10.6	11.0	m	m	10.9	2.9	3.8	4.1	4.0	3.9	m	m	m
Saudi Arabia	m	m	m	m	m	m	m	m	m	m	m	m	m
South Africa	m	m	m	m	m	m	m	m	m	m	m	m	m
G20 average	m	m	m	m	m	m	m	m	m	m	m	m	m

Note: Years 1995 and 2009 (columns 1, 5, 8 and 12) are available for consultation on line (see *Statlink* below).

1. Public expenditure presented in this table includes public subsidies to households for living costs (scholarships and grants to students/households and students loans), which are not spent on educational institutions. Thus the figures presented here exceed those on public spending on institutions found in Table B2.4.
2. Year of reference 2010 instead of 2011.
3. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.
4. Year of reference 2012 instead of 2011. Data refer to 2009-2012 instead of 2008-2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933117592

Table B4.3 Sources of public funds for primary, secondary and post-secondary non-tertiary education (2011)

Before and after transfers

		Initial funds (before transfers between levels of government)				Final funds (after transfers between levels of government)			
		Central	Regional	Local	Total	Central	Regional	Local	Total
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
OECD	Australia	35.1	64.9	m	100	4.5	95.5	m	100
	Austria	74.9	15.2	9.9	100	43.5	46.2	10.3	100
	Belgium	22.0	74.1	3.9	100	23.1	73.0	3.9	100
	Canada[1, 2]	3.2	75.4	21.4	100	2.7	13.2	84.2	100
	Chile[3]	95.1	a	4.9	100	53.0	a	47.0	100
	Czech Republic	13.7	62.3	25.8	100	11.9	62.3	25.8	100
	Denmark[2]	m	m	m	100	44.0	n	56.0	100
	Estonia	69.4	a	30.6	100	28.7	a	71.3	100
	Finland	41.2	a	58.8	100	10.5	a	89.5	100
	France	69.8	17.7	12.5	100	69.7	17.6	12.7	100
	Germany	10.7	72.3	17.0	100	7.7	69.1	23.2	100
	Greece	m	m	m	m	m	m	m	m
	Hungary	63.3	x(3)	36.7	100	21.8	x(7)	78.2	100
	Iceland	26.3	a	73.7	100	25.8	a	74.2	100
	Ireland	99.0	a	1.0	100	82.5	a	17.5	100
	Israel	90.8	a	9.2	100	71.1	a	28.9	100
	Italy	81.0	8.9	10.0	100	80.5	7.4	12.0	100
	Japan[2]	16.5	66.2	17.2	100	1.8	81.0	17.2	100
	Korea	68.7	28.1	3.2	100	0.8	30.5	68.7	100
	Luxembourg	80.6	a	19.4	100	75.1	a	24.9	100
	Mexico	77.4	22.4	0.2	100	27.2	72.6	0.2	100
	Netherlands	90.4	n	9.5	100	88.3	n	11.6	100
	New Zealand	100.0	n	n	100	100.0	n	n	100
	Norway	10.2	n	89.8	100	9.1	n	90.9	100
	Poland	3.4	1.9	94.7	100	2.4	2.0	95.7	100
	Portugal	m	m	m	m	m	m	m	m
	Slovak Republic[2]	79.1	a	20.9	100	22.2	a	77.8	100
	Slovenia	90.4	a	9.6	100	90.0	a	10.0	100
	Spain	14.8	79.2	6.0	100	13.9	80.1	6.0	100
	Sweden	m	m	m	m	m	m	m	m
	Switzerland	3.3	62.6	34.2	100	0.2	60.8	39.0	100
	Turkey	100.0	a	m	100	96	4	m	100
	United Kingdom	16.5	a	83.5	100	16.5	a	83.5	100
	United States	13.7	35.0	51.3	100	0.5	1.6	97.9	100
	OECD average	52.0	23.7	27.0	100	36.3	23.9	43.4	100
	EU21 average	54.1	20.7	26.5	100	40.7	21.0	39.4	100
Partners	Argentina	10.4	87.1	2.4	100	3.7	93.8	2.4	100
	Brazil	18.2	48.7	33.1	100	11.2	48.4	40.4	100
	China	m	m	m	m	m	m	m	m
	Colombia[3]	84.2	6.2	9.6	100	84.2	6.2	9.6	100
	India	m	m	m	m	m	m	m	m
	Indonesia	m	m	m	m	m	m	m	m
	Latvia	64.5	a	35.5	100	20.9	a	79.1	100
	Russian Federation	m	m	m	m	6.7	93.3	n	100
	Saudi Arabia	m	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m	m
	G20 average	m	m	m	m	m	m	m	m

1. Year of reference 2010.
2. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.
3. Year of reference 2012.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

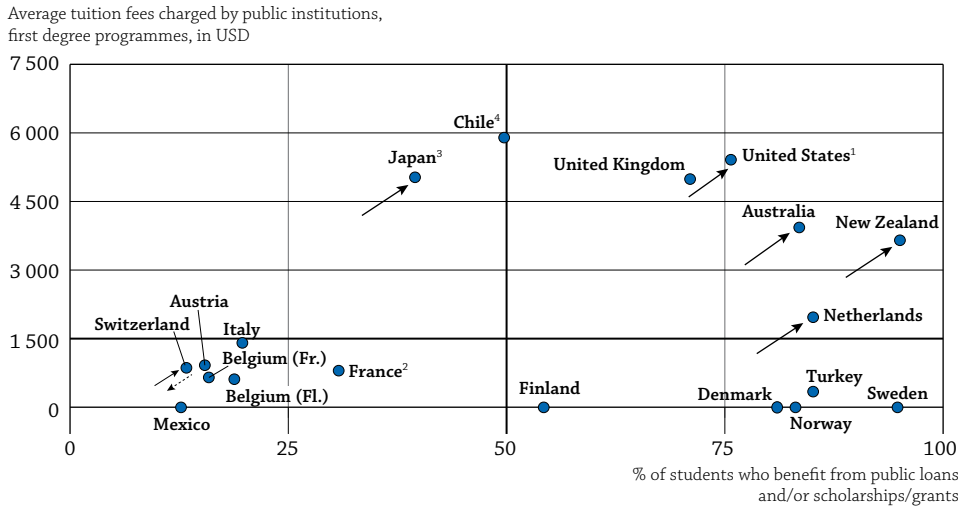
StatLink http://dx.doi.org/10.1787/888933117611

HOW MUCH DO TERTIARY STUDENTS PAY AND WHAT PUBLIC SUPPORT DO THEY RECEIVE?

- OECD countries differ significantly in the amount of tuition fees charged by their tertiary institutions. In eight OECD countries, public institutions charge no tuition fees, but in one-third of the 26 OECD countries with available data, public institutions charge annual tuition fees in excess of USD 1 500 for national students.
- An increasing number of OECD countries charge higher tuition fees for international students than for national students.
- Countries with high levels of tuition fees tend to be those where private entities (e.g. enterprises) contribute the most to funding tertiary institutions.
- An average of nearly 22% of public spending on tertiary education is devoted to supporting students, households and other private entities.

Chart B5.1. Relationship between average tuition fees charged by public institutions and proportion of students who benefit from public loans and/or scholarships/grants in tertiary-type A education (2011)

For full-time national students, in USD converted using PPPs for GDP, academic year 2010/11



1. Figures are reported for all students (full-time national and full-time non-national/foreign students)
2. Average tuition fees from USD 200 to USD 1 402 for university programmes dependent on the Ministry of Education.
3. Tuition fees refer to public institutions but more than two-thirds of students are enrolled in private institutions.
4. If only public institutions are taken into account, the proportion of students who benefit from public loans and/or scholarships/grants should be 68%.

Source: OECD. Tables B5.1 and B5.2. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933117801

How to read this chart

This chart shows the relationships, at the tertiary-type A level of education, between annual tuition fees charged by educational institutions and public support to households for students living costs. The arrows show how the average tuition fees and the proportion of students who benefit from public support have changed since 1995, following reforms.

Context

Policy decisions relating to tuition fees affect both the cost of tertiary education to students and the resources available to tertiary institutions. Public support to students and their families also enables governments to encourage participation in education – particularly among low-income students – by covering part of the cost of education and related expenses. In this way, governments can address issues of access and equality of opportunity. The impact of such support must therefore be judged, at least partly, by examining participation and retention in, and completion of, tertiary education.

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Public support to students also indirectly funds tertiary institutions. Channelling funding to institutions through students may also help increase competition among institutions and to be more responsive to student needs. Since aid for students' living costs can serve as a substitute for income from work, public subsidies may enhance educational attainment by allowing students to work less. This support comes in many forms, including means-based subsidies, family allowances for students, tax allowances for students or their parents, or other household transfers. Governments should strike the right balance among these different subsidies, especially in a period of financial crisis. Based on a given amount of subsidies, public support, such as tax reductions or family allowances, may provide less support for low-income students than means-tested subsidies, as the former are not targeted specifically to support low-income students. However, they may still help to reduce financial disparities among households with and without children in education.

Other findings

- Across OECD countries, **tuition fees for second-degree and further programmes are generally not much higher than those for first-degree programmes** for public institutions and government-dependent private institutions. Exceptions to this pattern are found in Australia, Chile and the United Kingdom.
- **The high entry rates into tertiary education in some countries that charge no tuition fees are also probably due to these countries' highly developed financial support systems for students**, and not just to the absence of tuitions fees.
- **OECD countries in which students are required to pay tuition fees but can benefit from sizeable financial support do not have below-average levels of access to tertiary-type A education**.
- **Student financial support systems that offer loans with income-contingent repayment to all students combined with means-tested grants can help to promote access and equity** while sharing the costs of higher education between the state and students.

Trends

As reported in *Education at a Glance 2013*, since 1995, 14 of the 25 countries with available information implemented reforms to tuition fees. In all of these 14 countries except Iceland and the Slovak Republic, the reforms were combined with a change in the level of public support available to students.

Since 2009, further changes have been made to tuition fees and public support systems in various countries. For example, in the United Kingdom, tuition fees doubled – and nearly tripled in some universities – in 2012, as part of a government plan to stabilise university finances. However, the data presented here, which are for 2010/11, do not reflect these more recent changes. Similarly, in 2011, Korea implemented reforms to increase the level of public support for higher education, with the goal of expanding access to and improving equity in tertiary-type A education.

Analysis

Annual tuition fees charged by tertiary-type A institutions for national students

The cost of higher education and the best way to support students in paying for that education are among the most hotly debated public policy topics in education today. The level of tuition fees charged by tertiary institutions – as well as the level and type of financial assistance countries provide through their student support systems – can greatly influence the access to and equity in tertiary education.

Striking the right balance between providing sufficient support to institutions through tuition fees and maintaining access and equity is challenging. On the one hand, higher tuition fees increase the resources available to educational institutions, support their efforts to maintain quality academic programmes and develop new ones, and can help institutions accommodate increases in student enrolment. Thus, several factors influence the level of tuition fees, such as the salary of professors, in the competition to hire the best ones in a global academic market; the development of non-teaching services (employability services, relations with companies); the growth of digital learning; and investments to support internationalisation.

However, tuition fees may also restrict access to higher education for students – particularly those from low-income backgrounds – in the absence of a strong system of public support to help them pay or reimburse the cost of their studies. In addition, high tuition fees may prevent some students from pursuing fields that require extended periods of study, especially when labour market opportunities are not sufficient in these fields.

On the other hand, lower tuition fees can help to promote student access and equity in higher education, particularly among disadvantaged populations. However, they may also constrain the ability of tertiary institutions to maintain an appropriate quality of education, especially in light of the massive expansion of tertiary education in all OECD countries in recent years. Moreover, budgetary pressures stemming from the global economic crisis may make it more difficult for countries that have lower tuition fees to sustain this model in the future.

Differentiating tuition fees (by level of education, field of education, student background or mode of delivery) is a way for countries to adjust the level of tuition fees to take into account equity issues to access tertiary education, costs to provide education and labour market opportunities.

There are large differences among countries in the average tuition fees charged by tertiary-type A institutions for national students in first-degree programmes. In the five Nordic countries (Denmark, Finland, Iceland, Norway and Sweden), and in Mexico, Poland and Slovenia, public institutions do not charge tuition fees. By contrast, tuition fees for public institutions are higher than USD 1 500 in one-third of the countries with available data, and they reach more than USD 5 000 in Chile, Japan, Korea and the United States. Meanwhile, in Austria, Belgium, France, Italy, Spain, Switzerland and Turkey, students pay small tuition fees for tertiary-type A education. Among the EU21 countries for which data are available, only the Netherlands, the Slovak Republic and the United Kingdom have annual tuition fees that exceed USD 1 500 per full-time national student (Table B5.1 and Chart B5.2).

The tuition fees charged for national students in second-degree and further programmes are generally not much higher than those charged for first-degree programmes. In the majority of the countries with available data, the fees charged are stable or slightly higher than those for first-degree programmes. Exceptions to this pattern are found in Australia, Chile, Ireland and the United Kingdom. Thus, for public institutions in Australia, the amount charged increases by 55% between the two types of degrees, from USD 3 924 to USD 6 099, while it decreases slightly in independent private institutions. Australia, Chile and the United Kingdom also differentiate fees by field of education in first-degree programmes. By contrast, Turkey is the only country where fees are lower in second-degree and further programmes at public institutions (Tables B5.1 and B5.3).

Tuition fees for non-national students

National policies regarding tuition fees and financial aid to students generally cover all students studying in the country's educational institutions. Countries' policies also take international students into account. Differences between national and international students, in the fees they are charged or the financial help they may receive from the country in which they study, can, along with other factors, have an impact on the flows of international students. These differences can attract students to study in some countries or discourage students from studying in others (see Indicator C4), especially in a context where an increasing number of OECD countries are charging higher tuition fees for international students.

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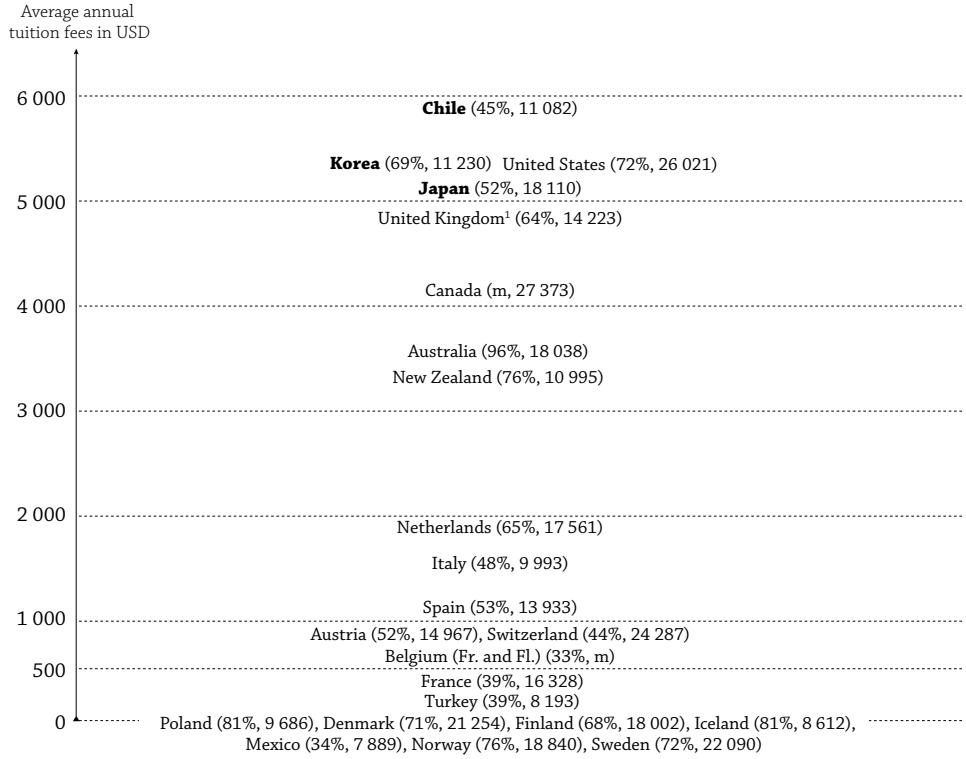
Chart B5.2. Average annual tuition fees charged by tertiary-type A public institutions for full-time national students (2011)

In USD converted using PPPs for GDP, academic year 2010/11



Note: This chart shows the annual tuition fees charged in equivalent USD converted using PPPs. Countries in bold indicate that tuition fees refer to public institutions but more than two-thirds of students are enrolled in private institutions. The net entry rate and expenditure per student (in USD) in tertiary-type A programmes are added next to the country's name.

This chart does not take into account grants, subsidies or loans that partially or fully offset the students' tuition fees.

1. Public institutions do not exist at this level of education and almost all students are enrolled in government-dependent private institutions.

Source: OECD. Tables B1.1a, B5.1 and Indicator C3. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing the missing data.

StatLink http://dx.doi.org/10.1787/888933117820

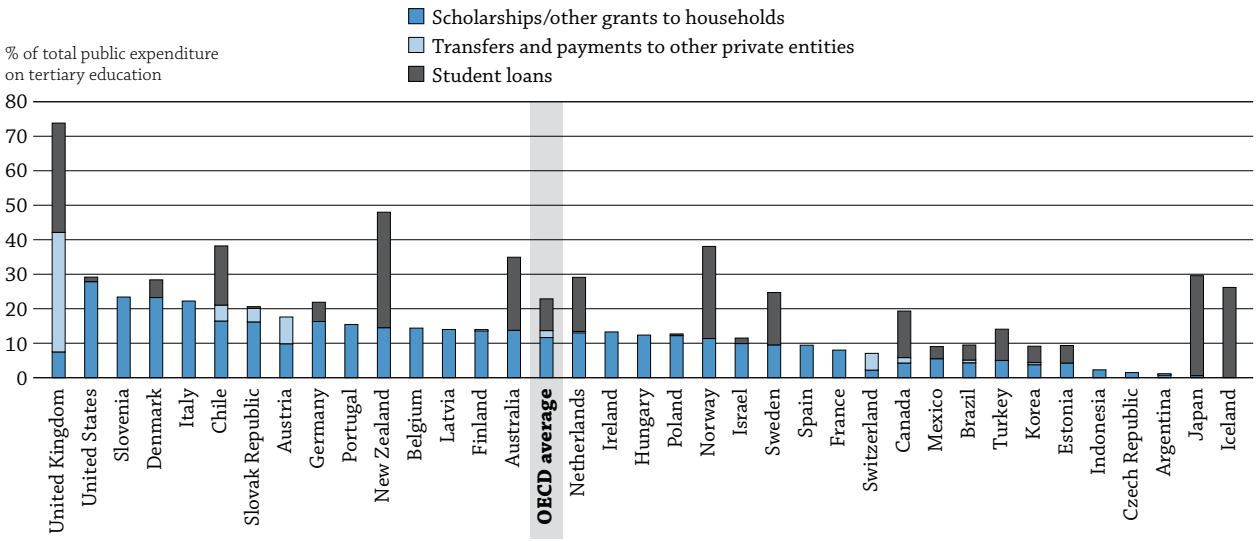
In the majority of countries with available data, the tuition fees charged by public educational institutions may differ for national and international students enrolled in the same programme. In Austria, for example, the average tuition fees charged by public institutions for students who are not citizens of EU or European Economic Area (EEA) countries are twice the fees charged for citizens of these countries. Similar policies are found in Canada, Denmark (as of 2006/07), Ireland, the Netherlands, New Zealand (except for foreign doctoral students), Poland, the Slovak Republic, Slovenia, Sweden (as of 2011), Switzerland, Turkey, the United Kingdom and the United States. In these countries, the level of tuition fees varies based on citizenship or on an individual's residence (see Indicator C4 and Box C4.3). In Australia, international students are not eligible for the support that is available to national students.

Grants and loans to students

OECD research (OECD, 2008) suggests that having a robust financial support system is important for ensuring good outcomes for students in higher education, and that the type of aid is also critical. A key question in many OECD countries is whether financial support for households should be provided primarily in the form of grants or loans for tertiary-type A education. Governments subsidise students' living or educational costs through different combinations of these two types of support. Tax reductions and tax credits for education are not included in this indicator. Advocates of student loans argue that loans allow available resources to be spread further. If the amount spent on grants were used to guarantee or subsidise loans instead, aid would be available to more students, and overall access to higher education would increase.

Chart B5.3. Public support for tertiary education (2011)

Public support for education to households and other private entities as a percentage of total public expenditure on tertiary education, by type of subsidy



Countries are ranked in descending order of the share of scholarships/other grants to households and transfers and payments to other private entities in total public expenditure on education.

Source: OECD. Table B5.4. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933117839

Loans also shift some of the cost of education to those who benefit most from higher education, namely, the individual student reflecting the high private returns of completing tertiary education (see indicator A7). Opponents of loans argue that student loans are less effective than grants in encouraging low-income students to pursue their education. They also argue that loans may be less efficient than anticipated because of the various types of support provided to borrowers or lenders and the costs of administration and servicing. Finally, high level of student debt may have adverse effects both for students and for governments, if large numbers of students are unable to repay their loans (Box B5.1).

OECD countries spend an average of about 22% of their public budgets for tertiary education on support to households and other private entities (Chart B5.3). In Australia, Chile, Denmark, Iceland, Japan, the Netherlands, New Zealand, Norway, the United Kingdom and the United States, public support accounts for more than 25% of public spending on tertiary education. Only Argentina, the Czech Republic and Indonesia spend less than 7% of total public spending on tertiary education support. However, in the Czech Republic, subsidies for students' grants are sent directly to institutions, which are responsible for distributing them among students (Table B5.4).

One-third of the 36 countries for which data are available rely exclusively on scholarships/grants and transfers/payments to other private entities. Iceland provides only student loans, while other countries make a combination of grants and loans available. Both types of support are used extensively in Australia, Chile, the Netherlands, New Zealand, Norway, Sweden, the United Kingdom and the United States.

In general, the countries that offer student loans are also those in which public support to households accounts for the largest proportion of all public expenditure on tertiary education. In most cases, these countries also spend an above-average proportion of their tertiary education budgets on grants and scholarships (Chart B5.3 and Table B5.4).

Country approaches to funding tertiary education

Many countries have similar goals for tertiary education, such as strengthening the knowledge economy, increasing access for students, encouraging high completion rates, and ensuring the financial stability of their higher education systems. Yet OECD countries differ dramatically in the way the cost of higher education is shared among governments, students and their families, and other private entities – and in the financial support they provide to students.

As noted above, the cost of tertiary education, and the level of support available to students, varies markedly across OECD countries. This section provides a taxonomy of approaches to funding tertiary education in countries with available data, and analyses the impact of these models on access to tertiary education. Countries are grouped in four models, according to two factors: the level of tuition fees and the financial support available through the country's student financial aid system for tertiary education.

There is no single model for financing tertiary-type A education. Countries in which tertiary-type A institutions charge similar tuition fees may vary in the proportion of students benefiting from public support and/or in the average amount of these subsidies (Tables B5.1, B5.2, B5.3, B5.4 and Table B5.5, available on line, and Chart B5.1). Since arrangements regarding the tuition fees charged by tertiary educational institutions have been the subject of reforms in many OECD countries since 1995, some countries have moved from one model to another over this period (Chart B5.1, and see Box B5.1 in *Education at a Glance 2012*).

Model 1: Countries with no or low tuition fees and generous student support systems

This group is composed of the Nordic countries: Denmark, Finland, Iceland, Norway and Sweden. These countries have more progressive tax structures (OECD, 2011), and students pay no tuition fees and benefit from generous public support for higher education. However, individuals face high income tax rates. The average entry rate into tertiary-type A education for this group – 74% – is significantly above the OECD average of 59% (see Indicator C3, Table C3.2a). These high entry rates may also reflect the attractiveness of these countries' highly-developed student financial support systems, not just the absence of tuition fees. For instance, in these countries, more than 55% of students benefit from public grants, public loans, or a combination of the two (Tables B5.1, B5.2 and Chart B5.1).

The approach to funding tertiary education in this model reflects these countries' deeply rooted social values, such as equality of opportunity and social equity. The notion that government should provide its citizens with tertiary education at no charge to the individual is a salient feature of the culture of education in these countries: the funding of both institutions and students is based on the principle that access to tertiary education is a right, rather than a privilege. However, during the past decade, Denmark and Sweden (as of 2011) decided to introduce tuition fees for international students to increase the resources available for their tertiary institutions; Iceland also considered doing so. The risk is that this approach may discourage some international students from studying in these countries. Sweden has seen a reduction in the number of international students in the country since it introduced this reform: between autumn 2010 and autumn 2011 the number of students who were not part of an exchange programme and came from outside the European Economic Area and Switzerland decreased by almost 80% (Swedish Higher Education Authority, 2013).

Model 2: Countries with high tuition fees and well-developed student support systems

The second group includes Australia, Canada, the Netherlands, New Zealand, the United Kingdom and the United States. These countries have potentially high financial obstacles to entry into tertiary-type A education, but they also offer significant public support to students. The average entry rate to tertiary-type A education for this group of countries is 75%, significantly above the OECD average and higher than most countries with low tuition fees (except the Nordic countries). Countries in Model 2 tend to be those where private entities (e.g. private businesses and non-profit organisations) contribute the most to financing tertiary institutions. In other words, in Model 2 countries, the cost of education is shared among government, households and private companies (see Chart B3.2 and Table B3.1).

Tuition fees charged by public tertiary-type A institutions exceed USD 1 500 in all these countries, but more than 75% of tertiary-type A students receive public support (in Australia, the Netherlands, New Zealand, the United Kingdom and the United States, the five countries for which data are available; Tables B5.1 and B5.2). Student support systems are well-developed and mostly accommodate the needs of the entire student population. As a result, the share of public expenditure on tertiary education that is devoted to public support in these countries is higher than the OECD average (22%) in five of the six countries: Australia (35%), the Netherlands (29%), New Zealand (48%) the United Kingdom (74%) and the United States (29%), and close to the average for Canada (19%) (Table B5.4).

In this group of countries, access to tertiary-type A education is above the OECD average. For example, Australia and New Zealand have among the highest entry rates into tertiary-type A education (96% and 79%, respectively), although these rates also reflect the high proportion of international students enrolled in tertiary-type A education.

Entry rates into tertiary-type A education were also above the OECD average (59%) in the Netherlands (65%), the United Kingdom (64%) and the United States (72%) in 2011. These countries spend more on core services (services directly related to instruction) per tertiary student than the OECD average and have a relatively high level of revenue from income tax as a percentage of GDP, compared to the OECD average. The Netherlands is an outlier, as its level of income taxation is below the OECD average (see Table B1.1b, available on line, and Table C3.1).

OECD research (OECD, 2008) suggests that, in general, this model can be an effective way for countries to increase access to higher education. However, during periods of economic crisis, high tuition fees impose a considerable financial burden on students and their families and can discourage some of them from entering tertiary education, even when relatively high levels of student support are available. This is a hotly debated topic in Canada, the United Kingdom and the United States.

Model 3: Countries with high tuition fees and less-developed student support systems

In Chile, Japan and Korea, most students are charged high tuition fees (on average, more than USD 4 500 in tertiary-type A institutions), but student support systems are somewhat less developed than those in Models 1 and 2. This approach can impose a heavy financial burden on students and their families. Entry rates into tertiary-type A institutions are below the OECD average in Chile (45%) and Japan (52%), but above it significantly in Korea (69%). In Japan and Korea, some students who excel academically but have difficulty financing their studies can benefit from reduced tuition and/or admission fees or receive total exemptions.

Japan and Korea are among the countries with the lowest levels of public expenditure allocated to tertiary education as a percentage of GDP (see Table B4.1). This partially explains the small proportion of students who benefit from public loans. It should be noted, however, that both countries have recently implemented reforms to improve their student-support systems.

Model 4: Countries with low tuition fees and less-developed student support systems

The fourth group includes all other European countries for which data are available (Austria, Belgium, the Czech Republic, France, Ireland, Italy, Poland, Portugal, Switzerland and Spain) and Mexico. All of these countries charge moderate tuition fees compared to those in Models 2 and 3, although since 1995, reforms were implemented in some of these countries – particularly Austria and Italy – to increase tuition fees in public institutions (Chart B5.1 and Box B5.1). Model 4 countries have relatively low financial barriers to entry into tertiary education (or no tuition fees, as in Ireland and Mexico), combined with relatively low levels of support for students, which are mainly targeted to specific groups. Tuition fees charged by public institutions in this group never exceed USD 1 300, and in countries for which data are available, less than 40% of students benefit from public support (Tables B5.1 and B5.2).

In Model 4 countries, tertiary institutions usually depend heavily on the state for funding, and participation levels in tertiary education are typically below the OECD average. The average tertiary-type A entry rate in this group of countries – 56% – is relatively low. In Belgium, this low rate is counterbalanced by high entry rates into tertiary-type B education. Similarly, expenditure per student for tertiary-type A education is also comparatively low (Chart B5.2 and see Indicator B1). While high tuition fees can raise potential barriers to student participation, Model 4 suggests that lower tuition fees, which are assumed to ease access to education, do not necessarily guarantee greater access to or better quality of tertiary-type A education.

In these countries, students and their families can benefit from support provided by sources other than the ministry of education (e.g. housing allowances, tax reductions and/or tax credits for education), but these are not covered in this analysis. In France, for example, of state funding, housing allowances represent about 90% of scholarships/grants, and about one-third of students benefit from them. Poland is notable in that most students enrolled in public institutions have their studies fully subsidised by the state, while students enrolled in part-time studies pay the full costs of tuition.

In Model 4 countries, loan systems, such as public loans or loans guaranteed by the state, are not available or are only available to a small proportion of students in these countries (Table B5.2). At the same time, the level of public spending and the tax revenue from income as a percentage of GDP vary significantly more among this group of countries than in the other groups.

Implementation of public loan systems and amount of public loans

Public loan systems (see Box B5.1 on types of student loans) are particularly well-developed in Australia, Norway, the United Kingdom and the United States, where some 70% or more of students benefit from a public loan during their tertiary-type A studies. Public loan systems are also quite well-developed in New Zealand (64%), and also

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in Iceland and Sweden (respectively 63% and 40% of students have a loan), two countries – along with Norway – where educational institutions at this level do not charge tuition fees for national students. At the same time, the United States are among the countries with the highest tuition fees for public tertiary-type A institutions, and 84% of full-time full-year students benefit from a public loan in a given year.

The financial support that students receive from public loans during their studies cannot be solely analysed in light of the proportion of students who have loans. The support for students also depends on the amount they can receive in public loans. In countries with comparable data, the average annual gross amount of public loan available to each student exceeds USD 4 000 in about one-half of the countries and ranges from less than USD 3 000 in Belgium (French Community), Finland (loans guaranteed by public authorities rather than public loans), the Netherlands and Turkey, to more than USD 9 000 in Iceland, Mexico, Norway, Spain, the United Kingdom and the United States (Table B5.3, reference year 2010/11).

Box B5.1. **Student loans: Income-contingent versus fixed-repayment systems**

Investing in tertiary education usually provides individuals with better prospects on the labour market, decreases their risk of unemployment, and may result in high private and public returns (see Indicators A5, A6 and A7).

Student loans, which complement grants and scholarships, are intended to help students cover the cost of their tertiary studies (tuition fees and/or living costs). Public loan systems were developed relatively recently, mainly between the 1960s and 1980s, during a period of massive growth in enrolments in tertiary education, and also in tandem with increasing tuition fees

However, the debt burden that students accumulate is one factor that may impact on their decision to invest in tertiary education. The size of the debt burden depends on the level of tuition fees and living expenses as well as the interest incurred on the loan (which may be subsidised).

For people in countries where tertiary studies entail no or low tuition fees (Models 1 and 4, see above), debt at graduation would typically be lower than that for students studying in countries with high tuition fees, since student loans are mainly used to cover students' living expenses. However, in Nordic countries, where there are low or no tuition fees, the level of student debt at graduation may be high because living expenses are high. For individuals who study in countries where tertiary education entails high tuition fees (Models 2 and 3), the level of debt at graduation may be higher, and the incentives and risks of investing in tertiary studies may vary according to the type of student loans they take.

There are two broad types of student loans: fixed repayment (also referred to as mortgage-style) loans and income-contingent loans. In a fixed repayment loan system, students have an obligation to repay the loan within a fixed period, whatever their financial situation after their studies. This may impose a heavy financial burden on graduates (or those who did not graduate) with low incomes – as seen most recently during the economic crisis, when student debt in the United States hit USD 1.1 trillion in 2013. In income-contingent loan systems, repayment is conditional on the borrower's income reaching a threshold, and includes debt forgiveness after a certain period of time. This type of repayment arrangement takes into account the ability of the graduate to repay their loan.

Both systems imply some costs for the government that guarantees the loan repayment, or/and subsidises the interest rates. Repayment of public loans can be a substantial source of income for governments (through the interest payment, as repayment of loan capital is a balance sheet transaction) and can reduce the costs of loan programmes significantly. However, the potential financial burden for the government is more uncertain with income-contingent loans, as these are contingent on graduates' ability to find work and earn income above the minimum threshold for reimbursement. This type of student loan has been introduced in several countries in recent years. For example, the United Kingdom replaced the mortgage-loan system by an income-contingent loan system in 1999. Even though most students in tertiary-type A institutions in the United Kingdom have a loan, this system relied on additional government support of GBP 6 billion in 2011 (more than 30% of total public expenditure at the tertiary level; table B5.4), although the government's ultimate expenditure is lower,

...

once repayment of these loans is taken into account. With the increase in student debt, some income-contingent loan systems were also introduced in the United States: the income-based repayment programme in 2009 and the Pay-As-You-Earn (PAYE) plan in 2012.

When considering education as an investment, student loans impact on the net returns of education (see Indicator A7). Private returns (for students) of education depend on the costs related to the interest rate associated to the loans and benefits resulting from remission (on top of the possibility to access education and its associated benefits). The net public returns (for government) decrease according to the costs related to subsidising lower interest rates for student loans and related to the remission of loans.

The prevalence of income-contingent or fixed-repayment systems affect the net returns of education, as the remission rate is larger with income-contingent systems (implying larger costs for government but larger benefits for students). Among countries with available data, Canada and the United Kingdom are reporting the highest debt forgiveness and are also among countries with the high interest rate charged on loans (Table B5.3).

The comparison of average tuition fees and average amounts of loans should be interpreted with caution since, in a given education programme, the amount of a loan can vary widely among students, even if the programme's tuition fees are the same. Nevertheless, such a comparison provides some insight into whether students take a loan to cover tuition fees and living expenses. The higher the average level of tuition fees charged by institutions, the greater the need for financial support for students through public loans. The financial pressure on governments to support students increases as tuition fees rise. In the OECD countries for which data on annual gross amounts of loans are available, the average amount of public loan exceeds the average tuition fee charged by public institutions, except in Australia. This suggests that public loans may also help support students' living expenses during their studies.

Among the countries with average tuition fees above USD 1 500 in tertiary-type A public institutions, the average amount of a student loan in the United Kingdom (for government-dependent private institutions) and the United States is at least twice the average tuition fee. The largest differences between average tuition fees and the average amount of loans are observed in the Nordic countries, in which no tuition fees are charged by institutions and a large proportion of students benefit from a public loan with an average amount ranging from about USD 4 200 in Denmark to USD 9 400 in Norway to nearly USD 10 400 in Iceland (Tables B5.1 and B5.3).

Public loan systems also offer some financial aid to students through the interest rate that these students may have to pay, the repayment system or even remission/forgiveness mechanisms (Table B5.3).

Financial support through interest rates

The financial help arising from reduced interest rates on public or private loans is twofold: the interest rates supported by students during and after their studies may differ. Comparing interest rates among countries is difficult, as the structure of interest rates, both public and private, is not known and can vary significantly among countries, such that a given interest rate may be considered high in one country and low in another. However, differences in rates during and after tertiary studies seem intended to reduce the financial burden on students during their studies. For example, in Canada, Iceland, Japan, New Zealand and Norway, there is no nominal interest rate on a public loan during the period of studies; but after this period, students/graduates may incur an interest charge that is related to the cost of government borrowing or even higher. For example, New Zealand, which made loans interest-free for borrowers while they reside in New Zealand in 2006/07, charges an interest rate on loans to borrowers who are overseas. Belgium, Estonia, Hungary, the Netherlands, Poland, Sweden, the United Kingdom and the United States do not differentiate between the interest rate borne by student during and after their studies. In Australia, a real interest rate is not charged on loans; instead, the part of a loan that has remained unpaid for 11 months or more is indexed to ensure that the real value of the loan is maintained (Table B5.3).

Repayment of loans

The current reporting of household expenditure on education as part of private expenditure (see Indicator B3) does not take into account the repayment of public loans by previous recipients. As seen in Table B5.3, the repayment period varies among countries, ranging from less than 10 years in Australia, Belgium (French Community), Finland, New Zealand, Spain and Turkey, to 20 years or more in Iceland and Sweden. Among the 18 OECD countries

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for which data on repayment systems are available, four English-speaking countries (Australia, New Zealand, the United Kingdom and, under specific circumstances, the United States) as well as Hungary, Iceland, the Netherlands and Sweden make the repayment of loans dependent on graduates' level of income (with a maximum payback time of up to 15 years, in the case of the Netherlands). Among countries with income-contingent repayment systems, the minimum annual income threshold above which borrowers have to reimburse the loan varies largely between countries: while it is particularly low in Sweden (less than USD 7 000), it varies from about USD 13 000 in New Zealand to more than USD 29 000 in Australia.

Anglophone countries are also countries in which the average tuition fees charged by their institutions are higher than USD 1 500 and the average amount of the loan is among the highest in the countries with a public loan system (Table B5.3).

Debt at graduation

In time of economic crisis involving potential difficulties for young graduates to find a job, the level of debt at graduation becomes a concern. When the labour market opportunities decrease, many graduates may tend to go back to studies, which makes them running even more into debt.

In several countries, most students are in debt at graduation. Countries whose tertiary institutions charge high tuition fees are also those whose students have the highest levels of debt at graduation. By contrast, in countries with a relatively small proportion of graduates in debt, the debt burden is also lighter. For instance, in Turkey, one in five students is in debt at graduation for an average of about USD 5 200, while in the United States, two out of three graduates have debt from loans of an average of USD 25 400.

Countries that do not charge tuition fees for national students also show high levels of debt. This is the case for students in Sweden, who graduate with an average debt burden of USD 20 000. In Norway, the average student debt reaches USD 25 000. Unlike in countries with high tuition fees, the loans in these countries are intended to cover all kinds of student expenditure. In addition, income is generally lower after graduation and taxes are higher in these countries (see Model 1).

Definitions

Average tuition fees charged in public and private tertiary-type A institutions do not distinguish tuition fees by type of programme. This indicator gives an overview of tuition fees at this level by type of institution and shows the proportions of students who do or do not receive scholarships/grants that fully or partially cover tuition fees. Levels of tuition fees and associated proportions of students should be interpreted with caution as they are derived from the weighted average of the main tertiary-type A programmes and do not cover all educational institutions.

Public spending transferred to students, families and other private entities includes funds that may go indirectly to educational institutions, such as the support that covers tuition fees and funds that do not go, even indirectly, to educational institutions, such as subsidies for students' living costs.

Public subsidies to households include: grants/scholarships (non-repayable subsidies); public student loans, which must be repaid; family or child allowances contingent on student status; public support in cash or in kind, specifically for housing, transport, medical expenses, books and supplies, social, recreational and other purposes; and interest-related support for private loans.

However, public support does not distinguish among different types of grants or loans, such as scholarships, family allowances and in-kind subsidies. Governments can also support students and their families by providing housing allowances, tax reductions and/or tax credits for education. These subsidies are not covered here. Financial aid to students in some countries may therefore be substantially underestimated.

It is also common for governments to guarantee the repayment of loans to students made by private lenders. In some OECD countries, this indirect form of support is as significant as, or even more significant than, direct financial aid to students. However, for reasons of comparability, the indicator only takes into account the amounts relating to public transfers for private loans that are made to private entities, not the total value of loans generated. Some qualitative information is nevertheless presented in some of the tables to give some insight on this type of support.

Student loans refer to the full range of student loans in order to provide information on the level of support received by students. The gross amount of loans provides an appropriate measure of the financial aid to current participants in education. Interest payments and repayments of principal by borrowers should be taken into account when assessing the net cost of student loans to public and private lenders. However, such payments are usually made

by former students rather than by current students and are not covered in this indicator. In most countries, loan repayments do not flow to education authorities, and the money is not available to them to cover other expenditures on education. OECD indicators take the full amount of scholarships and loans (gross) into account when discussing financial aid to current students. Some OECD countries also have difficulty quantifying the amount of loans to students. Therefore, data on student loans should be treated with some caution.

Methodology

Data refer to the financial year 2011 and are based on the UOE data collection on education statistics administered by the OECD in 2012 (for details see Annex 3 at *www.oecd.org/edu/eag.htm*).

Data on tuition fees charged by educational institutions, financial aid to students and on reforms implemented since 1995 were collected through a special survey undertaken in 2012 and refer to the academic year 2010/11.

Amounts of tuition fees and amounts of loans in national currency are converted into equivalent USD by dividing the national currency by the purchasing power parity (PPP) index for GDP. Amounts of tuition fees and associated proportions of students should be interpreted with caution as they represent the weighted average of the main tertiary-type A programmes and do not cover all educational institutions.

Public costs related to private loans guaranteed by governments are included as subsidies to other private entities. Unlike public loans, only the net cost of these loans is included.

The value of tax reductions or credits to households and students is not included.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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Tables of Indicator B5

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	Table B5.1	Estimated annual average tuition fees charged by tertiary-type A educational institutions (2011)
	Table B5.2	Financial aid to students and tuition fees charged in tertiary-type A educational institutions (2011)
	Table B5.3	Public loans to students in tertiary-type A education (academic year 2010/11)
	Table B5.4	Public support for households and other private entities for tertiary education (2011)
WEB	Table B5.5	Public support for households and other private entities for primary, secondary and post-secondary non-tertiary education (2011)

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Table B5.1. [1/2] Estimated annual average tuition fees charged by tertiary-type A educational institutions[1] (2011)

National students, in equivalent USD converted using PPPs, by type of institutions and degree structure, based on full-time students, academic year 2010/11

Note: Tuition fees and associated proportions of students should be interpreted with caution as they result from the weighted average of the main tertiary-type A programmes and do not cover all educational institutions. However, the figures reported can be considered as good proxies and show the difference among countries in tuition fees charged by main educational institutions and for the majority of students.

		Percentage of tertiary-type A students enrolled full-time in tertiary-type A education	Percentage of tertiary-type A full-time students enrolled in:			Annual average tuition fees *in USD charged by institutions (for full-time students)*						Index of change in the amount of tuition fees between 2005 and 2011 (first degree, public institutions, 2005 = 100)
			Public institutions	Government dependent private institutions	Independent private institutions	Public institutions		Government dependent private institutions		Independent private institutions		
			All programmes	All programmes	All programmes	1st degree programmes	2nd and further degree programmes	1st degree programmes	2nd and further degree programmes	1st degree programmes	2nd and further degree programmes	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
OECD	Australia	71	96	a	4	3 924	6 099	a	a	10 110	9 635	128
	Austria[2]	m	84	13	3	860	860	860	860	Up to 11 735	Up to 11 735	m
	Belgium (Fl.)	75	52	48	m	576 to 653	576 to 653	576 to 653	576 to 653	m	m	m
	Belgium (Fr.)	84	33	67	m	653	696	754	785	m	m	m
	Canada	82	m	m	m	4 288	m	x(4)	m	x(4)	m	124
	Chile	m	23	18	59	5 885	6 345	6 924	8 757	6 230	8 357	m
	Czech Republic	97	m	m	m	m	m	m	m	m	m	m
	Denmark[3]	90	m	m	m	No tuition fees	No tuition fees	m	m	a	a	m
	Estonia	87	m	93	7	m	m	3 527	3 786	5 322	6 699	m
	Finland	56	74	26	a	No tuition fees	No tuition fees	No tuition fees	No tuition fees	a	a	m
	France	m	86	5	9	200 to 1 402	273 to 1 402	1 138 to 8 290	x(6)	m	m	116
	Germany	94	96	4	x(3)	m	m	m	m	m	m	m
	Greece	100	m	m	m	m	m	m	m	m	m	m
	Hungary	65	m	m	m	m	m	m	m	m	m	m
	Iceland	71	m	m	m	m	m	m	m	m	m	m
	Ireland	87	m	a	m	6 450	7 036	a	a	m	m	136
	Israel	82	m	m	m	m	m	m	m	m	m	m
	Italy	100	90	a	10	1 407	x(5)	a	a	4 406	x(9)	m
	Japan	91	25	a	75	5 019	5 106	a	a	8 039	7 423	109
	Korea	m	23	a	77	5 395	m	a	a	9 383	m	m
	Luxembourg	95	m	m	m	m	m	m	m	m	m	m
	Mexico	95	67	a	33	No tuition fees	No tuition fees	a	a	5 684	x(9)	m
	Netherlands	86	m	a	m	1 966	x(4)	a	a	m	m	113
	New Zealand	60	m	m	m	3 645	x(4)	m	m	m	m	135
	Norway	71	85	5	10	No tuition fees	No tuition fees	m	m	5 868	7 296	m
	Poland	45	90	a	10	n	n	a	a	1 242	1 335	m
	Portugal[3]	m	m	m	m	m	m	m	m	m	m	m
	Slovak Republic	64	93	a	7	Maximum 2 916	x(4)	a	a	m	m	m
	Slovenia	75	94	6	1	n	n	n	n	11 040	12 144	m
	Spain	76	88	a	12	1 129	m	a	a	m	m	m
	Sweden	48	93	7	n	No tuition fees	No tuition fees	No tuition fees	No tuition fees	m	m	m
	Switzerland	89	95	3	2	863	863	863	863	m	m	m
	Turkey	100	94	a	6	332	270	a	a	m	m	136
	United Kingdom	76	a	100	n	a	a	4 980	7 814	m	m	m
	United States	66	70	a	30	5 402	m	a	a	17 163	m	116
Partners	Brazil	m	m	m	m	m	m	m	m	m	m	m
	Russian Federation	49	m	m	m	m	m	m	m	m	m	m

1. Scholarships/grants that the student may receive are not taken into account.
2. Includes students in advanced research programmes.
3. Tuition fees in total tertiary education.

Source: OECD. Table B5.1 in *Education at a Glance 2013*. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933117725

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Table B5.1. [2/2] Estimated annual average tuition fees charged by tertiary-type A educational institutions[1] (2011)

National students, in equivalent USD converted using PPPs, by type of institutions and degree structure, based on full-time students, academic year 2010/11

Note: Tuition fees and associated proportions of students should be interpreted with caution as they result from the weighted average of the main tertiary-type A programmes and do not cover all educational institutions. However, the figures reported can be considered as good proxies and show the difference among countries in tuition fees charged by main educational institutions and for the majority of students.

		Comment
		(12)
OECD	Australia	93% of national students in public institutions are in subsidised places and pay an average USD 3 817 tuition fee, including HECS/HELP subsidies. There was a significant increase (~50%) in scholarships for domestic students from 2007 to 2009 as a result of government reforms aimed at doubling the number of Commonwealth Scholarships by 2012. The new scholarships were mostly targeted towards students studying national priority subjects, students who needed to relocate to study specialist subjects, and Indigenous students.
	Austria[2]	As of summer term 2009, tuition fees have to be paid by national students and students from EU/EEA countries when they exceed the theoretical duration of the study programme by two semesters and by students from non-EU/EEA countries (except students from least-developed countries)
	Belgium (Fl.)	Tuition fees refer to the minimum and maximum amount that institutions may charge according to the decree (indexed figures). They refer to those for students enrolled in first (bachelor) and second (master) degree programmes. The information does not refer to further degree programmes (for example, master after master). This information refers to students without scholarship (student with a scholarship benefit from lower tuition fees, see more details in Annex 3).
	Belgium (Fr.)	Tuition fees charged for programmes are the same in public as in private institutions but the distribution of students differs between public and private institutions, so the weighted average is not the same.
	Canada	
	Chile	
	Czech Republic	
	Denmark[3]	Only university students. The proportion of students receiving grants/scholarships is estimated. National students include student from EU/EEA-countries and Switzerland.
	Estonia	There is a dual track tuition system in Estonia. The students who are admitted to state funded places at the universities do not pay tuition. Universities can charge tuition from students admitted beyond state-commissioned study places. Universities can decide upon both the amount of the tuition as well as the number of students to charge. In case of advanced research programmes, for example, universities create most of the additional study places without tuition. To some extent this is also the case of second and further degree programmes.
	Finland	Excluding membership fees to student unions.
	France	Tuition fees in public institutions refer to Universities programmes dependent from the Ministry of higher Education for the lowest level of tuition fees and refer to the State diploma of Psychomotrician (EUR 1 218) for the highest level of tuition fees in public institutions. For the government dependant private institutions the lowest level of tuitions fess mentioned in the table refers to Catholic University and the highest level refers to arts schools
	Germany	
	Greece	
	Hungary	
	Iceland	
	Ireland	The tuition fees charged by public institutions are paid directly by the government in respect of full-time, undergraduate students from the European Union, only. About one half of all tuition fee income is derived from households (mainly for part-time or postgraduate or non-EU students). This means that in 2010/11 students paid only EUR 1 500 of the fee level above.
	Israel	
	Italy	Each institution fixes scales for tuition fees dependent on the economic circumstances of the student's family, according to equity and solidarity criteria that respects the general rules determined at national level. The annual average tuition fees are calculated on the basis of the actual tuition fee paid by each student; students totally exempted from fees are not included in the calculation of the average.
	Japan	Annual average tuition fees exclude admission fees charged by the schools for the first year
	Korea	
	Luxembourg	
	Mexico	
	Netherlands	
	New Zealand	
	Norway	Student fees are representative of the dominant private ISCED 5 institution in Norway.
	Poland	
	Portugal[3]	
	Slovak Republic	Generally, full-time students do not pay the tuition fees, but students who are simultaneously enrolled in one academic year in two or more study programmes offered by a public university in the same level, are required to pay annual tuition fees for the second and the other study programmes in the academic year. In addition, students studying longer than the standard duration of study are required to pay annual tuition for each additional year of study.
	Slovenia	In public and government dependent private institutions: first and second level full-time students do not pay tuition fees. But second cycle students who already obtained a qualification/degree equivalent to the second cycle pay tuition fees.
	Spain	
	Sweden	In the autumn 2011, fees were introduced for students from outside the EEA and Switzerland.
	Switzerland	
	Turkey	
	United Kingdom	
	United States	Figures are reported for all students (full-time national and full-time non-national/foreign students)
Partners	Brazil	
	Russian Federation	

1. Scholarships/grants that the student may receive are not taken into account.
2. Includes students in advanced research programmes.
3. Tuition fees in total tertiary education.

Source: OECD. Table B5.1 in *Education at a Glance 2013*. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table B5.2. Financial aid to students and tuition fees charged in tertiary-type A educational institutions (2011)

National students and first degree programmes, based on full-time students, academic year 2010/11

		Distribution of financial aid to students Percentage of students who:				Distribution of scholarships/grants in support of tuition fees Percentage of students who:			
		benefit from public loans only	benefit from scholarships/ grants only	benefit from public loans AND scholarships/ grants	DO NOT benefit from public loans OR scholarships/ grants	receive scholarships/ grants that are higher than the tuition fees	receive scholarships/ grants whose amount is equivalent to the tuition fees	receive scholarships/ grants that partially cover the tuition fees	DO NOT receive scholarships/ grants in support of tuition fees
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
OECD	Australia[1]	81	n	2	16	n	n	3	97
	Austria[2]	a	15	a	85	15	n	n	85
	Belgium (Fl.)	a	19	a	81	19	x(5)	x(5)	81
	Belgium (Fr.)	n	x(3)	16	84	16	x(5)	x(5)	84
	Canada	m	m	m	m	m	m	m	m
	Chile	32	13	4	50	n	3	14	82
	Czech Republic	m	m	a	m	m	m	m	m
	Denmark[3]	n	53	28	m	81	m	m	m
	Estonia	m	m	m	m	0	0	10	89
	Finland	a	54	a	46	a	a	a	a
	France[3, 4]	a	31	a	69	24	7	a	69
	Germany	m	m	m	m	m	m	m	m
	Greece	m	m	m	m	m	m	m	m
	Hungary	m	m	m	m	m	m	m	m
	Iceland[2]	63	m	m	37	a	a	a	100
	Ireland[4]	m	37	m	m	37	m	m	m
	Israel	m	m	m	m	m	m	m	m
	Italy	n	19	n	80	8	4	7	81
	Japan	37	3	m	m	n	x(7)	3	m
	Korea	m	m	m	m	a	2	41	57
	Luxembourg	m	m	m	m	m	m	m	m
	Mexico[2, 3]	1	12	m	87	m	m	m	m
	Netherlands[4]	a	a	85	15	68	n	17	15
	New Zealand	53	6	37	5	m	m	m	m
	Norway	12	4	67	m	m	m	m	m
	Poland	m	m	m	m	m	m	m	m
	Portugal	m	m	m	m	m	m	m	m
	Slovak Republic	m	m	m	m	m	m	m	m
	Slovenia[5, 6]	a	26	n	m	m	m	m	m
	Spain	m	m	m	m	23	3	9	65
	Sweden	n	24	70	5	a	a	a	a
	Switzerland	2	10	1	87	13	n	n	87
	Turkey	m	m	m	m	25	n	n	75
	United Kingdom[2]	x(3)	6	65	29	n	n	n	100
	United States[3]	13	26	37	24	m	m	m	37
Partners	Brazil	m	m	m	m	m	m	m	m
	Russian Federation	m	m	m	m	m	m	m	m

1. Excludes foreign students.
2. Data refer to academic year 2008/09.
3. Distribution of students in total tertiary education (only Public University, including tertiary-type B in France).
4. Public institutions only.
5. Column 2 only includes scholarships.
6. Data refer to academic year 2009/10.

Source: OECD. Table B5.2 in *Educatioon at a Glance 2013*. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Table B5.3. [1/2] Public loans to students in tertiary-type A education (academic year 2010/11)

National students, in USD converted using PPPs

	Year of the creation of a public loan system in the country	Proportion of students who have a loan (in %) (academic year 2010/11)	Average annual gross amount of loan available to each students (in USD)	Subsidy through reduced interest rate	
				Interest rate during studies	Interest rate after studies
	(1)	(2)	(3)	(4)	(5)
OECD **Australia**[1, 2]	1989	77.1	3 507	1.90%	indexed to CPI
Belgium (Fl.)	a	a	a	a	a
Belgium (Fr.)[3]	1983	m	1 525	4.0%	4.0%
Canada[4]	1964	m	4 421	No nominal interest rate	Interest rates paid by the student (6.7%)
Denmark[2]	1970	28	4 227	4.0%	1.75%
Estonia[5]	1995	16	3 281	5%, rest paid by government	5%, rest paid by government
Finland[5]	1969	27.7	1 200	1.0%	Full interest rate agreed with the private bank; interest assistance for low-income persons
Hungary[5]	2001	17	3 876 (maximum)	Variable (8.50% in 2010/11)	Variable (8.50% in 2010/11)
Iceland	1961	63	10 342	No nominal interest rate	1.0%
Israel[2, 6]	m	11.4	3 552	m	m
Japan[7]	1943	28	5 602	No nominal nor real interest rate	Maximum of 3%, rest paid by government
Mexico[8]	1970	m	13 608	m	m
Netherlands[2]	1986	33.4	2 646	1.50%	1.50%
New Zealand[2]	1992	64	4 917	No nominal interest rate	0% if New Zealand based, 6.6% otherwise
Norway[2]	1947	70.0	9 381	No nominal interest rate	2.673% (floating interest rate)
Poland[2, 5]	1998	m	3 240	About 1.9%	About 1.9%
Spain	2010	0.1	10 218	0%	3.21%
Sweden[9]	1965	43	8 718	2.40%	2.40%
Turkey	1961	m	2 605	m	m
United Kingdom[2, 10, 11]	1990	83.9	10 070	1.5% (Bank base rate plus 1%)	3.3% (lower of Retail Price Index or Bank base rate, plus 1%)
United States[12]	1970s	71% of all undergraduates, 84% for full-time, full-year students	15 510	3.86% (direct subsidised and unsubsidised loans; excluding loans to parents)	x(5)

1. Including Commonwealth countries.
2. All tertiary students.
3. Loan made to the parents of the student, and only parents have to pay back the loan.
4. Loan outside Quebec. In Quebec, there are only private loans guaranted by the government.
5. Loan guaranteed by the state rather than public loan.
6. Annual amount of loan refers to all public and private loans.
7. Reference year 2004/05. Average amount of loan for students in ISCED 5A first qualification programme.
8. Average amount of loan for students in tertiary education.
9. Average annual amount of repayment for tertiary level of education.
10. Annual gross amount of loan refers to students in England.
11. Reference year 2009/11.
12. First-degree/undergraduates at ISCED level 5 only. Includes Parent Loans for Undergraduate Students (PLUS) and other loans made directly to parents. Total borrowed excludes loans from family and friends. Average annual gross amount of loan available to each student refers to full-time, full year students. Academic year 2011/12, except column 4 referring to 2013/14.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Table B5.3. [2/2] **Public loans to students in tertiary-type A education (academic year 2010/11)**

National students, in USD converted using PPPs

	Repayment				Debt at graduation	
	Repayment system	Annual minimum income threshold (in USD)	Duration of typical amortisation period (in years)	Average annual amount of repayment (in USD)	Percentage of graduates with debt (in %)	Average debt at graduation (in USD)
	(6)	(7)	(8)	(9)	(10)	(11)
OECD **Australia**[1, 2]	Income contingent	29 355	7.9	m	55 % (domestic graduates)	m
Belgium (Fl.)	a	a	a	a	a	a
Belgium (Fr.)[3]	Mortgage style	-	5	276	a	a
Canada[4]	Mortgage style	-	10	1 058	m	m
Denmark[2]	Mortgage style	-	7 to 15	1 975	45	19 800
Estonia[5]	Mortgage style	a	m	m	m	m
Finland[5]	Mortgage style	-	5-10 years. Estimation based on the duration of studies and the average amount of study loans	1 353	38.5	7 990
Hungary[5]	Income contingent	None	10-15 years expected	1 039	27.6	9 263
Iceland	A fixed part and a part that is income contingent	-	22	3.75% of income	m	m
Israel[2, 6]	m	m	m	m	m	m
Japan[7]	Mortgage style	-	15	1 196	m	m
Mexico[8]	m	m	m	m	m	m
Netherlands[2]	Income contingent	18 685	15	m	m	13 108
New Zealand[2]	Income contingent for those resident in New Zealand. Fixed amounts depending on size of loan for those resident overseas	12 579	6.7	12% of income amount above income threshold plus any voluntary repayments. Approx. USD 1 615	m	12 500 to 14 000, for graduates and non-completers, and relates to bachelor-level only
Norway[2]	Mortgage style (with exceptions)	-	16.4	1 987	m	25 188
Poland[2, 5]	Mortgage style	-	m (twice as long as benefiting period)	m	11	3 720 - 22 330
Spain	Mortgage style	m	4.43	4 392	m	18 918
Sweden[9]	Mortgage style (with exceptions)	6 735	25	1 131	m	20 238
Turkey	Mortgage style	-	1-2	2 576	20	5 152
United Kingdom[2, 10, 11]	Income contingent	25 341	14-15	9% of income amount above income threshold	79% of eligible students	18 507
United States[12]	Mortgage style and income contingent	-	10 to 25	m	67.7	25 400

1. Including Commonwealth countries.
2. All tertiary students.
3. Loan made to the parents of the student, and only parents have to pay back the loan.
4. Loan outside Quebec. In Quebec, there are only private loans guaranted by the government.
5. Loan guaranteed by the state rather than public loan.
6. Annual amount of loan refers to all public and private loans.
7. Reference year 2004/05. Average amount of loan for students in ISCED 5A first qualification programme.
8. Average amount of loan for students in tertiary education.
9. Average annual amount of repayment for tertiary level of education.
10. Annual gross amount of loan refers to students in England.
11. Reference year 2009/11.
12. First-degree/undergraduates at ISCED level 5 only. Includes Parent Loans for Undergraduate Students (PLUS) and other loans made directly to parents. Total borrowed excludes loans from family and friends. Average annual gross amount of loan available to each student refers to full-time, full year students. Academic year 2011/12, except column 4 referring to 2013/14.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Table B5.4. Public support for households and other private entities for tertiary education (2011)

In percentage of total public expenditure on education and GDP

		Direct public expenditure for institutions	Public support for education to private entities						Public support for education to private entities as a percentage of GDP
			Financial aid to students					Total	
			Scholarships/ other grants to households	Student loans	Total	Scholarships/ other grants to households attributable for educational institutions	Transfers and payments to other private entities		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
OECD	Australia	**65.0**	13.7	21.2	34.9	0.7	n	**35.0**	0.39
	Austria	**82.4**	9.8	a	9.8	m	7.8	**17.6**	0.27
	Belgium	**85.6**	14.4	n	14.4	4.2	n	**14.4**	0.21
	Canada[1]	**80.7**	4.3	13.5	17.8	m	1.6	**19.3**	0.38
	Chile[2]	**61.8**	16.4	17.2	33.6	16.0	4.6	**38.2**	0.36
	Czech Republic	**98.5**	1.5	a	1.5	m	n	**1.5**	0.02
	Denmark[3]	**71.6**	23.2	5.1	28.4	n	n	**28.4**	0.69
	Estonia	**90.7**	4.3	5.1	9.3	m	n	**9.3**	0.12
	Finland	**86.0**	13.7	n	13.7	n	0.2	**14.0**	0.30
	France	**92.0**	8.0	m	8.0	m	a	**8.0**	0.10
	Germany	**78.1**	16.3	5.6	21.9	m	n	**21.9**	0.31
	Greece	**m**	m	m	m	m	m	**m**	m
	Hungary	**87.6**	12.4	m	12.4	n	n	**12.4**	0.14
	Iceland	**73.8**	m	26.2	26.2	a	n	**26.2**	0.37
	Ireland	**86.7**	13.3	n	13.3	n	n	**13.3**	0.18
	Israel	**88.5**	9.9	1.6	11.5	9.6	n	**11.5**	0.11
	Italy	**77.8**	22.2	n	22.2	10.6	n	**22.2**	0.18
	Japan[3]	**70.4**	0.6	29.0	29.6	m	n	**29.6**	0.23
	Korea	**90.9**	3.8	4.8	8.5	3.5	0.6	**9.1**	0.07
	Luxembourg	**m**	m	m	m	m	m	**m**	m
	Mexico	**91.0**	5.5	3.5	9.0	2.5	a	**9.0**	0.09
	Netherlands	**70.9**	13.2	15.7	28.8	n	0.3	**29.1**	0.50
	New Zealand	**52.0**	14.5	33.5	48.0	m	n	**48.0**	0.90
	Norway	**61.9**	11.4	26.7	38.1	m	n	**38.1**	0.99
	Poland	**87.3**	12.2	0.5	12.7	m	n	**12.7**	0.14
	Portugal	**84.6**	15.4	m	15.4	m	m	**15.4**	0.16
	Slovak Republic[3]	**79.4**	16.2	0.5	16.7	m	3.9	**20.6**	0.20
	Slovenia	**76.6**	23.4	n	23.4	m	n	**23.4**	0.32
	Spain	**90.6**	9.4	n	9.4	2.0	n	**9.4**	0.11
	Sweden	**75.3**	9.5	15.2	24.7	a	a	**24.7**	0.49
	Switzerland	**92.9**	2.2	n	2.2	m	4.9	**7.1**	0.10
	Turkey	**85.9**	5.0	9.1	14.1	n	m	**14.1**	0.22
	United Kingdom	**26.2**	7.5	31.7	39.2	x(4)	34.7	**73.8**	0.99
	United States	**70.8**	27.9	1.3	29.2	m	m	**29.2**	0.39
	OECD average	**78.5**	11.6	9.2	19.6	3.1	2.0	**21.5**	0.31
Partners	Argentina	**98.9**	1.1	n	1.1	m	0.1	**1.1**	0.01
	Brazil	**90.5**	4.3	4.4	8.7	x(2)	0.8	**9.5**	0.10
	China	**m**	m	m	m	m	m	**m**	m
	Colombia[2]	**86.5**	x(4)	x(4)	13.5	x(4)	n	**13.5**	0.14
	India	**m**	m	m	m	m	m	**m**	m
	Indonesia[2]	**97.7**	2.3	m	2.3	m	m	**2.3**	m
	Latvia	**86.0**	14.0	n	14.0	x(2)	n	**14.0**	0.14
	Russian Federation	**m**	m	a	m	a	m	**m**	m
	Saudi Arabia	**m**	m	m	m	m	m	**m**	m
	South Africa	**m**	m	m	m	m	m	**m**	m
	G20 average	**m**	m	m	m	m	m	**m**	m

1. Year of reference 2010.
2. Year of reference 2012.
3. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

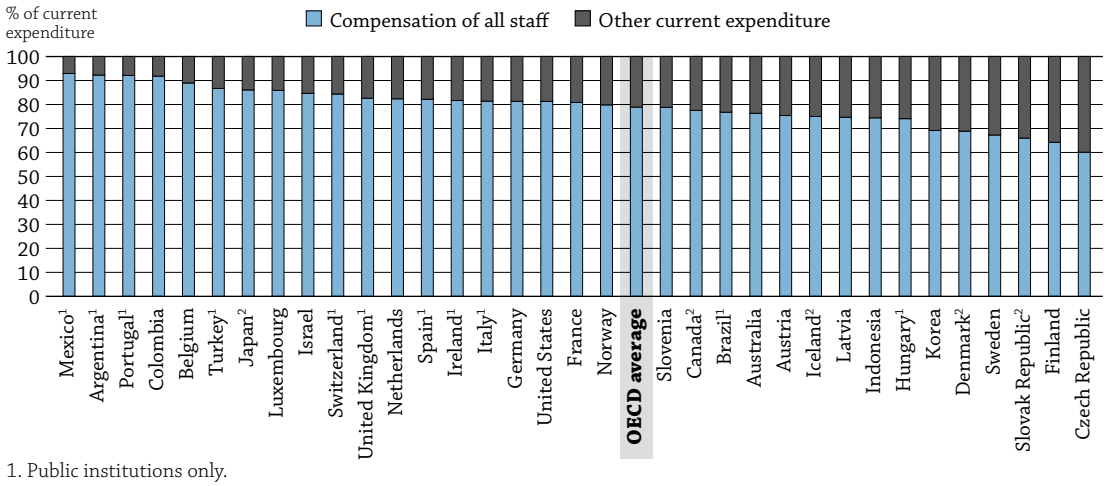
Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933117782

ON WHAT RESOURCES AND SERVICES IS EDUCATION FUNDING SPENT?

- About 90% or more of total expenditure on education is devoted to current expenditure, on average across OECD countries, and in most OECD countries, at both the primary, secondary, post-secondary non-tertiary levels of education combined and at the tertiary level.
- In 25 of the 33 OECD and partner countries with available data, the share of total expenditure devoted to capital expenditure at the tertiary level is larger than that for primary, secondary and post-secondary non-tertiary education combined. This may be linked to the expansion of tertiary education in recent years, and the consequent need to construct new buildings.
- In OECD and partner countries with available data, most current expenditure goes to compensating education staff (teachers and others).
- Current expenditure devoted to purposes other than the compensation of staff is largest at the tertiary level, where it reaches 33% of all current expenditure, on average across OECD countries. In eight OECD and partner countries, this proportion is 40% or larger. This could be explained by the higher costs of facilities and equipment in tertiary education compared to other levels of education.

Chart B6.1. Distribution of current expenditure by educational institutions for primary, secondary and post-secondary non-tertiary education (2011)



1. Public institutions only.
2. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.

Countries are ranked in descending order of the share of compensation of all staff in primary, secondary and post-secondary non-tertiary education.

Source: OECD. Table B6.2. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933117915

Context

Decisions about how resources are allocated affect the material conditions under which instruction takes place and can also influence the nature of instruction.

While savings can be made by cutting capital expenditure (such as not building new schools) and some current expenditure (not purchasing certain teaching materials), when pressures on education budgets increase, changes in spending on staff have the greatest impact on overall spending. Still, saving money by reducing salaries and benefits or cutting the number of teachers and other staff is unpopular politically and possibly counterproductive, in that it discourages good teachers from wanting to enter or remain in the profession. As a matter of fact, in addition to managing material resources more efficiently, it is essential to improve the management of human resources to raise the quality of education systems. Additionally, deferring expenditures such as hiring new teachers or salary increases are other temporary measures to deal with the pressure on public budget.

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This indicator describes the resources and services on which money for education is spent. It shows the difference between current and capital expenditure. Capital expenditure can be affected by expanding enrolments, which often require the construction of new buildings. This indicator also presents details on where current expenditure is spent, either on compensation of education staff or elsewhere. Current expenditure is mainly affected by teachers' salaries (see Indicator D3), but also by pension systems, the age distribution of teachers, and the size of the non-teaching staff employed in education. In addition, educational institutions offer not only instruction but other services, such as meals, transport, housing services and/or research activities. All these expenditures are addressed in this indicator.

Other findings

- **At the primary, secondary and post-secondary non-tertiary levels of education, OECD countries spend an average of 21% of current expenditure for purposes other than compensating education personnel.** There is little difference between primary and secondary education in terms of the proportion of current expenditure used for purposes other than compensation. The difference exceeds 5 percentage points only in Brazil, France, Indonesia, Ireland, Luxembourg and reaches 20 percentage points in Denmark.
- **In nearly all countries** except, at the tertiary level, the Czech Republic and Indonesia, **most current expenditure is related to compensation of staff**. At the tertiary level, only Brazil, Colombia and Iceland devote more than 80% of current expenditure to staff compensation; at the primary, secondary and post-secondary non-tertiary levels of education combined, 18 countries do.
- **The share of current expenditure devoted to purposes other than compensation of staff is larger at the tertiary level than at the primary, secondary and post-secondary non-tertiary levels combined** in almost all countries except Brazil, Colombia, Denmark and Iceland.

Analysis

Current and capital expenditure by educational institutions

Education expenditure includes both current and capital expenditure. Current expenditure by educational institutions takes account of the spending on school resources used each year to operate schools. It includes, for instance, the compensation of teachers and other staff, maintenance of school buildings, students' meals or the rental of school buildings and other facilities. Capital expenditure by educational institutions refers to spending on assets that last longer than one year. It includes, for instance, spending on the construction, renovation and major repair of school buildings.

The largest share of expenditure is current expenditure, given the labour-intensive nature of instruction. In 2011, about 90% or more of total expenditure was devoted to current expenditure at the primary, secondary and post-secondary non-tertiary levels of education combined (92.6%) and at the tertiary level (89.5%), on average across OECD countries. Current expenditure amounts to more than 79% of total expenditure at each level of education in every OECD country, and in partner countries except for tertiary education in Colombia and Indonesia. The share varies from 81% (Australia) to nearly 99% (Portugal) in primary education; from 86% (Korea) to nearly 99% (Portugal) in secondary education; and from 50% (Colombia) to 98% (Denmark) in tertiary education. The OECD average presents similar values for primary and secondary levels of education, and a difference of three percentage points between primary, secondary and post-secondary non-tertiary education combined (92.6%) and tertiary education (89.5%) (Tables B6.1 and B6.2, and Chart B6.2).

Nevertheless, differences between current expenditure in primary, secondary and post-secondary non-tertiary education combined and tertiary education can be relatively large. In most countries, the share of current expenditure on the former levels of education is larger than on the latter level. The three main exceptions are Denmark, Finland and Norway, where the share of current expenditure on tertiary education exceeds the share on primary, secondary and post-secondary non-tertiary education combined by more than four to six percentage points. In contrast, the share of current expenditure on primary, secondary and post-secondary non-tertiary education combined exceeds the share of expenditure on tertiary education by ten percentage points or more in Colombia, the Czech Republic, Indonesia, Poland, the Slovak Republic, Spain and Turkey.

The differences among countries are likely to reflect how the different levels of education are organised in each country, as well as the degree to which the expansion in enrolments requires the construction of new buildings, especially at the tertiary level. Capital expenditure on tertiary education exceeds 15% in Colombia (49.6%), the Czech Republic (19.4%), Indonesia (28.1%), Latvia (17.0%), Poland (20.2%), the Slovak Republic (19.4%), Spain (17.6%) and Turkey (19.7%). The ways countries report expenditure related to university buildings may also explain differences in the share of current and capital expenditure at the tertiary level. For example, the buildings and lands used for education can be either owned, used free of charge or rented by the institutions and the amount of current and capital expenditure partly depends on the type of real estate management used in the country (see Box B6.1 in *Education at a Glance 2012* [OECD, 2012]).

Distribution of current expenditure

Current expenditure by educational institutions can be subdivided further into three broad functional categories: compensation of teachers, compensation of other staff, and other current expenditures. Other current expenditures include, for instance, teaching materials and supplies, maintenance of school buildings, students' meals and rental of school facilities. The amount allocated to each of these categories depends partly on current and projected changes in enrolments, on the salaries of education personnel, and on the costs of maintenance and construction of educational facilities. Despite the fact that the shares of these categories do not undergo large changes every year, countries' decisions might affect not only the amounts but also these shares.

At the primary, secondary and post-secondary non-tertiary levels, over 62% of current expenditure is devoted to compensating teachers, 15% to compensating other staff, and 21% to expenditure other than compensation, on average across OECD countries. For tertiary education, 42% of current expenditure is devoted to the compensation of teachers, on average across OECD countries, as larger shares are devoted to compensating other staff (nearly 25%) and other current expenditure (about 33%).

There are relatively large differences in how current expenditure is allocated between the primary, secondary, and post-secondary non-tertiary levels combined and tertiary education. For instance, in all countries, the share devoted to compensation of teachers is larger at the combined primary, secondary and post-secondary non-tertiary

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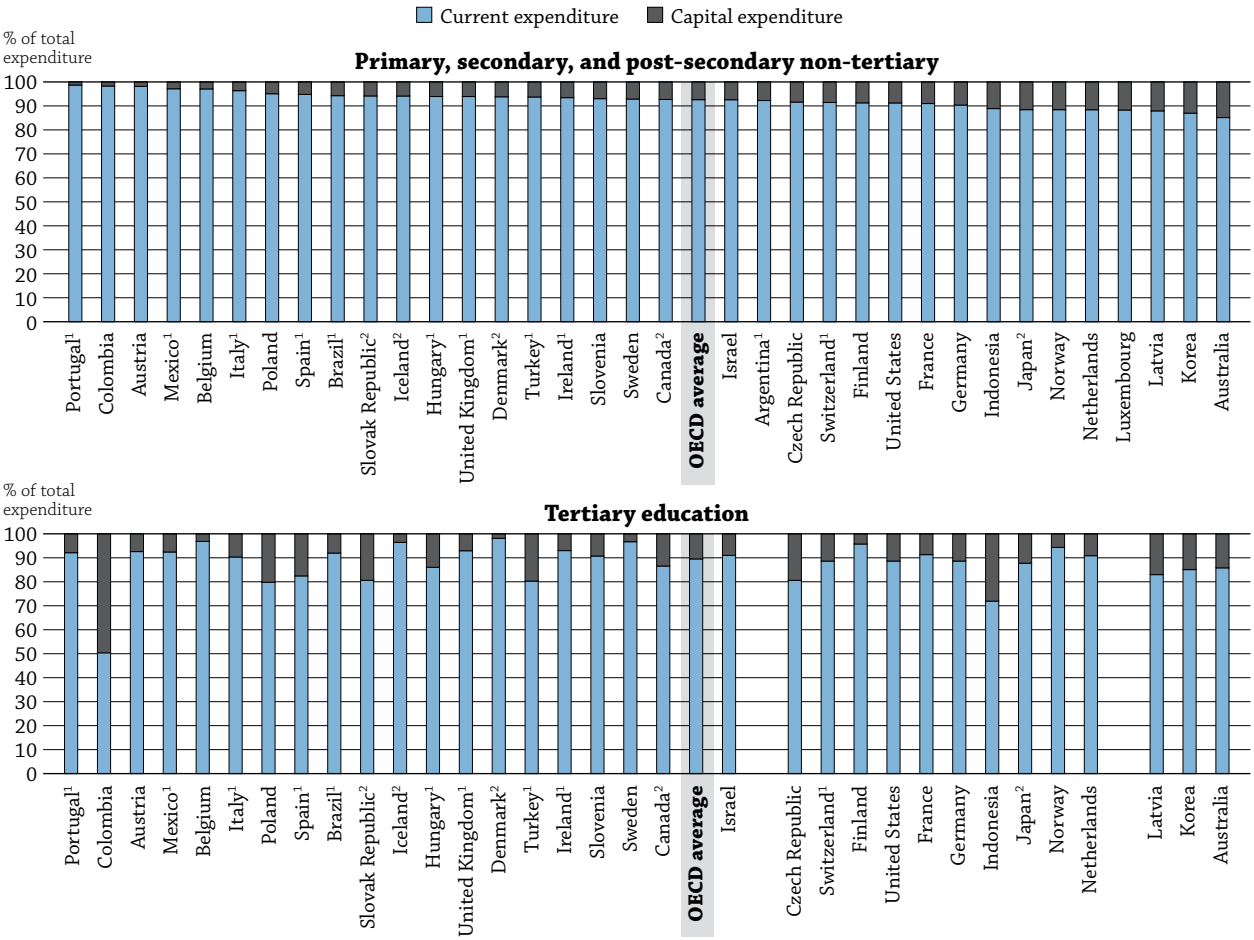
levels of education than at the tertiary level. The only exception is Colombia, where the share at the tertiary level exceeds the share at the combined lower levels by more than nine percentage points. The share for other current expenditure is more than 30% in primary, secondary and post-secondary non-tertiary education combined in only six countries, namely the Czech Republic (39.9%), Denmark (31.2%), Finland (35.8%), Korea (30.9%), the Slovak Republic (34.0%) and Sweden (32.8%). In contrast, at the tertiary level, this share is more than 30% in nearly half of OECD countries and less than 20% in only three countries: Brazil (16.1%), Colombia (7.5%) and Iceland (12.9%).

Chart B6.2. Distribution of current and capital expenditure on educational institutions (2011)

By resource category and level of education



1. Public institutions only (for Italy and the United Kingdom, except in tertiary education).
2. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.

Countries are ranked in descending order of the share of current expenditure on primary, secondary and post-secondary non-tertiary education.

Source: OECD. Table B6.2. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933117934

The variation in current expenditure not devoted to compensation of staff between levels of education illustrates the difference in the size of administrative systems (for instance, the number of employees or the equipment available to administrative staff) across these levels. The cost of facilities and equipment is expected to be higher in tertiary education than in other levels of education. Meanwhile, the differences among countries in compensation of other staff likely reflect the degree to which education personnel, such as principals, guidance, counsellors, bus drivers, school nurses, janitors and maintenance workers, are included in the category "non-teaching staff" (see Indicator D2). Compensation of staff involved in research and development at the tertiary level may also explain part of the differences, between countries and between levels of education, in the share of current expenditure devoted to compensation of other staff.

Definitions

Capital expenditure refers to spending on assets that last longer than one year, including construction, renovation or major repair of buildings and new or replacement equipment. The capital expenditure reported here represents the value of educational capital acquired or created during the year in question – that is, the amount of capital formation – regardless of whether the capital expenditure was financed from current revenue or through borrowing. Neither current nor capital expenditure includes debt servicing.

Current expenditure refers to spending on goods and services consumed within the current year and requiring recurrent production in order to sustain educational services. Current expenditure by educational institutions other than on compensation of personnel includes expenditure on sub-contracted services such as support services (e.g. maintenance of school buildings), ancillary services (e.g. preparation of meals for students) and rental of school buildings and other facilities. These services are obtained from outside providers, unlike the services provided by the education authorities or by the educational institutions using their own personnel.

Methodology

Data refer to the financial year 2011 and are based on the UOE data collection on education statistics administered by the OECD in 2013 (for details see Annex 3 at *www.oecd.org/edu/eag.htm*).

Calculations cover expenditure by public institutions or, where available, by both public and private institutions.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Reference

OECD (2012), *Education at a Glance 2012: OECD Indicators*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eag-2012-en*.

Tables of Indicator B6

StatLink http://dx.doi.org/10.1787/888933117858

Table B6.1	**Expenditure by primary and secondary educational institutions, by resource category (2011)**
Table B6.2	**Expenditure by educational institutions, by resource category and level of education (2011)**

Table B6.1. Expenditure by primary and secondary educational institutions, by resource category (2011)

Distribution of total and current expenditure by educational institutions from public and private sources

		Primary education						Secondary education					
		Percentage of total expenditure		Percentage of current expenditure				Percentage of total expenditure		Percentage of current expenditure			
		Current	Capital	Compensation of teachers	Compensation of other staff	Compensation of all staff	Other current expenditure	Current	Capital	Compensation of teachers	Compensation of other staff	Compensation of all staff	Other current expenditure
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD	Australia	**81.3**	**18.7**	62.9	15.1	78.0	22.0	**88.3**	**11.7**	59.2	16.2	75.4	24.6
	Austria	**98.1**	**1.9**	60.7	12.6	73.3	26.7	**98.2**	**1.8**	68.0	8.6	76.5	23.5
	Belgium[1]	**96.2**	**3.8**	69.7	19.3	89.0	11.0	**97.5**	**2.5**	72.4	16.5	88.9	11.1
	Canada[1, 2]	**92.6**	**7.4**	62.6	15.0	77.5	22.5	**92.6**	**7.4**	62.6	15.0	77.5	22.5
	Chile	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m
	Czech Republic	**90.1**	**9.9**	46.1	16.5	62.6	37.4	**92.1**	**7.9**	46.8	12.4	59.2	40.8
	Denmark[1]	**94.7**	**5.3**	63.4	17.0	80.5	19.5	**93.0**	**7.0**	39.0	20.7	59.8	40.2
	Estonia	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m
	Finland[1]	**91.7**	**8.3**	55.6	9.5	65.1	34.9	**91.0**	**9.0**	51.1	12.7	63.8	36.2
	France	**91.6**	**8.4**	56.8	20.4	77.2	22.8	**90.6**	**9.4**	58.4	24.0	82.5	17.5
	Germany	**90.8**	**9.2**	x(5)	x(5)	82.1	17.9	**90.2**	**9.8**	x(11)	x(11)	81.5	18.5
	Greece	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m
	Hungary[3]	**94.1**	**5.9**	x(5)	x(5)	72.8	27.2	**93.8**	**6.2**	x(11)	x(11)	74.7	25.3
	Iceland[1]	**93.0**	**7.0**	x(5)	x(5)	74.5	25.5	**95.2**	**4.8**	x(11)	x(11)	75.4	24.6
	Ireland[3]	**92.0**	**8.0**	76.5	12.4	89.0	11.0	**94.5**	**5.5**	70.2	8.9	79.1	20.9
	Israel	**91.5**	**8.5**	x(5)	x(5)	85.2	14.8	**94.0**	**6.1**	x(11)	x(11)	83.9	16.1
	Italy[3]	**96.6**	**3.4**	62.4	19.0	81.3	18.7	**97.2**	**2.8**	64.7	18.7	83.4	16.6
	Japan[1]	**88.1**	**11.9**	x(5)	x(5)	85.8	14.2	**88.6**	**11.4**	x(11)	x(11)	86.2	13.8
	Korea	**87.4**	**12.6**	54.6	14.9	69.4	30.6	**86.6**	**13.4**	56.5	12.5	68.9	31.1
	Luxembourg	**85.8**	**14.2**	78.4	3.7	82.1	17.9	**91.1**	**8.9**	77.0	12.9	89.9	10.1
	Mexico[3]	**97.4**	**2.6**	86.4	8.2	94.6	5.4	**96.8**	**3.2**	78.8	12.0	90.8	9.2
	Netherlands	**88.0**	**12.0**	x(5)	x(5)	83.6	16.4	**88.6**	**11.4**	x(11)	x(11)	81.6	18.4
	New Zealand	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m
	Norway[1]	**89.3**	**10.7**	x(5)	x(5)	79.8	20.2	**87.6**	**12.4**	x(11)	x(11)	79.8	20.2
	Poland	**94.1**	**5.9**	x(1)	x(1)	x(1)	x(1)	**95.9**	**4.1**	x(7)	x(7)	x(7)	x(7)
	Portugal[3]	**98.7**	**1.3**	80.0	13.9	93.9	6.1	**98.7**	**1.3**	80.7	10.2	90.9	9.1
	Slovak Republic[1]	**92.6**	**7.4**	51.1	13.8	64.9	35.1	**94.8**	**5.2**	52.4	14.0	66.4	33.6
	Slovenia[1]	**92.4**	**7.6**	x(5)	x(5)	81.2	18.8	**93.5**	**6.5**	x(11)	x(11)	76.8	23.2
	Spain[3]	**94.9**	**5.1**	71.0	9.7	80.7	19.3	**94.7**	**5.3**	74.9	8.3	83.1	16.9
	Sweden	**93.5**	**6.5**	52.7	16.7	69.4	30.6	**92.3**	**7.7**	50.7	14.9	65.6	34.4
	Switzerland[1, 3]	**90.5**	**9.5**	66.6	16.6	83.2	16.8	**92.0**	**8.0**	73.0	12.2	85.2	14.8
	Turkey[3]	**96.3**	**3.7**	x(5)	x(5)	89.3	10.7	**91.9**	**8.1**	x(11)	x(11)	84.8	15.2
	United Kingdom[3]	**93.7**	**6.3**	54.4	29.0	83.4	16.6	**94.0**	**6.0**	59.8	22.0	81.8	18.2
	United States	**91.2**	**8.8**	54.6	26.6	81.3	18.7	**91.2**	**8.8**	54.6	26.6	81.2	18.8
	OECD average	**92.3**	**7.7**	63.3	15.5	79.7	20.3	**92.9**	**7.1**	62.5	15.0	78.4	21.6
	EU21 average	**93.1**	**6.9**	62.8	15.3	78.5	21.5	**93.8**	**6.2**	61.9	14.6	77.0	23.0
Partners	Argentina[3]	**94.7**	**5.3**	70.7	20.6	91.3	8.7	**90.2**	**9.8**	68.2	24.7	92.9	7.1
	Brazil[2]	**94.3**	**5.7**	x(5)	x(5)	72.0	28.0	**94.2**	**5.8**	x(11)	x(11)	79.8	20.2
	China	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m
	Colombia[4]	**98.3**	**1.7**	82.8	9.0	91.8	8.2	**98.3**	**1.7**	82.8	9.0	91.8	8.2
	India	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m
	Indonesia[4]	**86.5**	**13.5**	x(5)	x(5)	81.2	18.8	**92.6**	**7.4**	x(11)	x(11)	64.2	35.8
	Latvia	**87.7**	**12.3**	x(5)	x(5)	75.4	24.6	**88.0**	**12.0**	x(11)	x(11)	74.2	25.8
	Russian Federation	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m
	Saudi Arabia	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m
	South Africa	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m
	G20 average	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m

1. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.
2. Year of reference 2010.
3. Public institutions only.
4. Year of reference 2012.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933117877

B6

Table B6.2. Expenditure by educational institutions, by resource category and level of education (2011)

Distribution of total and current expenditure by educational institutions from public and private sources

	Primary, secondary and post-secondary non-tertiary education						Tertiary education					
	Percentage of total expenditure		Percentage of current expenditure				Percentage of total expenditure		Percentage of current expenditure			
	Current	Capital	Compensation of teachers	Compensation of other staff	Compensation of all staff	Other current expenditure	Current	Capital	Compensation of teachers	Compensation of other staff	Compensation of all staff	Other current expenditure
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD												
Australia	**85.1**	**14.9**	60.4	15.9	76.3	23.7	**85.8**	**14.2**	33.6	28.6	62.2	37.8
Austria	**98.1**	**1.9**	65.7	9.7	75.4	24.6	**92.6**	**7.4**	57.2	6.0	63.2	36.9
Belgium	**97.0**	**3.0**	71.5	17.5	88.9	11.1	**96.8**	**3.2**	50.7	28.4	79.1	20.9
Canada[1, 2]	**92.6**	**7.4**	62.6	15.0	77.5	22.5	**86.6**	**13.4**	37.7	27.5	65.2	34.8
Chile	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m
Czech Republic	**91.6**	**8.4**	46.6	13.5	60.1	39.9	**80.6**	**19.4**	30.1	18.5	48.6	51.4
Denmark[2]	**93.8**	**6.2**	49.7	19.1	68.8	31.2	**98.1**	**1.9**	45.6	32.4	78.0	22.0
Estonia	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m
Finland	**91.2**	**8.8**	52.6	11.6	64.2	35.8	**95.7**	**4.3**	34.6	29.6	64.2	35.8
France	**90.9**	**9.1**	57.9	22.9	80.8	19.2	**91.3**	**8.7**	48.9	30.3	79.2	20.8
Germany	**90.3**	**9.7**	x(5)	x(5)	81.3	18.7	**88.6**	**11.4**	x(11)	x(11)	66.7	33.3
Greece	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m
Hungary[3]	**93.9**	**6.1**	x(5)	x(5)	74.1	25.9	**86.0**	**14.0**	x(11)	x(11)	56.1	43.9
Iceland[2]	**94.1**	**5.9**	x(5)	x(5)	75.0	25.0	**96.4**	**3.6**	x(11)	x(11)	87.1	12.9
Ireland[3]	**93.4**	**6.6**	70.9	10.7	81.6	18.4	**93.0**	**7.0**	43.5	27.0	70.5	29.5
Israel	**92.5**	**7.5**	x(5)	x(5)	84.6	15.4	**91.0**	**9.0**	x(11)	x(11)	77.4	22.6
Italy[3]	**96.3**	**3.7**	62.4	18.9	81.4	18.6	**90.3**	**9.7**	33.9	28.9	62.8	37.2
Japan[2]	**88.4**	**11.6**	x(5)	x(5)	86.0	14.0	**87.7**	**12.3**	x(11)	x(11)	59.9	40.1
Korea	**86.9**	**13.1**	55.7	13.4	69.1	30.9	**85.1**	**14.9**	33.4	18.6	52.0	48.0
Luxembourg	**88.3**	**11.7**	77.8	8.1	85.8	14.2	**m**	**m**	m	m	m	m
Mexico[3]	**97.1**	**2.9**	82.9	10.0	92.9	7.1	**92.4**	**7.6**	61.7	15.3	77.0	23.0
Netherlands	**88.4**	**11.6**	x(5)	x(5)	82.3	17.7	**90.9**	**9.1**	x(11)	x(11)	71.6	28.4
New Zealand	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m
Norway	**88.4**	**11.6**	x(5)	x(5)	79.8	20.2	**94.3**	**5.7**	x(11)	x(11)	67.1	32.9
Poland	**95.0**	**5.0**	x(1)	x(1)	x(1)	x(1)	**79.8**	**20.2**	x(11)	x(11)	74.7	25.3
Portugal[3]	**98.7**	**1.3**	80.4	11.7	92.1	7.9	**92.1**	**7.9**	x(11)	x(11)	74.4	25.6
Slovak Republic[2]	**94.1**	**5.9**	52.0	13.9	66.0	34.0	**80.6**	**19.4**	33.7	23.4	57.1	42.9
Slovenia	**93.0**	**7.0**	x(5)	x(5)	78.8	21.2	**90.7**	**9.3**	x(11)	x(11)	67.2	32.8
Spain[3]	**94.8**	**5.2**	73.3	8.8	82.1	17.9	**82.4**	**17.6**	56.3	20.8	77.2	22.8
Sweden	**92.8**	**7.2**	51.2	15.6	67.2	32.8	**96.7**	**3.3**	x(11)	x(11)	64.0	36.0
Switzerland[3]	**91.4**	**8.6**	70.2	14.1	84.3	15.7	**88.6**	**11.4**	48.5	27.2	75.8	24.2
Turkey[3]	**93.7**	**6.3**	x(5)	x(5)	86.7	13.3	**80.3**	**19.7**	x(11)	x(11)	52.9	47.1
United Kingdom[3]	**93.9**	**6.1**	57.2	25.4	82.6	17.4	**92.9**	**7.1**	35.0	25.4	60.4	39.6
United States	**91.2**	**8.8**	54.6	26.6	81.3	18.7	**88.6**	**11.4**	29.6	35.5	65.1	34.9
OECD average	**92.6**	**7.4**	62.8	15.1	78.9	21.1	**89.5**	**10.5**	42.0	24.9	67.5	32.5
EU21 average	**93.4**	**6.6**	62.1	14.8	77.4	22.6	**90.0**	**10.0**	42.7	24.6	67.5	32.5
Partners												
Argentina[3]	**92.2**	**7.8**	69.4	22.9	92.2	7.8	**m**	**m**	m	m	m	m
Brazil[3]	**94.2**	**5.8**	x(5)	x(5)	76.7	23.3	**92.0**	**8.0**	x(11)	x(11)	83.9	16.1
China	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m
Colombia[4]	**98.3**	**1.7**	82.8	9.0	91.8	8.2	**50.4**	**49.6**	92.5	m	92.5	7.5
India	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m
Indonesia[4]	**88.8**	**11.2**	x(5)	x(5)	74.4	25.6	**71.9**	**28.1**	x(11)	x(11)	31.5	68.5
Latvia	**87.9**	**12.1**	x(5)	x(5)	74.7	25.3	**83.0**	**17.0**	x(11)	x(11)	59.7	40.3
Russian Federation	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m
Saudi Arabia	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m
South Africa	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m
G20 average	**m**	**m**	m	m	m	m	**m**	**m**	m	m	m	m

1. Year of reference 2010.
2. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.
3. Public institutions only (for Italy and the United Kingdom, except in tertiary education).
4. Year of reference 2012.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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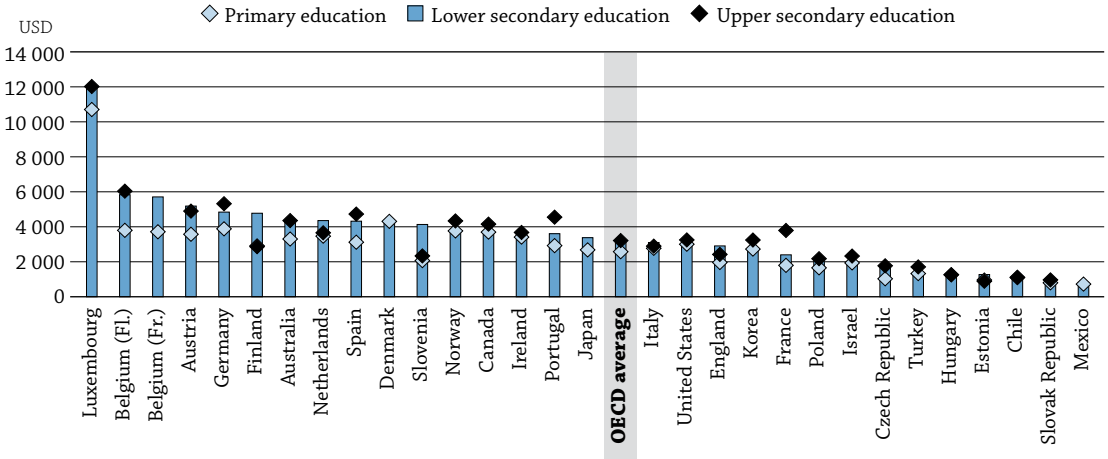
WHICH FACTORS INFLUENCE THE LEVEL OF EXPENDITURE ON EDUCATION?

- Four factors influence expenditure on education related to the salary cost of teachers per student: instruction time of students, teaching time of teachers, teachers' salaries and estimated class size. Consequently, a given level of the salary cost of teachers per student may result from different combinations of these four factors.
- There are large differences in the salary cost of teachers per student between countries; in most countries, the salary cost of teachers per student increases with the level of education.
- Between 2008 and 2012, the salary cost of teachers per student increased in about two-thirds of countries at the primary level and in more than half of countries at the lower secondary level of education. On average, it increased by 7% (from USD 2 454 to USD 2 633) at the primary level and by 4% (from USD 3 217 to USD 3 355) at the lower secondary level.

Chart B7.1. Salary cost of teachers (in USD) per student, by level of education (2012)



Countries are ranked in descending order of the salary cost of teachers per student in lower secondary education.
Source: OECD. Table B7.1. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933118105

Context

Governments have become increasingly interested in the relationship between the amount of resources devoted to education and student learning outcomes. Governments seek to provide more and better education for their populations while, at the same time, ensuring that public funding is used efficiently, particularly when public budgets are being tightened. Teachers' compensation is usually the largest part of expenditure on education and thus of expenditure per student. It is a function of the instruction time of students, the teaching time of teachers, teachers' salaries and the number of teachers needed to teach students, which depends on estimated class size (Box B7.1).

Differences among countries in these four factors may explain differences in the level of expenditure per student. Similarly, a given level of expenditure may result from a different combination of these factors. This indicator examines the choices countries make when investing their resources in primary and secondary education, and explores how changing policy choices between 2000, 2005, 2008 and 2012 relating to these four factors affected the salary cost of teachers. However, some of these choices do not necessary reflect policy decisions but, rather, demographic changes, such as shrinking numbers of students. Thus, for example, in countries where enrolments have been declining in recent years, class size would also shrink, unless there was a simultaneous drop in the number of teachers as well.

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Other findings

- Similar levels of expenditure among countries can mask a variety of contrasting policy choices. This helps to explain why **there is no simple relationship between overall spending on education and the level of student performance**. For example, at the upper secondary level of education, France and Ireland had similar levels of salary costs of teachers per student in 2012, both higher than average. In France, this was mainly a result of the combination of below-average teachers' salaries and class size and above-average instruction time, while in Ireland it was mostly the result of above-average salaries whose effect was counterbalanced by above-average teaching time.
- **Teachers' salaries are most often the main driver of the difference from the average salary cost of teachers per student at each level of education**; estimated class size is the second main driver.
- **When differences in countries' wealth are taken into account, teachers' salaries are less often the main driver of the difference from the average salary cost of teachers per student**.

Trends

The increase in the salary cost of teachers per student between 2008 and 2012 was mostly influenced by changes in two factors: teachers' salaries and estimated class size. Between 2008 and 2012, among countries with available data for both years, teachers' salaries increased by an average of 3.0% at the primary level and by nearly 1.5% at the lower secondary level, while estimated class size decreased by 2.6%, on average, at the primary level and increased by 6.1%, on average, at the lower secondary level. Variations in the other two factors, instruction time and teaching time, are usually smaller in most countries: teaching time at the lower secondary level varied the most during the period, and increased, on average, by 3.7% among countries with available data for both years.

At the primary and lower secondary levels of education, most of the countries increased teachers' salaries or reduced the estimated class size, or combined both between 2008 and 2012. These changes resulted in an increase in the salary cost per student. However, the salary cost per student decreased in some countries during this period, most significantly (by 14% or more) in Hungary and Italy at both primary and lower secondary levels, and also in the Czech Republic at the primary level, and in Portugal at the lower secondary level. Some countries introduced reforms since 2005 that affected the salary cost of teachers per student. For instance, in Hungary, teaching time was increased at the secondary level in 2006, decreasing the number of teachers required at this level. That, in turn, decreased expenditure on teachers' salaries. Italy implemented reforms on class size to increase slightly the number of students per class. This resulted in a decrease in the salary cost of teachers per student (see Table B7.5 in *Education at a Glance 2012* [OECD, 2012]).

Analysis

Variation of the salary cost of teachers per student by level of education

Per-student expenditure reflects the structural and institutional factors that relate to the organisation of schools and curricula. Expenditure can be broken down into the compensation of teachers and other expenditure (defined as expenditure for all purposes other than teacher compensation). Teacher compensation usually constitutes the largest part of expenditure on education. As a result, the level of teacher compensation divided by the number of students (referred to here as "salary cost of teachers per student") is the main proportion of expenditure per student.

Box B7.1. Relationship between salary cost of teachers per student and instruction time of students, teaching time of teachers, teachers' salaries and class size

One way to analyse the factors that have an impact on expenditure per student and to measure the extent of their effects is to compare the differences between national figures and the OECD average. This analysis computes the differences in expenditure per student among countries and the OECD average, and then calculates the contribution of these different factors to the variation from the OECD average.

This exercise is based on a mathematical relationship between the different factors and follows the method presented in the Canadian publication *Education Statistics Bulletin* (2005) (see explanations in Annex 3). Educational expenditure is mathematically linked to factors related to a country's school context (number of hours of instruction time for students, number of teaching hours for teachers, estimated class size) and one factor relating to teachers (statutory salary).

Expenditure is broken down into compensation of teachers and other expenditure (defined as all expenditure other than compensation of teachers). Compensation of teachers divided by the number of students, or "the salary cost of teachers per student" (CCS), is estimated through the following calculation:

$$CCS = SAL \times instT \times \frac{1}{teachT} \times \frac{1}{ClassSize} = \frac{SAL}{Ratiostud/teacher}$$

SAL: teachers' salaries (estimated by statutory salary after 15 years of experience)
instT: instruction time of students (estimated as the annual intended instruction time, in hours, for students)
teachT: teaching time of teachers (estimated as the annual number of teaching hours for teachers)
ClassSize: a proxy for class size
Ratiostud/teacher: the ratio of students to teaching staff

With the exception of class size (which is not computed at the upper secondary level, as class size is difficult to define and compare because students at this level may attend several classes depending on the subject area), values for the different variables can be obtained from the indicators published in *Education at a Glance* (Chapter D). However, for the purpose of the analysis, an "estimated" class size or proxy class size is computed based on the ratio of students to teaching staff and the number of teaching hours and instruction hours (see Box D2.1). As a proxy, this estimated class size should be interpreted with caution.

Using this mathematical relationship and comparing a country's values for the four factors to the OECD averages makes it possible to measure both the direct and indirect contribution of each of these four factors to the variation in salary cost per student between that country and the OECD average (for more details, see Annex 3). For example, in the case where only two factors interact, if a worker receives a 10% increase in the hourly wage and increases the number of hours of work by 20%, his/her earnings will increase by 32% as a result of the direct contribution of each of these variations (0.1 + 0.2) and the indirect contribution of these variations due to the combination of the two factors (0.1 * 0.2).

To account for differences in countries' level of wealth when comparing salary costs per student, salary cost per student, as well as teachers' salaries, can be divided by GDP per capita (on the assumption that GDP per capita is an estimate of countries' level of wealth). This makes it possible to compare countries' "relative" salary cost per student (see *Education at a Glance 2014* tables available on line).

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The compensation of teachers is based on the instruction time of students, the teaching time of teachers, teachers' salaries and the number of teachers needed to teach students, which depends on estimated class size (Box B7.1). As a consequence, differences among countries in these four factors may explain differences in the level of expenditure. In the same way, a given level of expenditure may result from a different combination of these factors.

Salary costs of teachers per student show a common pattern across OECD countries: they usually rise sharply with the level of education taught. However, in some countries (particularly Finland, the Netherlands and Slovenia), they are lower at the upper secondary level than at the lower secondary level. Overall, among OECD countries with available data for each of these different levels in 2012, the average salary cost of teachers per student is USD 2 701 per primary student, USD 3 358 per lower secondary student and USD 3 359 per upper secondary student (Chart B7.1).

Disparities in salary cost of teachers among OECD countries

The variation in salary cost of teachers per student between levels of education is significant among countries. In 2012, there was a difference of less than USD 50 in Chile and Hungary among these three levels of education, but the difference was over USD 1 800 in Belgium (French Community), Finland and France, and exceeded USD 2 000 in Belgium (Flemish Community) and Slovenia (Table B7.1 and Chart B7.1).

This increase in the salary cost of teachers per student with the level of education taught is partly the result of increases in teachers' salaries and in the instruction time of students at higher educational levels. In 2012, the OECD average salary varies from USD 39 642 at the primary level to USD 41 382 at the lower secondary level and USD 43 949 at the upper secondary level. Meanwhile, the OECD average annual instruction time varies from 805 hours at the primary level, to 920 hours at the lower secondary level and 947 hours at the upper secondary level. The increase is also related to the fact that teaching time generally decreases as the level of education increases, implying that more teachers are necessary to teach a given number of pupils (the OECD average annual teaching time in 2012 decreases from 782 hours at the primary level, to 691 hours at the lower secondary level to 655 hours at the upper secondary level). However, larger classes at higher levels of education tend to reduce the salary cost per student (the OECD average estimated class size increases between primary, lower secondary and upper secondary levels from 15.7 students to 17.8 students to 19.6 students, respectively) (Tables B7.2a and B7.2b, and Table B7.2c, available on line).

Variations in salary costs of teachers per student between 2008 and 2012

The salary cost of teachers per student also varies over time in a given level of education. These changes are only analysed at the primary and lower secondary levels of education because trend data are not available at the upper secondary level. This analysis is also limited to countries with data for both 2008 and 2012 (27 and 25 countries, respectively, for the primary and lower secondary levels), as comparable data over a larger period (for 2000, 2005, 2008 and 2012) are available for fewer countries.

The salary cost of teachers per student increased at both the primary and lower secondary levels between 2008 and 2012, but to a different extent: by 7% at the primary level (from USD 2 454 to USD 2 633) and by 4% at the lower secondary level (from USD 3 217 to USD 3 355), on average across the countries with available data for both years (Chart B7.2).

In most countries, the salary cost of teachers per student at both these levels of education increased between 2008 and 2012. The increase reached 25% or more at the primary level in Israel, Korea and Turkey, and exceeded 45% in Luxembourg at the primary level and in Estonia and Poland at the lower secondary level (Chart B7.3).

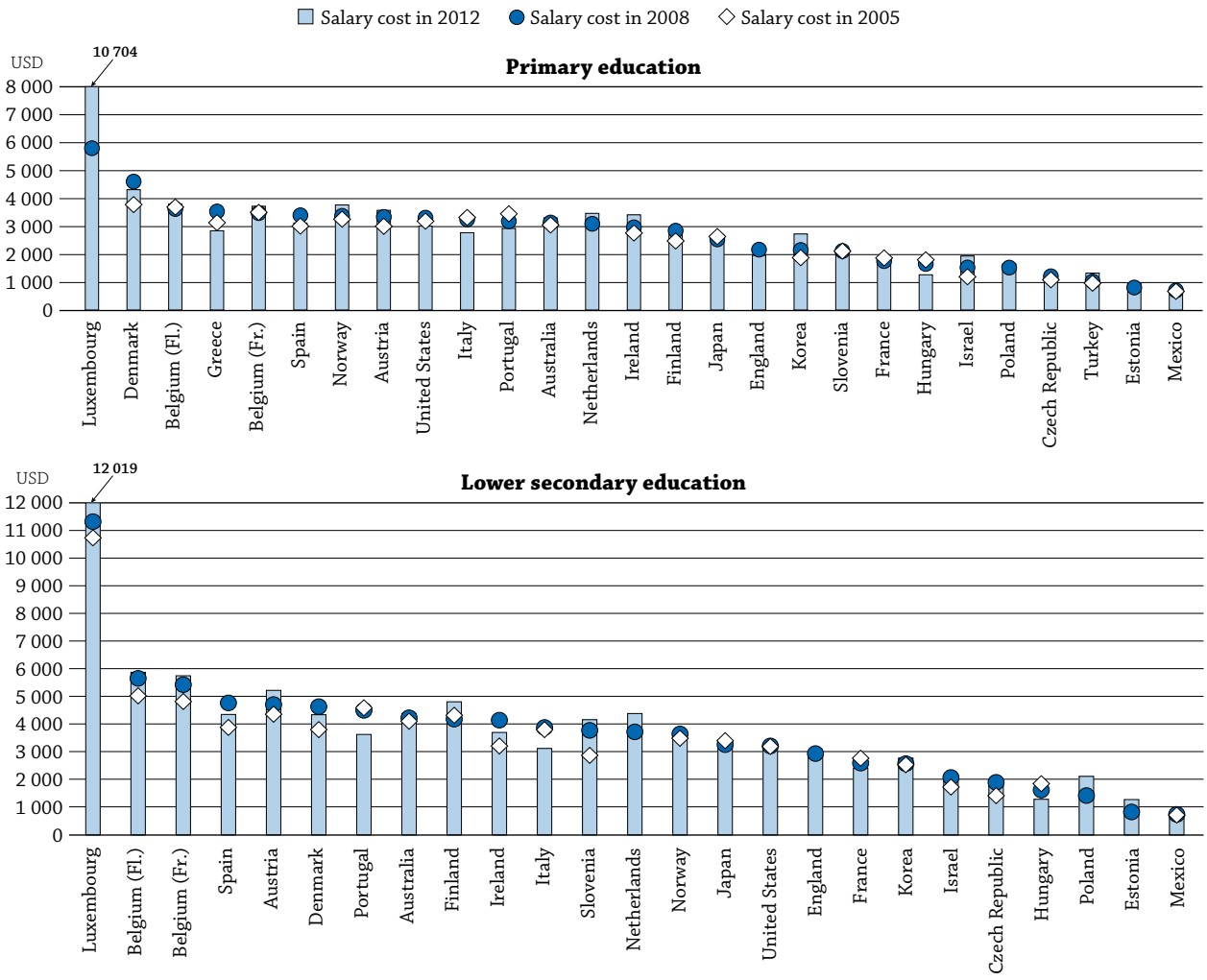
However, the salary cost of teachers per student also fell between 2008 and 2012 in a significant number of countries, most notably in Hungary (by 23% at the primary level and 20% at the lower secondary level) and Italy (by 15% at the primary level and 20% at the lower secondary level). Similar decreases in the salary cost of teachers per student were also observed at the primary level in the Czech Republic (by 15%), and at the lower secondary level in Portugal (by 19%). There was an 8%-11% decrease at the primary level in England, Portugal, Spain and the United States, and a decrease of similar magnitude at the lower secondary level in Ireland and Spain (Chart B7.2).

Impact of teachers' salaries and class size on salary cost of teachers per student

Of the four factors that determine the level of the salary cost of teachers, two are largely responsible for the wide variations in this cost: teachers' salaries and class size. Between 2008 and 2012, among countries with available data for this period, average teachers' salaries (expressed in constant prices) increased by 3.0% at the primary level and by 1.5% at the lower secondary level, whereas estimated class size decreased, on average, by about 2.6% at the primary level and increased by 6.1% at the lower secondary level (Tables B7.2a and B7.2b).

B7

Chart B7.2. Change in the salary cost (in USD) of teachers per student, by level of education (2005, 2008, 2012)



Countries are ranked in descending order of the salary cost of teachers per student in 2008.

Source: OECD. Tables B7.3 and B7.4. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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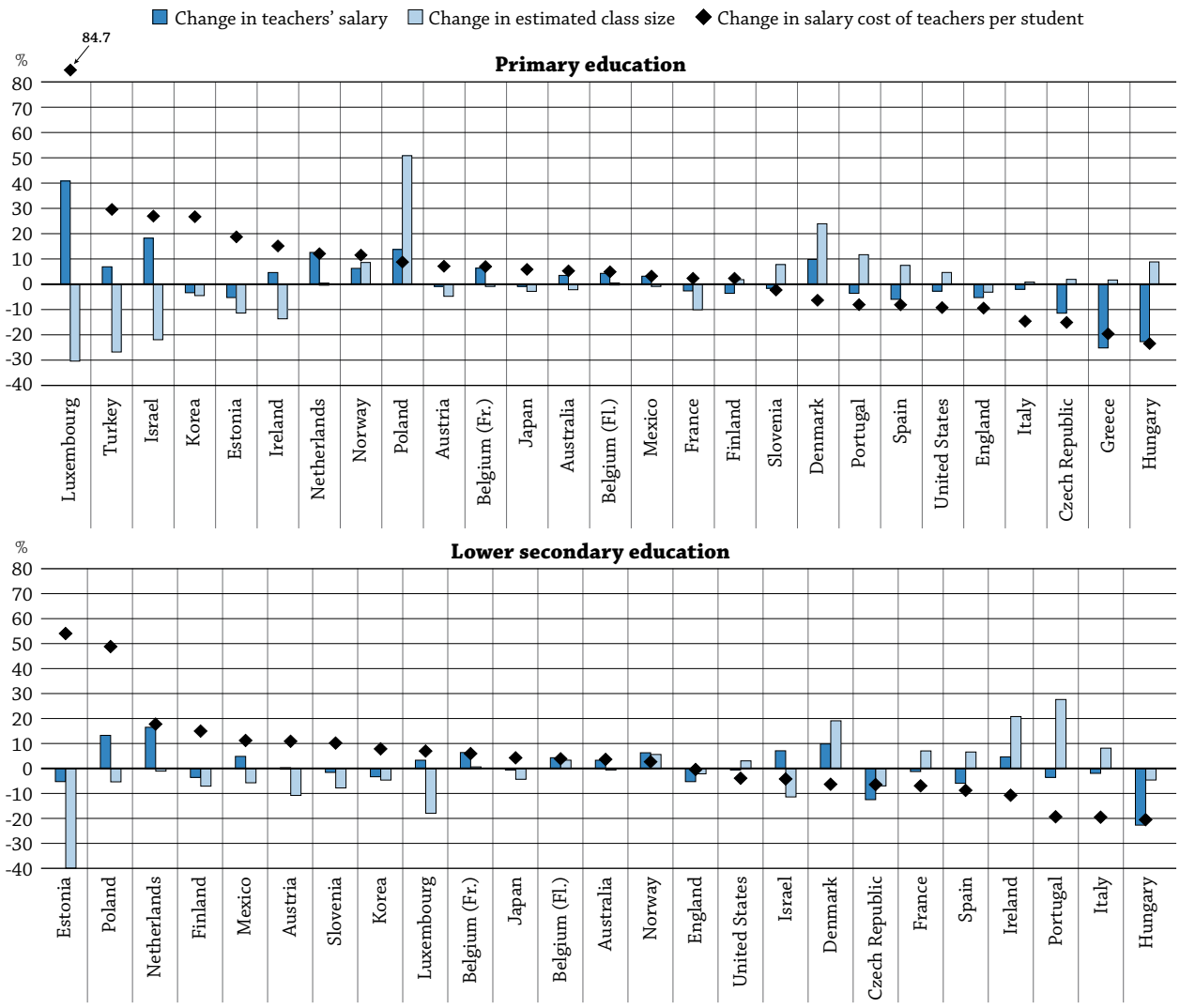
Teachers' salaries increased in real terms, on average across OECD countries with comparable data for 2008 and 2012, but decreased in most countries during this period. At the primary level, this resulted from the large increase in teachers' salaries in Luxembourg (by 41%) which counterbalanced the decreases in other countries. At the lower secondary level, decreases and increases in a similar number of countries resulted in a small average increase. Teachers' salaries decreased in some countries, most notably in Greece and Hungary (by more than 22% at both primary and lower secondary levels), and this may explain most of the decrease in the salary cost of teachers per student in these countries (Chart B7.3).

By contrast, among countries with data for both 2008 and 2012, estimated class size tended to decrease in less than half of them at the primary level and in more than half of countries at the lower secondary level, leading to an increase in the salary cost of teachers. At the primary and lower secondary levels, the largest reductions were observed in countries that had relatively large estimated classes in 2008 (Israel and Turkey at the primary level, Estonia at the lower secondary level) and also in countries with below-average estimated class size in 2008 (Luxembourg at both primary and lower secondary levels). Nevertheless, estimated class size also increased significantly in some countries, contributing to a decrease in salary cost per student. This was the case most notably in Denmark (from 10.9 to 13.6 students) and Poland (from 8.1 to 12.2 students) at the primary level, and in Portugal at the lower secondary level (from 9.7 to 12.4 students).

Chart B7.3. Change in the salary cost of teachers per student, teachers' salaries and estimated class size in primary and lower secondary education (2008, 2012)

Change, in percentage, between 2008 and 2012



Countries are ranked in descending order of the change in the salary cost of teachers per student between 2008 and 2012.

Source: OECD. Tables B7.2a, B7.2b, B7.3 and B7.4. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933118143

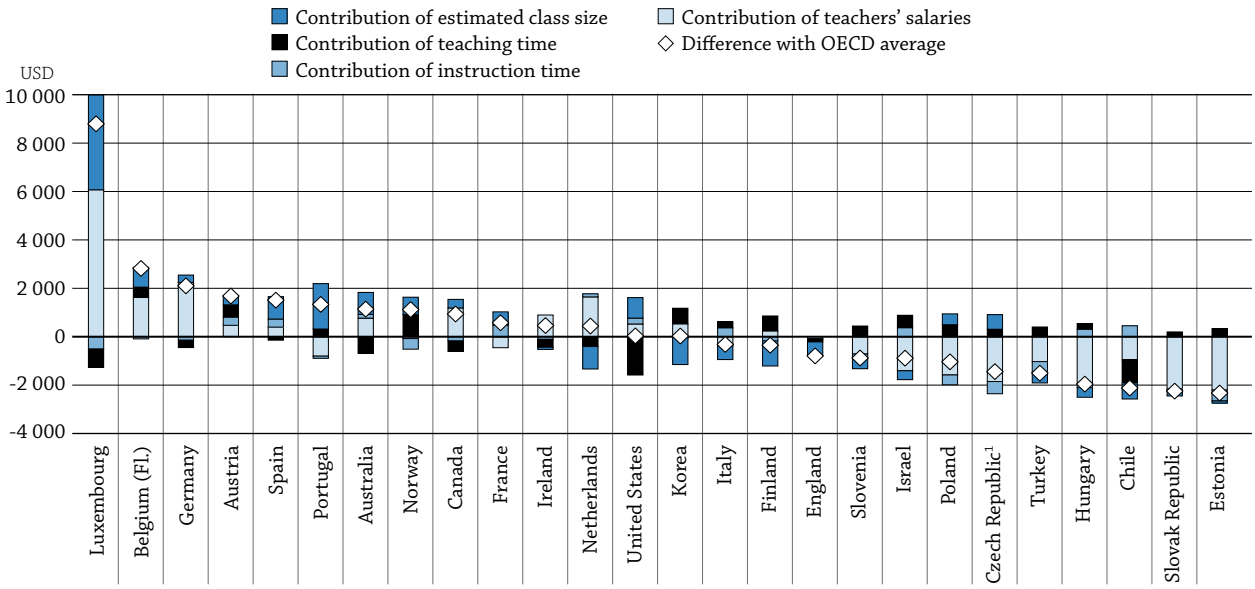
Changes in instruction time and teaching time, the two other factors influencing the salary cost of teachers, averaged from -2.5% to 3.7% at both primary and lower secondary levels (among countries with available data for both years) during the same period. This may reflect the political sensitivity of implementing reforms in these areas (see Table B7.5 in *Education at a Glance 2012*).

Nevertheless, in a small number of countries, instruction time and/or teaching time did change significantly. For example in Norway, Poland and Portugal, reforms were recently introduced to increase instruction time in reading and mathematics. Between 2008 and 2012, teaching time changed most significantly (by more than 100 hours) in Israel (increased from 731 hours to 838 hours at the primary level), Korea (decreased from 840 hours to 694 hours at the primary level) and Luxembourg (increased from 634 hours to 739 hours at the lower secondary level). Instruction time increased by more than 100 hours between 2008 and 2012 in Iceland and Poland at the primary and lower secondary levels and decreased by more than 100 hours in Israel at the lower secondary level. The fewer number of instruction hours for pupils in Italy (a reduction of nearly 100 hours between 2008 and 2012 at both the primary and lower secondary levels) is one of the main reasons for the drop in the salary cost of teachers per student in that country (Tables B7.2a and b).

Relationship between expenditure on education and policy choices

Higher levels of expenditure on education cannot automatically be equated with better performance by education systems. This is not surprising, as countries spending similar amounts on education do not necessarily have similar education policies and practices. For example, at the upper secondary level of education, Portugal and Spain had similar levels of salary cost of teachers per student in 2012 (USD 4 550 and USD 4 727, respectively), both higher than the OECD average. In Portugal, this was largely because estimated class size was smaller than average, whereas in Spain, it was because below-average estimated class size was combined with above-average teachers' salaries and above-average instruction time. Israel and Poland also had similar salary cost of teachers per student. While teachers' salaries are similar in both countries, the other three factors influence the salary cost of teachers in different ways in each country (Table B7.5 and Chart B7.4).

Chart B7.4. Contribution (in USD) of various factors to salary cost of teachers per student, in upper secondary education (2012)



Note: Contributions expressed in % of GDP per capita are also available on line.
1. Contribution of instruction time is calculated based on minimum instruction time.
Countries are ranked in descending order of the difference between the salary cost of teachers per student and the OECD average.
Source: OECD. Table B7.5. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933118162

In addition, even though countries may make similar policy choices, those choices can result in different levels of salary cost of teachers per student. For example, in Canada, Ireland and the United States, the salary cost of teachers per student at the upper secondary level is the result of balancing two opposing effects: above-average teaching time reduces the salary cost of teachers per student relative to the OECD average, and relatively small classes and high teachers' salaries increase the salary cost of teachers per student relative to the OECD average. The salary cost of teachers per student resulting from this combination is above the OECD average in these three countries, but varies from less than USD 100 more in the United States to about USD 1 000 more in Canada (Table B7.5 and Chart B7.4).

Main factors driving the salary cost of teachers per student, by level of education

Comparing the salary cost of teachers per student to the OECD average and how the four factors contribute to this difference allows for an analysis of the extent of each factor's impact on the differences in salary cost of teachers per student. At each level of education, teachers' salaries are most often the main driver of the difference in the average salary cost of teachers per student. Among countries with available data in 2012, they are the main driver in 21 of 31 countries at the primary level, 15 of 30 countries at the lower secondary level and 14 of 26 countries at the upper secondary level. This is true both in countries with the highest and lowest levels of salary cost of teachers per student.

For example, at the upper secondary level, the above-average salaries of teachers are the main driver of the difference in the country with the highest level of salary cost (Luxembourg), as well as in the eight of the nine countries with the lowest levels of salary cost of teachers per student (the Czech Republic, Estonia, Hungary, Israel, Poland, the Slovak Republic, Slovenia and Turkey) (Chart B7.4).

Estimated class size is the second most influential driver of the difference at each level of education (for 6 countries at the primary level, 13 countries at the lower secondary level, and 7 countries at the upper secondary level). At the upper secondary level, below-average estimated class size is the main driver of the variations from the average salary cost of teachers per student in 2 of the 6 countries with the highest salary cost of teachers per student, namely Portugal and Spain (Box B7.2).

Box B7.2. Main drivers of salary cost of teachers per student, by level of education (2012)

	Primary education	Lower secondary education	Upper secondary education
Salary	**21 countries** AUS (+), BFL (+), BFR (+), CAN (+), CHL (-), CZE (-), DNK (+), EST (-), DEU (+), GRC (-), HUN (-), IRL (+), ISR (-), ITA (-), JPN (+), KOR (+), LUX (+), MEX (-), NLD (+), POL (-), SVK (-)	**15 countries** AUS (+), CAN (+), CHL (-), CZE (-), DNK (+), EST (-), DEU (+), HUN (-), IRL (+), ISR (-), ITA (-), LUX (+), NLD (+), POL (-), SVK (-)	**14 countries** BFL (+), CAN (+), CZE (-), EST (-), DEU (+), HUN (-), IRL (+), ISR (-), LUX (+), NLD (+), POL (-), SVK (-), SVN (-), TUR (-)
Instruction time	**1 country** FIN (-)	**1 country** ESP (+)	**1 country** FRA (+)
Teaching time	**3 countries** FRA (-), SVN (+), USA (-)	**1 country** USA (-)	**4 countries** AUT (+), CHL (-), NOR (+), USA (-)
Estimated class size	**6 countries** AUT (+), ENG (-), NOR (+), PRT (+), ESP (+), TUR (-)	**13 countries** AUT (+), BFL (+), BFR (+), ENG (-), FIN (+), FRA (-), JPN (-), KOR (-), MEX (-), NOR (+), PRT (+), SVN (+), TUR (-)	**7 countries** AUS (+), ENG (-), FIN (-), ITA (-), KOR (-), PRT (+), ESP (+)

Note: The positive or negative signs show whether the factor increases or decreases the salary cost of teacher per student.
Source: OECD. Tables B7.3, B7.4 and B7.5. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
Please refer to the Reader's Guide for the list of country codes used in this table.
StatLink http://dx.doi.org/10.1787/888933118086

Main factors driving the salary cost of teachers per student, accounting for countries' wealth

However, the level of teachers' salaries and, in turn, the level of the salary cost of teachers per student, depend on a country's relative wealth. To control for differences in wealth among countries, the levels of teachers' salaries (and salary cost per student) relative to GDP per capita were analysed. Comparing the relative salary cost of teachers per student using this analysis affects the ranking of countries (Chart B7.4 continued, available on line). However, compared to the analysis in USD, the position of only a small number of countries changes significantly. At the upper secondary level, Luxembourg has the highest salary cost of teachers per student in USD, mainly as a result of the high level of salaries in USD, but not as a proportion of per capita GDP, even if it is still above the OECD average due to below-average estimated class size. As a result, teachers' salaries, as a percentage of per capita GDP, do not raise the salary cost of teachers per student (Tables B7.3 continued, B7.4 continued, B7.5 continued and Chart B7.4 continued, available on line).

Even after accounting for differences in countries' wealth, teachers' salaries, as a percentage of GDP per capita, and estimated class size are the main drivers of the variations from the average salary cost of teachers per student at each level of education (Box B7.2 continued, available on line).

Methodology

Data referring to the 2012 school year are based on the UOE data collection on education statistics, as well as on the Survey on Teachers and the Curriculum, which were both administered by the OECD in 2013. Data referring to the 2000 and 2008 school year are based on the UOE data collection on education statistics, and on the Survey on Teachers and the Curriculum, which were both administered by the OECD and published in the 2013 edition (for trend data on teaching time and salary of teachers) and 2002, 2007 and 2010 editions (ratio of student to teaching staff and instruction time) of *Education at a Glance*. The consistency of 2000, 2005, 2008 and 2012 data has been validated (for details see Annex 3 at *www.oecd.org/edu/eag.htm*).

Salary cost of teachers per student is calculated based on teachers' salaries, the number of hours of instruction for students, the number of hours of teaching for teachers and the estimated class size (a proxy of the class size; see Box D2.1). In most cases, the values for these variables are derived from *Education at a Glance 2013*, and refer to the school year 2011/12, 2007/08, 2004/05 and 1999/2000. Data for school year 1999/2000, 2004/05 and 2007/08 are derived from the 2002, 2007 and 2010 editions of *Education at a Glance*, respectively, when they are not available in the current edition. The data for 2000, 2005 and 2008 have been checked to ensure consistency with 2012 data. Teachers' salaries in national currencies are converted into equivalent USD by dividing the national currency figure by the purchasing power parity (PPP) index for private consumption, following the methodology used in Indicator D3 on teachers' salaries, which results in the salary cost per student expressed in equivalent USD. Further details on the analysis of these factors are available in Annex 3 at *www.oecd.org/edu/eag.htm*.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Reference

OECD (2012), *Education at a Glance 2012: OECD Indicators*, OECD Publishing, Paris, *http://dx.doi.org/10.1787/eag-2012-en*.

Tables of Indicator B7

StatLink http://dx.doi.org/10.1787/888933117953

	Table B7.1	Salary cost of teachers per student, by level of education (2012)
	Table B7.2a	Factors used to compute the salary cost of teachers per student, in primary education (2000, 2005, 2008 and 2012)
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WEB	Table B7.5 (continued)	Contribution of various factors to salary cost of teachers per student in upper secondary education (2012)

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Table B7.1. Salary cost of teachers per student, by level of education (2012)

In equivalent USD, converted using PPPs for private consumption, and in percentage of GDP per capita

	Salary cost of teachers per student (in USD)			Salary cost of teachers per student (in percentage of GDP per capita)		
	Primary education	Lower secondary education	Upper secondary education	Primary education	Lower secondary education	Upper secondary education
	(1)	(2)	(3)	(4)	(5)	(6)
OECD						
Australia	3 301	4 355	4 355	7.7	10.1	10.1
Austria	3 572	5 185	4 897	8.4	12.1	11.5
Belgium (Fl.)	3 797	5 833	6 037	10.2	15.6	16.2
Belgium (Fr.)	3 716	5 708	m	10.0	15.3	m
Canada	3 696	3 696	4 152	9.1	9.1	10.2
Chile	1 117	1 102	1 093	5.6	5.5	5.5
Czech Republic	1 027	1 766	1 771	4.2	7.2	7.2
Denmark	4 310	4 310	m	11.2	11.2	m
England	1 959	2 907	2 421	5.7	8.4	7.0
Estonia	957	1 270	886	4.5	6.0	4.2
Finland	2 909	4 775	2 863	8.1	13.2	7.9
France	1 795	2 398	3 790	5.1	6.8	10.7
Germany	3 884	4 840	5 318	9.8	12.2	13.4
Greece	2 839	m	m	12.5	m	m
Hungary	1 263	1 279	1 255	6.2	6.3	6.2
Iceland	m	m	m	m	m	m
Ireland	3 410	3 676	3 676	9.1	9.8	9.8
Israel	1 935	1 974	2 327	6.6	6.7	7.9
Italy	2 769	3 102	2 895	8.9	10.0	9.3
Japan	2 680	3 377	m	8.3	10.4	m
Korea	2 725	2 757	3 243	9.8	9.9	11.6
Luxembourg	10 704	12 019	12 019	13.1	14.8	14.8
Mexico	724	822	m	4.9	5.6	m
Netherlands	3 463	4 354	3 656	8.4	10.6	8.9
New Zealand	m	m	m	m	m	m
Norway	3 763	3 719	4 335	6.3	6.2	7.3
Poland	1 653	2 101	2 175	7.7	9.8	10.2
Portugal	2 923	3 605	4 550	13.1	16.2	20.4
Scotland	m	m	m	m	m	m
Slovak Republic	797	1 044	964	3.5	4.5	4.2
Slovenia	2 066	4 133	2 334	8.2	16.3	9.2
Spain	3 118	4 321	4 727	10.8	15.0	16.4
Sweden	m	m	m	m	m	m
Switzerland	m	m	m	m	m	m
Turkey	1 325	1 376	1 706	8.4	8.8	10.9
United States	3 003	3 068	3 249	5.8	5.9	6.3
OECD average	2 575	3 129	3 212	7.7	9.2	9.4

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933117972

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Table B7.2a. [1/2] Factors used to compute the salary cost of teachers per student, in primary education (2000, 2005, 2008 and 2012)

	Teachers' salary (annual, in USD 2012 constant prices)				Instruction time (for students, hours per year)				Teaching time (for teachers, hours per year)			
	2005	2008	2012	Variation 2008-2012 (%)	2005	2008	2012	Variation 2008-2012 (%)	2005	2008	2012	Variation 2008-2012 (%)
	(2)	(3)	(4)	(5)	(7)	(8)	(9)	(10)	(12)	(13)	(14)	(15)
OECD Australia[1]	49 407	49 544	51 289	**3.5**	979	959	953	**-0.6**	888	873	871	**-0.1**
Austria[1]	42 404	42 993	42 994	**0.0**	812	735	750	**2.0**	774	779	779	**0.0**
Belgium (Fl.)[1]	47 136	45 664	47 635	**4.3**	835	840	831	**-1.1**	761	765	748	**-2.2**
Belgium (Fr.)[1]	44 715	43 816	46 616	**6.4**	930	930	930	**0.0**	722	724	721	**-0.4**
Canada	m	m	58 495	**m**	m	m	919	**m**	m	m	802	**m**
Chile	m	m	24 725	**m**	m	1 089	1 007	**-7.5**	1 128	1 101	1 103	**0.2**
Czech Republic[1, 2]	18 981	21 863	19 363	**-11.4**	774	627	597	**-4.8**	813	849	827	**-2.6**
Denmark[1]	44 963	46 551	51 122	**9.8**	763	701	754	**7.5**	640	648	659	**1.7**
England[1]	43 668	43 695	41 393	**-5.3**	900	893	861	**-3.5**	m	654	680	**4.1**
Estonia[1]	9 587	13 220	12 525	**-5.3**	910	595	650	**9.2**	630	630	619	**-1.7**
Finland[1]	39 317	40 907	39 445	**-3.6**	673	608	654	**7.5**	677	677	673	**-0.5**
France[1]	36 113	34 912	33 994	**-2.6**	894	926	864	**-6.7**	936	936	924	**-1.3**
Germany	m	m	62 195	**m**	777	635	702	**10.6**	808	805	804	**-0.1**
Greece[1]	34 627	35 573	26 617	**-25.2**	928	720	756	**5.0**	604	593	569	**-3.9**
Hungary[1]	19 090	17 486	13 520	**-22.7**	718	614	655	**6.6**	583	611	604	**-1.1**
Iceland	29 811	31 135	28 742	**-7.7**	792	720	857	**19.0**	671	671	m	**m**
Ireland[1]	49 451	52 696	55 148	**4.7**	941	915	869	**-5.0**	915	915	915	**0.0**
Israel[1]	20 576	24 873	29 413	**18.3**	990	996	956	**-3.9**	731	731	838	**14.6**
Italy[1]	35 157	34 252	33 570	**-2.0**	1 023	990	891	**-10.0**	739	735	752	**2.4**
Japan[1]	50 982	47 604	47 561	**-0.1**	774	709	754	**6.3**	578	709	731	**3.2**
Korea[1]	52 522	51 879	50 145	**-3.3**	703	612	632	**3.3**	883	840	694	**-17.5**
Luxembourg[1]	73 324	70 145	98 788	**40.8**	847	924	924	**0.0**	774	739	810	**9.5**
Mexico[1]	18 952	19 666	20 296	**3.2**	800	800	800	**0.0**	800	800	800	**0.0**
Netherlands[1]	m	48 720	54 865	**12.6**	1 000	940	940	**0.0**	930	930	930	**0.0**
New Zealand	41 198	42 312	43 050	**1.7**	985	985	m	**m**	m	945	m	**m**
Norway[1]	35 497	36 475	38 773	**6.3**	713	656	748	**14.0**	741	741	741	**0.0**
Poland[1]	14 793	15 963	18 160	**13.8**	m	486	703	**44.6**	m	632	633	**0.2**
Portugal[1]	37 224	35 980	34 694	**-3.6**	861	776	812	**4.6**	855	770	756	**-1.8**
Scotland	48 021	47 593	44 867	**-5.7**	a	a	a	**m**	893	855	855	**0.0**
Slovak Republic	m	m	13 365	**m**	m	662	698	**5.4**	m	m	819	**m**
Slovenia[1]	31 673	33 345	32 819	**-1.6**	721	621	664	**7.0**	627	627	627	**0.0**
Spain[1]	43 035	44 513	41 862	**-6.0**	794	833	875	**5.0**	880	880	880	**0.0**
Sweden	34 533	m	35 115	**m**	741	741	741	**0.0**	m	m	m	**m**
Switzerland	60 706	59 196	61 279	**3.5**	m	713	m	**m**	m	m	m	**m**
Turkey[1]	24 834	24 951	26 678	**6.9**	864	864	864	**0.0**	639	639	720	**12.7**
United States[1]	47 441	47 290	45 998	**-2.7**	952	960	967	**0.7**	1 080	1 097	1 131	**3.1**
OECD average	38 056	38 865	39 642	**0.9**	846	787	805	**3.6**	783	778	782	**0.6**
Average for 27 countries with all data available for 2008 and 2012		37 947	39 085	**3.0**		786	802	**2.0**		760	764	**0.5**

Notes: Reference year 2000 (columns 1, 6, 11, 16 and 21) is available for consultation on line (see *StatLink* below). Data in this table come either from Chapter D (for 2000, 2005, 2008 and 2012 data relating to salaries of teachers and teaching time, 2012 data on ratio of student to teaching staff) or from 2002, 2007 or 2010 editions of *Education at a Glance* (data on ratio of student to teaching staff and instruction time). Data for 2012 instruction time refer to 2011 data from the 2013 edition of *Education at a Glance* (for the United States, data refer to 2012 and have been revised for previous years). Some 2000 data have been revised to ensure consistency with 2012 data.

1. Countries with all data available for both 2008 and 2012.

2. Current instruction time for 2000 and 2005, minimum instruction time for 2012.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table B7.2a. [2/2] **Factors used to compute the salary cost of teachers per student, in primary education (2000, 2005, 2008 and 2012)**

	Ratio of students to teaching staff (number of students per teacher)				Estimated class size (number of students per classroom)			
	2005	2008	2012	Variation 2008-2012 (%)	2005	2008	2012	Variation 2008-2012 (%)
	(17)	(18)	(19)	(20)	(22) = (17)*(7) / (12)	(23) = (18)*(8) / (13)	(24) = (19)*(9) / (14)	(25)
OECD								
Australia[1]	16.2	15.8	15.5	**-1.7**	17.9	17.4	17.0	**-2.2**
Austria[1]	14.1	12.9	12.0	**-6.7**	14.8	12.2	11.6	**-4.8**
Belgium (Fl.)[1]	12.8	12.6	12.5	**-0.6**	14.0	13.9	13.9	**0.5**
Belgium (Fr.)[1]	12.8	12.6	12.5	**-0.6**	16.5	16.2	16.2	**-0.2**
Canada	m	16.3	15.8	**-3.1**	m	m	18.1	**m**
Chile	25.9	24.1	22.1	**-8.3**	m	23.9	20.2	**-15.3**
Czech Republic[1, 2]	17.5	18.1	18.9	**4.3**	16.7	13.3	13.6	**1.9**
Denmark[1]	11.9	10.1	11.9	**17.2**	14.2	10.9	13.6	**23.9**
England[1]	14.9	20.2	21.1	**4.6**	m	27.6	26.7	**-3.1**
Estonia[1]	m	16.4	13.1	**-20.2**	m	15.5	13.7	**-11.4**
Finland[1]	15.9	14.4	13.6	**-5.8**	15.8	12.9	13.2	**1.8**
France[1]	19.4	19.9	18.9	**-4.9**	18.5	19.7	17.7	**-10.1**
Germany	18.8	18.0	16.0	**-10.8**	18.1	14.2	14.0	**-1.4**
Greece[1]	11.1	10.1	9.4	**-6.9**	17.0	12.2	12.4	**1.7**
Hungary[1]	10.6	10.6	10.7	**1.0**	13.1	10.7	11.6	**8.9**
Iceland	11.3	10.0	10.2	**2.7**	13.4	10.7	m	**m**
Ireland[1]	17.9	17.8	16.2	**-9.1**	18.4	17.8	15.4	**-13.7**
Israel[1]	17.3	16.3	15.2	**-6.9**	23.4	22.2	17.4	**-21.9**
Italy[1]	10.6	10.6	12.1	**14.7**	14.7	14.2	14.4	**0.9**
Japan[1]	19.4	18.8	17.7	**-5.6**	25.9	18.8	18.3	**-2.8**
Korea[1]	28.0	24.1	18.4	**-23.7**	22.3	17.6	16.8	**-4.5**
Luxembourg[1]	m	12.1	9.2	**-23.8**	m	15.1	10.5	**-30.4**
Mexico[1]	28.3	28.0	28.0	**0.0**	28.3	28.0	28.0	**0.0**
Netherlands[1]	15.9	15.8	15.8	**0.5**	17.1	15.9	16.0	**0.5**
New Zealand	18.1	17.1	16.4	**-4.2**	m	17.8	m	**m**
Norway[1]	10.9	10.8	10.3	**-4.7**	10.5	9.6	10.4	**8.6**
Poland[1]	11.7	10.5	11.0	**4.6**	m	8.1	12.2	**50.9**
Portugal[1]	10.8	11.3	11.9	**4.9**	10.9	11.4	12.7	**11.7**
Scotland	14.9	20.2	21.1	**4.6**	m	m	m	**m**
Slovak Republic	18.9	18.6	16.8	**-9.8**	m	m	14.3	**m**
Slovenia[1]	15.0	15.8	15.9	**0.7**	17.3	15.6	16.8	**7.8**
Spain[1]	14.3	13.1	13.4	**2.3**	12.9	12.4	13.3	**7.5**
Sweden	12.2	12.2	11.8	**-3.2**	m	m	m	**m**
Switzerland	14.6	15.4	m	**m**	m	m	m	**m**
Turkey[1]	25.8	24.4	20.1	**-17.5**	34.9	33.0	24.2	**-26.8**
United States[1]	14.9	14.3	15.3	**7.1**	13.1	12.5	13.1	**4.7**
OECD average	16.1	15.8	15.2	**-3.1**	17.6	16.2	15.7	**-0.6**
Average for 27 countries with all data available for 2008 and 2012		15.5	15.5	**0.5**	19.8	16.0	15.6	**-2.6**

Notes: Reference year 2000 (columns 1, 6, 11, 16 and 21) is available for consultation on line (see *StatLink* below). Data in this table come either from Chapter D (for 2000, 2005, 2008 and 2012 data relating to salaries of teachers and teaching time, 2012 data on ratio of student to teaching staff) or from 2002, 2007 or 2010 editions of *Education at a Glance* (data on ratio of student to teaching staff and instruction time). Data for 2012 instruction time refer to 2011 data from the 2013 edition of *Education at a Glance* (for the United States, data refer to 2012 and have been revised for previous years). Some 2000 data have been revised to ensure consistency with 2012 data.

1. Countries with all data available for both 2008 and 2012.

2. Current instruction time for 2000 and 2005, minimum instruction time for 2012.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933117991

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Table B7.2b. [1/2] Factors used to compute the salary cost of teachers per student, in lower secondary education (2000, 2005, 2008 and 2012)

	Teachers' salary (annual, in USD 2012 constant prices)				Instruction time (for students, hours per year)				Teaching time (for teachers, hours per year)			
	2005	2008	2012	Variation 2008-2012 (%)	2005	2008	2012	Variation 2008-2012 (%)	2005	2008	2012	Variation 2008-2012 (%)
	(2)	(3)	(4)	(5)	(7)	(8)	(9)	(10)	(12)	(13)	(14)	(15)
OECD												
Australia[1]	49 521	50 416	52 082	**3.3**	1 014	1 011	1 009	**-0.3**	810	812	809	**-0.4**
Austria[1]	45 935	46 484	46 625	**0.3**	958	958	945	**-1.4**	607	607	607	**0.0**
Belgium (Fl.)[1]	47 136	45 664	47 635	**4.3**	960	965	955	**-1.1**	690	679	652	**-3.9**
Belgium (Fr.)[1]	45 215	43 816	46 616	**6.4**	1 020	1 020	1 020	**0.0**	724	662	661	**-0.2**
Canada	m	m	58 495	**m**	m	m	923	**m**	m	m	747	**m**
Chile	m	m	24 725	**m**	m	1 089	1 083	**-0.5**	1 128	1 101	1 103	**0.2**
Czech Republic[1, 2]	18 981	22 299	19 515	**-12.5**	902	876	848	**-3.1**	647	637	620	**-2.6**
Denmark[1]	44 963	46 551	51 122	**9.8**	880	900	930	**3.3**	640	648	659	**1.7**
England[1]	43 668	43 695	41 393	**-5.3**	933	925	912	**-1.4**	m	722	692	**-4.2**
Estonia[1]	9 587	13 220	12 525	**-5.3**	1 073	802	770	**-4.0**	630	630	619	**-1.7**
Finland[1]	42 799	44 180	42 601	**-3.6**	815	829	913	**10.2**	592	592	589	**-0.5**
France[1]	39 002	37 524	37 065	**-1.2**	1 053	1 072	1 081	**0.8**	648	648	648	**0.0**
Germany	m	m	67 736	**m**	872	887	890	**0.3**	758	756	755	**-0.1**
Greece	34 627	35 573	26 617	**-25.2**	998	821	796	**-3.1**	434	429	415	**-3.2**
Hungary[1]	19 090	17 486	13 520	**-22.7**	921	885	859	**-3.0**	555	611	604	**-1.1**
Iceland	29 811	31 135	28 742	**-7.7**	872	872	987	**13.1**	671	671	m	**m**
Ireland[1]	49 451	52 696	55 148	**4.7**	907	907	935	**3.1**	735	735	735	**0.0**
Israel[1]	22 965	25 129	26 912	**7.1**	971	1 139	981	**-13.9**	579	579	629	**8.7**
Italy[1]	38 295	37 306	36 577	**-2.0**	1 082	1 089	990	**-9.1**	605	601	616	**2.4**
Japan[1]	50 982	47 604	47 561	**-0.1**	869	868	866	**-0.2**	505	603	602	**-0.1**
Korea[1]	52 395	51 760	50 040	**-3.3**	867	867	850	**-2.0**	621	616	568	**-7.8**
Luxembourg[1]	95 884	102 386	105 780	**3.3**	782	908	900	**-0.9**	642	634	739	**16.7**
Mexico[1]	24 104	25 016	26 229	**4.8**	1 167	1 167	1 167	**0.0**	1 047	1 047	1 047	**0.0**
Netherlands[1]	m	58 421	68 064	**16.5**	1 067	1 000	1 000	**0.0**	750	750	750	**0.0**
New Zealand	41 198	42 312	44 710	**5.7**	962	985	m	**m**	m	853	m	**m**
Norway[1]	35 497	36 475	38 773	**6.3**	827	826	855	**3.5**	656	654	663	**1.5**
Poland[1]	17 080	18 277	20 700	**13.3**	m	644	800	**24.1**	m	562	561	**-0.2**
Portugal[1]	37 224	35 980	34 694	**-3.6**	905	755	792	**4.9**	564	627	616	**-1.8**
Scotland	48 021	47 593	44 867	**-5.7**	a	a	a	**a**	893	855	855	**0.0**
Slovak Republic	m	m	13 365	**m**	m	883	832	**-5.8**	m	m	635	**m**
Slovenia[1]	31 673	33 345	32 819	**-1.6**	791	791	817	**3.2**	627	627	627	**0.0**
Spain[1]	48 298	48 671	45 783	**-5.9**	956	1 015	1 050	**3.4**	713	713	713	**0.0**
Sweden	35 411	m	36 247	**m**	741	741	741	**0.0**	m	m	m	**m**
Switzerland	69 129	67 669	69 816	**3.2**	m	912	m	**m**	m	m	m	**m**
Turkey	a	a	27 607	**m**	a	a	864	**m**	a	a	504	**m**
United States[1]	47 856	47 105	47 046	**-0.1**	996	1 003	1 011	**0.8**	1 080	1 068	1 085	**1.7**
OECD average	40 527	41 860	41 382	**-0.6**	937	922	920	**0.7**	698	701	691	**0.2**
Average for 25 countries with all data available for 2008 and 2012		41 260	41 873	**1.5**		929	930	**0.1**		682	708	**3.7**

Notes: Reference year 2000 (columns 1, 6, 11, 16 and 21) is available for consultation on line (see *StatLink* below). Data in this table come either from Chapter D (for 2000, 2005, 2008 and 2012 data relating to salaries of teachers and teaching time, 2012 data on ratio of student to teaching staff) or from 2002, 2007 or 2010 editions of *Education at a Glance* (data on ratio of student to teaching staff and instruction time). Data for 2012 instruction time refer to 2011 data from the 2013 edition of *Education at a Glance* (for the United States, data refer to 2012 and have been revised for previous years). Some 2000 data have been revised to ensure consistency with 2012 data.

1. Countries with all data available for both 2008 and 2012.

2. Current instruction time for 2000 and 2005, minimum instruction time for 2012.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933118010

Table B7.2b. [2/2] **Factors used to compute the salary cost of teachers per student, in lower secondary education (2000, 2005, 2008 and 2012)**

	Ratio of students to teaching staff (number of students per teacher)				Estimated class size (number of students per classroom)			
	2005	2008	2012	Variation 2008-2012 (%)	2005	2008	2012	Variation 2008-2012 (%)
	(17)	(18)	(19)	(20)	(22) = (17)*(7) / (12)	(23) = (18)*(8) / (13)	(24) = (19)*(9) / (14)	(25)
OECD Australia[1]	12.1	12.0	12.0	**-0.3**	15.2	15.0	14.9	**-0.2**
Austria[1]	10.6	9.9	9.0	**-9.5**	16.8	15.7	14.0	**-10.8**
Belgium (Fl.)[1]	9.4	8.1	8.2	**0.4**	13.1	11.6	12.0	**3.3**
Belgium (Fr.)[1]	9.4	8.1	8.2	**0.4**	13.3	12.5	12.6	**0.6**
Canada	m	16.3	15.8	**-3.1**	m	m	19.6	**m**
Chile	25.9	24.1	22.4	**-7.0**	m	23.9	22.0	**-7.6**
Czech Republic[1, 2]	13.5	11.8	11.1	**-6.5**	18.8	16.2	15.1	**-7.0**
Denmark[1]	11.9	10.1	11.9	**17.2**	16.4	14.1	16.7	**19.1**
England[1]	15.1	15.0	14.2	**-4.9**	m	19.2	18.8	**-2.1**
Estonia[1]	m	16.0	9.9	**-38.5**	m	20.4	12.3	**-39.9**
Finland[1]	10.0	10.6	8.9	**-16.1**	13.7	14.9	13.8	**-7.1**
France[1]	14.2	14.6	15.5	**6.1**	23.0	24.1	25.8	**7.0**
Germany	15.5	15.0	14.0	**-6.9**	17.9	17.6	16.5	**-6.4**
Greece	7.9	7.7	m	**m**	18.1	14.7	m	**m**
Hungary[1]	10.4	10.9	10.6	**-2.8**	17.2	15.8	15.0	**-4.6**
Iceland	11.3	10.0	10.6	**6.3**	14.7	13.0	m	**m**
Ireland[1]	15.5	12.8	15.0	**17.2**	19.1	15.8	19.1	**20.8**
Israel[1]	13.4	12.2	13.6	**11.8**	22.4	24.0	21.3	**-11.4**
Italy[1]	10.1	9.7	11.8	**21.8**	18.1	17.5	19.0	**8.1**
Japan[1]	15.1	14.7	14.1	**-4.2**	26.0	21.2	20.2	**-4.3**
Korea[1]	20.8	20.2	18.1	**-10.4**	29.0	28.5	27.2	**-4.6**
Luxembourg[1]	9.0	9.1	8.8	**-3.4**	11.0	13.1	10.7	**-18.0**
Mexico[1]	33.7	33.9	31.9	**-5.7**	37.6	37.7	35.6	**-5.7**
Netherlands[1]	16.2	15.8	15.6	**-1.1**	23.1	21.1	20.8	**-1.1**
New Zealand	16.8	16.2	16.4	**1.3**	m	18.7	m	**m**
Norway[1]	10.2	10.1	10.4	**3.5**	12.9	12.7	13.4	**5.6**
Poland[1]	12.7	12.9	9.9	**-23.9**	m	14.8	14.1	**-5.4**
Portugal[1]	8.2	8.1	9.6	**19.5**	13.1	9.7	12.4	**27.6**
Scotland	15.1	15.0	14.2	**-4.9**	m	m	m	**m**
Slovak Republic	14.1	14.5	12.8	**-11.5**	m	m	16.8	**m**
Slovenia[1]	11.1	8.9	7.9	**-10.7**	14.0	11.2	10.3	**-7.8**
Spain[1]	12.5	10.3	10.6	**3.1**	16.8	14.6	15.6	**6.6**
Sweden	12.0	11.4	11.3	**-1.3**	m	m	m	**m**
Switzerland	11.7	12.1	m	**m**	m	m	m	**m**
Turkey	a	a	20.1	**m**	a	a	34.4	**m**
United States[1]	15.1	14.8	15.3	**3.9**	13.9	13.9	14.3	**3.0**
OECD average	13.7	13.2	13.2	**-1.8**	18.2	17.4	17.8	**-1.6**
Average for 25 countries with all data available for 2008 and 2012		12.8	12.5	**-2.7**		16.0	17.0	**6.1**

Notes: Reference year 2000 (columns 1, 6, 11, 16 and 21) is available for consultation on line (see *StatLink* below). Data in this table come either from Chapter D (for 2000, 2005, 2008 and 2012 data relating to salaries of teachers and teaching time, 2012 data on ratio of student to teaching staff) or from 2002, 2007 or 2010 editions of *Education at a Glance* (data on ratio of student to teaching staff and instruction time). Data for 2012 instruction time refer to 2011 data from the 2013 edition of *Education at a Glance* (for the United States, data refer to 2012 and have been revised for previous years). Some 2000 data have been revised to ensure consistency with 2012 data.

1. Countries with all data available for both 2008 and 2012.

2. Current instruction time for 2000 and 2005, minimum instruction time for 2012.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table B7.3. Contribution of various factors to salary cost of teachers per student in primary education (2000, 2005, 2008 and 2012)

In equivalent USD, converted using PPPs for private consumption

	Salary cost of teachers per student			Difference (in USD) from the 2012 OECD average of **USD 2 575**	Contribution of the underlying factors to the difference from the OECD average			
					Effect (in USD) of teachers' salary below/above the 2012 OECD average of **USD 39 163**	Effect (in USD) of instruction time (for students) below/above the 2012 OECD average of **806 hours**	Effect (in USD) of teaching time (for teachers) below/above the 2012 OECD average of **779 hours**	Effect (in USD) of estimated class size below/above the 2012 OECD average of **15.7 students per class**
	2005	2008	2012	2012	2012	2012	2012	2012
	(2)	(3)	(4)	(5) = (6) + (7) + (8) + (9)	(6)	(7)	(8)	(9)
OECD Australia	3 047	3 135	3 301	**726**	792	495	- 330	- 231
Austria	2 999	3 334	3 572	**998**	286	- 221	0	932
Belgium (Fl.)	3 687	3 619	3 797	**1 223**	615	96	130	381
Belgium (Fr.)	3 498	3 472	3 716	**1 141**	542	446	242	- 89
Canada	m	m	3 696	**1 122**	1 250	412	- 90	- 450
Chile	m	m	1 117	**-1 457**	- 807	410	- 614	- 446
Czech Republic	1 083	1 209	1 027	**-1 548**	-1 183	- 520	- 105	260
Denmark	3 777	4 601	4 310	**1 736**	897	- 227	567	499
England	m	2 162	1 959	**- 616**	128	154	315	-1 213
Estonia	m	806	957	**-1 617**	-1 908	- 387	428	250
Finland	2 473	2 842	2 909	**334**	20	- 576	404	487
France	1 866	1 753	1 795	**- 780**	- 306	152	- 368	- 257
Germany	m	m	3 884	**1 309**	1 480	- 452	- 102	384
Greece	3 129	3 530	2 839	**264**	-1 075	- 177	869	647
Hungary	1 799	1 650	1 263	**-1 312**	-2 054	- 421	530	633
Iceland	2 634	3 122	m	**m**	m	m	m	m
Ireland	2 759	2 962	3 410	**836**	1 022	228	- 484	71
Israel	1 192	1 524	1 935	**- 640**	- 644	389	- 163	- 222
Italy	3 316	3 242	2 769	**195**	- 413	269	95	244
Japan	2 632	2 531	2 680	**105**	513	- 177	168	- 399
Korea	1 875	2 150	2 725	**150**	662	- 650	313	- 174
Luxembourg	m	5 795	10 704	**8 130**	5 161	834	- 236	2 371
Mexico	669	702	724	**-1 850**	- 954	- 11	- 40	- 845
Netherlands	m	3 089	3 463	**888**	1 016	466	- 539	- 55
New Zealand	m	2 473	m	**m**	m	m	m	m
Norway	3 253	3 374	3 763	**1 189**	- 32	- 238	160	1 299
Poland	m	1 520	1 653	**- 921**	-1 649	- 301	463	566
Portugal	3 448	3 179	2 923	**348**	- 335	21	84	578
Scotland	m	m	m	**m**	m	m	m	m
Slovak Republic	m	m	797	**-1 778**	-1 620	- 235	- 82	159
Slovenia	2 110	2 114	2 066	**- 509**	- 411	- 449	510	- 158
Spain	3 006	3 394	3 118	**544**	190	235	- 347	466
Sweden	m	m	m	**m**	m	m	m	m
Switzerland	m	m	m	**m**	m	m	m	m
Turkey	962	1 022	1 325	**-1 249**	- 727	135	154	- 811
United States	3 183	3 308	3 003	**429**	455	516	-1 061	518
OECD average for countries with available data for both 2008 and 2012	~	2 454	2 633	**~**	~	~	~	~

Note: Reference year 2000 (column 1) is available for consultation on line (see *StatLink* below).
Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
Please refer to the Reader's Guide for information concerning the symbols replacing missing data.
StatLink http://dx.doi.org/10.1787/888933118029

Table B7.4. Contribution of various factors to salary cost of teachers per student in lower secondary education (2000, 2005, 2008 and 2012)

In equivalent USD, converted using PPPs for private consumption

	Salary cost of teacher per student			Difference (in USD) from the 2012 OECD average of **USD 3 129**	Contribution of the underlying factors to the difference from the OECD average			
					Effect (in USD) of teachers' salary below/above the 2012 OECD average of **USD 41 382**	Effect (in USD) of instruction time (for students) below/above the 2012 OECD average of **920 hours**	Effect (in USD) of teaching time (for teachers) below/above the 2012 OECD average of **691 hours**	Effect (in USD) of estimated class size below/above the 2012 OECD average of **17.6 students per class**
	2005	2008	2012	2012	2012	2012	2012	2012
	(2)	(3)	(4)	(5) = (6) + (7) + (8) + (9)	(6)	(7)	(8)	(9)
OECD Australia	4 080	4 201	4 355	**1 226**	855	343	- 589	616
Austria	4 330	4 676	5 185	**2 056**	487	108	533	928
Belgium (Fl.)	4 988	5 615	5 833	**2 704**	615	161	255	1 672
Belgium (Fr.)	4 785	5 388	5 708	**2 579**	514	444	195	1 427
Canada	m	m	3 696	**567**	1 186	11	- 265	- 365
Chile	m	m	1 102	**-2 028**	-1 002	335	- 913	- 447
Czech Republic	1 409	1 887	1 766	**-1 363**	-1 817	- 203	273	385
Denmark	3 777	4 601	4 310	**1 181**	778	39	178	187
England	m	2 919	2 907	**- 222**	1	- 27	- 1	- 194
Estonia	m	824	1 270	**-1 859**	-2 573	- 412	260	866
Finland	4 289	4 153	4 775	**1 646**	114	- 30	625	937
France	2 752	2 577	2 398	**- 731**	- 307	451	181	-1 056
Germany	m	m	4 840	**1 711**	1 940	- 136	- 355	262
Greece	4 396	4 639	m	**m**	m	m	m	m
Hungary	1 839	1 609	1 279	**-1 850**	-2 371	- 157	313	366
Iceland	2 634	3 122	m	**m**	m	m	m	m
Ireland	3 190	4 117	3 676	**547**	979	55	- 208	- 279
Israel	1 717	2 061	1 974	**-1 155**	-1 082	163	242	- 478
Italy	3 776	3 854	3 102	**- 27**	- 386	228	363	- 232
Japan	3 381	3 238	3 377	**248**	454	- 199	450	- 458
Korea	2 519	2 556	2 757	**- 372**	572	- 239	592	-1 297
Luxembourg	10 654	11 235	12 019	**8 890**	6 136	- 162	- 486	3 401
Mexico	714	739	822	**-2 308**	- 807	452	- 737	-1 214
Netherlands	m	3 698	4 354	**1 225**	1 864	315	- 310	- 644
New Zealand	m	2 619	m	**m**	m	m	m	m
Norway	3 468	3 621	3 719	**590**	- 224	- 252	144	922
Poland	m	1 412	2 101	**-1 028**	-1 836	- 380	572	616
Portugal	4 559	4 468	3 605	**475**	- 603	- 514	394	1 199
Scotland	m	m	m	**m**	m	m	m	m
Slovak Republic	m	m	1 044	**-2 085**	-2 157	- 210	181	101
Slovenia	2 853	3 751	4 133	**1 004**	- 866	- 444	363	1 952
Spain	3 857	4 735	4 321	**1 192**	374	487	- 113	445
Sweden	m	m	m	**m**	m	m	m	m
Switzerland	m	m	m	**m**	m	m	m	m
Turkey	a	a	1 376	**a**	a	a	a	a
United States	3 172	3 193	3 068	**- 61**	407	298	-1 429	663
OECD average for countries with available data for both 2008 and 2012		3 217	3 355	~	~	~	~	~

Note: Reference year 2000 (column 1) is available for consultation on line (see *StatLink* below).
Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
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Table B7.5. Contribution of various factors to salary cost of teachers per student in upper secondary education (2012)

In equivalent USD, converted using PPPs for private consumption

	Salary cost of teacher per student	Difference from the OECD average of **USD 3 212**	Contribution of the underlying factors to the difference from the OECD average			
			Effect (in USD) of teachers' salary below/above the OECD average of **USD 42 486**	Effect (in USD) of instruction time (for students) below/above the OECD average of **964 hours**	Effect (in USD) of teaching time (for teachers) below/above the OECD average of **668 hours**	Effect (in USD) of estimated class size below/above the OECD average of **19.1 students per class**
	(1)	(2) = (3) + (4) + (5) + (6)	(3)	(4)	(5)	(6)
OECD Australia	4 355	**1 143**	769	152	- 692	913
Austria	4 897	**1 685**	474	340	507	363
Belgium (Fl.)	6 037	**2 826**	1 631	- 46	421	820
Belgium (Fr.)	m	**m**	m	m	m	m
Canada	4 152	**941**	1 190	- 174	- 432	356
Chile	1 093	**-2 119**	- 959	455	- 993	- 622
Czech Republic	1 771	**-1 441**	-1 850	- 506	311	604
Denmark	m	**m**	m	m	m	m
England	2 421	**- 790**	- 73	- 42	- 97	- 579
Estonia	886	**-2 325**	-2 206	- 449	338	- 9
Finland	2 863	**- 349**	244	- 167	617	-1 042
France	3 790	**579**	- 452	486	108	436
Germany	5 318	**2 106**	2 245	- 142	- 305	307
Greece	m	**m**	m	m	m	m
Hungary	1 255	**-1 957**	-2 104	314	231	- 399
Iceland	m	**m**	m	m	m	m
Ireland	3 676	**464**	900	- 106	- 328	- 2
Israel	2 327	**- 885**	-1 406	376	513	- 368
Italy	2 895	**- 317**	- 374	373	252	- 569
Japan	m	**m**	m	m	m	m
Korea	3 243	**32**	536	- 3	644	-1 145
Luxembourg	12 019	**8 807**	6 078	- 509	- 745	3 983
Mexico	m	**m**	m	m	m	m
Netherlands	3 656	**444**	1 649	128	- 406	- 927
New Zealand	m	**m**	m	m	m	m
Norway	4 335	**1 123**	- 75	- 438	925	712
Poland	2 175	**-1 036**	-1 579	- 405	500	448
Portugal	4 550	**1 338**	- 801	- 57	320	1 877
Scotland	m	**m**	m	m	m	m
Slovak Republic	964	**-2 248**	-2 154	- 52	201	- 243
Slovenia	2 334	**- 877**	- 712	- 168	444	- 441
Spain	4 727	**1 516**	399	335	- 140	922
Sweden	m	**m**	m	m	m	m
Switzerland	m	**m**	m	m	m	m
Turkey	1 706	**-1 506**	-1 027	- 421	404	- 462
United States	3 249	**37**	528	244	-1 582	846

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
Please refer to the Reader's Guide for information concerning the symbols replacing missing data.
StatLink http://dx.doi.org/10.1787/888933118067

Chapter

C

Access to Education, Participation and Progression

Indicator C1 Who participates in education?
StatLink http://dx.doi.org/10.1787/888933118181

Indicator C2 How do early childhood education systems differ around the world?
StatLink http://dx.doi.org/10.1787/888933118333

Indicator C3 How many students are expected to enter tertiary education?
StatLink http://dx.doi.org/10.1787/888933118485

Indicator C4 Who studies abroad and where?
StatLink http://dx.doi.org/10.1787/888933118656

Indicator C5 Transition from school to work: Where are the 15-29 year-olds?
StatLink http://dx.doi.org/10.1787/888933118903

Indicator C6 How many adults participate in education and learning?
StatLink http://dx.doi.org/10.1787/888933119093

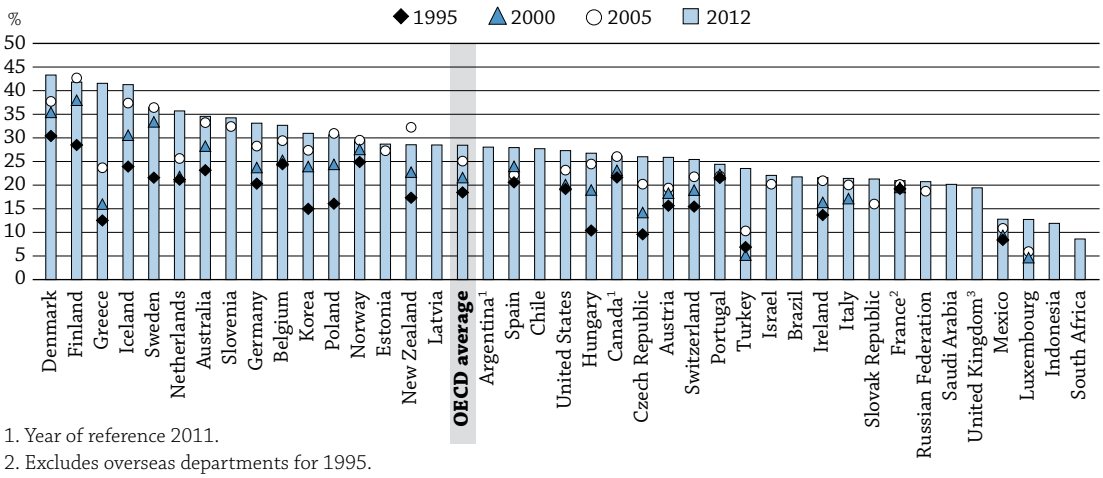
Indicator C7 In what ways do public and private schools/institutions differ?
StatLink http://dx.doi.org/10.1787/888933119321

WHO PARTICIPATES IN EDUCATION?

- Access to education for 5-14 year-olds is universal in all OECD and most partner countries with available data.
- In 2012, enrolment rates among 15-19 year-olds were greater than 75% in 34 of the 40 OECD and partner countries with available data.
- More than 20% of 20-29 year-olds in all OECD countries, except Luxembourg, Mexico and the United Kingdom, participated in education in 2012.
- From 1995 to 2012, enrolment rates among 20-29 year-olds increased by 10 percentage points on average across OECD countries with available data.

Chart C1.1. Enrolment rates of 20-29 year-olds (1995, 2000, 2005 and 2012)

Full-time and part-time students in public and private institutions



1. Year of reference 2011.
2. Excludes overseas departments for 1995.
3. Break in time series following methodological change from 2006.

Countries are ranked in descending order of the enrolment rates of 20-29 year-olds in 2012.

Source: OECD. Table C1.2. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933118295

Context

In times of economic hardship, the advantage of education for labour-market prospects becomes even clearer. Education systems in OECD and most G20 countries now provide universal access to basic education, such that both pre-primary and upper secondary education are becoming universal in most countries (see also Indicator C2). The expansion of upper secondary education has been driven by both increasing demand and policy changes ranging from a more flexible curriculum and a reshaping of vocational studies, to efforts to expand access to education to the entire population. While the same changes have been made to tertiary education, participation rates at this higher level of education are significantly lower.

Upper secondary education has become the minimum qualification for a smooth and successful transition into the labour market, and lowers the risk of unemployment (see Indicator A5). Successful completion of upper secondary programmes is vital for addressing equity issues (OECD, 2010a; OECD, 2011), but completion rates vary widely among OECD countries (see Indicator A2). Efforts to expand this level of education further and to help ensure good returns for individuals will require that education systems instill the skills students need to make them employable in the short term, and the generic skills and knowledge to enable them to pursue lifelong learning throughout their working lives (OECD, 2010b). The deep structural changes that have occurred in the global labour market over the past decades suggest that better-educated individuals will continue to have an advantage as the labour market becomes increasingly more knowledge-based.

Other findings

- **Under 2012 enrolment conditions, a 5-year-old in an OECD country can expect to participate in more than 17 years of full-time and part-time education, on average, before reaching the age of 40.** The expected duration of education ranged from more than 13 years in India and Indonesia to more than 19 years in Australia, Denmark, Finland, Iceland and Sweden.
- **Across OECD countries in 2012, at least 90% of the population of school age participated in an average of 13 years of formal education.** Twenty-six out of the 44 countries with available data were equal or above this OECD average while 18 countries were below the average.

Trends

Between 1995 and 2012, enrolment rates for 15-19 year-olds in OECD countries increased steadily by around 10 percentage points on average, from 74% to 84%. While the rates increased by close to 30 percentage points during this period in Turkey, and by more than 20 percentage points in the Czech Republic, Greece and Hungary, they remained virtually unchanged in Belgium, where enrolment rates for this age group are around 94%, and Germany with enrolment rates close to 90%. In France, the enrolment rate for this age group decreased from 89% to 84% during this period (Table C1.2 and Chart C1.2). In 2012, enrolment rates for 15-19 year-olds were still below 70% in China, Colombia, Israel, Mexico and Turkey.

Analysis

In 19 of the 44 OECD and partner countries with available data in 2012, full enrolment in education (defined here as enrolment rates exceeding 90% of the population of the age range covering a certain level of studies) begins between the ages of 3 and 4; in the other 25 countries, full enrolment starts between the ages of 5 and 6, except in Colombia and the Russian Federation, where it starts at 7, Saudi Arabia, where it begins at 9, and China and South Africa, where it begins at 13 and 10, respectively. In half of OECD and partner countries, at least 75% of 3-4 year-olds are enrolled in either pre-primary or primary programmes (Table C1.1a and see Indicator C2). In Belgium, Denmark, France, Iceland, Norway, Spain and the United Kingdom, enrolment of 3-4 year-olds reached at least 95% in 2012.

Box C1.1. **Expected years in education**

Children entering education can expect to spend an additional year in education for each single year of age at which there is full enrolment in the country in which they attend school. The estimation of expected years in education comprises enrolment in all forms of formal education, including non-continuous and incomplete participation. Thus, based on 2012 enrolment patterns, a 5-year-old in an OECD country can expect to participate in education for more than 17 years, on average, before reaching the age of 40. More specifically, this person can expect to be enrolled in full-time studies for nearly 17 years: 9.4 years in primary and lower secondary education, 3.4 years in upper secondary education, 0.2 years in post-secondary non-tertiary education and 2.7 years in tertiary education. This same student can also expect to participate in an additional 1.2 years of part-time studies, mainly at the tertiary level. Women can expect to be enrolled in full-time education for about 17 years while men can expect to be enrolled for 16 years, on average.

Among countries with available data, the expected number of years in education ranges from 13.4 years in India to more than 19 years in Australia, Denmark and Sweden, and almost 20 years in Finland and Iceland (Table C1.6).

Enrolment in an education programme is not limited to a particular age range. Based on 2012 data, Australia, Belgium, Finland, Iceland, New Zealand and Sweden show significant shares of their adult populations – particularly adults who are 40 and over – participating in education. This is explained by larger part-time enrolments and/or by lifelong learning programmes in these countries. For instance, credit-based systems in Sweden allow adults to study selected parts of a programme in formal education as a way to upgrade their skills in a specific area.

Expected years in education is only an estimate of the potential number of years an individual may expect to be in education. This estimation is not comparable to educational attainment, and may also differ from projections of future attainment, because the time spent in a given programme may change within the population.

Participation in compulsory education

Compulsory education varies across countries. In 2012, the typical starting age ranged from age 4 in Luxembourg and Mexico to age 7 in Estonia, Finland, the Russian Federation, South Africa and Sweden. In the United Kingdom and the United States, the typical starting age ranged between ages 4-5 and ages 4-6, respectively; in Switzerland the age range was from 5-7. Thus, compulsory education corresponds to primary and lower secondary programmes in all OECD countries, and upper secondary education in most of them, according to the theoretical age ranges associated with the different levels of education in each country. Enrolment rates among 5-14 year-olds are higher than 90%, i.e. there is universal coverage of basic education in all OECD and partner countries, with the exception of China, India, Indonesia, Saudi Arabia and South Africa. In 2012, enrolment rates in 35 out of the 44 countries with available data were around 95% or higher (Table C1.1a).

Participation in upper secondary education

In recent years, countries have increased the diversity of their upper secondary programmes. This diversification has been driven by the growing demand for upper secondary education and an evolution of the curriculum from general knowledge taught in general programmes and practical skills reserved for vocational studies, to more comprehensive programmes that include both types of learning, leading to more flexible pathways into further education or the labour market.

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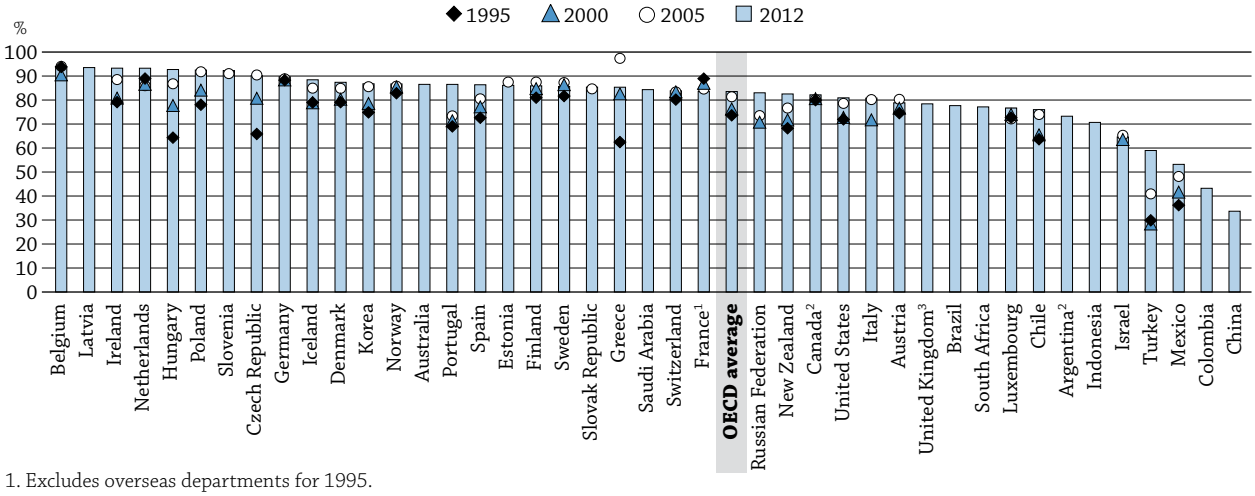
Based on 2012 data, enrolment rates among 15-19 year-olds, i.e. those typically in upper secondary programmes or in transition to upper levels of education, reached at least 80% in 29 of the 42 OECD and partner countries with available data, and were around 90% or higher in Belgium, the Czech Republic, Germany, Hungary, Ireland, Latvia, the Netherlands, Poland and Slovenia (Table C1.1a). By contrast, the proportion of people in this age group who were not enrolled in education exceeded 20% in Argentina, Austria, Brazil, Chile, Indonesia, Luxembourg, South Africa and the United Kingdom. In Israel this proportion was greater than 30%, due to conscription, while in Mexico and Turkey, this proportion exceeded 40%. In Colombia and China the proportion reached 57% and 66%, respectively (Table C1.1a and Chart C1.2).

Enrolment rates among 15-19 year-olds in OECD countries increased by 10 percentage points on average between 1995 and 2012. This was mostly due to a convergence of enrolment rates in OECD countries in the past 17 years. While the rates increased by more than 20 percentage points during this period in the Czech Republic, Greece, Hungary and Turkey, and by 17 percentage points or more in Mexico and Portugal, they have remained virtually unchanged in Belgium, Canada (data only up to 2011) and Germany (Table C1.2 and Chart C1.2). In contrast, a decrease in enrolment rates of more than 5 percentage points was observed in France over the same period.

Chart C1.2. Enrolment rates of 15-19 year-olds (1995, 2000, 2005 and 2012)

Full-time and part-time students in public and private institutions



1. Excludes overseas departments for 1995.
2. Year of reference 2011.
3. Break in time series following methodological change from 2006.

Countries are ranked in descending order of the enrolment rates of 15-19 year-olds in 2012.

Source: OECD. Table C1.2. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933118314

In 2012, at least 85% of 15- and 16-year-olds in 38 of the 44 countries with available data were enrolled in secondary education (except in Indonesia and in the Russian Federation, where 80% and 69% of 16-year-olds, respectively, were enrolled). Enrolment rates for these ages varied more widely in other countries. For example, in Colombia, South Africa and Turkey, almost 80% of 15-year-olds were enrolled, whereas 67%, 83% and 72% of 16-year-olds, respectively, were enrolled. In China and Mexico, 57% and 66% of 15-year-olds, and 44% and 62% of 16-year-olds, respectively, were enrolled (Table C1.1b, available on line).

The variation in upper secondary enrolment rates reflects different completion requirements or age limits. For example, Belgium, Germany and Portugal allow older students to complete upper secondary education on a part-time basis. In the Netherlands, students older than 20 can participate in upper secondary vocational programmes. These policies, combined with other factors, such as longer programmes, grade repetition and late entry into the labour market or participation in education while employed, among others, have resulted in larger numbers of older students participating in upper secondary education (see Indicator A2). Consequently, in some OECD countries, around one in four to one in three 20-year-old is still enrolled in upper secondary education. This is the case in Denmark (33%), Germany (24%), Iceland (37%), Luxembourg (27%), the Netherlands (30%) and Switzerland (23%) (Table C1.1b, available on line).

Vocational education and training (VET) programmes

Many countries have recently renewed their interest in vocational education and training (VET) programmes, as these programmes are seen as effective in developing skills among those who would otherwise lack qualifications to ensure a smooth and successful transition into the labour market (OECD 2010a). Countries with well-established vocational and apprenticeship programmes have been more effective in holding the line on youth unemployment (see Indicator C5). At the same time, some consider vocational education a less attractive option than academic education; and some research suggests that participation in vocational education increases the risk of unemployment at later ages (Hanushek et al., 2011).

In most countries, a student who successfully completes an apprenticeship programme is usually awarded an upper secondary or post-secondary qualification. In some countries, it is possible to earn higher qualifications, like the Advanced Diploma awarded in Australia. Vocational programmes in OECD countries offer different combinations of vocational or pre-vocational studies along with apprenticeship programmes. Upper secondary students in many education systems can enrol in vocational programmes, but some OECD countries delay vocational training until students graduate from upper secondary education. For instance, while vocational programmes are offered as upper secondary education in Austria, Hungary and Spain, similar programmes are typically offered as post-secondary education in Canada (see Indicator A2).

In more than one-third of the countries for which 2012 data are available, the percentage of students who participated in pre-vocational or vocational programmes exceeded 50% of all students enrolled in upper secondary education – and this proportion was at least 70% in Austria, Belgium, the Czech Republic, Finland, the Netherlands and the Slovak Republic. In the other two-thirds of countries, more than 50% of upper secondary students are enrolled in general programmes rather than in VET. This proportion is larger than 80% in Argentina, Brazil, Canada, Korea, Mexico and South Africa. Only about one-fifth of the countries also offer pre-vocational courses at the upper secondary level. Among these, Colombia (24%), Ireland (31%) and the Russian Federation (24%) have significant proportions of students enrolled at this level (Table C1.3).

More than 50% of 15-19 year-olds in the Czech Republic is enrolled in VET programmes at the upper secondary level, while more than 40% of this age group in Austria, Belgium, Italy, the Slovak Republic and Slovenia are.

In most countries, vocational education at the upper secondary level is school-based only. However, in a number of countries a programme that combines both school and work is also offered. Some 60% of all upper secondary students in Switzerland are enrolled in these combined vocational programmes as are more than 30% of all upper secondary students in Austria, the Czech Republic, Denmark, Germany and the Slovak Republic (Table C1.3).

Participation of young adults in education

In 2012, an average of 28% of 20-29 year-olds in OECD countries were enrolled in some type of education. The largest proportions of this age group enrolled in education (more than 40%) were found in Denmark, Finland, Greece and Iceland. In Australia, Belgium, Germany, Korea, the Netherlands, Poland, Slovenia and Sweden, the proportion exceeded 30%. Meanwhile, in Colombia, Indonesia, Luxembourg, Mexico and South Africa, less than 15% of young adults in this age group were enrolled (Table C1.1a and Chart C1.1).

From 1995 to 2012, the enrolment rate for this segment of the population has grown by 10 percentage points on average across OECD countries. In the Czech Republic, Greece, Hungary, Iceland, Korea and Turkey, these rates have increased by more than 15 percentage points during this period, while they have grown by equal or less than five percentage points in Canada (data only up to 2011), France, Mexico, Norway and Portugal (Table C1.2 and Chart C1.1).

In most of the countries analysed, 20-year-olds are typically enrolled in tertiary education. In 2012, nearly 38% of 20-year-olds in OECD countries were enrolled in tertiary education, on average. In Korea, seven in ten 20-year-olds were enrolled in this level of education, whereas in Belgium, Greece, Ireland, the Russian Federation, Slovenia and the United States, at least one in two people of this age were enrolled. By contrast, 20% or less of 20-year-olds in Brazil, Israel, Luxembourg, South Africa and Switzerland were enrolled in tertiary education (Table C1.1b, available on line).

Returning to or continuing studies is an option for adults who want to improve and diversify their skills and make themselves more adaptable to the changing demands of the labour market. In the current context of high unemployment and changing skills needs in the labour market, some countries, such as Chile, have established specific policies to encourage adults to follow tertiary-type B studies.

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Gender differences

Recent studies have emphasised the importance of having a more balanced approach to gender, given that half of the economic growth in OECD countries over the past 50 years can be attributed to higher educational attainment, which, in turn, has been achieved mainly because more girls and women are participating in all levels of education (OECD 2012*c*).

In 2012, an average of 82% of 15-19 year-old young men and 85% of young women the same age across OECD countries were enrolled in education. In most OECD and partner countries, enrolment rates were higher for young women than for young men in this age group. The widest gender gap at this age was found in Argentina, where 80% of young women and only 67% of young men were enrolled in education. Ireland, Israel and New Zealand show a gender gap in enrolment rates of more than five percentage points in favour of young women. A gender gap in enrolment rates that favours young men is observed in Saudi Arabia, Switzerland and Turkey, with a difference of more than two percentage points in each. In Colombia, Denmark, Finland, Hungary, Mexico and Sweden, there is little, if any, gender gap for this age group.

Among 20-29 year-olds, the gender gap in enrolment rates is similar. On average, 30% of women and 27% of men this age participate in education in OECD countries. As with 15-19 year olds, the enrolment rate among women is higher than that among men in most OECD and partner countries, but in fewer countries than observed for the younger cohort. There are also larger differences within countries. In Argentina, for instance, 34% of women are enrolled while only 22% of men are. In Argentina, Slovenia and Sweden, the enrolment rate for women is at least 11 percentage points higher than that for men. In Korea, the 15 percentage-point difference in favour of men's enrolment rates compared with women's enrolment rates in 2012 is linked to delayed graduation among men completing their mandatory military service.

In most countries, enrolment rates among 30-39 year-olds are also higher among women than men. Australia, Finland, Iceland, New Zealand and Sweden have the highest rates of women of this age participating in education, with Iceland and Sweden showing the widest gender gap (at least six percentage points) (Table C1.1a).

Part-time studies

Students in tertiary education are more likely to enrol full time rather than part time, regardless of their choice of programme (tertiary-type A or B). Students may opt for part-time studies because they may also participate in the labour market at the same time, because of family constraints (particularly for women), because of preferences for different fields of education, or for other reasons. In 2012, 74% of students enrolled in tertiary-type B education were enrolled full time, while only 26% were enrolled part time, on average across OECD countries. In tertiary-type A and advanced research programmes, 79% of students were enrolled full time while 21% were enrolled part time (Table C1.4).

Part-time enrolment in tertiary-type B programmes exceeded full-time enrolment in some countries. In Australia, New Zealand and the United States, more than 50% of students at this level chose part-time enrolment; in Switzerland and the United Kingdom, around 70% of students did.

Meanwhile, more than 50% of students in tertiary-type A and advanced programmes in Poland, the Russian Federation and Sweden chose to enrol part time – far more than the OECD average of 21%. In Argentina, Finland, Hungary, New Zealand, the Slovak Republic, Spain and the United States, more than 30% of students at these levels of education also chose part-time enrolment.

The relative size of the public and private sectors

(See also the new Indicator C7 for more detailed information)

In most countries, public institutions provide most education, from primary through tertiary levels. On average across OECD countries in 2012, around 89% of primary students, 85% of lower secondary students and 80% of upper secondary students were enrolled in public schools. Some 97% of all lower secondary students and 95% of all upper secondary students attended either public or government-dependent private institutions.

Enrolments of students in independent private educational institutions increase at higher levels of education. For example, an OECD average of around 3% of primary and lower secondary students are enrolled in fully private institutions, whereas slightly more than 5% of upper secondary students are. The proportions of students enrolled in independent private institutions at the tertiary level are considerably larger. On average, some 19% of students enrolled in tertiary-type B programmes and 14% of students enrolled in tertiary-type A and advanced research

programmes are enrolled in fully private institutions. When considering fully private and government-dependent private tertiary institutions together, around 42% of students are enrolled in type B programmes and at least 30% of students are enrolled in type A and advanced research programmes (Table C1.5, available on line).

The United Kingdom is the only country reporting that 100% of students in tertiary-type B programmes and in tertiary-type A and advanced research programmes are enrolled in government-dependent private institutions (Table C1.5, available on line).

Definitions

Programmes at the secondary level can be subdivided into three categories, based on the degree to which they are oriented towards a specific class of occupations or trades and lead to a qualification that is relevant to the labour market:

In **combined school- and work-based programmes**, less than 75% of the curriculum is presented in the school environment or through distance education. These programmes can be organised in conjunction with education authorities or institutions and include apprenticeship programmes that involve concurrent school-based and work-based training, and programmes that involve alternating periods of attendance at educational institutions and participation in work-based training (sometimes referred to as "sandwich" programmes).

General education programmes are not explicitly designed to prepare participants for specific occupations or trades, or for entry into further vocational or technical education programmes (less than 25% of programme content is vocational or technical).

Pre-vocational or **pre-technical education programmes** are mainly designed to introduce participants to the world of work and to prepare them for entry into further vocational or technical education programmes. Successful completion of such programmes does not lead to a vocational or technical qualification that is directly relevant to the labour market (at least 25% of programme content is vocational or technical).

The degree to which a programme has a vocational or general orientation does not necessarily determine whether participants have access to tertiary education. In several OECD countries, vocationally oriented programmes are designed to prepare students for further study at the tertiary level, and in some countries general programmes do not always provide direct access to further education.

In **school-based programmes**, instruction takes place (either partially or exclusively) in educational institutions. These include special training centres run by public or private authorities or enterprise-based special training centres if these qualify as educational institutions. These programmes can have an on-the job training component involving some practical experience at the workplace. Programmes are classified as school-based if at least 75% of the programme curriculum is presented in the school environment. This may include distance education.

Vocational and pre-vocational programmes are further divided into two categories (school-based and combined school- and work-based programmes) based on the amount of training provided in school as opposed to the workplace.

Vocational or technical education programmes prepare participants for direct entry into specific occupations without further training. Successful completion of such programmes leads to a vocational or technical qualification that is relevant to the labour market.

Many countries classify student's mode of participation in education as full-time or part-time depending on which measure for student's study load is used, for example through academic value/progress, time in classroom, or time commitment. According to time commitment the following definitions apply:

Full-time student is one whose commitment of study time (both institution and non-institution based) represents 75% or more of the school week, as it applies locally at that level of education and if they would normally be expected to be in the programme for the entire school academic year.

Part-time student is one whose commitment is less that 75% of the school week or a student who is expected to be in the programme for less that the full school year.

Methodology

Data on enrolments are for the school year 2011/12 and are based on the UOE data collection on education systems administered annually by the OECD. Except where otherwise noted, figures are based on head counts; that is, they do not distinguish between full-time and part-time study because the concept of part-time study is not recognised

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by some countries. In some OECD countries, part-time education is only partially covered in the reported data. Net enrolment rates, expressed as percentages in Tables C1.1a and C1.2, are calculated by dividing the number of students of a particular age group enrolled in all levels of education by the size of the population of that age group. In Table C1.1b, available on line, the net enrolment rate is calculated for students at a particular level of education.

In Table C1.2, data on trends in enrolment rates for the years 1995, 2000, 2001, 2002, 2003 and 2004 are based on a special survey carried out in January 2007 among OECD countries and four of six partner countries at the time (Brazil, Chile, Israel and the Russian Federation).

Expected years in education are calculated as the proportion of the population enrolled at specific ages summed over an age range. The main assumption is that every year of full enrolment would correspond to a full year of expected education for an individual below that age.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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Tables of Indicator C1

StatLink http://dx.doi.org/10.1787/888933118181

	Table C1.1a	Enrolment rates in education, by age groups (2012)
WEB	Table C1.1b	Transition characteristics from age 15-20, by level of education (2012)
	Table C1.2	Trends in enrolment rates (1995-2012)
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	Table C1.6	Expected years in education from age 5 through age 39 (2012)

C1

Table C1.1a. Enrolment rates in education, by age groups (2012)

Full-time and part-time students in public and private institutions

		Starting age of compulsory education	Ending age of compulsory education	Number of years at which over 90% of the population of school age are enrolled	Age range at which over 90% of the population of school age are enrolled	Students as a percentage of the population of a specific age group						
						Age 2 and under[1]	Ages 3 and 4	Ages 5-14	Ages 15-19 M+W	Ages 20 -29 M+W	Ages 30-39 M+W	Ages 40 and over
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(11)	(14)	(17)
OECD	Australia	6	17	**12**	5 - 16	a	47	*100*	87	35	14	5
	Austria	6	15	**13**	4 - 16	5	78	98	79	26	6	1
	Belgium	6	18	**16**	3 - 18	17	99	99	94	33	9	4
	Canada[2]	6	16-18	**13**	5 - 17	a	m	99	82	26	6	1
	Chile	6	18	**10**	6 - 15	n	62	94	76	28	5	1
	Czech Republic	6	15	**13**	5 - 17	6	70	99	90	26	4	1
	Denmark	6	16	**15**	3 - 17	n	97	99	87	43	9	2
	Estonia	7	16	**13**	5 - 17	n	89	95	86	29	7	1
	Finland	7	16	**13**	6 - 18	n	55	96	86	42	16	3
	France	6	16	**14**	3 - 16	4	99	99	84	21	3	x(14)
	Germany	6	18	**15**	3 - 17	8	93	99	90	33	4	n
	Greece	5	14-15	**14**	5 - 17	n	26	99	85	42	3	n
	Hungary	5	18	**14**	4 - 17	3	84	98	93	27	4	1
	Iceland	6	16	**14**	3 - 16	a	96	99	88	41	14	3
	Ireland	6	16	**15**	4 - 18	n	69	*100*	93	22	4	1
	Israel	5	17	**13**	4 - 16	n	89	98	65	22	6	1
	Italy	6	16	**14**	3 - 16	5	94	99	81	21	3	n
	Japan	6	15	**14**	4 - 17	n	86	*100*	m	m	m	m
	Korea	6	14	**11**	6 - 17	37	86	99	87	31	2	n
	Luxembourg[3]	4	16	**12**	4 - 15	2	85	98	77	13	1	n
	Mexico	4	15	**9**	5 - 13	n	63	*100*	53	13	4	1
	Netherlands	5	18	**15**	4 - 18	n	91	100	93	36	5	2
	New Zealand	5	16	**13**	4 - 16	n	91	*100*	83	29	11	4
	Norway	6	16	**15**	3 - 17	a	96	99	87	30	7	2
	Poland	5	16	**14**	5 - 18	2	58	96	92	31	5	x(14)
	Portugal	6	18	**14**	4 - 17	n	85	*100*	87	24	6	2
	Slovak Republic	6	16	**12**	6 - 17	3	68	94	85	21	4	1
	Slovenia	6	14	**14**	5 - 18	n	87	97	92	34	4	1
	Spain	6	16	**15**	3 - 17	31	96	98	86	28	5	1
	Sweden	7	16	**16**	3 - 18	a	93	99	86	36	14	3
	Switzerland	5-7	15	**12**	5 - 16	n	22	99	84	25	4	1
	Turkey	6	14	**8**	6 - 13	n	12	95	59	24	4	1
	United Kingdom	4-5	16	**14**	3 - 16	3	95	98	78	19	7	2
	United States	4-6	17	**12**	5 - 16	m	52	97	81	27	6	1
	OECD average	6	16	**13**	4 - 16	4	76	98	83	28	6	1
	EU21 average	6	16	**14**	4 - 16	4	82	98	87	29	6	1
Partners	Argentina[2]	5	17	**11**	5 - 15	n	57	*100*	73	28	9	2
	Brazil	6	17	**11**	6 - 16	9	49	95	78	22	8	2
	China	m	m	**2**	13 - 14	n	n	27	34	n	m	m
	Colombia	5	15	**7**	7 - 13	1	61	91	43	m	m	m
	India	m	m	**5**	6 - 10	n	3	80	m	m	m	m
	Indonesia	7	15	**8**	6 - 15	n	15	87	71	12	n	n
	Latvia	5	16	**14**	5 - 18	n	83	98	94	28	4	1
	Russian Federation	7	17	**11**	7 - 17	18	73	93	83	21	4	n
	Saudi Arabia	6	11	**4**	9 - 15	m	m	79	84	20	1	n
	South Africa	7	15	**7**	10 - 16	m	n	77	77	9	2	1
	G20 average	m	m	**10**	6-15	6	54	91	75	21	5	1

Note: Ending age of compulsory education is the age at which compulsory schooling ends. For example, an ending age of 18 indicates that all students under 18 are legally obliged to participate in education. Mismatches between the coverage of the population data and the enrolment data mean that the participation rates may be underestimated for countries such as Luxembourg that are net exporters of students and may be overestimated for those that are net importers. Rates above 100% in the calculation are shown in italics. Enrolment rates by gender for the 15-19, 20-29 and 30-39 year-old age groups are available for consultation on line (see *StatLink* below).

1. Includes only institution-based pre-primary programmes. These are not the only form of effective early childhood education available below the age of 3, therefore inferences about access to and quality of pre-primary education and care should be made with caution. In countries where an integrated system of pre-primary and care exists enrolment rate is noted as not applicable for children aged 2 and under.

2. Year of reference 2011.

3. Underestimated because many resident students go to school in the neighbouring countries.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C1.2. Trends in enrolment rates (1995-2012)

Full-time and part-time students in public and private institutions

		15-19 year-olds						20-29 year-olds					
		Students as a percentage of the population of this age group						Students as a percentage of the population of this age group					
		1995	2000	2005	2010	2011	2012	1995	2000	2005	2010	2011	2012
OECD	Australia	81	82	82	81	84	87	23	28	33	32	33	35
	Austria	75	77	80	78	78	79	16	18	19	25	25	26
	Belgium	94	91	94	93	94	94	24	25	29	30	32	33
	Canada	80	81	80	81	82	m	22	23	26	25	26	m
	Chile	64	66	74	75	76	76	m	m	m	25	27	28
	Czech Republic	66	81	90	90	90	90	10	14	20	24	25	26
	Denmark	79	80	85	85	87	87	30	35	38	38	41	43
	Estonia	m	m	87	87	87	86	m	m	27	28	29	29
	Finland	81	85	87	87	87	86	28	38	43	42	42	42
	France	89	87	85	84	84	84	19	19	20	20	20	21
	Germany	88	88	89	89	92	90	20	24	28	31	32	33
	Greece	62	82	97	83	84	85	13	16	24	40	40	42
	Hungary	64	78	87	92	92	93	10	19	24	25	26	27
	Iceland	79	79	85	88	87	88	24	31	37	38	39	41
	Ireland	79	81	89	96	93	93	14	16	21	21	21	22
	Israel	m	64	65	65	64	65	m	m	20	22	22	22
	Italy	m	72	80	83	81	81	m	17	20	21	21	21
	Japan	m	m	m	m	m	m	m	m	m	m	m	m
	Korea	75	79	86	86	86	87	15	24	27	30	30	31
	Luxembourg	73	74	72	77	m	77	m	5	6	13	m	13
	Mexico	36	42	48	54	56	53	8	9	11	12	12	13
	Netherlands	89	87	86	91	93	93	21	22	26	30	35	36
	New Zealand	68	72	77	81	81	83	17	23	32	30	29	29
	Norway	83	86	86	86	86	87	25	28	29	29	30	30
	Poland	78	84	92	93	93	92	16	24	31	30	30	31
	Portugal	69	71	73	86	87	87	22	22	22	24	24	24
	Slovak Republic	m	m	85	85	85	85	m	m	16	21	21	21
	Slovenia	m	m	91	92	92	92	m	m	32	34	34	34
	Spain	73	77	81	84	86	86	21	24	22	24	26	28
	Sweden	82	86	87	86	86	86	22	33	36	36	37	36
	Switzerland	80	83	83	85	85	84	15	19	22	24	25	25
	Turkey	30	28	41	56	64	59	7	5	10	20	21	24
	United Kingdom	m	m	m	77	78	78	m	m	m	18	19	19
	United States	72	73	79	82	80	81	19	20	23	26	27	27
	OECD average	74	76	81	83	84	84	18	22	25	27	28	28
	OECD average for countries with data available for all reference years	73	77	81	83	85	84	18	22	26	28	29	30
	EU21 average	78	81	86	87	87	87	19	22	25	27	29	29
Partners	Argentina	m	m	m	73	73	m	m	m	m	28	28	m
	Brazil	m	m	m	76	77	78	m	m	m	20	21	22
	China	m	m	m	33	34	34	m	m	m	m	m	m
	Colombia	m	m	m	m	m	43	m	m	m	m	m	m
	India	m	m	m	m	m	m	m	m	m	m	m	m
	Indonesia	m	m	m	60	67	71	m	m	m	m	10	12
	Latvia	m	m	m	m	m	94	m	m	m	m	m	28
	Russian Federation	m	71	74	m	78	83	m	m	19	m	22	21
	Saudi Arabia	m	m	m	87	m	84	m	m	m	19	m	20
	South Africa	m	m	m	m	m	77	m	m	m	m	m	9
	G20 average	m	m	m	74	74	75	m	m	m	m	m	m

Note: Columns showing years 2001, 2002, 2003, 2004, 2006, 2007, 2008 and 2009 are available for consultation on line (see *StatLink* below).

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933118219

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Table C1.3. Upper secondary and post-secondary non-tertiary enrolment patterns (2012)

Enrolment rates in public and private institutions, by programme orientation, age group, and intensity

		Upper secondary education							Post-secondary non-tertiary education						
		Share of students by programme orientation				Enrolment rates in pre-vocational and vocational among 15-19 year-olds			Share of students by programme orientation				Enrolment rates in pre-vocational and vocational among 15-24 year-olds		
		General	Pre-vocational	Vocational	Vocational, combined school- and work-based only	Full-time + part-time	Part-time	of which combined work- and school-based	General	Pre-vocational	Vocational	Vocational, combined school- and work-based only	Full-time + part-time	Part-time	of which combined work- and school-based
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(11)	(12)	(13)	(14)	(15)	(16)	(17)
OECD	Australia	**50**	a	50	m	**9**	7	m	**a**	a	100	m	**2**	2	m
	Austria	**25**	6	70	34	**46**	m	21	**a**	a	100	19	**6**	m	1
	Belgium	**27**	a	73	3	**40**	3	2	**1**	a	99	21	**3**	1	1
	Canada[1]	**94**	x(3)	6	a	**m**	m	m	**m**	m	m	m	**m**	m	m
	Chile	**68**	a	32	m	**20**	x(5)	m	**a**	a	a	a	**a**	a	a
	Czech Republic	**27**	n	73	32	**51**	n	22	**44**	n	56	8	**2**	n	n
	Denmark	**54**	a	46	44	**14**	n	14	**100**	a	a	a	**a**	a	a
	Estonia	**66**	a	34	n	**18**	n	n	**a**	a	100	4	**3**	n	n
	Finland	**30**	a	70	11	**30**	a	m	**a**	a	100	71	**n**	a	m
	France	**56**	a	44	12	**25**	n	7	**37**	n	63	2	**n**	m	n
	Germany	**52**	a	48	42	**18**	a	m	**15**	a	85	m	**5**	a	m
	Greece	**67**	a	33	a	**16**	1	a	**a**	a	100	a	**1**	n	m
	Hungary	**73**	8	19	19	**20**	n	14	**a**	a	100	a	**5**	1	a
	Iceland	**66**	2	31	14	**15**	2	6	**n**	n	100	16	**n**	n	n
	Ireland	**68**	31	1	a	**15**	n	a	**a**	a	100	14	**7**	1	1
	Israel	**61**	a	39	4	**22**	n	2	**m**	100	a	a	**n**	n	a
	Italy	**41**	a	59	a	**42**	n	a	**a**	a	100	a	**m**	m	a
	Japan	**77**	1	22	a	**13**	n	a	**a**	a	a	a	**m**	m	a
	Korea	**81**	a	19	a	**11**	n	a	**a**	a	a	a	**a**	a	a
	Luxembourg	**39**	a	61	14	**35**	n	8	**a**	a	100	100	**1**	n	n
	Mexico	**91**	a	9	a	**3**	n	a	**a**	a	a	a	**a**	a	a
	Netherlands	**30**	a	70	18	**29**	n	8	**a**	a	100	94	**n**	n	n
	New Zealand	**73**	6	22	a	**7**	4	a	**21**	n	78	a	**3**	2	a
	Norway	**48**	a	52	15	**30**	n	9	**13**	a	87	n	**1**	n	a
	Poland	**52**	a	48	7	**32**	1	5	**a**	a	100	a	**4**	3	a
	Portugal	**56**	3	41	a	**22**	m	a	**a**	a	100	a	**1**	m	a
	Slovak Republic	**30**	a	70	30	**48**	n	21	**a**	a	100	a	**n**	n	a
	Slovenia	**34**	a	66	n	**47**	1	n	**40**	a	60	n	**n**	n	n
	Spain	**54**	a	46	1	**13**	1	n	**a**	a	a	a	**a**	a	a
	Sweden	**51**	n	49	m	**30**	n	m	**15**	n	85	m	**1**	n	m
	Switzerland	**35**	a	65	60	**34**	n	32	**53**	a	47	1	**1**	n	n
	Turkey[2]	**56**	a	44	n	**22**	m	n	**a**	a	a	a	**a**	a	a
	United Kingdom	**61**	n	39	17	**19**	2	9	**a**	a	a	a	**a**	a	a
	United States	**m**	m	m	m	**m**	m	m	**a**	a	100	m	**m**	m	m
	OECD average	**54**	2	44	13	**25**	1	11	**34**	50	90	32	**2**	1	n
	EU21 average	**47**	2	50	14	**29**	n	7	**12**	n	78	18	**2**	n	n
Partners	Argentina[1]	**85**	a	15	a	**7**	n	a	**a**	a	a	a	**a**	a	a
	Brazil	**86**	a	14	a	**4**	x(5)	a	**a**	a	a	a	**a**	a	a
	China	**47**	x(3)	53	a	**m**	m	a	**71**	x(12)	29	a	**m**	a	a
	Colombia	**76**	24	x(2)	m	**6**	n	m	**a**	a	a	a	**a**	a	a
	India	**m**	m	m	m	**m**	m	m	**m**	m	m	m	**m**	m	m
	Indonesia	**57**	a	43	a	**18**	a	a	**a**	a	a	a	**a**	a	a
	Latvia	**61**	a	39	n	**23**	n	n	**a**	a	100	n	**1**	n	n
	Russian Federation	**49**	24	27	m	**m**	m	m	**a**	a	100	m	**m**	m	a
	Saudi Arabia	**m**	m	m	m	**m**	m	m	**a**	a	a	a	**m**	m	a
	South Africa	**91**	m	9	m	**m**	m	m	**m**	m	100	m	**m**	m	m
	G20 average	**67**	m	31	m	**m**	m	m	**41**	m	85	m	**m**	m	m

Notes: Different duration of upper secondary programmes between countries must be taken into account when comparing enrolment rates at this level of education. Columns showing enrolment rates in upper secondary vocational programmes for the 20-24 year-olds and in post-secondary non-tertiary vocational programmes for the 25-29 year-olds are available for consultation on line (see *StatLink* below).

Columns 7, 10, 17 and 20 are based on estimated numbers of students in combined school-work based programmes for the age groups of reference.

1. Year of reference 2011.

2. Excludes ISCED 3C.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933118238

Table C1.4. Percentage of students in primary, secondary and tertiary education, by mode of study and gender (2012)

		Primary and secondary		Tertiary-type B education				Tertiary-type A and advanced research programmes			
		Full-time	Part-time	Full-time	Part-time			Full-time	Part-time		
		M+W		M+W	M+W	Men	Women	M+W	M+W	Men	Women
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
OECD	Australia	**83**	17	**44**	56	54	57	**71**	29	28	31
	Austria	**100**	n	**m**	m	m	m	**m**	m	m	m
	Belgium	**80**	20	**62**	38	41	36	**81**	19	20	17
	Canada[1]	**100**	a	**88**	12	11	13	**77**	23	21	24
	Chile	**100**	m	**m**	m	m	m	**m**	m	m	m
	Czech Republic	**100**	n	**90**	10	10	9	**98**	2	2	3
	Denmark	**97**	3	**69**	31	27	36	**90**	10	9	11
	Estonia	**96**	4	**89**	11	13	9	**85**	15	18	13
	Finland	**100**	a	**100**	a	a	a	**56**	44	49	41
	France	**100**	m	**m**	m	m	m	**m**	m	m	m
	Germany	**100**	n	**87**	13	23	7	**86**	14	15	12
	Greece	**98**	2	**100**	a	a	a	**100**	a	a	a
	Hungary	**95**	5	**75**	25	22	27	**66**	34	30	37
	Iceland	**90**	10	**54**	46	61	23	**72**	28	25	31
	Ireland	**100**	n	**73**	27	23	32	**88**	12	11	12
	Israel	**100**	a	**100**	a	a	a	**83**	17	16	17
	Italy	**99**	1	**100**	a	a	a	**100**	a	a	a
	Japan	**99**	1	**97**	3	2	3	**91**	9	7	11
	Korea	**100**	a	**m**	m	m	m	**m**	m	m	m
	Luxembourg	**100**	n	**75**	25	31	20	**94**	6	m	m
	Mexico	**100**	a	**100**	a	a	a	**100**	a	a	a
	Netherlands	**97**	3	**50**	50	49	52	**82**	18	17	18
	New Zealand	**91**	9	**39**	61	58	65	**61**	39	37	40
	Norway	**99**	1	**50**	50	33	60	**72**	28	26	29
	Poland	**94**	6	**69**	31	31	32	**50**	50	47	52
	Portugal	**100**	m	**m**	m	m	m	**m**	m	m	m
	Slovak Republic	**99**	1	**80**	20	16	22	**67**	33	29	37
	Slovenia	**94**	6	**58**	42	43	40	**80**	20	19	20
	Spain	**91**	9	**93**	7	5	9	**69**	31	33	29
	Sweden	**83**	17	**91**	9	11	8	**49**	51	48	53
	Switzerland	**100**	n	**30**	70	77	62	**88**	12	14	10
	Turkey	**100**	m	**100**	n	n	n	**100**	n	n	n
	United Kingdom	**96**	4	**28**	72	71	73	**77**	23	21	24
	United States	**100**	a	**48**	52	52	53	**66**	34	32	36
	OECD average	**97**	4	**74**	26	26	26	**79**	21	20	22
	EU21 average	**96**	4	**77**	23	23	23	**79**	21	22	22
Partners	Argentina[1]	**100**	n	**94**	6	8	5	**53**	47	48	47
	Brazil	**100**	m	**m**	m	m	m	**m**	m	m	m
	China	**97**	3	**71**	29	30	27	**79**	21	21	20
	Colombia	**100**	a	**100**	a	a	a	**100**	a	a	a
	India	**m**	m	**m**	m	m	m	**m**	m	m	m
	Indonesia	**100**	a	**100**	a	a	a	**100**	a	a	a
	Latvia	**95**	5	**52**	48	50	46	**75**	25	23	26
	Russian Federation	**100**	n	**67**	33	37	30	**48**	52	49	54
	Saudi Arabia	**100**	n	**100**	n	n	n	**74**	26	33	19
	South Africa[2]	**59**	41	**100**	n	n	n	**100**	n	n	n
	G20 average	**96**	4	**82**	18	19	18	**82**	18	18	18

1. Year of reference 2011.
2. Year of reference 2011 for tertiary education.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933118257

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Table C1.6. Expected years in education from age 5 through age 39 (2012)

Expected years of education under countries' current education system (excluding education for children under the age of 5 and individuals aged over 40), by gender and mode of study

	Full-time							Part-time[1]							Full-time + part-time[1]
	All levels of education combined			Primary and lower secondary education	Upper secondary education	Post-secondary non-tertiary education	Tertiary education	All levels of education combined			Primary and lower secondary education	Upper secondary education	Post-secondary non-tertiary education	Tertiary education	All levels of education combined
	M+W	Men	Women	Men +Women				M+W	Men	Women	Men +Women				M+W
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
OECD															
Australia	**16**	16	16	11.1	1.9	0.1	2.7	**3.5**	3.5	3.2	0.6	1.2	0.4	1.0	**19.4**
Austria	**17**	17	17	8.0	3.8	0.6	3.1	**n**	n	n	n	n	n	n	**17.0**
Belgium	**16**	16	17	8.4	4.1	0.3	2.5	**2.6**	2.2	2.9	0.3	1.3	0.1	0.9	**18.9**
Canada[2]	**16**	15	16	12.5	x(4)	m	2.4	**1.7**	1.6	1.8	x(4)	x(4)	m	0.5	**17.2**
Chile[3]	**17**	16	17	8.0	3.8	a	3.8	**n**	n	n	n	n	a	n	**16.5**
Czech Republic	**18**	17	18	9.1	3.8	0.2	2.9	**0.5**	0.4	0.7	n	n	0.3	0.1	**18.1**
Denmark	**19**	19	19	10.6	3.8	n	3.4	**0.6**	0.5	0.7	n	0.3	n	0.3	**19.4**
Estonia	**17**	16	17	8.8	2.9	0.5	2.8	**0.8**	0.7	0.9	0.1	0.3	n	0.4	**17.5**
Finland	**18**	18	19	9.0	4.8	0.2	2.4	**1.6**	1.7	1.6	n	n	n	1.6	**19.7**
France[3]	**16**	16	17	9.2	3.3	0.1	2.9	**m**	m	m	m	m	m	m	**16.4**
Germany	**18**	18	18	10.1	3.1	0.6	2.6	**0.4**	0.5	0.4	n	n	n	0.4	**18.2**
Greece	**18**	18	19	9.1	3.2	0.1	5.0	**0.3**	0.4	0.2	0.1	0.2	n	n	**18.6**
Hungary	**16**	16	16	8.0	4.2	0.4	2.0	**1.2**	1.0	1.4	n	0.4	0.1	0.7	**17.6**
Iceland	**18**	17	18	9.9	4.1	0.1	2.7	**2.1**	1.8	2.3	n	1.2	0.1	0.8	**19.8**
Ireland	**17**	17	17	10.9	2.7	1.0	3.9	**0.5**	0.6	0.5	n	n	0.3	0.2	**17.6**
Israel	**15**	15	16	8.8	2.8	n	2.7	**0.4**	0.3	0.4	n	n	n	0.4	**15.8**
Italy	**17**	16	17	8.1	4.8	n	2.9	**0.1**	0.1	0.1	0.1	n	n	n	**16.8**
Japan	**16**	15	15	9.2	2.9	n	m	**0.4**	0.4	0.4	n	0.1	n	m	**16.3**
Korea[3]	**18**	18	17	9.0	2.9	a	4.7	**x(1)**	x(2)	x(3)	x(4)	x(5)	a	x(7)	**17.5**
Luxembourg[4]	**15**	15	15	9.4	3.8	0.1	0.8	**0.1**	0.1	0.1	n	n	n	0.1	**15.1**
Mexico[3]	**14**	14	14	10.1	2.0	a	1.5	**x(1)**	x(2)	x(3)	x(4)	x(5)	a	x(7)	**14.4**
Netherlands	**18**	18	18	10.4	3.5	n	3.1	**0.7**	0.7	0.7	n	0.2	n	0.4	**18.7**
New Zealand	**15**	15	16	10.2	2.9	0.2	2.1	**2.7**	2.5	2.9	n	0.9	0.4	1.4	**18.1**
Norway	**17**	17	17	10.0	3.6	0.1	2.3	**1.0**	0.8	1.2	n	0.1	0.1	0.8	**17.9**
Poland	**16**	15	16	8.9	3.0	0.1	1.9	**2.8**	2.3	3.4	n	0.5	0.5	1.7	**18.4**
Portugal[3]	**18**	18	18	10.2	3.4	0.1	2.9	**x(1)**	x(2)	x(3)	x(4)	x(5)	x(6)	x(7)	**17.6**
Slovak Republic	**15**	15	16	8.7	3.7	n	1.9	**0.8**	0.6	1.1	n	0.1	n	0.7	**16.3**
Slovenia	**17**	16	18	8.8	3.9	n	3.2	**1.4**	1.3	1.5	n	0.6	n	0.8	**18.4**
Spain	**16**	16	16	10.2	2.3	a	2.7	**1.4**	1.4	1.5	0.4	0.3	a	0.7	**17.6**
Sweden	**16**	16	17	9.1	3.2	0.2	1.8	**3.0**	2.4	3.7	0.7	1.0	n	1.3	**19.3**
Switzerland	**17**	17	17	9.5	3.5	0.1	1.9	**0.6**	0.7	0.5	n	n	n	0.5	**17.3**
Turkey[3]	**16**	17	16	8.7	3.7	a	3.4	**m**	m	m	m	m	a	m	**16.4**
United Kingdom	**15**	15	16	9.2	4.2	a	2.0	**1.0**	0.9	1.1	0.2	0.2	a	0.6	**16.4**
United States	**15**	15	16	8.9	2.8	m	2.8	**1.9**	1.6	2.2	n	n	m	1.5	**17.2**
OECD average	**17**	16	17	9.4	3.4	0.2	2.7	**1.2**	1.1	1.3	0.1	0.3	0.1	0.7	**17.6**
EU21 average	**17**	17	17	9.3	3.6	0.2	2.7	**1.0**	0.9	1.2	0.1	0.3	0.1	0.6	**17.8**
Partners															
Argentina[2]	**16**	15	16	11.0	2.4	a	m	**2.6**	2.2	3.0	n	n	a	m	**18.2**
Brazil[3]	**16**	16	17	9.8	3.1	a	2.1	**n**	n	n	n	n	a	n	**16.3**
China	**14**	14	14	9.4	2.4	m	1.1	**1.8**	1.7	1.9	n	0.3	m	m	**16.0**
Colombia	**14**	13	14	9.3	1.4	m	m	**a**	a	a	a	a	a	a	**13.5**
India	**m**	m	m	m	m	m	m	**m**	m	m	m	m	m	m	**13.4**
Indonesia	**13**	13	14	9.1	2.2	a	1.5	**n**	n	n	n	n	a	n	**13.5**
Latvia	**17**	16	17	9.2	3.0	0.1	2.3	**1.3**	1.2	1.5	0.1	0.4	n	0.8	**17.8**
Russian Federation[5]	**13**	13	13	8.5	2.1	x(5)	2.7	**3.3**	3.1	3.5	a	m	m	1.7	**m**
Saudi Arabia	**14**	14	14	9.0	3.0	a	1.9	**0.6**	0.7	0.4	m	n	a	0.6	**m**
South Africa	**m**	m	m	m	m	m	m	**m**	m	m	m	m	m	m	**m**
G20 average	**15**	15	16	9.6	2.9	m	2.5	**1.3**	1.2	1.4	m	0.2	m	m	**16.5**

1. Expected years in part-time education must be taken with caution since they may reflect variations due to different intensities of participation among countries, levels and individuals of different ages.
2. Year of reference 2011.
3. Full-time + part-time.
4. High levels of enrolment abroad and immigration may affect expected years in education.
5. Enrolments in ISCED 3B are included in indicators for tertiary education.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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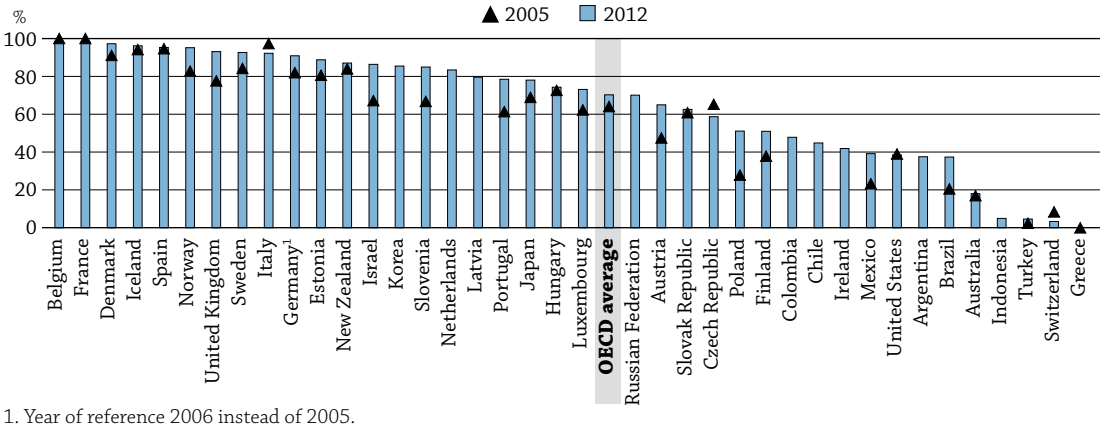
HOW DO EARLY CHILDHOOD EDUCATION SYSTEMS DIFFER AROUND THE WORLD?

- In many OECD countries, early childhood education services have expanded in tandem with the change in women's participation in the labour force. But improving access without also improving the quality of these services will not ensure good individual and social outcomes.
- Early childhood education is associated with better performance in school later on. Fifteen-year-old pupils who had attended at least one year of pre-primary education perform better on the OECD Programme for International Student Assessment (PISA) survey than those who did not, even after accounting for their socio-economic backgrounds.
- In a majority of OECD countries, education now begins for most children well before they are 5 years old. More than three-quarters of 4-year-olds (84%) are enrolled in early childhood education and primary education across OECD countries; among OECD countries that are part of the European Union, 89% of 4-year-olds are.
- In Belgium, Denmark, France, Germany, Iceland, Italy, Norway, Spain, Sweden and the United Kingdom, more than 90% of 3-year-olds are enrolled in early childhood education.

Chart C2.1. Enrolment rates at age 3 in early childhood education (2005 and 2012)



1. Year of reference 2006 instead of 2005.

Countries are ranked in descending order of the enrolment rates of 3 year-olds in 2012.

Source: OECD. Table C2.1. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Context

As family structures change, so do the relative ages of parents. More women and men are waiting until later in life to begin their families. They do so for a number of reasons, including planning for greater financial security and emotional maturity, taking more time to find a stable relationship, and committing to their careers before turning their attention to having children. As parents are also more likely to be in the workforce today, there is a growing need for early childcare. In addition, there is a growing awareness of the key role that early childhood education plays in the cognitive and emotional development of the young. As a result, ensuring the quality of early childhood education and care (ECEC) has become a policy priority in many countries.

Enrolling pupils in early childhood education can also mitigate social inequalities and promote better student outcomes overall. Many of the inequalities found in education systems are already evident when pupils enter formal schooling and persist as they progress through the school system (Downey et al., 2004). Because inequalities tend to grow when school is not compulsory, earlier entrance into the school system may reduce these inequalities. In addition, pre-primary education helps to prepare pupils to enter and succeed in formal schooling (Heckman, 2000).

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As countries continue to expand their early childhood education programmes, it will be important to consider parents' needs and expectations regarding accessibility, cost, programme and staff quality and accountability. When parents' needs for quality, accessibility or accountability are not met, some parents may be more inclined to send their children to private pre-primary institutions, childcare or extra-curricular activities. This can result in heavy financial burdens for parents, even when government subsidies are provided (Shin et al., 2009).

There are many different ECEC systems and structures within OECD countries. Consequently, there is also a range of different approaches to identifying the boundary between early childhood education and childcare (Box C2.1 and see *Definitions* section). These differences should be taken into account when drawing conclusions from international comparisons.

Other findings

- **Publicly-funded pre-primary education tends to be more strongly developed in the European than in the non-European countries of the OECD.** Private expenditure varies widely between countries, ranging from 5% or less in Belgium, Estonia, Latvia, Luxembourg and Sweden, to 25% or more in Argentina, Australia, Austria, Colombia, Japan, Korea, Spain and the United States.
- **As a percentage of GDP, expenditure on pre-primary education accounts for an average of 0.6% of GDP.** Differences between countries are significant. For example, while 0.1% of GDP is spent on pre-primary education in Australia, about 0.8% or more is spent in Chile, Denmark, Iceland, Latvia, Luxembourg, Slovenia, Spain and the Russian Federation.
- The ratio of pupils to teaching staff is also an important indicator of the resources devoted to pre-primary education. **The pupil-teacher ratio, excluding non-teaching staff (e.g. teachers' aides), ranges from more than 20 pupils per teacher in Chile, France, Indonesia, Israel, Mexico and Turkey, to fewer than 10 in Estonia, Iceland, New Zealand, Slovenia and Sweden.**
- **Some countries make extensive use of teachers' aides at the pre-primary level.** Twelve countries reported smaller ratios of pupils to contact staff than of pupils to teaching staff. As a result, the ratios of pupils to contact staff are substantially lower than the ratios of pupils to teaching staff (at least two fewer pupils) in Austria, Brazil, Chile, France, Germany, Indonesia, Israel and the United Kingdom.

Trends

Over the past decade, many countries have expanded pre-primary education programmes. This increased focus on early childhood education has resulted in the extension of compulsory education to lower ages in some countries, free early childhood education, universal provision of early childhood education and care, and the creation of programmes that integrate care with formal pre-primary education.

On average across those OECD countries with 2005 and 2012 data, enrolments in early childhood education programmes rose from 64% of 3-year-olds in 2005 to 71% in 2012, and similarly from 79% of 4-year-olds in 2005 to 84% in 2012. The enrolment rates of 4-year-olds in early childhood education programmes increased by 20 percentage points or more in Australia, Brazil and Poland between 2005 and 2012.

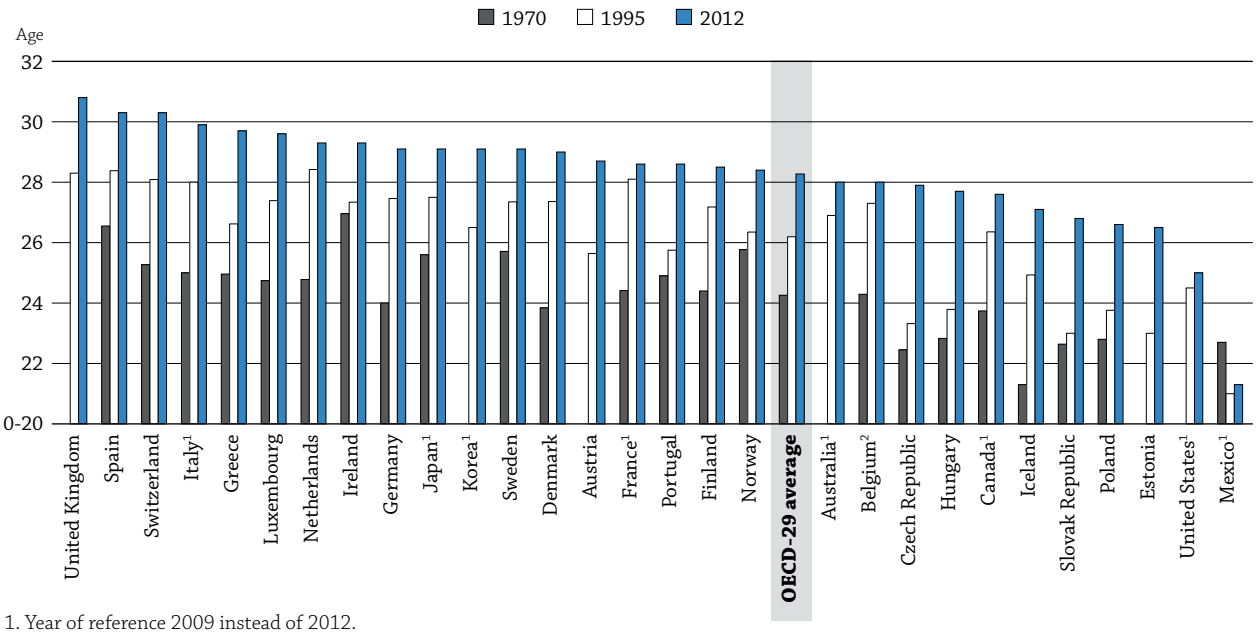
Analysis

In a majority of OECD countries, ECEC policy has paralleled the evolution of women's participation in the labour force. More and more women have become salaried employees since the 1970s, as the service- and knowledge-based economies expanded. Because economic prosperity depends on maintaining a high employment-to-population ratio, encouraging more women to enter the labour market has prompted greater government interest in expanding ECEC services. In the 1970s and 1980s, European governments, in particular, put family and childcare policies into place to encourage couples to have children and ensure that it is feasible for women to combine work and family responsibilities (OECD, 2013c; 2011a).

The average age at which mothers have their first child has risen across all OECD countries, except Mexico, over the past 40 years. In 1970, Iceland had the lowest average age of mothers giving birth to their first child: just over 21 years. But Iceland was not an outlier: of the 23 countries for which data are available, five other countries had an average age at first birth of under 23, and the average age across all countries was just over 24. By 1995, the age had risen to over 26, on average across OECD countries, and by 2012 it had risen again to 28. Despite this trend, there is still wide variation among countries. In 2012, Spain, Switzerland and the United Kingdom had the highest average age at first birth – older than 30. By contrast, Mexico had the lowest average age – just over 21 (Chart C2.2).

Chart C2.2. Trends in the age of first-time mothers (1970, 1995, 2012)

Average age at which mothers have their first child



1. Year of reference 2009 instead of 2012.
2. Year of reference 2010 instead of 2012.

Countries are ranked in descending order of the average age at which mothers have their first child in 2012.

Source: OECD (2014), OECD Family Database. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Enrolment in early childhood education

Early childhood education is the initial stage of organised instruction for many children and can play a significant role in their development. While primary and lower secondary enrolment patterns are fairly similar throughout OECD countries, there is significant variation in early childhood education programmes among OECD and other G20 countries. This includes the overall level of participation in programmes, the typical starting age for children, financing and programme length.

In most OECD countries, education now begins for most children well before they are 5 years old. More than three-quarters (84%) of 4-year-olds are enrolled in early childhood education and primary education programmes across OECD countries as a whole, rising to 89%, on average, in the OECD countries that are part of the European Union.

Enrolment rates for early childhood education and primary education at this age vary from over 95% in Belgium, Denmark, France, Germany, Iceland, Ireland, Italy, Luxembourg, the Netherlands, Norway, Spain and the United Kingdom, to less than 60% in Finland, Indonesia and Turkey. Greece and Switzerland also fall into this group, but because enrolment in integrated programmes is not reported for those countries, the true enrolment rate cannot be calculated and is likely to be higher than that reported here. In the two countries, the enrolment rates in early childhood education programmes are highest for children at the age of five (Table C2.1).

On average across OECD countries, 74% of the 15-year-old pupils assessed by the OECD Programme for International Student Assessment (PISA) survey reported that they had attended more than one year of pre-primary education. According to pupils' responses, enrolment in more than one year of pre-primary education was nearly universal about ten years ago in Belgium, France, Hungary, Iceland, Japan and the Netherlands, where over 90% of 15-year-olds reported that they had attended pre-primary education for more than one year. Pre-primary education is rare in Turkey, where fewer than 30% of 15-year-olds had attended pre-primary education for any period of time. More than one year of pre-primary education is uncommon in Australia, Chile, Ireland and Poland, where fewer than 52% of pupils had attended pre-primary education for that length of time (OECD, 2013a, Table IV.3.33).

Box C2.1. **The boundary between early childhood education and childcare**

There are many different early childhood education and care (ECEC) systems and structures within OECD countries. Consequently, there is also a range of different approaches to identifying the boundary between early childhood education and childcare. As the educational properties of ISCED 0 programmes can be difficult to assess directly, several proxy measures are used to come up with a technical definition. These include whether or not the programme is being delivered by qualified staff members, whether it takes place in an institutionalised setting, and the target age of children.

In order to help readers of *Education at a Glance* to interpret the early childhood education results, a number of examples of how countries define, in theory, and enforce, in practice, the boundary between early childhood education (ECE) and childcare in the data reported to the OECD are provided below.

For countries with ECE programmes that take place in institutional settings distinct from those that provide childcare, a valid reporting structure is straightforward to implement. In Belgium, for example, the different institutional settings are financed by different government ministries, which makes estimations unnecessary although the international comparability of how education is defined is still unclear (Figure 1).

For countries with programmes that combine an educational programme with childcare ("integrated" programmes), the education/childcare boundary becomes more challenging. OECD countries with integrated ECEC programmes often also have stand-alone programmes that are purely educational. Over half of OECD countries are unable, in practice, to distinguish between early childhood education and childcare in integrated programmes. Of these, most, including Italy, Denmark and the United States, choose to report all of the information under ISCED 0. A minority of countries do not include integrated programmes under ISCED 0 for reporting on personnel (Australia, Norway), expenditure (Korea) or overall reporting (Greece, Switzerland). These differences should be taken into account when drawing conclusions from international comparisons.

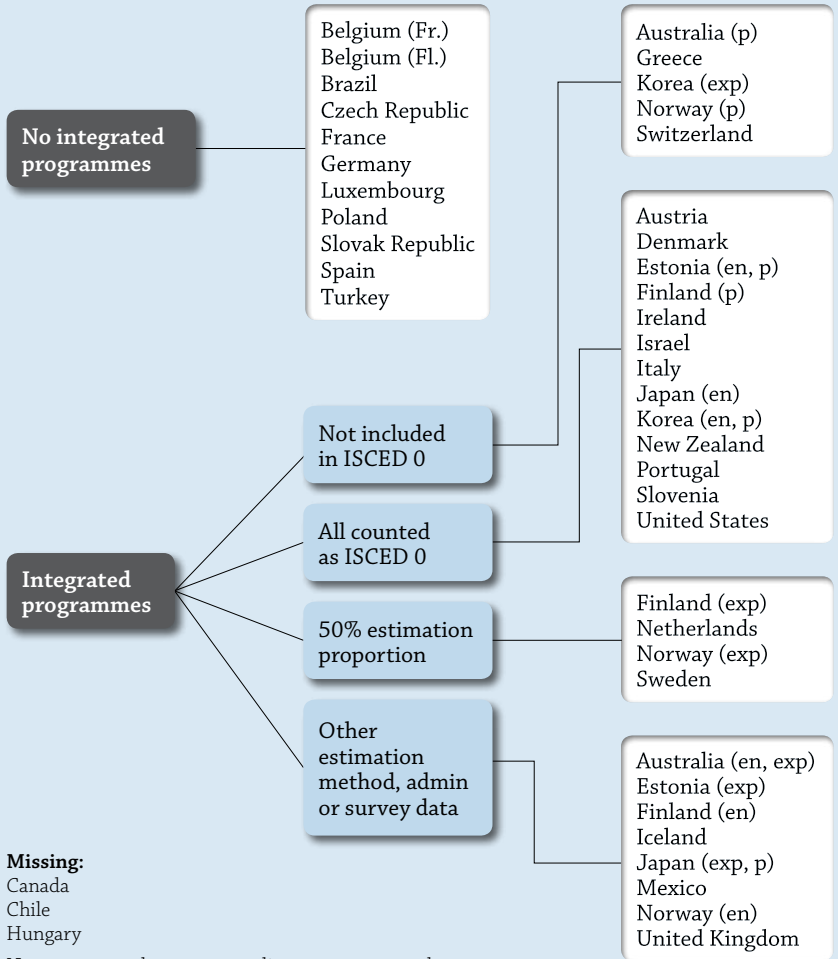
For countries with integrated programmes that do attempt to isolate the education component, a variety of estimation methods are used to isolate enrolments, expenditure and personnel. Some countries, such as the Netherlands, Norway and Sweden, choose to apply a simple 50/50 estimation method, whereby half of all enrolments, staff or expenditure are considered educational. Other countries rely on survey data, assign a different education/childcare split, or apply a more complicated estimation method. Finland, for example, weights expenditure on integrated programmes by the child's age, while Estonia uses an estimated expenditure proportion of 30%.

OECD countries are working together to improve methods of reporting statistics on early childhood education. The improvement, which will take into account the new international classification of ISCED programmes, will be implemented in *Education at a Glance* 2015.

...

Figure 1 diagrams early childhood education systems and approaches to reporting across OECD and partner countries. Country-specific information can be found in Annex 3 of this publication.

Figure 1. Diagrammatical representation of ISCED 0 systems and reporting across the OECD



Note: en = enrol; exp = expenditure; p = personnel

Notably, PISA analyses also find that in most countries, pupils who had attended at least one year of pre-primary education tend to perform better than those who had not, even after accounting for pupils' socio-economic background. PISA research also shows that the relationship between pre-primary attendance and performance tends to be stronger in school systems with a longer duration of pre-primary education, smaller pupil-to-teacher ratios in pre-primary education, and higher public expenditure per child at the pre-primary level (OECD 2013a, Table II.4.12).

Early childhood education programmes for even younger children are not as pervasive. In some countries, demand for early childhood education for children aged 3 and under far outstrips supply, even in countries that provide for long parental leave. The highest enrolment rates of 3-year-olds in early childhood education are found in Belgium, Denmark, France, Iceland, Italy, Norway, Spain, Sweden and the United Kingdom. In countries where public funding for parental leave is limited, many working parents must either look to the private market, where parents' ability to pay significantly influences access to quality services, or else rely on informal arrangements with family, friends and neighbours (Table C2.1 and *Starting Strong III* [OECD, 2011b]).

Some countries have made access to pre-primary education almost universal for children by the time they are three. The availability of early childhood education is growing quickly in most countries. On average across OECD countries with 2005 and 2012 data, enrolments rose from 64% of 3-year-olds in 2005 to 71% in 2012, and from 79% of 4-year-olds in 2005 to 84% in 2012. In Brazil and Poland, the enrolment rates among 4-year-olds increased by 20 percentage points or more during this period (Table C2.1).

Financing early childhood education

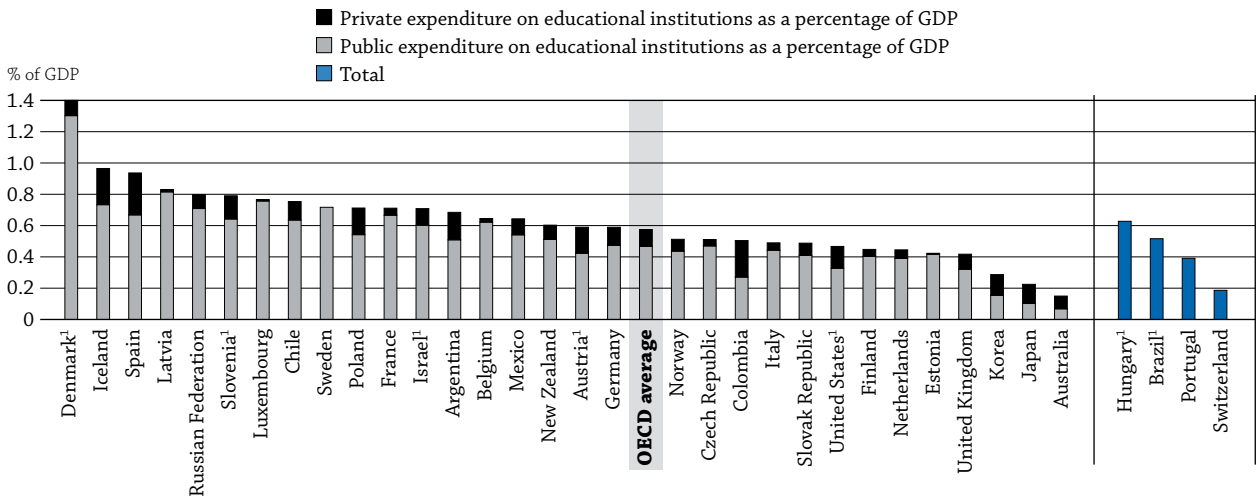
Sustained public funding is critical for supporting the growth and quality of early childhood education programmes. Appropriate funding helps to recruit professional staff who are qualified to support children's cognitive, social and emotional development. Investment in early childhood facilities and materials also helps support the development of child-centred environments for learning. In countries that do not channel sufficient public funding to cover both quantity and quality, some parents may be more inclined to send their children to private ECEC services, which implies heavy financial burdens (OECD, 2011b); others may prefer to stay home, which can hinder women's participation in the labour force (OECD, 2011a).

Public expenditure on pre-primary education is mainly used to support public institutions, but in some countries it also funds private institutions to varying degrees. On average across OECD countries, the level of public expenditure on public pre-primary institutions, per pupil, is around twice the level of public expenditure on private pre-primary institutions (USD 6 460 and USD 3 618, respectively) (see Table B3.4). At the pre-primary level, annual expenditure (from both public and private sources) per pupil for both public and private institutions averages USD 7 446 in OECD countries. However, expenditure varies from USD 2 500 or less in Argentina, Brazil, Indonesia and Turkey, to more than USD 10 000 in Australia, Denmark, Luxembourg, New Zealand and the United States (Table C2.2, and see Table B3.3 in Indicator B3).

Expenditure on pre-primary education accounts for an average of 0.6% of the collective GDP. Differences between countries are significant. For example, while 0.1% or less of GDP is spent on pre-primary education in Australia, 0.8% or more is spent in Chile, Denmark, Iceland, Latvia, Luxembourg, Slovenia, Spain and the Russian Federation (Table C2.2 and Chart C2.3). These differences are largely explained by enrolment rates, legal entitlements and costs, and the different starting age for primary education; they are also influenced by the extent to which this indicator covers private early childhood education. In Switzerland, the absence of data on integrated programmes is also likely to understate the true level of expenditure and enrolments in early childhood education programmes (see more details in Box C2.1), and may affect the comparability of the data to that of other countries. Inferences on access to and quality of ECEC should therefore be made with caution (Table C2.2 and Box C2.1).

Chart C2.3. Expenditure on early childhood educational institutions (2011)

As a percentage of GDP, by funding source



1. Includes some expenditure on childcare.

Countries are ranked in descending order of public and private expenditure on educational institutions.

Source: OECD. Table C2.2. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933118447

Publicly-funded pre-primary education tends to be more strongly developed in the European than the non-European countries of the OECD. In Europe, the concept of universal access to education for 3-6 year-olds is generally accepted. Most countries in this region provide all children with at least two years of free, publicly funded pre-primary education in schools before they begin primary education. With the exception of Ireland and the Netherlands, such access is generally a statutory right from the age of 3, and in some countries, even before then. Compared to primary, secondary and post-secondary non-tertiary education, pre-primary institutions obtain the largest proportion of funds (19%) from private sources. However, this proportion varies widely, ranging from 5% or less in Belgium, Estonia, Latvia Luxembourg and Sweden, to 25% or more in Argentina, Australia, Austria, Colombia, Japan, Korea, Spain and the United States (Table C2.2 and *Starting Strong II* [OECD, 2006]).

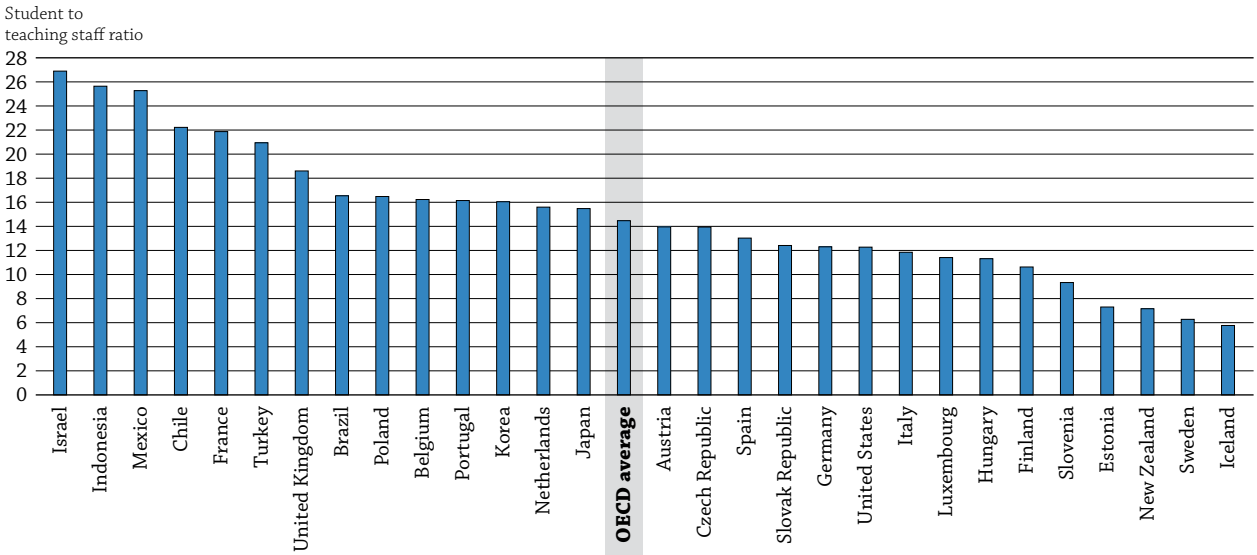
The pupil-teacher ratio varies considerably across OECD countries

Research demonstrates that enriched, stimulating environments and high-quality pedagogy are fostered by better-qualified practitioners, and that better-quality staff-child interactions facilitate better learning outcomes (Heckman, 2000; Shin et al., 2009). While qualifications are one of the strongest predictors of staff quality, the level of qualification tells only part of the story. Qualifications indicate how much specialised and practical training is included in initial staff education, what types of professional development and education are available to and taken up by staff, and how many years of experience staff have accumulated. In addition, working conditions can influence professional satisfaction, which is likely to affect the ability and willingness of professionals to build relationships and interact attentively with children (Shin et al., 2009). High turnover disrupts the continuity of care, undermines professional development efforts, lowers overall quality, and adversely affects child outcomes.

The ratio of pupils to teaching staff is also an important indicator of the resources devoted to education. That ratio is obtained by dividing the number of full-time equivalent pupils at a given level of education by the number of full-time equivalent teachers at that level and in similar types of institutions. However, this ratio does not take into account instruction time compared to the length of a teacher's working day, nor how much time teachers spend teaching. Therefore, it cannot be interpreted in terms of class size. The number of pupils per class summarises different factors, but distinguishing between these factors helps to identify differences in the quality of education systems (see Indicator D2).

Chart C2.4. Ratio of pupils to teaching staff in early childhood education (2012)

Public and private institutions, calculation based on full-time equivalents



Note: the figures should be interpreted with some caution because the indicator compares the teacher/student ratios in countries with "education-only" and "integrated education and daycare" programmes. In some countries, the staff requirements in these two types of provision are very different.

Countries are ranked in descending order of students to teaching staff ratios in early childhood education.

Source: OECD. Table C2.2. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933118466

Table C2.2 shows the ratio of pupils to teaching staff and also the ratio of pupils to contact staff (e.g. teachers and non-professional staff [teachers' aides]) in early childhood education. Some countries make extensive use of teachers' aides at the pre-primary level. Twelve OECD and G20 countries reported smaller ratios of pupils to contact staff (column 4 of Table C2.2) than of pupils to teaching staff. The ratios of pupils to contact staff are substantially lower in Austria, Brazil, Chile, France, Germany, Indonesia, Israel, the United Kingdom and the United States. On average across OECD countries, there are 15 pupils for every teacher in pre-primary education. The pupil-teacher ratio, excluding teachers' aides, ranges from more than 20 pupils per teacher in Chile, France, Indonesia, Israel, Mexico and Turkey, to fewer than 10 in Estonia, Iceland, New Zealand, Slovenia and Sweden (Table C2.2 and Chart C2.4).

Definitions

Early childhood education, or pre-primary education (ISCED 0), is the initial stage of *organised instruction*, designed primarily to introduce very young children to a school-like environment.

The distinction between programmes that are classified as ISCED 0 and programmes that are outside of the scope of ISCED 0 is based primarily on the *educational properties* of the programme. As the educational properties of these programmes are difficult to assess directly, several proxy measures are used. ISCED 0 programmes:

Include early childhood programmes that

- are in a centre or are school-based;
- are designed to meet the educational and development needs of children;
- are typically designed for children at least 3 years old and not older than 6; and
- have staff that are adequately trained (i.e. qualified) to provide an educational programme for the children;

Exclude early childhood programmes that fail to meet these criteria.

Education only programmes in early childhood education are those that primarily offer education services for a short period of the day. Working parents usually have to use additional care services in the morning and/or afternoon.

Integrated programmes in early childhood education are those that provide both early childhood education and care in the same programme.

Methodology

Two methods are used to classify pupils as full-time/part-time in *Education at a Glance*:

1. Based on national definitions for early childhood education programmes.
2. A proxy method, derived from the duration of the first grade in primary education (ISCED 1).

Though the classification method used by countries differs, the issue does not affect enrolment rates (Table C2.1), as these are based on the total number of enrolments as a proportion of the population, regardless of whether pupils are full time or part time. The differences in classification methods may have some effect on expenditure per pupil and the pupil-teacher ratio, as these data are based on full-time equivalent pupil figures.

The childcare component of integrated programmes is excluded from expenditure reporting in *Education at a Glance*, since the focus of ISCED 0 is on the educational aspects of the programme. Countries that are not able to remove childcare expenditure from data reported in *Education at a Glance* have been footnoted in Table C2.2. The amount of childcare expenditure included is likely to vary between countries and care should be taken when interpreting these results (see more details in Box C2.1).

Some variations at the national level cannot be presented, and information on the "characteristics of programmes" has been simplified in some cases. For example, in some countries, the starting age of early childhood education programmes differs among jurisdictions or regions. In these instances, the information that is the most common or typical is reported.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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Tables of Indicator C2

StatLink http://dx.doi.org/10.1787/888933118333

Table C2.1	**Enrolment rates in early childhood and primary education, by age (2005, 2012)**
Table C2.2	**Characteristics of early childhood education programmes (2011, 2012)**
Table C2.3	**Characteristics of education-only and integrated early childhood education programmes (2012)**

Table C2.1 Enrolment rates in early childhood and primary education, by age (2005, 2012)

		Enrolment rates (2012)										Enrolment rates (2005)									
		Age 3	Age 4			Age 5			Age 6			Age 3	Age 4			Age 5			Age 6		
		ISCED 0	ISCED 0	ISCED 1	Total	ISCED 0	ISCED 1	Total	ISCED 0	ISCED 1	Total	ISCED 0	ISCED 0	ISCED 1	Total	ISCED 0	ISCED 1	TOTAL	ISCED 0	ISCED 1	Total
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
OECD	Australia	18	74	1	76	16	86	100	n	100	100	17	51	2	53	18	72	91	n	100	100
	Austria	65	91	n	91	96	n	96	38	59	97	47	82	n	82	93	n	93	39	57	96
	Belgium	98	99	n	99	98	1	99	5	94	98	100	100	n	100	99	1	100	6	94	100
	Canada	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Chile	45	79	n	79	88	2	90	11	80	91	m	m	m	m	m	m	m	m	m	m
	Czech Republic	59	82	n	82	90	n	90	51	48	99	65	91	n	91	97	n	97	49	51	100
	Denmark[1]	97	98	n	98	96	2	98	8	91	99	91	93	n	93	84	n	84	95	3	98
	Estonia	89	89	n	89	91	n	91	78	14	91	81	84	n	84	88	n	88	100	12	100
	Finland	51	59	n	59	68	n	68	98	1	98	38	47	n	47	56	n	56	98	1	99
	France	98	100	n	100	100	1	100	1	98	100	100	100	n	100	99	1	100	2	94	96
	Germany[2]	91	96	n	96	97	n	97	33	64	98	82	93	n	93	93	n	93	38	58	96
	Greece	a	53	a	53	94	a	94	2	96	98	a	58	a	58	83	2	84	n	100	100
	Hungary	74	93	n	93	96	n	96	71	23	94	73	91	n	91	97	n	97	74	25	99
	Iceland	96	96	n	96	98	n	98	n	98	98	94	95	n	95	96	n	96	n	98	98
	Ireland	42	58	39	97	1	99	100	n	100	100	m	m	m	m	m	m	m	m	m	m
	Israel	86	92	n	92	96	n	97	13	84	97	67	84	n	84	93	n	94	13	81	95
	Italy	92	96	a	96	89	8	97	1	97	98	97	100	a	100	94	7	100	1	100	100
	Japan	78	94	a	94	95	a	95	a	100	100	69	95	a	95	99	a	99	a	100	100
	Korea	85	87	n	87	88	1	88	1	94	95	m	m	m	m	m	m	m	m	m	m
	Luxembourg[3]	73	98	n	98	93	5	98	5	93	98	62	96	n	96	92	3	95	3	97	100
	Mexico	39	87	n	87	83	28	100	1	100	100	23	70	a	70	88	10	98	1	100	100
	Netherlands	83	100	a	100	100	a	100	a	100	100	m	m	m	m	m	m	m	m	m	m
	New Zealand	87	94	n	94	3	96	99	n	100	100	84	94	n	94	3	97	100	n	100	100
	Norway	95	97	n	97	97	n	97	1	100	100	83	89	n	89	91	n	91	1	99	100
	Poland	51	65	a	65	94	x(9)	94	76	19	95	28	38	a	38	48	m	48	98	1	99
	Portugal	78	92	n	92	98	n	98	5	96	100	61	84	n	84	87	3	90	3	100	100
	Slovak Republic	63	73	n	73	81	n	81	40	50	91	61	74	n	74	85	n	85	40	54	94
	Slovenia	85	89	n	89	92	x(9)	92	6	93	99	67	76	n	76	84	n	84	4	96	100
	Spain	95	97	n	97	98	n	98	1	97	97	95	99	n	99	100	n	100	1	99	100
	Sweden	93	94	n	94	95	n	95	97	1	98	84	89	n	89	90	n	90	96	3	99
	Switzerland	3	40	n	40	94	1	96	54	44	99	8	38	n	39	90	1	91	60	40	100
	Turkey	5	19	n	19	70	n	70	n	96	96	2	5	n	5	23	8	32	n	83	83
	United Kingdom	93	61	37	98	1	97	98	n	98	98	78	60	32	92	n	100	100	n	100	100
	United States	38	66	n	66	87	5	93	21	77	98	39	68	n	68	87	6	93	18	80	98
	OECD average	70	82	2	84	81	13	94	22	76	98	64	77	1	79	77	11	88	29	70	99
	OECD average for countries with 2005 and 2012 data	71	82	1	84	83	11	94	24	74	98	64	77	1	79	77	11	88	29	70	99
	EU21 average	79	85	4	89	84	10	94	29	68	97	73	82	2	84	83	6	89	39	61	100
Partners	Argentina	38	77	n	77	100	n	100	n	100	100	m	m	m	m	m	m	m	m	m	m
	Brazil	37	61	n	61	82	n	83	54	37	91	21	37	n	37	62	1	63	63	21	83
	China	m	m	n	m	m	n	m	n	m	m	m	m	m	m	m	m	m	m	m	m
	Colombia	48	75	1	75	65	14	79	8	65	73	m	m	m	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Indonesia	5	25	n	25	41	4	46	24	72	97	m	m	m	m	m	m	m	m	m	m
	Latvia	80	87	n	87	96	n	96	92	5	97	m	m	m	m	m	m	m	m	m	m
	Russian Federation	70	77	a	77	80	n	80	72	12	84	m	m	a	m	m	n	m	m	23	m
	Saudi Arabia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m

Note: Enrolment rates at young ages should be interpreted with care; mismatches between the coverage of the population data and the enrolment data mean that the participation rates may be underestimated for countries such as Luxembourg that are net exporters of students and may be overestimated for those that are net importers.

1. Mandatory classes have been included in ISCED 1 as of 2011.
2. Year of reference 2006 instead of 2005.
3. Underestimated because a lot of resident students go to school in the neighbouring countries.

Source: OECD. Argentina, China, Colombia, Indonesia: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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C2

Table C2.2. Characteristics of early childhood education programmes (2011, 2012)

		Distribution of pupils in ISCED 0, by type of institution (2012)			Ratio of pupils to teaching staff in full-time equivalents (2012)		Expenditure on educational institutions (2011)				Characteristics of early childhood education programmes						
		Public	Government-dependant private	Independent private	Pupils to contact staff (teachers and teachers aides)	Pupils to teaching staff	Total expenditure (from public and private sources) as a % of GDP	Proportion of total expenditure from public sources	Proportion of total expenditure from private sources	Annual expenditure per student (in USD)	Earliest starting age	Usual starting age	Usual duration (in years)	Usual starting age in ISCED 1	Entry age for compulsory programmes (if applicable)	Length of compulsory programmes (if applicable)	Full-time (FT)/ Part-time (PT)
		ISCED 0	ISCED 0	ISCED 0	ISCED 0	ISCED 0	ISCED 0	ISCED 0	ISCED 0	ISCED 0	ISCED 0	ISCED 0	ISCED 0	ISCED 1	ISCED 0	ISCED 0	ISCED 0
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
OECD	Australia	22.0	78.0	n	m	m	0.1	45	55	10 734	3	4	1	5	a	a	PT
	Austria[1]	70.3	29.7	x(2)	9.6	13.9	0.6	72	28	8 933	3	3	3	6	5	1	FT
	Belgium	47.1	52.9	m	16.2	16.2	0.6	96	4	6 333	2.5	2.5	3 to 4	6	a	a	FT
	Canada[2]	m	m	m	m	m	m	m	m	m	m	m	m	6	m	m	m
	Chile	33.5	60.4	6.0	10.8	22.2	0.8	84	16	5 083	0.25	4	2	m	a	a	FT/PT
	Czech Republic	97.9	2.1	a	13.6	13.9	0.5	92	8	4 302	3	3	3	6	a	a	FT
	Denmark[1]	80.7	19.3	n	m	m	1.4	92	8	14 148	0	1	5	6	m	m	FT
	Estonia	96.7	a	3.3	m	7.3	0.4	98	2	2 618	0	3	4	7	m	m	FT
	Finland	91.5	8.5	a	m	10.6	0.4	90	10	5 700	0	a	a	7	a	a	FT
	France	87.2	12.5	0.4	14.5	21.9	0.7	94	6	6 615	2	2 to 3	3	6	a	a	FT
	Germany	34.9	65.1	x(2)	9.7	12.3	0.6	80	20	8 351	3	3	3	6	a	a	FT
	Greece	93.1	a	6.9	m	m	m	m	m	m	4	4	1 to 2	6	5	1	FT
	Hungary[1, 3]	92.6	7.4	a	m	11.3	0.6	m	m	4 564	2.5	3	3	7	5	1	FT
	Iceland	87.7	12.3	n	5.8	5.8	1.0	76	24	9 138	0	2	4	6	a	a	FT/PT
	Ireland	1.9	a	98.1	m	m	m	m	m	m	3	3	1	4 to 5	a	a	FT/PT
	Israel[1, 4]	90.9	a	9.1	12.8	26.9	0.7	85	15	4 058	3	3	3	6	3	3	FT
	Italy[3]	70.2	a	29.8	11.8	11.8	0.5	90	10	7 868	m	m	m	m	a	a	FT
	Japan	28.7	a	71.3	14.6	15.5	0.2	45	55	5 591	3	3	3	6	a	a	FT
	Korea	16.0	84.0	a	16.0	16.0	0.3	54	46	6 861	3.0	3 to 5	3.0	6.0	m	m	FT
	Luxembourg[3]	90.9	n	9.1	m	11.4	0.8	99	1	25 074	3	3	3	6	4	2	FT
	Mexico	86.1	a	13.9	25.3	25.3	0.6	84	16	2 568	3	4 to 5	3	6	3	3	FT
	Netherlands	70.1	a	29.9	14.0	15.6	0.4	88	12	8 020	3	3 to 4	2 to 3	6	5	1	FT
	New Zealand	1.4	98.6	n	m	7.2	0.6	85	15	11 088	0	3	2	5	a	a	FT/PT
	Norway	54.3	45.7	x(2)	m	m	0.5	85	15	7 283	0	1	5	6	a	a	FT/PT
	Poland[3]	84.3	1.3	14.4	m	16.5	0.7	76	24	6 409	2.5	3	4	7	6	1	FT
	Portugal[3]	53.2	30.4	16.5	m	16.1	0.4	m	m	5 674	3	3	3	6	a	a	FT
	Slovak Republic	95.9	4.1	n	12.3	12.4	0.5	84	16	4 653	2	3	3	6	a	a	FT
	Slovenia[1]	97.1	2.5	0.4	9.3	9.3	0.8	81	19	8 136	3	3	3	6	a	a	FT
	Spain	65.0	24.5	10.6	m	13.0	0.9	71	29	6 725	0	2 to 3	3 to 4	6	a	a	FT
	Sweden	82.9	17.1	n	6.2	6.3	0.7	100	n	6 915	0	2 to 3	4 to 5	7	a	a	FT/PT
	Switzerland[3, 5]	96.2	0.3	3.5	m	m	0.2	m	m	5 267	4	5	2	6	5	1	FT
	Turkey	90.5	a	9.5	m	20.9	0.2	m	m	2 412	3	5	1 to 3	6	a	a	FT
	United Kingdom	62.5	31.2	6.3	11.6	18.6	0.4	77	23	9 692	3	3	1.5	5	a	a	FT/PT
	United States[1, 6]	59.8	a	40.2	10.4	12.3	0.5	70	30	10 010	3	4	1	6	a	a	FT/PT
	OECD average	68.4	20.4	11.1	12.5	14.5	0.6	81.3	18.7	7 446							
	OECD total	-	-	-	-	-	0.5	-	-	7 047							
	EU21 average	74.6	14.7	10.7	11.3	13.1	0.6	80.3	19.7	7 933							
Partners	Argentina	68.1	24.7	7.2	m	m	0.7	74	26	1 979	m	m	m	m	m	m	FT
	Brazil[1]	71.0	a	29.0	12.2	16.5	0.5	m	m	2 349	0	1	5	6	4	2	FT
	China	50.5	49.5	x(2)	m	m	m	m	m	m	m	m	m	m	m	m	FT
	Colombia	78.5	a	21.5	m	m	0.5	54	46	3 491	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
	Indonesia	2.8	a	97.2	23.0	25.6	m	90	10	205	m	m	m	m	m	m	FT
	Latvia	94.9	a	5.1	m	m	0.8	98	2	4 359	m	m	m	m	m	m	m
	Russian Federation	99.1	a	0.9	m	m	0.8	89	11	m	m	m	m	m	m	m	m
	Saudi Arabia	59.3	40.7	x(2)	m	m	m	m	m	m	m	m	m	m	m	m	m
	South Africa	93.9	6.1	x(2)	m	m	m	m	m	m	m	m	m	m	m	m	m
	G20 average	59.3	23.1	17.6	14.4	17.0	0.5	74	26	5 854	m	m	m	m	m	m	m

1. Includes some expenditure on childcare.
2. ISCED 0 programmes are available in all 13 jurisdictions, and compulsory for students in two jurisdictions. Earliest starting age, typical starting age and duration of ISCED 0 programmes vary by jurisdiction.
3. Data on expenditure refers only to public institutions.
4. By recently enacted law, ISCED 0 programmes have been made compulsory and gratuitous nationwide. Implementation will gradually commence from 2013.
5. ISCED 0 programmes are compulsory for two years in some jurisdictions and only one year in others.
6. ISCED 0 programmes are compulsory in about one third of states.

Source: OECD. Argentina, China, Colombia, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C2.3 Characteristics of education-only and integrated early childhood education programmes (2012)

Existence and characteristics of education-only and integrated early childhood education programs
Proportion of enrolments in Education at a Glance *from "education-only" and "integrated early childhood education" programmes*

		Education-only programmes			Integrated programmes (includes education and childcare services)			Relative proportion of enrolments reported in *Education at a Glance* (%)		
		Exist nationally	Delivered by qualified teacher	Have a formal curriculum	Exist nationally	Delivered by qualified teacher	Have a formal curriculum	Education-only programmes	Integrated programmes	Total
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OECD	Australia	Yes	Yes	Yes	Yes	Yes	Yes	x(9)	x(9)	100
	Austria	Yes	Yes	Yes	Yes	Yes	No	3	97	100
	Belgium	Yes	Yes	Yes	No	a	a	100	a	100
	Canada	Yes	Yes	Yes	Yes	Yes	Yes	m	m	m
	Chile	Yes	Yes	Yes	Yes	Yes	Yes	x(9)	x(9)	100
	Czech Republic	Yes	Yes	Yes	No	a	a	100	a	100
	Denmark	No	a	a	Yes	Yes	Yes	a	100	100
	Estonia	No	a	a	Yes	Yes	Yes	a	100	100
	Finland	Yes	Yes	Yes	Yes	Yes	Yes	37	63	100
	France	Yes	Yes	Yes	No	a	a	100	a	100
	Germany	Yes	Yes	Yes	No	a	a	100	a	100
	Greece	Yes	Yes	Yes	Yes	m	m	100	m	100
	Hungary	No	a	a	Yes	Yes	Yes	a	100	100
	Iceland	Yes	Yes	Yes	Yes	Yes	Yes	1	99	100
	Ireland	No	a	a	Yes	a	a	a	100	100
	Israel	Yes	Yes	Yes	Yes	Yes	Yes	98	2	100
	Italy[3]	No	a	a	Yes	m	m	a	100	m
	Japan	Yes	Yes	Yes	Yes	Varies	Varies	x(9)	x(9)	100
	Korea	Yes	Yes	Yes	Yes	Yes	Yes	x(9)	x(9)	100
	Luxembourg	Yes	Yes	Yes	No	a	a	100	a	100
	Mexico	Yes	Yes	Yes	Yes	Yes	Yes	99	1	100
	Netherlands	Yes	Yes	Yes	Yes	No	Varies	70	30	100
	New Zealand	No	a	a	Yes	Yes	Yes	a	100	100
	Norway	No	a	a	Yes	Yes	Yes	a	100	100
	Poland	Yes	Yes	Yes	No	a	a	100	a	100
	Portugal	No	a	a	Yes	Yes	Yes	a	100	100
	Slovak Republic	Yes	Yes	Yes	No	a	a	100	a	100
	Slovenia	No	a	a	Yes	Yes	Yes	a	100	100
	Spain	Yes	Yes	Yes	No	a	a	100	a	100
	Sweden	Yes	Yes	Yes	Yes	Yes	Yes	25	75	100
	Switzerland	Yes	Yes	Yes	Yes	Yes	m	100	m	100
	Turkey	Yes	Yes	Yes	No	a	a	100	a	100
	United Kingdom	Yes	Yes	Yes	Yes	Varies	Yes	x(9)	x(9)	100
	United States	Yes	Varies	Varies	Yes	Varies	Varies	x(9)	x(9)	100
	OECD average									
	OECD total									
	EU21 average									
Partners	Argentina	m	m	m	m	m	m	m	m	m
	Brazil	Yes	Yes	No	Yes	Yes	No	x(9)	x(9)	100
	China	m	m	m	m	m	m	m	m	m
	Colombia	m	m	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m	m	m
	Indonesia	m	m	m	m	m	m	m	m	m
	Latvia	m	m	m	m	m	m	m	m	m
	Russian Federation	m	m	m	m	m	m	m	m	m
	Saudi Arabia	m	m	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m	m	m

Source: OECD, INES Working Party special data collection on early childhood education programs. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
Please refer to the Reader's Guide for information concerning the symbols replacing missing data.
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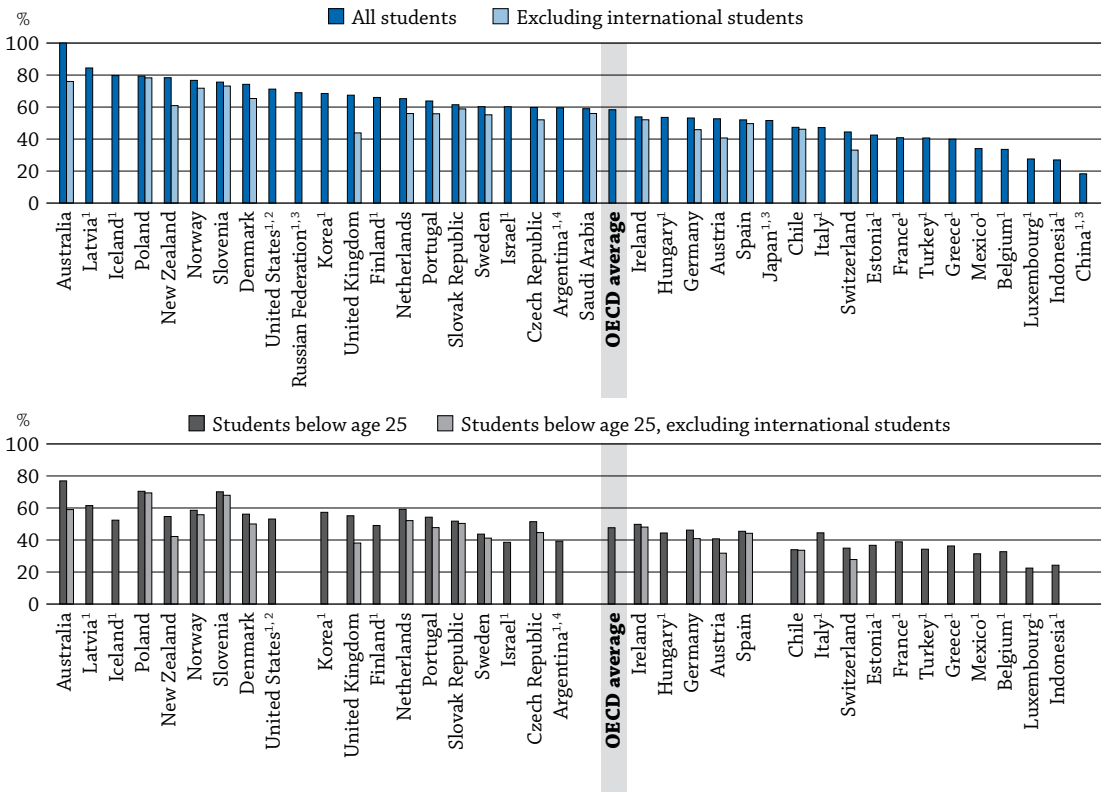
HOW MANY STUDENTS ARE EXPECTED TO ENTER TERTIARY EDUCATION?

- While some 58% of young adults in OECD countries are expected to enter tertiary-type A (largely theory-based) programmes over their lifetime, less than 3% are expected to enter advanced research programmes.
- The most popular fields of education chosen by new entrants into tertiary programmes are social sciences, business and law in all OECD countries except Finland (engineering, manufacturing and construction), Korea (humanities, arts and education) and Saudi Arabia (humanities, arts and education).
- Entry rates into tertiary-type A programmes are still higher for women (65%) than for men (52%), on average across OECD countries. But the higher the level of education, the narrower the gender gap; in advanced research programmes, the gap almost disappears.

Chart C3.1. Entry rates into tertiary-type A education (2012)



1. New entrants data for international students are missing.
2. The entry rates for tertiary-type A programmes include the entry rates for tertiary-type B programmes.
3. New entrants data by age are missing.
4. Year of reference 2011.

Countries are ranked in descending order of entry rates for tertiary-type A programmes in 2012.

Source: OECD. Tables C3.1a and C3.1b. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Context

Entry rates estimate the proportion of people who are expected to enter a specific type of tertiary education programme during their lifetime. They also provide some indication of the accessibility of tertiary education, the perceived value of attending tertiary programmes, and the degree to which a population is acquiring the high-level skills and knowledge that can create and fuel knowledge-based economies. High entry and enrolment rates in tertiary education imply that a highly educated labour force is being developed and maintained.

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In OECD countries, the belief that skills acquired through higher education are valued more than those held by people with lower educational attainment stems from the perception, both real and feared, that "routine" jobs can be performed instead in low-wage countries or mechanised, and from the growing understanding that knowledge and innovation are key to sustaining economic growth. Tertiary institutions not only have to meet growing demand by expanding the number of places they offer, they also have to adapt programmes and teaching methods to match the diverse needs of a new generation of students.

Other findings

- While **one in 20 students is expected to enter an advanced research programme over their lifetime in Germany and Switzerland**, only one in 100 students is expected to do so in Japan, and even fewer in Argentina, Chile, Indonesia, Luxembourg and Mexico.
- Based on current patterns, it is estimated that **an average of 18% of today's young adults (20% of women and 17% of men) will enter tertiary-type B (shorter and largely vocational) programmes** over their lifetime.
- When international students are excluded from the calculation, **Poland and Slovenia are the only two countries (out of 17 countries with available data) where around seven out of 10 young adults are expected to enter tertiary-type A education before they are 25 years old**.
- Lifelong learning is not yet a reality in all OECD countries. At one extreme, **in Australia, Chile, Finland, Iceland, Israel, New Zealand and Sweden, more than 1 in 4 new entrants will enter tertiary-type A programmes after the age of 25. At the other end of the spectrum, fewer than 1 in 20 new entrants in Belgium and France will be older than 25.**

Trends

Between 1995 and 2012, entry rates into tertiary-type A programmes increased by almost 20 percentage points, on average across OECD countries, although this year, new data reveal a marked decrease of 4 percentage points since 2010, probably caused by the financial crisis. Nonetheless, the large prior increase was the result of the greater accessibility of tertiary education in many countries, and because of structural changes in the education systems of some countries, such as the creation of new programmes (to meet labour-market needs) or shorter programmes (a results of the implementation of the Bologna Process). Entry rates for tertiary programmes have also increased because the source of applicants has expanded to include many more international (see Indicator C4) and older students.

Meanwhile, entry rates into tertiary-type B programmes remained stable between 1995 and 2012, with no significant variation over the past three years in relation to the financial crisis.

Note

Entry rates represent the percentage of an age cohort that is expected to enter a tertiary programme over a lifetime. This estimate is based on the number of new entrants in 2012 and the age distribution of this group. Therefore, the entry rates are based on a "synthetic cohort" assumption, according to which the current pattern of entry constitutes the best estimate of the behaviour of today's young adults over their lifetime. Entry rates are sensitive to changes in the education system, such as the introduction of new programmes (as with the implementation of the Bologna Process) or a variation in the number of international students. Entry rates can be very high, and even greater than 100% (thus clearly indicating that the synthetic cohort assumption is implausible), during a period when there are unexpected entries. In Australia, for example, the entry rate into tertiary-type A programmes is reduced by more than 25 percentage points when international students are excluded. In Portugal, a large number of women over 25 decided to pursue a university education, so entry rates among women increased by 40 percentage points from 2007 to 2011.

C3

Analysis

Overall access to tertiary education

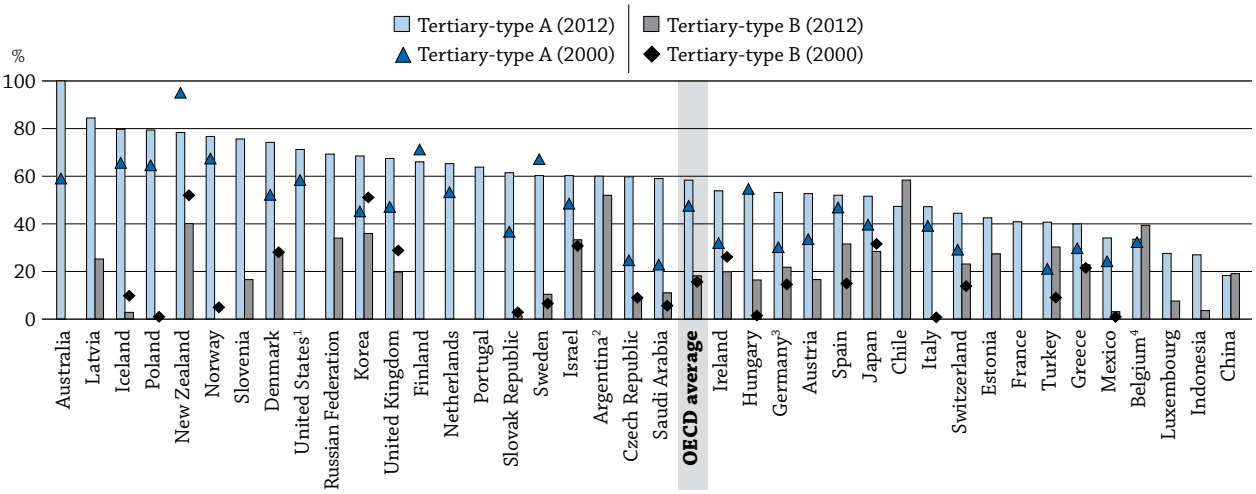
It is estimated that 58% of young adults in OECD countries will enter tertiary-type A programmes during their lifetime if current patterns of entry continue. In several countries, at least 70% of young adults are expected to enter these programmes, while less than 35% are expected to do so in Belgium, China, Indonesia, Luxembourg and Mexico (Chart C3.1).

The proportion of students entering tertiary-type B programmes is generally smaller, mainly because these programmes are less developed in most OECD countries. Proportions range from less than 5% in Iceland, Indonesia, Mexico, Poland and the Slovak Republic, to more than 35% in Belgium, Korea and New Zealand, and more than 50% in Argentina and Chile (Table C3.1a).

In contrast, in Belgium, Chile and China, the proportion of students who are expected to enter tertiary-type B programmes is larger than that of students who are expected to enter tertiary-type A programmes. In these countries, broad access to tertiary-type B programmes counterbalances relatively low entry rates into tertiary academic programmes (Chart C3.2). Other countries, most notably Argentina, Israel and Korea, have entry rates around the OECD average for tertiary-type A programmes, and comparatively high entry rates for tertiary-type B programmes. Although New Zealand's entry rates are among the highest among OECD countries for both types of programmes, these rates are inflated by a larger population of older and international students (Table C3.1a).

In some countries, high entry rates may reflect a temporary phenomenon, such as university reforms driven by the implementation of the Bologna Process, the effects of the economic crisis, or a surge in the number of international students.

Chart C3.2. Entry rates into tertiary-type A and B education (2000, 2012)



1. The entry rates for tertiary-type A programmes include the entry rates for tertiary-type B programmes.
2. Year of reference 2011 instead of 2012.
3. Break in time series between 2008 and 2009 due to a partial reallocation of vocational programmes into ISCED 2 and ISCED 5B.
4. Year of reference 2001 instead of 2000.

Countries are ranked in descending order of entry rates for tertiary-type A education in 2012.

Source: OECD. Table C3.2a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933118599

On average across all OECD countries with comparable data, the proportion of young adults who entered tertiary-type A programmes increased by 10 percentage points between 2000 and 2012, and by almost 20 percentage points between 1995 and 2012 (Table C3.2a). Entry rates into these programmes increased by 20 percentage points or more between 2000 and 2012 in Australia, the Czech Republic, Denmark, Germany, Ireland, Korea and the Slovak Republic. In Korea, the increase between 2007 and 2008 was influenced by a reclassification of tertiary-type B programmes to tertiary-type A programmes. In contrast, Finland, Hungary, New Zealand and Sweden are the only OECD countries that show a decline in entry rates into these programmes. However, in Hungary, the decrease is counterbalanced by a significant increase in entry rates into tertiary-type B programmes during the same period.

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In New Zealand, the rise and fall of entry rates between 2000 and 2012 mirrored the numbers of international students over the same period (Chart C3.2).

Among OECD countries, overall net entry rates into tertiary-type B programmes between 2000 and 2012 have remained relatively stable except in Hungary, Spain and Turkey, where they have increased by more than 10 percentage points, and in Korea and New Zealand, where they have decreased by more than 10 percentage points (Chart C3.2).

Roughly 3% of today's young adults in OECD countries are expected to enter advanced research programmes during their lifetime, if current patterns of entry remain stable. Among countries with available data, the proportions range from 1% or less in Argentina, Chile, Indonesia, Japan, Luxembourg and Mexico, to around 5% in Germany and Switzerland (Table C3.1a).

Age of new entrants into tertiary education

On average across OECD countries, 82% of all first-time entrants into tertiary-type A programmes and 58% of first-time entrants into tertiary-type B programmes in 2012 were under 25 years of age. In addition, 57% of students who entered advanced research programmes in 2012 were under 30 (Table C3.1b).

The age of new entrants into tertiary education varies among OECD countries because of differences in the typical age at which students graduate from upper secondary education (see Tables X1.1a and X1.1b), the intake capacity of institutions (admissions with *numerus clausus*, one of many methods used to limit the number of students who may study at a tertiary institution), the opportunity cost of entering the labour market before enrolling in tertiary education, and cultural expectations.

During the recent economic crisis, some young people postponed entry into the labour market and remained in education. Some governments have also developed second-chance programmes, aimed at people who left school early, to raise the level of skills available in the workforce and increase opportunities for people to acquire practical education and competencies. Nevertheless, entering tertiary education at a later stage is more costly from both public and personal perspectives. It means that for a period of time, the productive potential of individuals is untapped. As a result, tax revenues are lower and public expenditures may be higher. Older students may face more difficulties combining work and study and thus may be unable to complete the programmes on time. Understanding that delays in completing education increase the cost of providing it, governments are introducing measures to foster timely completion. However, a later start to tertiary education may also indicate that students are more sure about what they want to study and are more motivated.

Traditionally, students enter tertiary programmes immediately after having completed upper secondary education, and this remains true in many countries. For example, in Belgium, France and Indonesia, 95% or more of all first-time entrants into tertiary-type A or B programmes are under 25. In other OECD countries, the transition from upper secondary to tertiary education may occur at a later age because of time spent in the labour force or the military. For instance, in Israel only two-thirds of all first-time entrants into tertiary-type A programmes are under 25. In these cases, first-time entrants into tertiary-type A or B programmes represent a much wider age range (Table C3.1b).

The proportion of older first-time entrants into tertiary-type A and B programmes may reflect the flexibility of the programmes and their suitability to students outside the typical age group. It may also reflect the value placed on work experience before entering higher education, which is characteristic of the Nordic countries and is also common in Australia, Austria, Chile, Hungary, New Zealand and the United States, where sizeable proportions of new entrants are much older than the typical age at entry. It can also reflect a response to policies aimed at expanding lifelong learning and more flexible access to tertiary education. The reasons differ substantially from one country to another. For instance, in Australia, taking a gap year before entering tertiary education has become a trend: in 2009-10 almost one in four students took a gap year, and 51% of them declared "work" as their main reason for taking the year off from education (Lumsden and Stanwick, 2012). Some countries require young people to serve in the military, which postpones entry into tertiary education. This is the case of Israel, which has mandatory military service for 18-21 year-old men and 18-20 year-old women.

Impact of international students on entry rates into tertiary-type A programmes

By definition, all international students enrolling for the first time in a country are counted as new entrants, regardless of their previous education in other countries. To highlight the impact of international students on entry rates into tertiary-type A programmes, both unadjusted and adjusted entry rates (i.e. the entry rate when international students are excluded from consideration) are presented in Tables C3.1a and b.

In Australia, the difference between the unadjusted and adjusted entry rates is 26 percentage points – the largest among all countries with comparable data. It is also very high in the United Kingdom, with a 24 percentage points difference. In Austria, Iceland, New Zealand and Switzerland, the presence of international students also affects entry rates greatly, with differences from 11 to 17 percentage points (Table C3.1a).

The percentage of expected new entrants into tertiary-type A education changes dramatically when older and international students are not considered. These two groups are important components of the student population in countries, but they can artificially inflate the expected proportion of today's young adults who will enter a tertiary programme. When international and older students are not counted, Poland and Slovenia become the two countries with the largest proportion of people who are expected to enter tertiary-type A education under the age of 25. The large proportion in Poland is related to the greater number of students who graduated from upper secondary programmes as a result of the 1999 education reforms in that country. Those reforms aimed to improve the quality of the country's secondary and higher education systems and offer equitable education opportunities. Poland and Slovenia are also two of the six countries with the highest percentage of 25-34 year-olds that has attained at least an upper secondary education (see Indicator A1).

Pathways between academic and vocational programmes

In some countries, tertiary-type A and B programmes are provided by different types of institutions. However, it is increasingly common for universities or other institutions to offer both types of programmes. The two types of programmes are also gradually becoming more similar in terms of curriculum, orientation and learning outcomes.

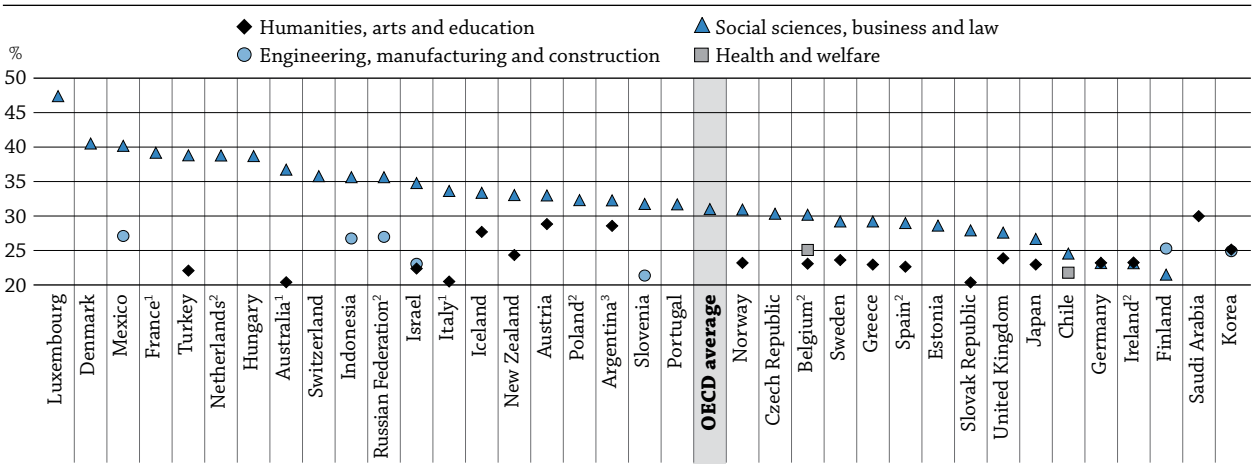
In some countries, graduates from tertiary-type B programmes can gain entry into tertiary-type A programmes, usually in the second or third year, or even into a master's programme. Adding together entry rates into these two types of programmes to obtain overall tertiary-level entry rates would result in over-counting. Entry is typically subject to certain conditions, such as passing a special examination, prior personal or professional achievements, and/or completion of a "bridging" programme, depending on the country or programme. In some cases, students who leave an academic programme before graduating can be successfully re-oriented towards vocational programmes.

Entry rate into tertiary programmes, by field of education (tertiary-types A and B)

In almost all countries, a large proportion of students pursues tertiary programmes in the fields of social sciences, business and law. In 2012, these fields received the largest share of new entrants in all countries except in Finland, Korea and Saudi Arabia. In Finland, the proportion of new entrants was largest in engineering, manufacturing and construction, while in Korea and Saudi Arabia the proportion was largest in humanities, arts and education (Chart C3.3).

Chart C3.3. Distribution of new entrants into tertiary programmes, by field of education (2012)

Only those fields in which more than 20% of students entered a tertiary programme in 2012 are shown in the graph below



1. Exclude tertiary-type B programmes.
2. Exclude advanced research programmes.
3. Year of reference 2011.

Countries are ranked in descending order of new entrants in Social sciences, business and law programmes in 2012.

Source: OECD. Table C3.3a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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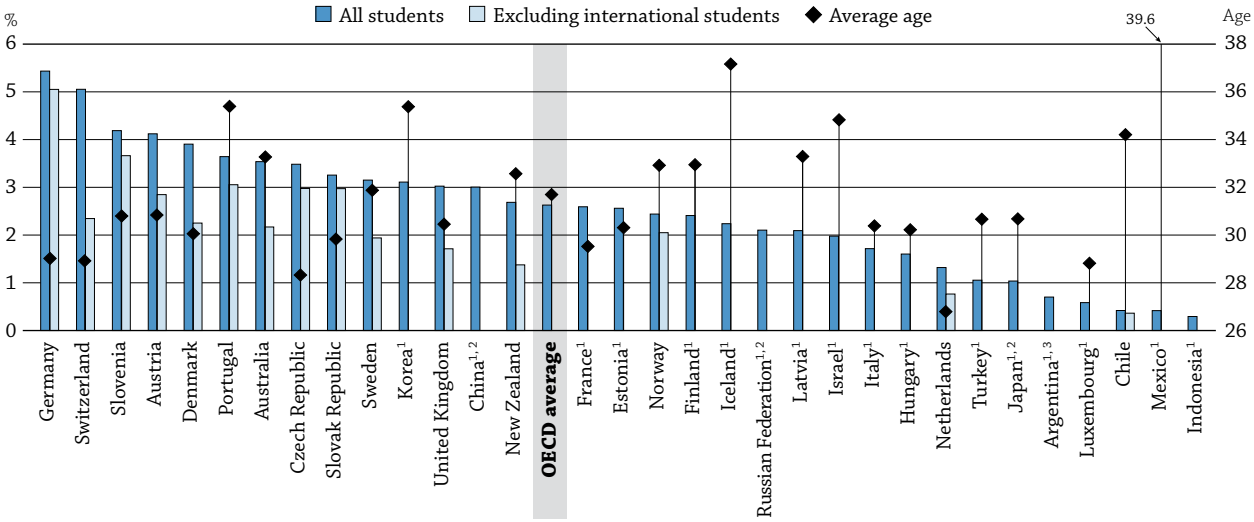
Science-related fields, which include science and engineering, manufacturing and construction, are less popular. On average, only a quarter of all students enters these fields (Table C3.3a). This low level of participation is partly due to the under-representation of women: on average in 2012, only 14% of female new entrants into tertiary education chose these fields, compared with 39% of male new entrants. Among the new-entrant population, the proportion of women who chose science-related fields ranged from 5-6% in Belgium, Japan and the Netherlands to 19-20% in Greece, Italy, Mexico and the Russian Federation, while among men, the proportion in these fields ranged from 17% in Argentina to 58% in Finland (Table C3.3b, available on line).

The distribution of entrants into advanced research programmes by field of education shows a different pattern from that of tertiary education as a whole. Although social sciences, business and law were the most popular fields of education among tertiary students in 2012, doctoral students favoured science-related fields slightly more than social science, business and law. Almost one in four new doctoral students undertook studies in sciences (24%) – more than double the proportion of new tertiary entrants who chose this field (10%). In France, Israel and Luxembourg, more than 35% of advanced research students chose science.

Advanced research programmes: The factory of knowledge for society

Doctoral-level research plays a crucial role in driving innovation and economic growth, and contributes significantly to the national and international knowledge base. Businesses are attracted to countries that make this level of research readily available (Halse and Mowbray, 2011; Smith, 2010), while individuals who attain this level of education benefit from higher wages and higher employment rates (see Indicators A5 and A6).

Chart C3.4. Entry rates into advanced research programmes and average age of new entrants (2012)



Note: The average age refers to an average weighted age, generally the age of the students at the beginning of the calendar year. Students may be one year older than the age indicated when they graduate at the end of the school year. Please see Annex 3 to learn how the average age is calculated.
1. New entrants data for international students are missing.
2. New entrants data by age are missing.
3. Year of reference 2011.
Countries are ranked in descending order of new entrants into advanced research programmes in 2012.
Source: OECD. Table C3.1a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933118637

Many OECD countries invest heavily to provide doctoral-level education. Chart C3.4 shows the percentage of students who will pursue their studies up to the highest academic level across OECD countries. In Austria, Germany, Switzerland and Slovenia, about one in 20 students is expected to enter an advanced research programme. By contrast, in Argentina, Chile, Indonesia, Luxembourg and Mexico, fewer than one in 100 students is expected to begin doctoral studies during their lifetime, if current entry patterns remain stable (Table C3.1a). However, entry rates for these countries may be underestimated since it is common for Latin American students to earn their PhDs in the United States. The same applies for Indonesians in Australia and Luxembourgers in other European countries.

Several countries are developing doctoral programmes or changing the funding policy to attract international students, that is, students who move from their country of origin to study elsewhere. Attracting the best students from around the world helps to ensure that a country plays a leading role in research and innovation (Smith, 2010). For example, more than one in two new entrants into doctoral programmes in Switzerland are international students (Chart C3.4). In addition, as Indicator C4 shows, in 2012, large proportions of students enrolled in doctoral programmes in New Zealand (41%), Switzerland (51%) and the United Kingdom (41%) were international students, that is, they were citizens of a different country than the one in which the data were collected.

Although almost 60% of new students in advanced research programmes in OECD countries entered before the age of 30, there are quite significant differences among countries. In the Czech Republic, Germany, Indonesia and the Netherlands more than 75% of students are younger than 30 when they enter this level of education, while in Iceland, Israel, Korea, Mexico and Portugal, the average age at entry is 35 or older (Tables C3.1a and b).

These differences may be due to several factors. They could reflect lower dropout rates and greater emphasis on acquiring specialised skills with a first degree in tertiary education. Some countries offer incentives, such as grants, scholarships, international mobility programmes, part-time jobs and distance learning, to encourage students to pursue advanced studies straight after completion of their first degree in tertiary education. By contrast, late entry into doctoral programmes could be related to differences in tuition fees, availability of scholarships, and/or cultural expectations, such as being expected to enter the labour force by a certain age or to gain professional experience prior to entering a PhD programme.

The doctoral level of education is the only level with near gender parity. While there are proportionally more women than men at all other levels of education, this is the only level of education at which the proportion of entrants (and consequently the proportion of graduates) is slightly larger among men than women. On average across OECD countries, 2.7% of men and 2.6% of women enter a doctoral programme (Table C3.1a).

Definitions

International students are those students who left their country of origin and moved to another country for the purpose of study. International students enrolling for the first time in a programme are considered first-time entrants.

New entrants are students who enrol at the relevant level of education for the first time.

Tertiary-level entry rate is an estimated probability, based on current entry patterns, that a young adult will enter tertiary education during his or her lifetime.

Methodology

Data refer to the academic year 2011/12 and are based on the UOE data collection on education statistics administered by the OECD in 2013 (for details, see Annex 3 at *www.oecd.org/edu/eag.htm*). The fields of education used in the UOE data collection instruments follow the revised ISCED 97 classification by field of education. The same classification is used for all levels of education.

Data on trends in entry rates (Table C3.2a) for the years 1995, 2000, 2001, 2002, 2003 and 2004 are based on a special survey carried out in OECD countries in January 2007.

Data on the impact of international students on tertiary entry rates are based on a special survey carried out by the OECD in December 2013.

Tables C3.1a and b, and C.3.2a and b show the sum of net entry rates for all ages.

The **net entry rate** for a specific age is obtained by dividing the number of first-time entrants of that age for each type of tertiary education by the total population in the corresponding age group. The sum of net entry rates is calculated by adding the rates for each year of age. The result represents an estimate of the probability that a young person will enter tertiary education in his/her lifetime if current age-specific entry rates continue.

The **average weighted age** of entry is calculated by assigning higher weight to those ages at which the number of students entering a new level is higher. This variable gives the reader an accurate idea of the average age of entry. Please refer to Annex 3 to learn more about it.

Not all countries differentiate between students entering a tertiary programme for the first time and those transferring between different levels of tertiary education or repeating or re-entering a level after an absence. Thus, first-time entry rates for tertiary-type A or tertiary-type B programmes cannot be added to form a total tertiary-level entrance rate because it would result in counting some entrants twice.

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Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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Tables of Indicator C3

StatLink http://dx.doi.org/10.1787/888933118485

	Table C3.1a	**Entry rates into tertiary education and average age of new entrants, by gender and programme (2012)**
	Table C3.1b	**Entry rates into tertiary education of students under the typical age of entry, by gender and programme (2012)**
	Table C3.2a	**Trends in tertiary entry rates (1995-2012)**
WEB	Table C3.2b	**Trends in tertiary entry rates, by gender (2005-2012)**
	Table C3.3a	**Distribution of tertiary new entrants, by field of education (2012)**
WEB	Table C3.3b	**Distribution of tertiary new entrants, by field of education and gender (2012)**
WEB	Table C3.3c	**Distribution of new entrants into advanced research programmes, by field of education (2012)**

C3

Table C3.1a. Entry rates into tertiary education and average age of new entrants, by gender and programme (2012)

Sum of age-specific entry rates, by gender and programme destination

		Tertiary-type B					Tertiary-type A					Advanced research programmes				
		M+W	Men	Women	Adjusted from international students[1]	Average age[2]	M+W	Men	Women	Adjusted from international students[1]	Average age[2]	M+W	Men	Women	Adjusted from international students[1]	Average age[2]
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
OECD	Australia	**m**	m	m	m	*m*	**102**	88	116	76	*23*	**3.5**	3.4	3.6	2.2	*33*
	Austria	**17**	15	18	16	*30*	**53**	48	58	41	*24*	**4.1**	4.2	4.0	2.8	*31*
	Belgium	**39**	32	47	m	*20*	**34**	32	35	m	*19*	**m**	m	m	m	*m*
	Canada	**m**	m	m	m	*m*	**m**	m	m	m	*m*	**m**	m	m	m	*m*
	Chile	**58**	56	60	58	*24*	**47**	43	52	46	*23*	**0.4**	0.5	0.4	0.4	*34*
	Czech Republic	**9**	5	13	9	*23*	**60**	52	68	52	*23*	**3.5**	3.7	3.2	3.0	*28*
	Denmark	**28**	27	28	25	*30*	**74**	64	85	65	*24*	**3.9**	4.1	3.7	2.2	*30*
	Estonia	**27**	23	32	m	*24*	**43**	38	47	m	*22*	**2.6**	2.4	2.7	m	*30*
	Finland	**a**	a	a	a	*a*	**66**	60	73	m	*24*	**2.4**	2.2	2.7	m	*33*
	France	**m**	m	m	m	*m*	**41**	37	45	m	*20*	**2.6**	2.8	2.4	m	*30*
	Germany	**22**	14	30	m	*22*	**53**	55	52	46	*22*	**5.4**	6.2	4.6	5.0	*29*
	Greece	**23**	22	23	m	*20*	**40**	32	48	m	*20*	**m**	m	m	m	*m*
	Hungary	**16**	12	21	m	*23*	**54**	50	58	m	*23*	**1.6**	1.5	1.7	m	*30*
	Iceland	**3**	4	2	m	*34*	**80**	65	95	m	*26*	**2.2**	1.8	2.7	m	*37*
	Ireland	**20**	24	15	19	*22*	**54**	49	59	52	*20*	**m**	m	m	m	*m*
	Israel	**33**	34	33	m	*25*	**60**	54	67	m	*25*	**2.0**	1.9	2.1	m	*35*
	Italy	**n**	n	n	m	*m*	**47**	40	55	m	*20*	**1.7**	1.6	1.8	m	*30*
	Japan	**28**	22	36	m	*18*	**52**	56	47	m	*18*	**1.0**	1.4	0.7	m	*31*
	Korea	**36**	33	39	m	*21*	**69**	68	69	m	*21*	**3.1**	3.6	2.5	m	*35*
	Luxembourg	**8**	6	9	m	*25*	**28**	25	30	m	*23*	**0.6**	0.7	0.5	m	*29*
	Mexico	**3**	4	2	m	*20*	**34**	35	34	m	*20*	**0.4**	0.5	0.4	m	*40*
	Netherlands	**n**	n	n	n	*33*	**65**	61	70	56	*21*	**1.3**	1.4	1.3	0.8	*27*
	New Zealand	**40**	37	43	31	*28*	**78**	63	94	61	*24*	**2.7**	2.7	2.6	1.4	*33*
	Norway	**n**	n	n	n	*31*	**77**	63	91	72	*24*	**2.4**	2.4	2.5	2.0	*33*
	Poland	**1**	n	1	m	*22*	**79**	70	90	78	*21*	**m**	m	m	m	*m*
	Portugal	**n**	n	n	n	*m*	**64**	57	71	56	*22*	**3.6**	3.6	3.7	3.1	*35*
	Slovak Republic	**1**	1	2	m	*23*	**61**	52	71	59	*22*	**3.3**	3.3	3.2	3.0	*30*
	Slovenia	**17**	18	16	16	*25*	**76**	64	88	73	*21*	**4.2**	3.6	4.8	3.7	*31*
	Spain	**32**	31	32	m	*23*	**52**	44	60	50	*22*	**m**	m	m	m	*m*
	Sweden	**10**	10	11	10	*27*	**60**	49	72	55	*24*	**3.1**	3.3	3.0	1.9	*32*
	Switzerland	**23**	25	21	m	*28*	**44**	42	47	33	*24*	**5.0**	5.4	4.7	2.3	*29*
	Turkey	**30**	33	28	m	*21*	**41**	40	41	m	*21*	**1.1**	1.2	0.9	m	*31*
	United Kingdom	**20**	15	25	18	*33*	**67**	59	76	44	*22*	**3.0**	3.2	2.8	1.7	*30*
	United States	**x(6)**	x(7)	x(8)	m	*m*	**71**	64	79	m	*23*	**m**	m	m	m	*m*
	OECD average	**18**	17	20	m	*25*	**58**	52	65	m	*22*	**2.6**	2.7	2.6	m	*32*
	EU21 average	**14**	13	16	m	*25*	**56**	49	62	m	*22*	**2.9**	3.0	2.9	m	*30*
Partners	Argentina[3]	**52**	37	68	m	*m*	**60**	50	69	m	*m*	**0.7**	0.8	0.7	m	*m*
	Brazil	**m**	m	m	m	*m*	**m**	m	m	m	*m*	**m**	m	m	m	*m*
	China	**19**	19	19	m	*m*	**18**	16	21	m	*m*	**3.0**	3.0	2.9	m	*m*
	Colombia	**m**	m	m	m	*m*	**m**	m	m	m	*m*	**m**	m	m	m	*m*
	India	**m**	m	m	m	*m*	**m**	m	m	m	*m*	**m**	m	m	m	*m*
	Indonesia	**4**	3	4	m	*m*	**27**	27	27	m	*m*	**0.3**	0.3	0.2	m	*m*
	Latvia	**25**	20	31	m	*25*	**84**	72	98	m	*24*	**2.1**	1.9	2.3	m	*33*
	Russian Federation	**34**	x(1)	x(1)	m	*m*	**69**	x(6)	x(6)	m	*m*	**2.1**	x(11)	x(11)	m	*m*
	Saudi Arabia	**11**	17	5	11	*m*	**59**	59	58	56	*m*	**0**	0	0	0	*0*
	South Africa	**m**	m	m	m	*m*	**m**	m	m	m	*m*	**m**	m	m	m	*m*
	G20 average	**23**	18	25	m	*m*	**54**	49	56	m	*m*	**2.2**	2.4	2.0	m	*m*

Notes: Mismatches between the coverage of the population data and the new-entrants data mean that the entry rates for those countries that are net exporters of students may be underestimated and those that are net importers may be overestimated. The adjusted entry rates seek to compensate for that. Please refer to Annex 3 for further specific information by country.

Please refer to Annex 1 for information on the method used to calculate entry rates (gross rates versus net rates) and the corresponding age of entry.

1. Adjusted entry rates correspond to the entry rate when international students are excluded.

2. The average age refers to an average weighted age, generally the age of the students at the beginning of the calendar year. Students may be one year older than the age indicated when they graduate at the end of the school year. Please see Annex 3 to learn how the average age is calculated.

3. Year of reference 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. Saudi Arabia: Observatory on Higher Education. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C3.1b. Entry rates into tertiary education of students under the typical age of entry, by gender and programme (2012)

Sum of net entry rates for each year of age up to 25 years for tertiary-type A or B, and up to 30 years for advanced research programmes

		Tertiary-type B					Tertiary-type A					Advanced research programmes				
		M+W	Men	Women	Adjusted from international students[1]	Share of below 25 years old new entrants[2]	M+W	Men	Women	Adjusted from international students[1]	Share of below 25 years old new entrants[2]	M+W	Men	Women	Adjusted from international students[1]	Share of below 30 years old new entrants[2]
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
OECD	Australia	**m**	m	m	m	*m*	**77**	67	88	59	*74*	**1.7**	1.7	1.7	0.9	*49*
	Austria	**8**	7	8	8	*44*	**41**	35	47	32	*76*	**2.6**	2.6	2.6	1.8	*63*
	Belgium	**38**	31	44	m	*95*	**33**	31	34	m	*97*	**m**	m	m	m	*m*
	Canada	**m**	m	m	m	*m*	**m**	m	m	m	*m*	**m**	m	m	m	*m*
	Chile	**39**	38	39	38	*69*	**34**	30	38	34	*75*	**0.2**	0.2	0.2	0.2	*45*
	Czech Republic	**7**	4	10	7	*80*	**51**	46	57	45	*83*	**2.9**	3.0	2.7	2.5	*79*
	Denmark	**12**	13	12	10	*45*	**56**	47	66	50	*76*	**2.5**	2.8	2.1	1.0	*61*
	Estonia	**20**	17	22	m	*71*	**37**	33	41	m	*85*	**1.6**	1.4	1.7	m	*65*
	Finland	**a**	a	a	a	*a*	**49**	45	53	m	*75*	**1.1**	1.1	1.2	m	*49*
	France	**m**	m	m	m	*m*	**39**	35	43	m	*95*	**1.8**	1.9	1.7	m	*69*
	Germany	**16**	9	24	m	*73*	**46**	47	45	41	*86*	**4.0**	4.6	3.5	3.7	*75*
	Greece	**21**	20	21	m	*88*	**36**	29	44	m	*87*	**m**	m	m	m	*m*
	Hungary	**14**	10	18	m	*82*	**44**	41	48	m	*80*	**1.1**	1.0	1.2	m	*66*
	Iceland	**1**	1	1	m	*18*	**52**	45	60	m	*66*	**1.1**	1.1	1.1	m	*33*
	Ireland	**17**	21	13	17	*83*	**50**	45	55	48	*90*	**m**	m	m	m	*m*
	Israel	**20**	16	25	m	*62*	**39**	29	48	m	*65*	**0.7**	0.6	0.8	m	*35*
	Italy	**n**	n	n	m	*n*	**44**	37	52	m	*94*	**1.2**	1.1	1.3	m	*64*
	Japan	**m**	m	m	m	*m*	**m**	m	m	m	*m*	**m**	m	m	m	*m*
	Korea	**32**	30	35	m	*89*	**57**	56	59	m	*83*	**1.3**	1.4	1.1	m	*38*
	Luxembourg	**5**	3	6	m	*57*	**22**	21	24	m	*79*	**0.4**	0.3	0.4	m	*63*
	Mexico	**3**	3	2	m	*93*	**31**	32	31	m	*93*	**0.1**	0.1	0.1	m	*26*
	Netherlands	**n**	n	n	n	*40*	**59**	55	63	52	*91*	**1.1**	1.2	1.1	0.7	*87*
	New Zealand	**21**	21	20	15	*55*	**55**	46	64	42	*72*	**1.3**	1.4	1.3	0.6	*52*
	Norway	**n**	n	n	n	*38*	**59**	48	70	56	*76*	**1.2**	1.3	1.2	1.0	*49*
	Poland	**1**	n	1	m	*76*	**70**	62	79	69	*87*	**m**	m	m	m	*m*
	Portugal	**n**	n	n	n	*n*	**54**	46	62	48	*82*	**1.6**	1.4	1.7	1.3	*37*
	Slovak Republic	**1**	1	2	m	*83*	**52**	44	59	50	*82*	**2.3**	2.2	2.4	2.2	*69*
	Slovenia	**11**	13	10	11	*64*	**70**	60	81	68	*90*	**2.8**	2.3	3.3	2.4	*64*
	Spain	**25**	25	25	m	*73*	**45**	38	53	44	*82*	**m**	m	m	m	*m*
	Sweden	**5**	5	5	5	*52*	**44**	37	51	41	*74*	**1.8**	2.0	1.5	0.9	*57*
	Switzerland	**11**	11	11	m	*45*	**35**	32	38	28	*77*	**3.8**	4.0	3.5	1.8	*73*
	Turkey	**25**	27	23	m	*83*	**34**	33	36	m	*84*	**0.6**	0.7	0.6	m	*60*
	United Kingdom	**7**	6	7	5	*34*	**55**	50	61	38	*82*	**1.8**	1.9	1.7	1.0	*62*
	United States	**x(6)**	x(7)	x(8)	m	*m*	**53**	51	56	m	*76*	**m**	m	m	m	*m*
	OECD average	**12**	12	13	m	*58*	**48**	42	53	m	*82*	**1.6**	1.7	1.6	m	*57*
	EU21 average	**10**	9	11	m	*57*	**48**	42	53	m	*84*	**1.9**	1.9	1.9	m	*64*
Partners	Argentina[3]	**31**	24	38	m	*60*	**39**	34	45	m	*68*	**m**	m	m	m	*m*
	Brazil	**m**	m	m	m	*m*	**m**	m	m	m	*m*	**m**	m	m	m	*m*
	China	**m**	m	m	m	*m*	**m**	m	m	m	*m*	**m**	m	m	m	*m*
	Colombia	**m**	m	m	m	*m*	**m**	m	m	m	*m*	**m**	m	m	m	*m*
	India	**m**	m	m	m	*m*	**m**	m	m	m	*m*	**m**	m	m	m	*m*
	Indonesia	**4**	3	4	m	*100*	**24**	25	24	m	*100*	**0.3**	0.3	0.2	m	*92*
	Latvia	**17**	14	20	m	*67*	**62**	54	70	m	*73*	**0.9**	0.8	1.1	m	*47*
	Russian Federation	**m**	m	m	m	*m*	**m**	m	m	m	*m*	**m**	m	m	m	*m*
	Saudi Arabia	**m**	m	m	m	*m*	**m**	m	m	m	*m*	**m**	m	m	m	*m*
	South Africa	**m**	m	m	m	*m*	**m**	m	m	m	*m*	**m**	m	m	m	*m*
	G20 average	**m**	m	m	m	*m*	**m**	m	m	m	*m*	**m**	m	m	m	*m*

Notes: Mismatches between the coverage of the population data and the new entrants data mean that the entry rates for those countries that are net exporters of students may be underestimated and those that are net importers may be overestimated. The adjusted entry rates seek to compensate for that.

Please refer to Annex 1 for information on the method used to calculate entry rates (gross rates versus net rates) and the corresponding age of entry.

1. Adjusted entry rates correspond to the entry rate when international students are excluded.
2. Share of students below 25 years old among the total population of new entrants.
3. Year of reference 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*)

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933118523

C3

Table C3.2a. Trends in tertiary entry rates (1995-2012)

		Tertiary-type 5A[1]						Tertiary-type 5B					
		1995	2000	2005	2010	2011	2012	1995	2000	2005	2010	2011	2012
		(1)	(2)	(7)	(12)	(13)	(14)	(15)	(16)	(21)	(26)	(27)	(28)
OECD	Australia	m	59	82	96	96	**102**	m	m	m	m	m	**m**
	Austria	27	34	37	53	52	**53**	m	m	9	16	16	**17**
	Belgium	m	m	33	33	33	**34**	m	m	34	38	38	**39**
	Canada	m	m	m	m	m	**m**	m	m	m	m	m	**m**
	Chile	m	m	46	47	45	**47**	m	m	35	58	59	**58**
	Czech Republic	m	25	41	60	60	**60**	m	9	8	9	9	**9**
	Denmark	40	52	57	65	71	**74**	33	28	23	25	26	**28**
	Estonia	m	m	55	43	43	**43**	m	m	33	29	28	**27**
	Finland	39	71	73	68	68	**66**	32	a	a	a	a	**a**
	France	m	m	m	m	39	**41**	m	m	m	m	m	**m**
	Germany[2]	26	30	36	42	46	**53**	15	15	14	21	21	**22**
	Greece	15	30	43	m	40	**40**	5	21	13	m	31	**23**
	Hungary	m	55	68	54	52	**54**	m	1	11	16	17	**16**
	Iceland	m	66	74	93	81	**80**	m	10	7	4	4	**3**
	Ireland	m	32	45	56	51	**54**	m	26	14	28	24	**20**
	Israel	m	48	55	60	60	**60**	m	31	25	29	27	**33**
	Italy	m	39	56	49	48	**47**	m	1	n	n	n	**n**
	Japan	31	40	44	51	52	**52**	33	32	31	27	29	**28**
	Korea	41	45	51	71	69	**69**	27	51	48	36	37	**36**
	Luxembourg	m	m	m	m	27	**28**	m	m	m	m	10	**8**
	Mexico	m	24	27	33	34	**34**	m	1	2	3	3	**3**
	Netherlands	44	53	59	65	65	**65**	a	a	a	n	n	**n**
	New Zealand	83	95	76	79	76	**78**	44	52	50	47	44	**40**
	Norway	59	67	73	76	76	**77**	5	5	n	n	n	**n**
	Poland	36	65	76	84	81	**79**	1	1	1	1	1	**1**
	Portugal	m	m	m	89	98	**64**	m	m	m	n	n	**n**
	Slovak Republic	28	37	59	65	61	**61**	1	3	m	1	1	**1**
	Slovenia	m	m	40	77	75	**76**	m	m	49	19	18	**17**
	Spain	m	47	43	52	53	**52**	3	15	22	26	28	**32**
	Sweden	57	67	76	76	72	**60**	m	7	7	12	11	**10**
	Switzerland	17	29	37	44	44	**44**	29	14	16	23	22	**23**
	Turkey	18	21	27	40	39	**41**	9	9	19	28	27	**30**
	United Kingdom	m	47	51	63	64	**67**	m	29	28	26	23	**20**
	United States	57	58	64	74	72	**71**	x(1)	x(2)	x(7)	x(12)	x(13)	**x(14)**
	OECD average	39	48	54	62	59	**58**	17	16	18	19	19	**18**
	OECD average for countries with data available for 2000-2012		*48*	*55*	*62*	*61*	*61*		*17*	*19*	*21*	*21*	*19*
	EU21 average	35	46	53	61	57	**56**	11	11	16	15	15	**14**
Partners	Argentina	m	m	m	60	60	**m**	m	m	m	52	52	**m**
	Brazil	m	m	m	m	m	**m**	m	m	m	m	m	**m**
	China	m	m	m	17	19	**18**	m	m	m	19	19	**19**
	Colombia	m	m	m	m	m	**m**	m	m	m	m	m	**m**
	India	m	m	m	m	m	**m**	m	m	m	m	m	**m**
	Indonesia	m	m	m	22	24	**27**	m	m	m	5	4	**4**
	Latvia	m	m	m	m	m	**84**	m	m	m	m	m	**25**
	Russian Federation	m	m	67	77	72	**69**	m	m	33	29	25	**34**
	Saudi Arabia	24	23	37	48	53	**59**	4	6	10	11	10	**11**
	South Africa	m	m	m	m	m	**m**	m	m	m	m	m	**m**
	G20 average	m	m	m	53	53	**53**	m	m	m	21	22	**20**

Notes: Columns showing entry rates for the years 2001-04, 2006-09 (i.e. Columns 3-6, 8-11, 17-20, 22-25) are available for consultation on line (see *StatLink* below).
Please refer to Annex 1 for information on the method used to calculate entry rates (gross rates versus net rates) and the corresponding age of entry.
1. The entry rates for tertiary-type A programmes include advanced research programmes for 1995 and 2000-03 (except for Belgium and Germany).
2. Break in time series between 2008 and 2009 due to a partial reallocation of vocational programmes into ISCED 2 and ISCED 5B.
Sources: OECD. Argentina, China, Colombia, India, Indonesia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. Saudi Arabia: Observatory on Higher Education. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
Please refer to the Reader's Guide for information concerning the symbols replacing missing data.
StatLink http://dx.doi.org/10.1787/888933118542

Table C3.3a. Distribution of tertiary new entrants, by field of education (2012)

		Humanities, arts and education	Health and welfare	Social sciences, business and law	Services	Engineering, manufacturing and construction	Sciences	Agriculture	Not known or unspecified
		(1)	(4)	(5)	(6)	(7)	(8)	(13)	(14)
OECD	Australia[1]	20	17	**37**	4	9	12	1	n
	Austria	29	7	**33**	3	16	10	1	n
	Belgium[2]	23	25	**30**	2	10	5	3	1
	Canada	m	m	**m**	m	m	m	m	m
	Chile	16	22	**25**	12	18	6	2	n
	Czech Republic	17	13	**30**	6	15	13	4	2
	Denmark	16	19	**41**	2	12	8	2	n
	Estonia	18	12	**29**	9	16	14	2	n
	Finland	14	19	22	8	**25**	9	2	n
	France[1]	19	10	**39**	4	9	18	n	n
	Germany	23	19	**23**	3	17	13	1	n
	Greece	23	11	**29**	2	17	15	3	n
	Hungary	14	10	**39**	12	14	9	2	n
	Iceland	28	11	**33**	3	10	13	1	n
	Ireland[2]	23	14	**23**	7	11	17	2	2
	Israel	22	7	**35**	n	23	8	n	4
	Italy[1]	21	12	**34**	4	16	10	3	n
	Japan	23	16	**27**	9	14	2	2	7
	Korea	**25**	14	20	7	25	7	1	n
	Luxembourg	m	12	**47**	n	8	9	n	n
	Mexico	14	9	**40**	1	27	6	2	n
	Netherlands[2]	17	19	**39**	7	9	7	1	1
	New Zealand	24	12	**33**	6	7	17	1	n
	Norway	23	17	**31**	7	9	9	1	2
	Poland[2]	19	9	**32**	10	18	10	2	n
	Portugal	16	16	**32**	8	19	8	2	n
	Slovak Republic	20	18	**28**	6	15	10	3	n
	Slovenia	14	10	**32**	10	21	9	3	n
	Spain[2]	23	13	**29**	8	16	9	1	n
	Sweden	24	14	**29**	3	18	11	1	n
	Switzerland	16	13	**36**	8	16	9	1	1
	Turkey	22	6	**39**	5	16	9	3	n
	United Kingdom	24	17	**28**	2	8	15	1	6
	United States	m	m	**m**	m	m	m	m	m
	OECD average	20	13	**31**	5	15	10	2	4
	EU21 average	20	14	**32**	5	15	11	2	1
Partners	Argentina[3]	29	13	**32**	5	8	9	2	1
	Brazil	m	m	**m**	m	m	m	m	m
	China	m	m	**m**	m	m	m	m	m
	Colombia	m	m	**m**	m	m	m	m	m
	India	m	m	**m**	m	m	m	m	m
	Indonesia	12	7	**36**	7	27	8	2	3
	Latvia	m	m	**m**	m	m	m	m	m
	Russian Federation[2]	12	7	**36**	7	27	8	2	3
	Saudi Arabia	**30**	5	19	1	5	11	1	**28**
	South Africa	m	m	**m**	m	m	m	m	m
	G20 average	m	m	**m**	m	m	m	m	m

Note: Columns showing the breakdown of humanities, arts and education (2 and 3) and sciences (9-12) are available for consultation on line (see *StatLink* below).

1. Exclude tertiary-type B programmes.
2. Exclude advanced research programmes.
3. Year of reference 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. Saudi Arabia: Observatory on Higher Education. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

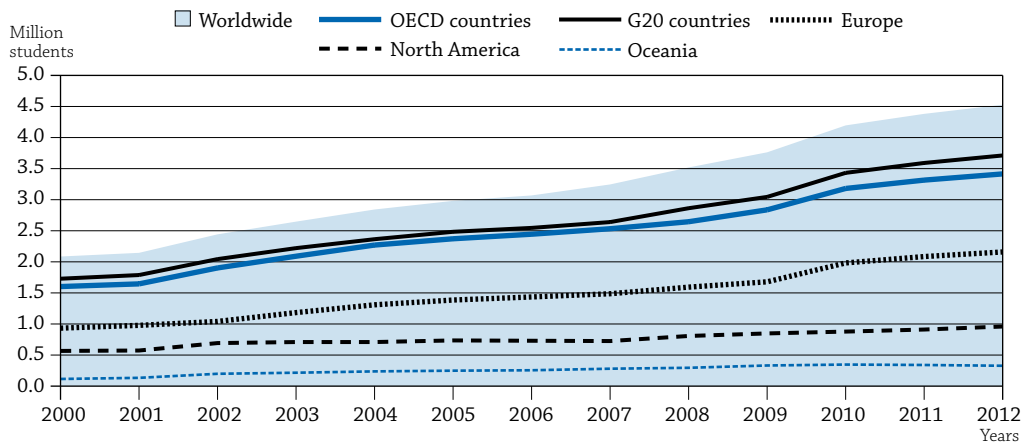
Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933118561

WHO STUDIES ABROAD AND WHERE?

- In 2012, more than 4.5 million students were enrolled in tertiary education outside their country of citizenship. Australia, Austria, Luxembourg, New Zealand, Switzerland and the United Kingdom have the highest proportion of international students as a percentage of their total tertiary enrolments.
- Students from Asia represent 53% of foreign students enrolled worldwide. The largest numbers of foreign students from this continent are from China, India and Korea.
- In 2012, the number of foreign students enrolled in tertiary education in OECD countries was, on average, three times the number of students from OECD countries studying abroad. In the 21 European countries that are members of the OECD, there were, on average, three foreign students for every European citizen enrolled abroad.
- Some 82% of all foreign students are enrolled in G20 countries, while 75% of all foreign students are enrolled in OECD countries. These proportions have remained stable during the past decade.

Chart C4.1. Evolution in the number of students enrolled outside their country of citizenship, by region of destination (2000 to 2012)



Source: OECD. Table C4.6. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933118789

Context

As national economies become more interconnected and participation in education expands, governments and individuals are looking to tertiary education to broaden students' horizons and help them to better understand the world's languages, cultures and business methods. One way for students to expand their knowledge of other societies and languages, and thus improve their prospects in globalised sectors of the labour market, is to study in tertiary institutions in countries other than their own.

The factors driving the general increase in student mobility range from the exploding demand for higher education worldwide and the perceived value of studying at prestigious post-secondary institutions abroad, to specific policies that aim to foster student mobility within a geographic region (as is the case in Europe), to government efforts to support students in studying specific fields that are growing rapidly in the country of origin. In addition, some countries and institutions undertake major marketing efforts to attract students from outside their boundaries.

The increase in student mobility in tertiary education can also provide an opportunity for smaller and/or less-developed host education systems to improve the cost-efficiency of their education systems. For example, it can help countries focus limited resources on educational programmes with

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potential economies of scale, or expand participation in tertiary education without having to expand the tertiary system within the country itself. For host countries, enrolling international students can not only help raise revenues from higher education, but also can be part of a broader strategy to recruit highly skilled immigrants.

A significant proportion of foreign students coming from G20 countries that are not members of the OECD includes some of the better-performing students, who are natural candidates for public or private support, or those from relatively advantaged socio-economic backgrounds. This implies that student mobility can not only have an impact on the stature of tertiary institutions' academic programmes, but can also economically benefit the host education systems.

In the current economic climate, shrinking support for scholarships and grants, as well as tighter budgets for individuals, may slow the pace of student mobility. On the other hand, limited labour market opportunities in students' countries of origin may increase the attractiveness of studying abroad as a way to gain a competitive edge, and thus boost student mobility.

International students tend to choose different programmes of study compared to local students (see Indicator A4 in *Education at a Glance 2011*), indicating either a degree of specialisation of countries in the programmes offered, or a lack of programmes in the countries of origin, and/or better employment opportunities associated with specific fields of education.

Throughout this indicator, the term "international students" or "mobile students" refers to students who have moved from their country of origin with the purpose of studying. The term "foreign students" refers to students who are not citizens of the countries in which they are enrolled, but may be long-term residents or were born in that country. In general, international students are a subset of foreign students (see *Definitions* section at the end of this indicator).

Other findings

- **Australia, Canada, France, Germany, the United Kingdom and the United States together receive more than 50% of all foreign students worldwide.**
- **International students from OECD countries mainly come from Canada, France, Germany, Italy, Korea and the United States.**
- **International students represent 10% or more of the enrolments in tertiary education in Australia, Austria, Luxembourg, New Zealand, Switzerland and the United Kingdom.** They also account for more than 30% of enrolments in advanced research programmes in Australia, Belgium, Luxembourg, the Netherlands, New Zealand, Switzerland and the United Kingdom.

Trends

During 2000-12, the number of foreign tertiary students enrolled worldwide more than doubled, with an average annual growth rate of almost 7%. In OECD countries, the number of foreign students enrolled at the tertiary level mirrored the global trend.

Europe is the top destination for students at the tertiary level of education enrolled outside their country of origin, hosting 48% of these students, followed by North America, which hosts 21% of all international students, and Asia with 18%. The number of international students in Oceania has almost tripled since 2000, though the region hosts less than 10% of all foreign students. Other regions, such as Africa and Latin America and the Caribbean, are also seeing growing numbers of international students, reflecting the internationalisation of universities in an increasing number of countries (Table C4.6 and Chart C4.1).

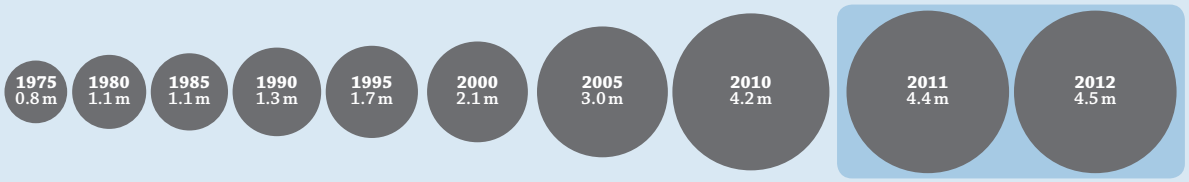
Analysis

Over the past three decades, the number of students enrolled outside their country of citizenship has risen dramatically, from 0.8 million worldwide in 1975 to 4.5 million in 2012, a more than fivefold increase (Box C4.1). This remarkable expansion stems from an interest in promoting academic, cultural, social and political ties among countries, particularly as the European Union was taking shape, to a substantial increase in global access to tertiary education, and to reduced transportation costs. The internationalisation of labour markets for highly skilled people has also given students an incentive to gain international experience as part of their higher education.

Most of the new foreign tertiary students come from countries outside the OECD area and are likely to contribute to a gradual expansion in the proportion of foreign students in advanced research programmes in OECD and other G20 countries in the coming years.

Box C4.1. Long-term growth in the number of students enrolled outside their country of citizenship

Growth in internationalisation of tertiary education (1975-2012, in millions)



Source: OECD and UNESCO Institute for Statistics.

Data on foreign enrolment worldwide comes from both the OECD and the UNESCO Institute for Statistics (UIS). UIS provided the data on all countries for 1975-95 and most of the non-OECD countries for 2000, 2005, 2010, 2011 and 2012. The OECD provided the data on OECD countries and other non-OECD economies in 2000 and 2012. Both sources use similar definitions, thus making their combination possible. Missing data were imputed with the closest data reports to ensure that breaks in data coverage do not result in breaks in time series.

The data points in the shaded area correspond to a different time scale than the rest of the time series but are presented for information as they are the last two years available, and 2012 is the year of reference.

StatLink http://dx.doi.org/10.1787/888933118884

Global student mobility follows inter- and intra-regional migration patterns to a great extent. The growth in the internationalisation of tertiary enrolment in OECD countries, as well as the high proportion of intra-regional student mobility show the growing importance of regional mobility over global mobility. Student flows in European countries and in Eastern Asia and Oceania tend to reflect the evolution of geopolitical areas, such as closer ties between Asia-Pacific countries and further co-operation among European countries beyond the European Union (UNESCO, 2009).

Major destinations of foreign students

G20 countries attract 82% of foreign students worldwide while some 75% of foreign students are enrolled in tertiary education in an OECD country. Within the OECD area, EU21 countries host the largest proportion (39%) of foreign students. These 21 countries also host 98% of foreign students enrolled in EU countries. Some 74% of foreign students enrolled in EU21 countries come from another EU21 country, demonstrating the effect of EU mobility policies. North America is the second most attractive region for foreign students, with 21% of the total. The profile of international students in this region is more diverse than that observed in the European Union. For instance, although 53% of Canadians studying abroad are in the United States, they account for only 4% of these international students. Similarly, 14% of Americans studying abroad chose Canada, but they account for only 6% of all foreign students enrolled in tertiary education in Canada (Tables C4.3, C4.4 and C4.6).

In 2012, more than one in two foreign students in tertiary education were enrolled in Australia, Canada, France, Germany, the United Kingdom or the United States. In absolute terms, the United States hosted most of these students, with 16% of all foreign students, followed by the United Kingdom (13%), Germany (6%), France (6%), Australia (6%) and Canada (5%). Although these destinations account for more than half of all tertiary students

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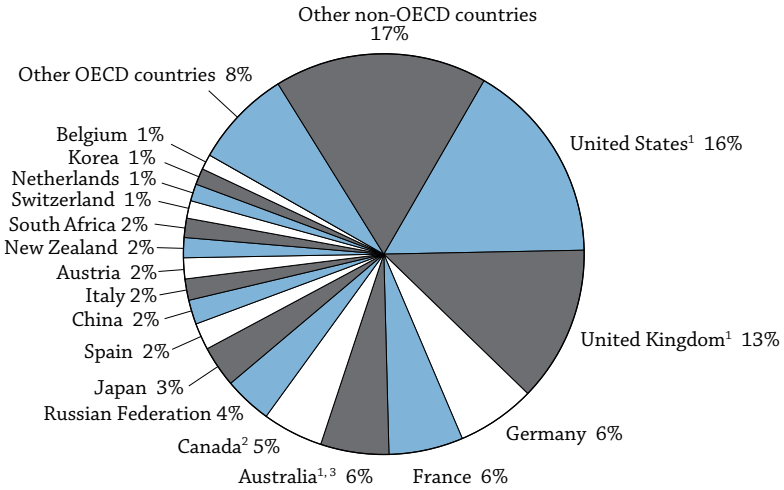
pursuing their studies abroad, some new players have emerged on the international education market in the past few years (Chart C4.2 and Table C4.7, available on line). Besides the six major destinations, significant numbers of foreign students were enrolled in the Russian Federation (4%), Japan (3%), Austria (2%), Italy (2%), New Zealand (2%) and Spain (2%) in 2012. The figures for Australia and the United States refer to international students (Table C4.4).

Chart C4.2. Distribution of foreign students in tertiary education, by country of destination (2012)

Percentage of foreign tertiary students reported to the OECD who are enrolled in each country of destination



1. Data related to international students is defined on the basis of their country of residence.
2. Year of reference 2011.
3. Student stocks are derived from different sources and therefore results are indicative only.
Source: OECD. Table C4.4 and Table C4.7, available on line. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933118808

New players in the international education market

The share of international students who chose the United States as their country of destination for tertiary education dropped from 23% in 2000 to 16% in 2012, and the share of international students who chose Germany fell by almost three percentage points during that period. In contrast, the shares of international students who chose Korea or New Zealand as their country of destination grew by at least one percentage point, while the share of students who chose the United Kingdom or the Russian Federation grew by around two percentage points (Chart C4.3). Some of these changes reflect differences in countries' approaches to internationalisation, ranging from marketing campaigns in the Asia-Pacific region to a more local and university-driven approach in the United States.

Underlying factors in students' choice of a country of study

Language of instruction

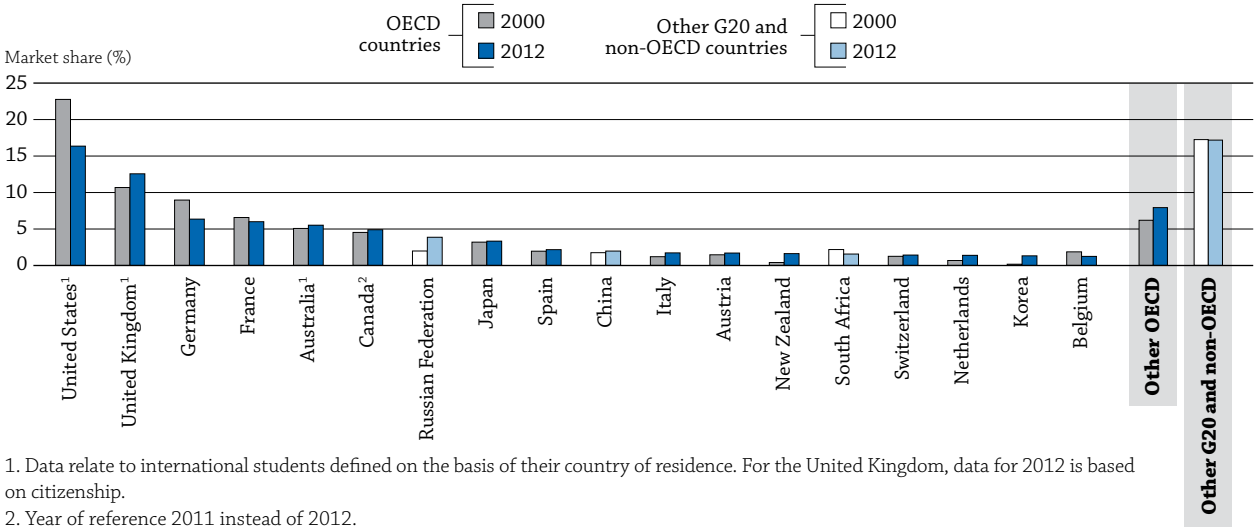
The language spoken and used in instruction sometimes determines the country in which a student chooses to study. Countries whose language of instruction is widely spoken and read, such as English, French, German, Russian and Spanish, are therefore leading destinations for foreign students, both in absolute and relative terms. Japan is a notable exception: despite a language of instruction that is not widely used around the world, it enrols large numbers of foreign students, 94% of whom are from Asia (Table C4.3 and Chart C4.2).

The prevalence of predominantly English-speaking destinations, such as Australia, Canada, New Zealand, the United Kingdom and the United States, in part reflects the progressive adoption of English as a global language. It may also reflect the fact that students intending to study abroad are likely to have learned English in their home country or wish to improve their English-language skills through immersion in a native English-speaking context.

C4

Chart C4.3. Trends in international education market shares (2000, 2012)

Percentage of all foreign tertiary students enrolled, by destination



1. Data relate to international students defined on the basis of their country of residence. For the United Kingdom, data for 2012 is based on citizenship.
2. Year of reference 2011 instead of 2012.

Countries are ranked in descending order of 2012 market shares.

Source: OECD. Table C4.7, available on line. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933118827

Hence, around 41% of the overall increase in enrolments of foreign students in tertiary education around the world between 2000 and 2012 can be explained by increases of such enrolments in Australia, Canada, Ireland, New Zealand, South Africa, the United Kingdom and the United States (Table C4.7, available on line). The large number of countries using English either as an official language or as the *lingua franca* reinforces this pattern. Large proportions of foreign students from English-speaking countries are enrolled in tertiary education in other English-speaking countries, including Australia (18%), Canada (more than 30%), Ireland (more than 40%), New Zealand (more than 40%), South Africa (more than 80%), the United Kingdom (more than 30%) and the United States (25%). On average across all OECD countries in 2012, around one in four foreign students came from a country with the same official or widely-spoken language as the country of destination (Table C4.5).

Box C4.2. OECD and partner countries offering tertiary education programmes in English (2012)

Use of English in instruction	
All or nearly all programmes offered in English	Australia, Canada,[1] Ireland, New Zealand, the United Kingdom, the United States
Many programmes offered in English	Denmark, Finland, the Netherlands, Sweden
Some programmes offered in English	Belgium (Fl.),[2] the Czech Republic, France, Germany, Hungary, Iceland, Japan, Korea, Norway, Poland, Portugal, the Slovak Republic, Spain, Switzerland,[3] Turkey
No or nearly no programmes offered in English	Austria, Belgium (Fr.), Brazil, Chile, Greece, Israel, Italy, Luxembourg, Mexico,[3] the Russian Federation

Note: The extent to which a country offers a few or many programmes in English takes into account the size of the population in the country. Hence, France and Germany are classified among countries with comparatively few English programmes, although they have more English programmes than Sweden, in absolute terms.

1. In Canada, tertiary institutions are either French- (mostly Quebec) or English-speaking.
2. Master's programmes.
3. At the discretion of tertiary education institutions.

Source: OECD, compiled from brochures for prospective international students by OAD (Austria), CHES and NARIC (Czech Republic), Cirius (Denmark), CIMO (Finland), Campus France (France), DAAD (Germany), Campus Hungary (Hungary), University of Iceland (Iceland), JPSS (Japan), NIIED (Korea), NUFFIC (Netherlands), SIU (Norway), CRASP (Poland), Fundación Universidad.es (Spain), Swedish Institute (Sweden) and Middle-East Technical University (Turkey).

Given this pattern, an increasing number of institutions in non-English-speaking countries now offer courses in English. This trend is especially noticeable in countries in which the use of English is widespread, such as the Nordic countries (Box C4.2).

Quality of programmes

International students increasingly select their study destination based on the quality of education offered, as perceived from a wide array of information on, and rankings of, higher education programmes now available, both in print and on line. For instance, the high proportion of top-ranked higher education institutions in the principal destination countries and the emergence in rankings of institutions based in fast-growing student destinations draws attention to the increasing importance of the perception of quality, even if a correlation between patterns of student mobility and quality judgments on individual institutions is difficult to establish.

Tuition fees

Among most EU countries, including Austria, Belgium (Flemish Community), the Czech Republic, Denmark, Estonia, Finland, France, Germany, Italy, the Netherlands, Poland, the Slovak Republic, Spain, Sweden and the United Kingdom, international students from other EU countries are treated as domestic students with respect to tuition fee charges. This is also true in Ireland, but only if the EU student has lived in the EU, the European Economic Area (EEA) or Switzerland for three out of the five previous years. If this condition is satisfied, the EU student is eligible for free tuition in a given academic year. In Finland, Germany and Italy, this applies to non-EU international students as well.

While there are no tuition fees charged in Finland, Iceland and Norway, in Germany, tuition fees are collected in all government-dependent private institutions and, in some *Bundesländer*, tuition fees have been introduced in public tertiary institutions as well, although they will be completely eliminated by the end of 2014. In Denmark, students from Norway, Iceland and EU countries are treated like domestic students and pay no tuition fees, as their education is fully subsidised. Most international students from non-EU or non-EEA countries, however, must pay the full amount of tuition fees, although a limited number of talented students from non-EU/EEA countries can obtain scholarships covering all or part of their tuition fees (Box C4.3).

Among some non-EU countries, including Iceland, Japan, Korea, Norway and the United States, the same treatment applies to all domestic and international students. In Norway, tuition fees are the same for both domestic and international students: no fees in public institutions, but fees in some private institutions. In Iceland, all students have to pay registration fees, and students in private institutions have to pay tuition fees as well. In Japan, domestic and international students are generally charged the same tuition fees, although international students with Japanese government scholarships do not have to pay tuition fees, and scholarships are available for privately financed international students. In the United States, in public institutions, international students pay the same fees as domestic out-of-state students. However, since most domestic students are enrolled in-state, international students pay higher tuition fees than most domestic students, in practice. In private universities, the fees are the same for national and international students.

In Korea, tuition fees and subsidies for international students vary, depending on the contract between their school of origin and the school they attend in Korea. In general, most international students in Korea pay the same tuition fees as those paid by domestic students. In New Zealand, international students, except those in advanced research programmes, generally pay higher tuition fees; but international students from Australia receive the same subsidies as domestic students. Typically in Australia (with the exceptions noted in Box C4.3) and in Canada, international students pay higher tuition fees than domestic students. This is also true in the Russian Federation, unless students are subsidised by the Russian government.

The fact that Finland, Iceland and Norway do not have tuition fees for international students, combined with the availability of programmes taught in English, probably explains part of the growth in the number of foreign students enrolled in some of these countries between 2005 and 2012 (Table C4.1). However, given the absence of fees, the high unit costs of tertiary education mean that international students place a heavy financial burden on their countries of destination (see Table B1.1a). For this reason, Denmark, which previously had no tuition fees, adopted tuition fees for non-EU and non-EEA international students as of 2006/07. Similar options are being discussed and tested in Finland, and were adopted in Sweden which introduced tuition fees compensated by scholarships for students from outside the EU/EEA, starting from the academic year 2011/12. This will be covered in future analysis.

Box C4.3. Structure of tuition fees

Tuition fee structure	OECD and other G20 countries
Higher tuition fees for international students than for domestic students	Australia,[1] Austria,[2] Belgium,[2, 3] Canada, the Czech Republic,[2, 4] Denmark,[2, 4] Estonia,[2] Ireland,[4] the Netherlands,[2] New Zealand,[5] Poland,[2] the Russian Federation, Sweden,[6] Turkey, the United Kingdom,[2] the United States[7]
Same tuition fees for international and domestic students	France, Germany, Italy, Japan, Korea, Mexico,[8] Spain, Switzerland[9]
No tuition fees for either international or domestic students	Finland, Iceland, Norway

1. International students (excepting students from New Zealand) are not eligible for government-subsidised places in Australia and therefore pay the full fee. While this typically results in international students having higher tuition fees than domestic students, who are usually given subsidised places, some domestic students in public universities and all students in independent-private universities are full-fee paying and pay the same tuition fees as international students.
2. For non-European Union or non-European Economic Area students.
3. In Belgium (Flemish Community), different tuition is allowed only if at least 2% of students in the institutions are from outside the EEA area.
4. No tuition fees for full-time domestic students in public institutions.
5. Except for students in advanced research programmes, or for students from Australia.
6. For students from outside the EU/EEA area and Switzerland.
7. In public institutions, international students pay the same fees as domestic out-of-state students. However, since most domestic students are enrolled in-state, international students pay higher tuition fees than most domestic students, in practice. In private universities, the fees are the same for national and international students.
8. Some institutions charge higher tuition fees for international students.
9. There is a negligible difference between the average annual tuition fees charged to domestic and mobile students.

Source: OECD. Indicator B5. See Annex 3 for notes (*www.oecd.org/edu/eag.htm)*.

Countries that charge international students the full cost of education reap significant economic benefits. Some countries in the Asia-Pacific region have actually made international education an explicit part of their socio-economic development strategy and have initiated policies to attract international students on a revenue-generating or at least a cost-recovery basis. New Zealand has successfully adopted differentiated tuition fees for international students, and this has not hampered their important growth in foreign students over recent years (Table C4.1). This shows that tuition costs do not necessarily discourage prospective international students, as long as the quality of education provided is high and its potential returns make the investment worthwhile.

However, in choosing between similar education opportunities, cost considerations are important. In this respect, the deterioration of the United States' market share may be attributed to the high tuition fees charged to international students compared with those charged in other, primarily English-speaking destinations that offer similar education opportunities at a lower cost (Chart C4.3). Advanced research programmes in New Zealand, for example, have become more attractive since 2005 when tuition fees for international students were reduced to the same level as those paid by domestic students (Box C4.3).

Public funding that is "portable" across borders, or support to students for tertiary education, can ease the cost of studying abroad, as is evident in Chile, Finland, Iceland, the Netherlands, Norway and Sweden.

Immigration policy

In recent years, several OECD countries have eased their immigration policies to encourage the temporary or permanent immigration of international students (OECD, 2008). This makes these countries more attractive to students and strengthens their labour force. As a result, immigration considerations as well as tuition fees may also affect some students' decisions on where to study abroad (OECD, 2011).

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Other factors

Students also make decisions on where to study based on other factors such as: the academic reputation of particular institutions or programmes; the flexibility of programmes in counting time spent abroad towards degree requirements; recognition of foreign degrees; the limitations of tertiary education in the home country; restrictive university admission policies at home; geographical, trade or historical links between countries; future job opportunities; cultural aspirations; and government policies to facilitate the transfer of credits between home and host institutions.

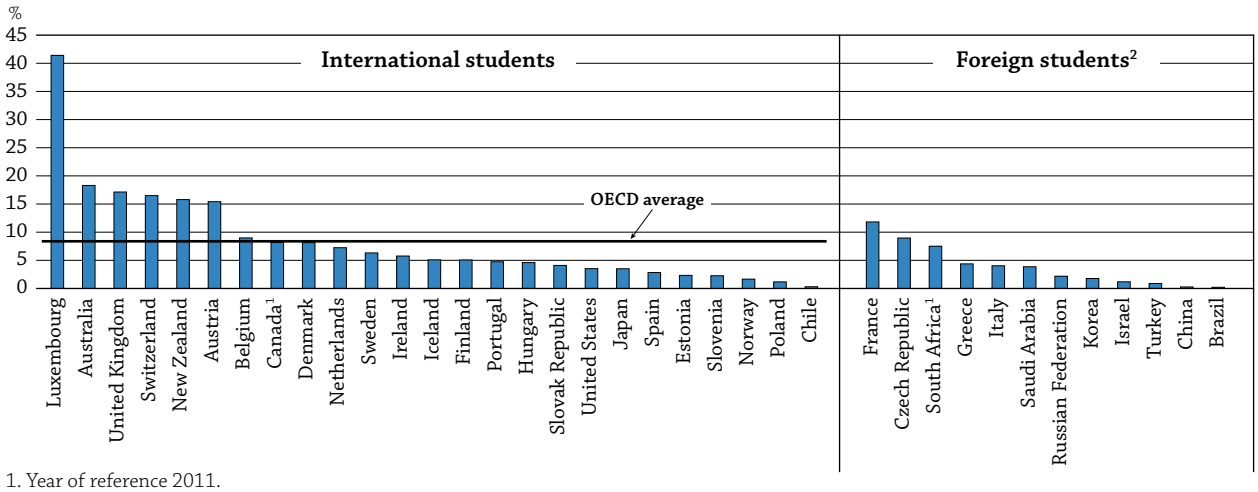
Extent of international student mobility in tertiary education

Among countries for which data on international students are available, Australia, Austria, Luxembourg, New Zealand, Switzerland and the United Kingdom show the highest levels of incoming student mobility, measured as the proportion of international students in their total tertiary enrolment. In Australia, 18% of students enrolled in tertiary education are from another country. Similarly, international students represent 15% of total tertiary enrolments in Austria, 16% in New Zealand, 16% in Switzerland and 17% in the United Kingdom.

In contrast, international students account for 3% or less of total tertiary enrolments in Chile, Estonia, Norway, Poland, Slovenia and Spain (Table C4.1 and Chart C4.4).

Chart C4.4. Student mobility in tertiary education (2012)

International or foreign student enrolment as a percentage of total tertiary enrolment



1. Year of reference 2011.

2. Foreign students are defined on the basis of their country of citizenship, these data are not comparable with data on international students and are therefore presented separately in the chart.

Countries are ranked in descending order of the percentage of international or foreign students in total tertiary education.

Source: OECD. Table C4.1. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933118846

Among countries using the definition of international students based on country of citizenship, France had the largest proportion of foreign students (12%) of the total enrolled at the tertiary level. In contrast, foreign enrolments represented less than 1% of total tertiary enrolments in Brazil, China, and Turkey (Table C4.1 and Chart C4.4).

Proportion of international students at different levels and types of tertiary education

The share of international students in the different types of tertiary education in each country of destination also reveals patterns of student mobility. In 2012, on average across OECD countries, international students represented 6% of total enrolments in tertiary-type B programmes (typically shorter and vocationally oriented). The largest proportion of international students in these programmes was in Luxembourg (49%), followed by New Zealand (21%).

In contrast, international students enrolled in tertiary-type A programmes (largely theory-based) accounted for an OECD average of 8% of total enrolments at this level in 2012. Luxembourg was the country with the largest proportion of international students at this level, with 34% of the total, followed by Australia with 19%, the United Kingdom with 18% and Switzerland with 17% (Table C4.1).

All reporting countries, except for Germany, have a larger proportion of international students enrolled in advanced research programmes than in any other tertiary-level programme. In Luxembourg for example, around four in five students enrolled in advanced research programmes are international students. In 13 of the 26 countries reporting data on international students, more than 20% of all students enrolled in advanced research programmes are international. In Switzerland, more than 50% of all students enrolled in this type of programmes are international students, and in New Zealand and the United Kingdom, more than 40% are.

Based on the criteria of citizenship, France has the largest proportion (more than 40%) of foreign students at this level of education (Table C4.1). These large proportions of international or foreign students may reflect the attractiveness of advanced research programmes in these countries, or a preference for recruiting international students at higher levels of education because of their potential contribution to domestic research and development, or the potential for recruiting these students as highly qualified immigrants.

Within host countries, the distribution of international and foreign students by level and type of tertiary education gives a fair indication of the programmes countries offer. In some countries, a large proportion of international students are enrolled in tertiary-type B programmes. This is the case in Spain, where 35% of international students chose these programmes, Greece (34% foreign students), New Zealand (31%), Luxembourg (27%), Chile (23%), Belgium (22%) and Japan (20%) (Table C4.1).

In other countries, a large proportion of international students enrol in advanced research programmes. This is particularly true in Switzerland, where 25% of all international students choose these programmes. This preference can also be observed in Sweden, where 22% of international students are enrolled in advanced research programmes, as well as in the United States (19%), Ireland (18%) and Slovenia (17%).

In countries reporting data on foreign students only, such as the Czech Republic, Israel, Italy, Latvia and the Russian Federation, at least nine in ten foreign students are enrolled in tertiary-type A (largely theory-based) programmes. In China, 27% of all foreign students are enrolled in advanced research programmes, as are 11% in France and Brazil (Table C4.1). All of these host countries are likely to benefit from the contribution of these highly qualified international students to their research and development programmes.

Profile of international student intake in different destinations

Global balance of student mobility in OECD countries

OECD countries receive more international students than they send to study abroad for tertiary education. In 2012, OECD countries hosted three foreign students for every citizen who was studying outside his or her country of origin. In absolute terms, this represents 3.4 million foreign students in OECD countries, compared to the more than 1 million students studying outside their OECD country of citizenship (Table C4.7, available on line). As 91% of OECD citizens studying abroad study in another OECD country, more than two out of three foreign students in the OECD area come from a country that is not an OECD member (Tables C4.4 and C4.5).

At the country level, the balance varies greatly. While in Australia there are 18 foreign students for each Australian student abroad, the ratio is less than 0.1 to 1 in Mexico. Other countries that have a high ratio of foreign students per national student abroad are the United Kingdom (13:1), New Zealand (12:1) and the United States (11:1). Argentina, Brazil, Estonia, Iceland, Israel, Korea, Latvia, Luxembourg, Mexico, the Slovak Republic and Turkey all report fewer than one foreign student per national student studying abroad (Table C4.5).

Main regions of origin

Students from Asia form the largest group of international students enrolled in countries reporting data to the OECD or the UNESCO Institute for Statistics: 53% of the total in all reporting destinations. The proportions of students from Asia among all international and foreign tertiary students are particularly large in Japan (94%), Korea (93%), Australia (82%), the United States (73%) and New Zealand (70%). Of all international and foreign students in OECD countries, 26% are from European countries (or 17% when considering only EU21 citizens), 9% are from Africa, 6% are from Latin America and the Caribbean, and 3% are from North America. Altogether, 30% of international students enrolled in OECD countries originate from another OECD country (Table C4.3).

Main countries of origin

In 2012, students from China accounted for 22% of all international students enrolled in tertiary education in the OECD area, the highest share among all reporting countries (Table C4.3). Some 28% of all Chinese students studying abroad are enrolled in the United States, while 11% choose Australia, 6% choose Korea, 13% choose Japan, and 11% study in the United Kingdom (Table C4.4). The second-largest proportion of international students in

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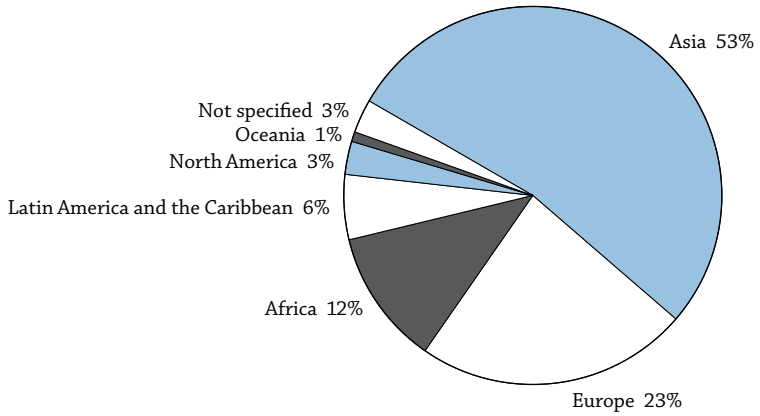
OECD countries comes from India (5.8%) (Table C4.3). Some 45% of Indian students abroad are enrolled in the United States, 17% are in the United Kingdom, 6% in Canada and 5% are in Australia (Table C4.4).

The predominance of students from Asia and Europe can also be observed at the country level among OECD countries. Students from France (2.1%), Germany (4.2%) and Korea (4.2%) are the largest groups of international OECD students enrolled in OECD countries, followed by students from the United States (1.6%), Italy (1.6%), Canada (1.5%), the Slovak Republic (1.2%), Japan (1.1%) and Turkey (1.1%) (Table C4.3).

Chart C4.5. Distribution of foreign students in tertiary education, by region of origin (2012)

Percentage of foreign tertiary students enrolled worldwide



Source: OECD. Table C4.3. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933118865

A large proportion of foreign students in OECD countries come from neighbouring countries. In all OECD countries in 2012, an average of 21% of all foreign students came from countries that share land or maritime borders with the host country. Higher levels of mobility from neighbouring countries are not only the result of being in a particular geographic situation, as in the Czech Republic, but may also reveal cost, quality and enrolment advantages that are more apparent to students in neighbouring countries. Higher percentages of foreign students from countries beyond the immediate borders are seen in countries that have the largest market shares in international education, and in countries like Portugal and Spain, which have close historic and cultural ties with other countries far from their borders (Table C4.5 and Table C4.7, available on line).

Among OECD countries, the highest percentages of students from neighbouring countries are found in Japan (81%), Greece (76%), Korea (75%), Estonia (70%), the Russian Federation (68%) and the Czech Republic (65%). Foreign students from neighbouring countries are also strongly represented in Austria, Belgium, Poland, the Slovak Republic and South Africa. In contrast, only 4% of foreign students in Canada come from the United States; and only 6% of students in the United States come from the Bahamas, Canada or Mexico (Table C4.5 and Table C4.7, available on line).

Language is one of the main attractions for students coming to Portugal to study: 55% of foreign students in Portugal come from countries where Portuguese is an official language, such as Angola, Brazil, Cape Verde, Guinea-Bissau, Mozambique, Sao Tome and Principe or Timor-Leste (Table C4.5 and Table C4.7, available on line).

Language and cultural considerations, geographic proximity and similarity of education systems are all factors that students also consider when determining the country where they will study. Geographic considerations and differences in entry requirements (such as *numerus clausus* or greater selectivity for some programmes) are the most likely explanations for the concentration of students from Germany in Austria and the Netherlands, from Belgium in France and the Netherlands, from France in Belgium, from Canada in the United States, from New Zealand in Australia, etc. Language and academic traditions also explain the tendency of English-speaking students to concentrate in other countries of the British Commonwealth or in the United States, even if they are geographically distant. This is also true for other historic geopolitical areas, such as the former Soviet Union, the Francophonie and Latin America. Migration networks also play a role, as illustrated by the concentration of students with Portuguese citizenship in France, students from Turkey in Germany or those from Mexico in the United States.

Definitions

The **country of prior education** is the country in which students obtained the qualification required to enrol in their current level of education, i.e. the country in which students obtained their upper secondary or post-secondary, vocationally oriented education for international students enrolled in academically or vocationally oriented tertiary programmes, and the country in which they obtained their academically oriented tertiary education for international students enrolled in advanced research programmes. Country-specific operational definitions of international students are indicated in the tables as well as in Annex 3 (*www.oecd.org/edu/eag.htm*).

Foreign students are those who are not citizens of the country in which the data are collected. While pragmatic and operational, this classification is inappropriate for capturing student mobility because of differing national policies regarding the naturalisation of immigrants. For instance, Australia has a greater propensity to grant permanent residence to its immigrant populations than Switzerland. This implies that even when the proportion of foreign students in tertiary enrolment is similar for both countries, the proportion of international students in tertiary education is smaller in Switzerland than in Australia. Therefore, for student mobility and bilateral comparisons, interpretations of data based on the concept of foreign students should be made with caution.

International or **mobile students** are those who left their country of origin and moved to another country for the purpose of study. Depending on country-specific immigration legislation, mobility arrangements, such as the free mobility of individuals within the EU and the EEA, and data availability, international students may be defined as students who are not permanent or usual residents of their country of study or alternatively as students who obtained their prior education in a different country, including another EU country.

Permanent or **usual residence** in the reporting country is defined according to national legislation. In practice,this means holding a student visa or permit, or electing a foreign country of domicile in the year prior to entering the education system of the country reporting the data.

Methodology

Data on international and foreign students refer to the academic year 2011/12 unless otherwise indicated and are based on the UOE data collection on education statistics administered by the OECD in 2012. The fields of education used in the UOE data collection instruments follow the revised ISCED classification by field of education. The same classification is used for all levels of education (for details see Annex 3 at *www.oecd.org/edu/eag.htm*). Additional data from the UNESCO Institute for Statistics are also included.

Data on international and foreign students are obtained from enrolments in their countries of destination. The method used for obtaining data on international and foreign students is therefore the same as that used for collecting data on total enrolments, i.e. records of regularly enrolled students in an education programme.

Domestic and international students are usually counted on a specific day or period of the year. This procedure makes it possible to measure the proportion of international enrolments in an education system, but the actual number of individuals involved may be much higher since many students study abroad for less than a full academic year, or participate in exchange programmes that do not require enrolment, such as inter-university exchanges or short-term advanced research programmes. Moreover, the international student body includes some distance-learning students who are not, strictly speaking, international students. Distance enrolments are fairly common in the tertiary institutions of Australia, the United Kingdom and the United States (OECD, 2004).

Since data on international and foreign students are obtained from tertiary enrolments in their country of destination, the data relate to incoming students rather than to students going abroad. Countries of destination covered by this indicator include all OECD and other G20 countries except Mexico, as well as countries reporting similar data to the UNESCO Institute for Statistics. These data are used to derive global figures and to examine the destinations of students and trends in market shares.

Data on students enrolled abroad as well as trend analyses are not based on the numbers of international students, but on the number of foreign citizens on whom data that is consistent across countries and over time are readily available. The data do not include students enrolled in countries that did not report foreign students to the OECD or to the UNESCO Institute for Statistics. All statements on students enrolled abroad may therefore underestimate the real number of citizens studying abroad (Table C4.3), especially in cases where many citizens study in countries that do not report their foreign students to the OECD or UNESCO Institute for Statistics, such as China and India.

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The relative proportion of international students in the education system affects tertiary entry and graduation rates, and may artificially increase them in some fields or levels of education (see Indicators A2 and A3). It may also affect the mix recorded between public and private expenditure (see Indicator B3).

In countries in which different tuition fees are applied to international students, student mobility may boost the financial resources of tertiary education institutions and help to finance the education system.

International students may represent a heavy financial burden for countries in which tertiary tuition fees are low or non-existent, given the high level of unit costs in tertiary education (see Indicator B5).

Students enrolled in a country different from their own represent only one aspect of the internationalisation of tertiary education. New forms of cross-border education have emerged in the past decade, including mobility of education programmes and institutions across borders. Yet cross-border tertiary education has developed differently, and for different reasons, in the various regions around the world. For a detailed analysis of these issues, as well as the trade and policy implications of the internationalisation of tertiary education, see OECD (2004).

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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StatLink http://dx.doi.org/10.1787/888933118656

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Table C4.1 International student mobility and foreign students in tertiary education (2005, 2012)

International and foreign students enrolled as a percentage of all students (international plus domestic) and distribution of international mobility by level and type of tertiary education

Reading the first column of the upper section of the table (international): 18% of all students in tertiary education in Australia are international students and 16% of all students in tertiary education in Switzerland are international students. The data presented in this table on international student mobility represent the best available proxy of student mobility for each country.

Reading the first column of the lower section of the table (foreign): 12% of all students in tertiary education in France are not French citizens, and 2% of all students in tertiary education in Korea are not Korean citizens.

		International or foreign students as a percentage of all tertiary enrolment				Distribution of international or foreign students		
		Total tertiary	Tertiary-type B programmes	Tertiary-type A programmes	Advanced research programmes	Tertiary-type B programmes	Tertiary-type A programmes	Advanced research programmes
		(1)	(2)	(3)	(4)	(7)	(8)	(9)
		International students						
OECD	Australia	**18**	11	19	32	11	82	7
	Austria	**15**	2	17	23	1	88	10
	Belgium	**9**	4	13	34	22	67	11
	Canada[1, 2]	**8**	8	8	24	20	70	9
	Chile	**n**	n	n	8	23	68	10
	Denmark	**8**	11	7	24	17	74	10
	Estonia	**2**	n	3	6	4	83	13
	Finland	**5**	n	5	10	n	87	13
	Germany	**m**	m	8	7	m	m	m
	Hungary	**5**	n	5	6	1	97	3
	Iceland	**5**	2	5	17	1	92	8
	Ireland	**6**	3	6	23	10	72	18
	Japan	**4**	4	3	19	20	69	11
	Luxembourg	**41**	49	34	83	27	60	13
	Mexico	**m**	m	m	m	m	m	m
	Netherlands[3]	**7**	n	7	39	n	91	9
	New Zealand	**16**	21	13	41	31	61	8
	Norway	**2**	1	2	4	n	91	9
	Poland	**1**	n	1	1	n	97	3
	Portugal	**5**	1	4	10	n	89	11
	Slovak Republic	**4**	n	4	8	n	89	11
	Slovenia	**2**	1	2	10	6	77	17
	Spain	**3**	6	2	17	35	58	7
	Sweden	**6**	n	6	29	n	78	22
	Switzerland[4]	**16**	m	17	51	m	75	25
	United Kingdom	**17**	6	18	41	5	86	9
	United States[5]	**4**	1	3	29	7	74	19
	OECD average	**8**	6	8	23	10	79	11
Partners	Argentina	**m**	m	m	m	m	m	m
	India	**m**	m	m	m	m	m	m
	Latvia	**3**	1	3	3	4	93	3
		Foreign students[6]						
OECD	Czech Republic	**9**	2	9	12	1	91	8
	France	**12**	4	13	42	9	80	11
	Greece[7, 8]	**4**	4	5	m	34	66	n
	Israel	**1**	m	1	3	n	94	6
	Italy	**4**	7	4	11	n	95	5
	Korea	**2**	n	2	7	4	89	8
	Turkey	**1**	n	1	4	7	88	5
Partners	Brazil	**n**	n	n	2	8	81	11
	China	**n**	n	n	1	1	72	27
	Colombia	**m**	m	m	m	m	m	m
	Indonesia	**m**	m	m	m	m	m	m
	Russian Federation[8]	**2**	1	2	m	8	92	n
	Saudi Arabia	**4**	1	4	15	3	95	2
	South Africa[1]	**8**	m	m	m	n	n	n

Note: Columns showing the index of change in the percentage of mobile/foreign students, total tertiary (2005 = 100) and the index of change in the number of foreign students, total tertiary (2005 = 100) are available for consultation on line (see *StatLink* below).

1. Year of reference 2011.
2. Index of change based on year 2004 = 100 instead of 2005 and year of reference 2011.
3. The denominator in the percentage of international students includes all students in independent private tertiary programmes. The country of previous education or residence of these students is unknown, which means that it is not possible to determine if these students are mobile or not.
4. Excludes tertiary-type B international students. The denominator in the percentage of international students includes all students enrolled in tertiary education, but enrolments of international students in tertiary-type B programmes are unknown, so they are excluded from calculations and therefore the percentages presented in the table are underestimated.
5. International students in column 6 (on line).
6. Foreign students are defined on the basis of their country of citizenship, these data are not comparable with data on international students and are therefore presented separately in the table.
7. Excludes private institutions.
8. Excludes advanced research programmes.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933118675

Table C4.2. Distribution of international and foreign students enrolled in tertiary programmes, by field of education (2012)

		Humanities, arts and education	Health and welfare	Social sciences, business and law	Services	Engineering, manufacturing and construction	Sciences	Agriculture	Not known or unspecified	Total all fields of education
		(1)	(4)	(5)	(6)	(7)	(8)	(13)	(14)	(15)
		International students, by field of education								
OECD	Australia	9	10	54	2	13	12	1	n	100
	Austria[1]	23	9	39	1	14	12	2	n	100
	Belgium	16	34	21	2	14	8	5	n	100
	Canada[2]	8	5	41	2	17	15	1	10	100
	Chile	16	7	44	8	13	8	3	n	100
	Denmark	12	11	41	1	21	11	4	n	100
	Estonia	18	6	51	1	6	9	10	n	100
	Finland[1]	11	9	28	7	32	12	2	n	100
	Germany[1]	24	6	27	2	24	15	2	1	100
	Greece	m	m	m	m	m	m	m	n	m
	Hungary	12	44	19	3	9	4	9	n	100
	Iceland	47	4	25	n	5	16	3	n	100
	Ireland	m	m	m	m	m	m	m	m	100
	Japan	23	2	40	2	16	1	2	12	100
	Luxembourg	14	4	61	n	5	15	1	n	100
	Mexico	n	m	m	m	m	m	m	m	m
	Netherlands[3]	15	14	43	8	10	6	2	2	100
	New Zealand	14	7	39	8	8	18	1	5	100
	Norway	31	10	31	5	5	12	2	3	100
	Portugal	19	8	37	6	18	10	1	2	100
	Slovenia	18	10	33	6	18	13	3	n	100
	Spain	11	12	22	3	10	5	1	35	100
	Sweden	12	11	24	2	31	20	1	n	100
	Switzerland[1]	21	7	33	2	17	18	1	2	100
	United Kingdom	16	9	46	2	14	13	1	n	100
	United States	15	7	33	2	18	17	1	7	100
Partners	Argentina	m	m	m	m	m	m	m	m	m
	Brazil	m	m	m	m	m	m	m	m	m
	China	m	m	m	m	m	m	m	m	m
	Colombia	m	m	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m	m	m
	Indonesia	m	m	m	m	m	m	m	m	m
	Latvia	8	25	47	12	5	3	n	n	100
	Russian Federation	m	m	m	m	m	m	m	m	m
	Saudi Arabia	m	m	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m	m	m
		Foreign students, by field of education[4]								
OECD	Czech Republic	13	16	39	3	11	15	2	n	100
	France	20	7	41	2	13	17	n	n	100
	Israel	23	15	30	n	8	23	1	n	100
	Italy	21	16	32	2	21	6	2	n	100
	Korea	25	4	45	4	16	5	1	n	100
	Poland	15	24	40	6	7	6	1	n	100
	Slovak Republic	18	51	19	2	7	2	2	n	100
	Turkey	21	14	34	4	16	9	2	n	100

Note: Columns showing the breakdown of humanities, arts and education (2 and 3) and sciences (9-12) are available for consultation on line (see *StatLink* below).

1. Excludes tertiary-type B programmes.
2. Year of reference 2011.
3. Excludes programmes in private education.
4. Foreign students are defined on the basis of their country of citizenship; these data are not comparable with data on international students and are therefore presented separately in the table and chart.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C4.3. [1/2] Distribution of international and foreign students in tertiary education, by country of origin (2012)

Number of international and foreign students enrolled in tertiary education from a given country of origin as a percentage of all international or foreign students in the country of destination, based on head counts

The table shows for each country the proportion of international students in tertiary education who are residents of or had their prior education in a given country of origin. When data on student mobility are not available, the table shows the proportion of foreign students in tertiary education that have citizenship of a given country of origin.

Reading the second column: 15.7% of international tertiary students in Belgium come from France, 9.9% of international tertiary students in Belgium come from the Netherlands, etc.

Reading the sixth column: 48.2% of international tertiary students in Estonia come from Finland, 1.4% of international tertiary students in Estonia come from Italy, etc.

Reading column 21: 40.5% of foreign tertiary students in Austria are German citizens, 2.4% of foreign tertiary students in Austria are Hungarian citizens, etc.

	OECD destination countries																			
	International students																			
Countries of origin	Australia	Belgium	Canada[1, 2]	Chile	Denmark	Estonia	Germany[3, 4]	Hungary	Iceland	Ireland	Netherlands[2]	New Zealand	Portugal	Slovak Republic	Slovenia	Spain	Sweden[5]	Switzerland[3]	United Kingdom	United States
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
OECD																				
Australia	a	0.1	0.2	n	0.3	0.1	0.2	0.1	0.6	0.5	0.1	6.4	n	n	n	0.1	0.3	0.3	0.4	0.5
Austria	0.1	0.2	0.1	n	0.4	0.1	4.1	0.7	1.9	0.3	0.6	0.1	0.5	1.1	1.0	0.3	0.4	2.6	0.4	0.1
Belgium	n	a	0.2	0.1	0.3	0.2	0.5	0.1	0.5	0.7	4.0	n	1.0	n	0.3	0.5	0.2	0.6	0.7	0.1
Canada	1.5	0.2	a	0.2	0.3	0.6	0.3	1.0	2.3	6.4	0.4	1.0	0.2	0.1	0.3	0.2	0.7	1.1	1.4	3.5
Chile	0.2	0.1	0.1	a	0.1	0.1	0.3	n	0.2	0.1	0.1	0.3	0.1	n	n	2.6	0.1	0.3	0.2	0.3
Czech Republic	n	0.1	n	n	0.6	2.7	0.7	0.5	1.8	0.2	0.4	n	1.3	55.1	0.6	0.2	0.2	0.4	0.3	0.1
Denmark	0.1	n	0.1	n	a	0.5	0.2	n	5.6	0.2	0.3	0.3	0.2	n	0.2	0.1	0.8	0.1	0.4	0.2
Estonia	n	0.1	n	n	1.5	a	0.3	n	1.2	0.1	0.2	n	0.2	n	n	0.1	0.4	0.1	0.3	n
Finland	n	0.1	0.1	0.1	0.9	48.2	0.4	0.3	5.4	0.4	0.5	0.1	0.4	0.1	0.2	0.2	4.9	0.2	0.4	0.1
France	0.5	15.7	6.9	1.8	1.3	0.5	2.9	1.5	5.3	4.1	1.8	0.8	1.9	0.2	0.5	4.0	1.7	16.7	3.0	1.1
Germany	0.6	1.7	0.7	0.4	10.6	1.9	a	12.9	13.0	4.3	43.1	1.6	3.0	5.1	1.0	2.5	4.8	27.1	3.7	1.2
Greece	n	0.7	0.1	n	1.3	0.2	1.1	1.0	0.4	0.6	2.6	n	0.7	12.0	0.3	0.4	1.2	1.1	2.7	0.3
Hungary	n	0.2	n	n	1.5	0.4	0.8	a	0.4	0.3	0.7	n	0.5	0.9	0.4	0.2	0.2	0.5	0.3	0.1
Iceland	n	n	n	n	4.2	0.2	n	0.5	a	n	0.2	n	n	n	n	n	0.9	0.1	n	0.1
Ireland	0.1	0.1	0.1	n	0.2	0.1	0.2	1.1	0.4	a	0.3	0.2	0.1	0.5	0.1	0.1	0.2	0.1	3.5	0.1
Israel	0.1	0.1	0.2	n	0.1	0.1	0.8	4.2	0.1	0.1	0.2	n	n	0.6	n	0.1	0.1	0.2	0.1	0.3
Italy	0.2	1.3	0.3	0.2	2.5	1.4	2.0	1.1	4.2	2.3	2.1	0.2	5.9	0.5	9.2	7.4	1.3	8.3	1.9	0.6
Japan	0.7	0.2	1.1	n	0.1	0.3	0.9	1.2	1.5	0.4	0.2	1.7	0.1	0.1	n	0.2	0.4	0.6	0.7	2.6
Korea	3.0	0.1	3.5	0.3	n	0.4	1.8	1.4	0.1	0.3	0.5	3.9	0.1	0.1	n	0.1	0.2	0.4	1.1	9.5
Luxembourg	n	1.5	n	n	n	0.1	1.6	n	n	0.2	0.2	n	0.1	n	n	n	n	1.0	0.2	n
Mexico	0.2	0.3	0.9	2.5	0.3	0.2	0.9	0.2	0.9	0.3	0.5	0.2	0.3	0.1	0.2	4.6	0.6	0.7	0.4	1.8
Netherlands	0.1	9.9	0.1	0.1	1.0	0.6	0.4	0.3	1.5	0.8	a	0.2	0.9	0.1	0.1	0.5	0.8	0.6	0.8	0.3
New Zealand	1.2	n	0.1	n	n	0.1	0.1	n	0.5	0.1	n	a	n	n	n	n	0.1	0.1	0.1	0.2
Norway	0.5	0.1	0.1	0.1	13.0	0.3	0.2	4.6	2.5	0.4	0.6	0.5	0.3	4.2	n	0.2	1.5	0.2	1.0	0.3
Poland	0.1	0.8	0.2	n	3.9	0.6	3.3	0.5	6.0	1.6	1.8	n	4.4	2.0	0.5	1.2	1.0	1.1	1.5	0.2
Portugal	n	0.4	0.1	0.1	0.5	0.2	0.2	0.6	0.4	0.4	0.7	0.1	a	0.5	0.2	2.9	0.4	0.5	0.6	0.1
Slovak Republic	n	0.1	n	n	0.8	0.1	0.4	12.4	1.3	0.2	0.4	n	0.6	a	0.6	0.2	0.1	0.3	0.3	0.1
Slovenia	n	0.1	n	n	0.2	0.1	0.1	0.1	0.6	0.1	0.2	n	0.4	0.1	a	0.1	0.1	0.1	0.1	n
Spain	0.1	0.7	0.2	0.9	1.8	0.9	2.6	1.7	5.9	1.7	1.4	0.1	13.3	0.7	0.4	a	0.9	1.4	1.4	0.6
Sweden	0.3	0.1	0.1	n	9.7	0.5	0.3	2.5	4.7	0.3	0.5	0.2	0.3	0.6	0.2	0.2	a	0.5	0.8	0.5
Switzerland	0.1	0.1	0.2	n	0.3	0.1	1.2	0.1	0.4	0.3	0.4	0.1	0.3	0.1	n	0.4	0.2	a	0.6	0.2
Turkey	0.2	0.7	0.5	0.1	0.4	2.9	2.9	2.7	0.2	0.2	1.2	0.1	1.8	0.3	0.2	0.4	1.5	1.4	0.8	1.6
United Kingdom	0.6	0.4	0.7	0.1	1.0	0.9	0.7	1.4	4.6	18.6	1.5	1.2	0.8	1.0	0.1	0.9	0.9	0.9	a	1.2
United States	1.1	0.6	6.1	1.2	1.1	1.9	2.1	2.2	4.7	9.4	1.1	5.4	0.8	0.2	0.7	1.5	1.8	2.0	3.5	a
Total from OECD	11.8	36.6	22.9	8.2	59.9	67.6	34.6	57.1	79.2	55.5	68.7	25.0	40.2	86.2	17.1	32.6	28.9	71.4	33.6	27.8
Partners																				
Argentina	n	0.1	0.1	3.4	0.1	n	0.2	n	0.2	n	0.1	0.1	0.2	n	0.3	3.8	0.1	0.4	n	0.2
Brazil	0.3	0.3	0.3	2.2	0.3	0.6	1.1	0.1	0.2	0.3	0.4	0.4	27.9	0.1	0.8	2.8	0.4	1.2	0.3	1.2
China	35.1	2.6	21.7	0.2	4.1	5.1	9.9	1.4	3.2	13.3	8.1	27.7	1.0	n	0.9	2.7	11.3	2.5	18.0	28.4
Colombia	0.5	0.3	0.4	22.3	0.1	0.5	0.7	n	0.3	0.1	0.4	0.2	0.2	n	n	10.5	0.4	0.8	0.2	0.8
India	4.7	1.3	6.7	0.1	0.9	1.1	2.3	0.2	1.8	3.2	1.4	17.7	0.3	0.1	0.6	0.4	5.4	1.4	6.9	13.1
Indonesia	3.8	0.3	0.5	n	0.1	0.3	0.7	0.1	0.1	0.1	1.6	0.9	0.1	n	n	0.1	0.2	0.1	0.3	0.9
Latvia	n	0.1	n	n	3.3	n	0.3	n	1.4	0.2	0.7	n	0.3	n	n	0.1	0.4	0.1	0.5	n
Russian Federation	0.4	0.6	0.5	0.1	0.5	8.6	4.9	0.5	2.3	0.5	1.0	0.8	0.6	0.3	1.6	1.3	1.8	2.0	0.8	0.6
Saudi Arabia	2.2	n	2.6	n	n	n	0.1	1.2	n	2.0	0.1	2.4	n	0.9	n	0.1	0.1	0.1	2.3	4.5
South Africa	0.3	0.2	0.1	n	n	0.1	0.1	n	0.1	0.3	0.2	0.3	0.1	n	n	n	0.1	0.2	0.3	0.2
Total from other G20 countries	46.7	5.3	32.6	6.0	6.0	15.9	19.3	3.5	7.8	19.5	12.7	50.2	30.2	1.3	4.2	11.1	19.4	7.8	29.1	49.2
Main geographic regions																				
Africa	2.8	6.6	9.9	0.1	2.1	1.6	8.4	4.0	2.2	4.5	2.1	1.0	21.5	1.3	1.6	9.1	5.4	4.8	8.2	4.6
Asia	81.5	9.3	49.0	0.8	9.6	18.4	31.9	21.7	9.9	32.3	16.8	69.8	5.5	6.1	3.4	5.9	42.0	10.7	53.0	73.3
Europe	4.0	37.4	11.4	4.1	80.4	75.3	44.1	70.6	76.9	40.6	72.9	6.9	42.1	92.0	89.7	34.1	29.9	73.3	31.2	9.4
of which, from EU21 countries	2.8	34.0	9.8	3.8	39.9	60.3	23.0	38.7	65.1	37.2	63.3	5.3	36.2	80.5	15.7	22.2	20.6	64.2	23.3	7.0
North America	2.7	0.8	6.4	1.4	1.4	2.5	2.5	3.3	7.1	15.8	1.5	6.4	1.0	0.2	0.9	1.7	2.5	3.1	5.0	3.6
from Oceania	1.9	0.1	0.4	n	0.3	0.2	0.3	0.1	1.1	0.7	0.1	9.0	0.2	n	n	0.1	0.3	0.4	0.6	0.7
Latin America and the Caribbean	1.7	1.9	5.9	88.7	1.1	2.0	4.8	0.3	2.5	1.0	2.9	1.4	29.8	0.4	1.4	49.1	2.3	4.8	1.9	8.4
Not specified	5.4	43.8	17.0	5.0	5.2	n	8.0	n	0.3	5.2	3.6	5.5	n	n	2.9	0.1	17.6	2.9	0.2	n
Total from all countries	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0

1. Year of reference 2011.
2. Excludes private institutions.
3. Excludes tertiary-type B programmes.
4. Excludes advanced research programmes (for Germany, advanced research programmes are included only in aggregated geographic regions).
5. Students with origin not specified come mainly from other Nordic countries.
6. Foreign students are defined on the basis of their country of citizenship; these data are not comparable with data on international students and are therefore presented separately in the table.

Sources: OECD and UNESCO Institute for Statistics for most data on non-OECD countries. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C4.3. [2/2] Distribution of international and foreign students in tertiary education, by country of origin (2012)

Number of international and foreign students enrolled in tertiary education from a given country of origin as a percentage of all international or foreign students in the country of destination, based on head counts

The table shows for each country the proportion of international students in tertiary education who are residents of or had their prior education in a given country of origin. When data on student mobility are not available, the table shows the proportion of foreign students in tertiary education that have citizenship of a given country of origin.

Reading the second column: 15.7% of international tertiary students in Belgium come from France, 9.9% of international tertiary students in Belgium come from the Netherlands, etc.

Reading the sixth column: 48.2% of international tertiary students in Estonia come from Finland, 1.4% of international tertiary students in Estonia come from Italy, etc.

Reading column 21: 40.5% of foreign tertiary students in Austria are German citizens, 2.4% of foreign tertiary students in Austria are Hungarian citizens, etc.

	Countries of destination																
	OECD													Other G20			
	Foreign students[6]													Foreign students[6]			
Countries of origin	Austria[3]	Czech Republic	Greece	Finland	France	Italy	Israel	Japan	Korea	Norway	Poland	Turkey	Total OECD destinations	Brazil	Russian Fed.[2,4]	Total non-OECD destinations	Total all reporting destinations
	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)
OECD																	
Australia	0.1	n	0.1	0.2	0.1	0.1	0.7	0.2	0.1	0.3	0.1	0.2	**0.4**	0.1	m	**0.1**	**0.3**
Austria	a	0.2	0.1	0.4	0.2	0.2	0.5	n	n	0.3	0.3	0.3	**0.5**	0.1	m	**0.1**	**0.4**
Belgium	0.2	n	0.2	0.2	1.3	0.3	1.2	n	n	0.3	0.2	0.2	**0.4**	0.3	m	**n**	**0.3**
Canada	0.1	0.1	0.1	0.7	0.6	0.2	3.5	0.2	0.7	0.5	1.9	0.1	**1.5**	0.4	m	**0.4**	**1.2**
Chile	0.1	n	n	0.1	0.3	0.3	0.2	n	n	n	n	n	**0.2**	2.4	m	**0.2**	**0.2**
Czech Republic	0.9	a	0.1	0.4	0.3	0.2	0.1	n	n	0.4	2.7	n	**0.4**	n	m	**n**	**0.3**
Denmark	0.1	n	n	0.3	0.1	0.1	0.3	n	n	4.7	0.2	0.1	**0.2**	n	m	**n**	**0.2**
Estonia	0.1	n	n	4.4	n	0.1	n	n	n	0.5	n	n	**0.1**	0.1	0.3	**0.1**	**0.1**
Finland	0.2	n	0.1	a	0.1	0.1	0.3	0.1	n	1.8	0.2	n	**0.3**	0.1	m	**0.1**	**0.2**
France	0.6	0.3	0.3	1.1	a	1.5	4.2	0.4	0.1	0.9	1.5	0.4	**2.1**	1.6	m	**0.3**	**1.6**
Germany	40.5	1.1	1.3	3.0	2.8	1.8	3.4	0.3	0.1	5.2	3.1	3.6	**4.2**	1.7	m	**0.5**	**3.3**
Greece	0.6	1.0	a	0.6	0.7	4.3	0.2	n	n	0.3	0.2	3.4	**1.0**	n	m	**0.5**	**0.9**
Hungary	2.4	0.2	0.1	0.8	0.2	0.3	0.3	0.1	n	0.3	0.3	n	**0.3**	n	m	**0.1**	**0.2**
Iceland	n	n	n	0.1	n	n	n	n	n	2.0	n	n	**0.1**	n	m	**n**	**0.1**
Ireland	0.1	0.1	n	0.2	0.2	n	n	n	n	0.1	0.2	n	**0.6**	n	m	**0.1**	**0.5**
Israel	0.2	0.3	0.2	0.1	0.1	2.1	a	n	n	0.1	0.2	0.1	**0.3**	0.1	m	**0.7**	**0.4**
Italy	10.3	0.2	0.4	1.5	2.5	a	1.7	0.1	n	0.9	0.8	0.1	**1.6**	1.7	m	**0.7**	**1.4**
Japan	0.5	0.1	0.1	0.8	0.6	0.4	0.6	a	1.9	0.3	0.2	0.1	**1.1**	2.4	m	**0.2**	**0.9**
Korea	0.6	0.1	n	0.5	0.8	0.7	3.4	16.0	a	0.2	0.2	0.1	**4.2**	1.4	m	**0.5**	**3.3**
Luxembourg	1.0	n	n	n	0.5	n	n	n	n	n	n	n	**0.3**	n	m	**n**	**0.2**
Mexico	0.2	0.1	n	0.7	0.8	0.5	0.4	0.1	0.1	0.3	0.2	n	**0.9**	0.6	m	**0.2**	**0.7**
Netherlands	0.3	0.1	0.1	0.5	0.3	0.2	0.7	0.1	n	1.7	0.2	0.4	**0.5**	0.1	m	**0.1**	**0.4**
New Zealand	n	n	n	0.1	n	n	n	n	0.1	0.1	n	n	**0.2**	n	m	**n**	**0.1**
Norway	0.1	0.7	n	0.4	0.1	0.1	0.4	n	n	a	5.9	n	**0.6**	n	m	**0.1**	**0.5**
Poland	2.2	0.9	0.5	1.3	1.0	1.8	0.4	0.1	0.1	2.2	a	0.1	**0.9**	0.1	m	**0.1**	**0.7**
Portugal	0.2	1.2	n	0.3	1.3	0.2	0.1	n	n	0.3	0.6	n	**0.4**	4.3	m	**0.1**	**0.3**
Slovak Republic	2.2	62.9	n	0.2	0.2	0.3	n	n	n	0.6	0.5	n	**1.2**	n	m	**n**	**0.9**
Slovenia	1.1	n	n	0.1	n	0.3	n	n	n	n	0.1	n	**0.1**	n	m	**n**	**0.1**
Spain	0.5	0.1	0.2	1.2	1.9	0.7	0.6	0.1	n	0.7	4.6	0.1	**1.0**	1.2	m	**0.1**	**0.8**
Sweden	0.2	0.4	0.1	3.2	0.2	0.1	0.6	0.1	n	9.1	4.5	0.1	**0.6**	0.1	m	**0.1**	**0.5**
Switzerland	1.1	n	0.1	0.2	0.7	1.1	0.9	n	n	0.3	0.1	0.1	**0.4**	0.4	m	**0.1**	**0.3**
Turkey	4.6	0.2	0.5	1.0	0.9	1.1	0.3	0.1	0.1	0.6	1.7	a	**1.1**	0.1	m	**1.7**	**1.3**
United Kingdom	0.4	1.1	0.4	1.2	1.2	0.3	1.6	0.3	0.1	1.9	0.7	0.3	**0.8**	0.6	m	**0.6**	**0.8**
United States	0.7	0.4	0.6	1.8	1.4	0.6	33.0	1.1	2.0	2.3	3.8	0.6	**1.6**	3.4	m	**1.4**	**1.6**
Total from OECD	72.2	72.2	5.9	27.6	21.5	20.0	59.9	19.7	5.7	39.3	35.0	10.3	**29.9**	23.4	0.3	**9.3**	**24.8**
Partners																	
Argentina	n	n	n	0.1	0.3	0.5	0.3	n	n	0.2	n	n	**0.2**	5.1	m	**0.2**	**0.2**
Brazil	0.3	0.1	0.1	0.5	1.5	1.4	0.6	0.4	0.1	0.6	0.2	n	**1.0**	a	m	**0.4**	**0.8**
China	1.4	0.5	0.1	12.1	9.8	9.8	1.4	64.1	73.5	4.9	2.3	0.7	**21.6**	2.1	m	**9.3**	**18.6**
Colombia	0.2	0.1	n	0.2	1.1	1.3	0.3	n	0.1	0.3	0.1	n	**0.8**	2.4	m	**2.8**	**1.3**
India	0.5	0.4	n	3.2	0.7	1.2	0.8	0.4	0.9	1.6	1.0	0.1	**5.8**	0.1	m	**2.8**	**5.1**
Indonesia	0.1	n	m	0.2	0.2	0.2	n	1.5	1.0	0.6	0.1	0.6	**0.9**	0.1	m	**1.3**	**1.0**
Latvia	0.1	n	n	0.6	0.1	0.1	0.1	n	n	0.7	0.2	n	**0.2**	n	0.5	**1.6**	**0.5**
Russian Federation	1.5	7.4	1.6	11.9	1.6	2.2	0.6	0.2	0.6	5.7	2.7	1.5	**1.3**	0.2	a	**1.6**	**1.4**
Saudi Arabia	0.1	0.1	n	n	0.2	n	n	0.2	0.2	n	1.5	0.1	**1.9**	n	m	**1.0**	**1.7**
South Africa	0.1	0.1	0.1	0.1	n	n	0.6	n	0.1	0.2	0.1	0.1	**0.2**	0.9	m	**0.2**	**0.2**
Total from other G20 countries	4.0	8.5	2.0	28.1	14.3	15.5	4.3	66.9	76.4	13.8	7.9	3.0	**32.9**	8.5	m	**16.8**	**28.9**
Main geographic regions																	
Africa	1.4	1.2	3.3	16.3	42.4	12.4	1.6	0.8	1.7	9.0	2.7	5.0	**9.0**	25.7	n	**19.5**	**11.6**
Asia	11.9	10.6	50.4	39.9	21.7	25.1	7.8	94.3	93.3	18.7	16.8	55.6	**52.0**	7.9	56.7	**56.0**	**53.0**
Europe	84.5	86.1	41.0	38.2	22.1	51.5	20.9	2.4	1.4	48.2	73.7	20.6	**25.8**	13.2	38.2	**15.9**	**23.3**
of which, from EU21 countries	64.0	69.9	4.0	20.8	14.9	12.9	16.6	1.8	0.6	32.3	20.7	9.1	**17.3**	12.1	0.3	**3.7**	**14.0**
North America	0.8	0.6	0.7	2.4	2.0	0.8	36.4	1.3	2.7	2.8	5.7	0.6	**3.2**	3.8	n	**1.8**	**2.8**
from Oceania	0.1	n	0.1	0.3	0.2	0.1	0.7	0.3	0.3	0.4	0.1	0.2	**0.7**	0.3	n	**1.3**	**0.8**
Latin America and the Caribbean	1.3	0.6	0.3	2.5	6.0	9.2	3.5	1.0	0.6	2.2	0.8	0.2	**5.6**	30.6	n	**5.6**	**5.6**
Not specified	0.1	0.8	4.3	0.3	5.6	0.9	29.0	n	n	18.7	0.2	17.8	**3.8**	18.6	5.2	**m**	**2.9**
Total from all countries	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	**100.0**	100.0	100.0	**100.0**	**100.0**

1. Year of reference 2011.
2. Excludes private institutions.
3. Excludes tertiary-type B programmes.
4. Excludes advanced research programmes (for Germany, advanced research programmes are included only in aggregated geographic regions).
5. Students with origin not specified come mainly from other nordic countries.
6. Foreign students are defined on the basis of their country of citizenship; these data are not comparable with data on international students and are therefore presented separately in the table.

Sources: OECD and UNESCO Institute for Statistics for most data on non-OECD countries. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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C4

Table C4.4. [1/2] Citizens studying abroad in tertiary education, by country of destination (2012)

Number of foreign students enrolled in tertiary education in a given country of destination as a percentage of all students enrolled abroad in reporting destinations, based on head counts

The table shows for each country the proportion of students studying abroad in tertiary education in a given country of destination.

Reading the second column: 4.5% of Czech citizens enrolled in tertiary education abroad study in Austria, 10.8% of Italian citizens enrolled in tertiary education abroad study in Austria, etc.

Reading the first row: 2.5% of Australian citizens enrolled in tertiary education abroad study in France, 19.7% of Australian citizens enrolled in tertiary education abroad study in New Zealand, etc.

		Countries of destination																			
		OECD																			
	Country of origin	Australia[1]	Austria[2]	Belgium	Canada[3, 4]	Chile	Czech Republic	Denmark	Estonia	Finland	France	Germany[5]	Greece	Hungary	Iceland	Ireland[6]	Israel	Italy	Japan	Korea	Luxembourg[5]
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
OECD	Australia	a	0.4	0.3	3.6	n	0.1	0.6	n	0.3	2.5	3.6	0.2	0.1	n	1.0	0.2	0.5	1.9	0.5	n
	Austria	1.2	a	0.6	0.8	n	0.4	0.6	n	0.3	2.7	52.5	0.1	0.8	0.1	0.4	0.1	0.9	0.2	n	0.1
	Belgium	0.7	0.9	a	3.0	0.1	0.1	0.5	n	0.3	23.7	8.5	0.3	0.2	n	0.4	0.4	1.4	0.4	0.1	2.3
	Canada	7.8	0.2	0.3	a	n	0.1	0.2	n	0.2	3.4	1.4	0.1	0.4	0.1	1.9	0.3	0.3	0.6	0.9	n
	Chile	4.9	0.4	1.1	3.7	a	0.1	0.4	n	0.2	7.9	5.5	0.1	0.1	n	0.1	0.1	1.8	0.3	0.2	n
	Czech Republic	0.6	4.5	0.6	0.7	n	a	1.0	0.1	0.4	5.4	12.2	0.2	0.6	0.1	0.8	n	1.0	0.3	0.1	0.2
	Denmark	2.3	0.9	0.7	1.3	n	0.1	a	0.1	0.6	2.2	6.9	0.1	0.1	1.1	0.6	0.2	0.6	0.7	n	0.1
	Estonia	0.4	1.3	0.5	0.2	n	0.2	6.5	a	12.7	2.2	10.1	0.1	0.2	0.2	1.7	n	1.1	0.4	n	0.1
	Finland	1.0	1.6	0.7	0.8	0.1	0.1	2.7	6.7	a	2.8	8.1	0.2	0.5	0.5	0.7	0.1	0.8	0.9	0.1	0.1
	France	1.3	0.5	22.3	12.4	0.1	0.1	0.5	n	0.2	a	7.8	0.1	0.4	0.1	0.8	0.2	1.4	0.6	0.1	1.0
	Germany	1.1	22.1	0.9	1.1	n	0.3	2.2	n	0.4	5.5	a	0.3	1.7	0.1	0.7	0.1	1.0	0.3	0.1	0.3
	Greece	0.2	1.1	1.6	0.3	n	1.0	0.9	n	0.2	4.9	15.4	a	0.5	n	0.2	n	8.2	0.1	n	0.1
	Hungary	0.6	16.7	1.3	0.8	n	0.8	3.4	n	1.3	5.4	18.1	0.2	a	0.1	1.3	0.1	1.9	0.8	0.1	0.2
	Iceland	0.4	0.9	0.3	1.2	n	0.1	39.3	0.1	0.4	1.3	2.8	n	2.3	a	0.2	n	0.5	0.6	n	n
	Ireland	0.9	0.2	0.3	0.8	n	0.2	0.3	n	0.1	1.8	1.7	n	0.7	n	a	n	0.1	0.1	n	n
	Israel	0.7	0.7	0.2	5.3	n	0.7	0.2	n	0.1	1.5	9.0	0.4	4.2	n	0.1	a	9.2	0.2	n	n
	Italy	0.6	10.8	3.0	0.6	n	0.1	0.9	n	0.4	9.2	13.1	0.1	0.3	0.1	0.7	0.1	a	0.2	n	0.2
	Japan	5.1	1.0	0.4	4.5	n	0.1	0.2	n	0.4	4.6	5.4	0.1	0.6	0.1	0.2	0.1	0.9	a	3.0	n
	Korea	5.6	0.3	0.1	6.4	n	n	n	n	0.1	1.7	3.5	n	0.2	n	0.1	0.1	0.4	18.0	a	n
	Luxembourg	0.1	9.1	20.7	0.4	n	n	0.1	n	n	16.6	38.6	n	0.1	n	0.2	n	0.2	0.1	n	a
	Mexico	2.0	0.5	0.6	6.5	0.7	0.1	0.3	n	0.4	7.4	5.9	n	0.1	n	0.2	0.1	1.3	0.6	0.1	n
	Netherlands	1.0	1.1	27.9	1.8	n	0.1	1.7	n	0.4	4.0	7.3	0.1	0.2	0.1	1.0	0.1	0.7	0.4	n	0.1
	New Zealand	46.1	0.2	0.1	2.6	n	0.1	0.2	n	0.3	1.3	1.4	n	0.1	0.1	0.6	n	0.1	1.2	1.0	n
	Norway	6.8	0.3	0.2	1.0	n	1.4	18.2	n	0.4	1.8	2.1	n	4.2	0.1	0.3	0.1	0.4	0.3	n	n
	Poland	0.3	3.6	1.6	1.2	n	0.7	2.7	n	0.5	5.5	21.5	0.3	0.3	0.1	3.7	n	2.9	0.2	0.1	0.1
	Portugal	0.5	0.5	4.3	1.0	n	2.0	0.7	n	0.3	14.7	8.4	0.1	0.4	n	0.5	n	0.7	0.2	n	1.6
	Slovak Republic	0.2	4.7	0.3	0.3	n	68.1	0.6	n	0.1	1.2	3.0	n	6.9	n	0.5	n	0.6	0.1	n	n
	Slovenia	0.4	25.2	1.1	0.7	n	0.5	1.6	n	0.6	3.4	15.2	0.1	0.9	0.2	0.4	0.1	8.1	0.2	n	0.2
	Spain	0.5	0.9	2.9	0.7	0.2	0.1	1.3	n	0.6	13.2	16.1	0.2	0.9	0.2	1.1	0.1	1.5	0.4	n	0.1
	Sweden	3.2	0.8	0.4	0.9	n	0.8	12.3	n	2.6	2.3	3.1	0.1	2.0	0.2	0.5	0.1	0.5	0.9	0.1	n
	Switzerland	2.4	6.6	1.2	3.3	0.1	0.1	0.8	n	0.3	14.8	22.1	0.3	0.2	n	0.4	0.3	6.6	0.5	0.1	0.1
	Turkey	0.6	4.2	0.6	1.2	n	0.1	0.8	n	0.2	2.9	41.0	0.2	0.6	n	0.1	n	1.0	0.2	0.1	n
	United Kingdom	3.2	0.7	0.8	5.6	n	1.0	1.5	n	0.5	7.2	4.9	0.3	0.6	0.1	11.4	0.2	0.6	1.0	0.2	n
	United States	4.1	0.7	0.5	13.8	0.1	0.3	0.6	n	0.4	5.6	6.3	0.2	0.6	0.1	2.0	2.1	0.6	2.3	1.7	n
	Total from OECD	2.5	4.7	3.1	3.7	0.1	2.4	1.6	0.1	0.4	4.9	10.2	0.1	0.9	0.1	1.2	0.2	1.3	2.5	0.3	0.2
	Total from EU21	1.0	7.0	5.1	2.6	n	3.9	1.7	0.1	0.5	5.8	9.7	0.2	1.1	0.1	1.5	0.1	1.4	0.4	0.1	0.3
Partners	Argentina	0.9	0.3	0.4	3.9	4.3	n	0.2	n	0.2	6.4	2.9	0.1	n	n	0.1	0.1	3.3	0.5	0.2	n
	Brazil	2.0	0.5	0.7	3.9	0.6	0.1	0.4	n	0.2	10.5	6.5	n	n	n	0.4	0.1	2.9	1.5	0.1	n
	China	11.5	0.1	0.2	5.2	n	n	0.2	n	0.3	3.5	2.9	n	n	n	0.3	n	1.0	12.7	5.7	n
	Colombia	3.9	0.6	0.7	8.1	4.5	0.1	0.2	n	0.1	9.4	5.0	n	n	n	n	n	3.1	0.2	0.1	n
	India	5.4	0.2	0.3	6.5	n	0.1	0.1	n	0.3	0.9	2.1	n	n	n	0.4	n	0.4	0.3	0.3	n
	Indonesia	22.7	0.2	0.4	2.2	n	n	0.1	n	0.1	1.3	5.6	m	n	n	n	n	0.4	5.3	1.5	n
	Latvia	0.3	1.2	0.8	0.6	n	0.1	9.3	n	1.2	1.9	8.8	0.1	0.1	0.2	4.2	n	1.1	0.2	n	0.1
	Russian Federation	1.3	1.7	0.8	2.4	n	4.3	0.6	1.7	3.1	6.4	20.1	0.7	0.2	n	0.3	n	2.6	0.5	0.5	0.1
	Saudi Arabia	8.1	0.1	n	4.9	n	0.1	n	n	n	0.8	0.3	n	0.3	n	0.7	n	0.1	0.4	0.2	n
	South Africa	6.1	0.4	0.8	3.3	n	0.2	0.3	n	0.2	0.9	1.4	0.3	n	n	1.9	0.2	0.3	0.1	0.3	n
	Total from other G20	9.6	0.2	0.3	5.1	0.1	0.3	0.2	0.1	0.4	3.2	3.8	n	0.1	n	0.3	n	1.0	8.3	3.7	n
	Total from all countries	5.5	1.7	1.2	4.9	0.3	0.9	0.7	0.1	0.4	6.0	6.3	0.6	0.4	n	0.6	0.1	1.7	3.3	1.3	0.1

Note: The proportion of students abroad is based only on the total of students enrolled in countries reporting data to the OECD and UNESCO Institute for Statistics.

1. Data refers to international students
2. Excludes tertiary-type B programmes.
3. Year of reference 2011.
4. Excludes private institutions.
5. Excludes advanced research programmes (for Germany, advanced research programmes are included only in main geographic regions).
6. Excludes part-time students.

Sources: OECD and UNESCO Institute for Statistics for most data on non-OECD countries. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933118732

Table C4.4. [2/2] Citizens studying abroad in tertiary education, by country of destination (2012)

Number of foreign students enrolled in tertiary education in a given country of destination as a percentage of all students enrolled abroad in reporting destinations, based on head counts

The table shows for each country the proportion of students studying abroad in tertiary education in a given country of destination.

Reading the second column: 4.5% of Czech citizens enrolled in tertiary education abroad study in Austria, 10.8% of Italian citizens enrolled in tertiary education abroad study in Austria, etc.

Reading the first row: 2.5% of Australian citizens enrolled in tertiary education abroad study in France, 19.7% of Australian citizens enrolled in tertiary education abroad study in New Zealand, etc.

		Countries of destination																		
		OECD															Other G20			
	Country of origin	Netherlands[4]	New Zealand	Norway	Poland	Portugal	Slovak Republic	Slovenia	Spain	Sweden	Switzerland	Turkey	United Kingdom	United States[1]	Total OECD destinations	Total EU21 destinations	Brazil	Russian Federation[4, 5]	Total non-OECD destinations	Total all reporting destinations
		(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)	(31)	(32)	(33)	(34)	(35)	(36)	(37)	(38)	(39)
OECD	Australia	0.5	19.7	0.4	0.2	0.2	n	n	0.4	0.8	0.9	0.5	26.2	27.3	**93**	**38**	0.1	m	**7**	**100**
	Austria	2.0	0.5	0.3	0.3	0.5	0.6	0.1	1.3	1.0	8.3	0.5	13.1	5.1	**96**	**78**	0.1	m	**4**	**100**
	Belgium	18.2	0.4	0.4	0.3	1.8	n	n	3.8	0.5	3.6	0.5	17.7	5.9	**96**	**81**	0.3	m	**4**	**100**
	Canada	0.5	1.6	0.2	1.0	0.3	n	n	0.3	0.4	1.1	n	14.9	52.7	**91**	**26**	0.1	m	**9**	**100**
	Chile	0.6	2.0	n	0.1	0.2	n	n	21.4	0.9	1.1	n	6.8	18.9	**79**	**48**	3.3	m	**21**	**100**
	Czech Republic	1.5	0.4	0.5	4.8	1.8	35.5	0.1	1.6	0.5	1.7	0.1	15.9	4.7	**98**	**89**	n	m	**2**	**100**
	Denmark	2.4	1.9	10.8	0.7	0.4	n	0.1	1.3	10.4	1.4	0.5	32.8	15.0	**96**	**61**	0.1	m	**4**	**100**
	Estonia	2.4	0.1	1.4	0.2	0.5	n	n	1.4	3.9	0.8	n	29.0	3.8	**82**	**74**	0.1	7.3	**18**	**100**
	Finland	2.9	0.5	3.0	0.4	0.7	0.1	n	1.9	23.3	1.5	0.1	24.8	5.7	**93**	**79**	0.1	m	**7**	**100**
	France	1.3	0.5	0.2	0.5	0.9	n	n	4.1	0.5	8.7	0.2	19.7	9.3	**96**	**62**	0.3	m	**4**	**100**
	Germany	18.2	0.9	0.7	0.6	0.5	0.3	n	2.0	1.4	11.0	1.0	15.2	6.4	**96**	**74**	0.2	m	**4**	**100**
	Greece	3.8	n	0.2	0.1	0.3	2.7	n	0.8	1.0	1.6	3.3	33.8	4.6	**87**	**77**	n	m	**13**	**100**
	Hungary	3.6	0.7	0.6	0.7	0.9	0.8	0.1	1.5	1.4	2.6	0.1	23.1	5.6	**95**	**83**	n	m	**5**	**100**
	Iceland	2.8	0.3	8.7	0.2	0.1	n	n	0.8	11.9	1.0	n	13.6	9.0	**99**	**78**	n	m	**1**	**100**
	Ireland	0.7	1.0	0.1	0.2	0.1	0.2	n	0.5	0.4	0.2	n	82.4	3.8	**97**	**90**	n	m	**3**	**100**
	Israel	0.7	0.3	0.1	0.3	0.1	0.3	n	0.6	0.1	0.6	0.1	3.4	13.7	**53**	**32**	0.1	m	**47**	**100**
	Italy	1.9	0.2	0.2	0.3	1.7	0.1	0.3	10.1	0.7	8.6	0.1	18.7	5.7	**89**	**72**	0.4	m	**11**	**100**
	Japan	0.4	2.9	0.2	0.2	n	n	n	0.6	0.6	0.9	0.1	10.0	53.1	**95**	**25**	1.0	m	**5**	**100**
	Korea	0.2	2.5	n	n	n	n	n	0.1	0.1	0.3	n	4.0	52.0	**96**	**11**	0.2	m	**4**	**100**
	Luxembourg	1.2	n	n	n	0.4	n	n	0.2	0.1	5.3	n	5.3	0.8	**100**	**93**	n	m	**n**	**100**
	Mexico	1.0	0.4	0.2	0.1	0.2	n	n	11.8	0.5	1.3	n	5.7	44.4	**93**	**36**	0.3	m	**7**	**100**
	Netherlands	a	2.2	1.4	0.2	1.0	n	n	2.1	1.6	2.1	0.7	29.6	8.2	**97**	**79**	0.1	m	**3**	**100**
	New Zealand	0.4	a	0.3	0.1	0.1	n	n	0.2	0.5	0.8	n	19.6	18.5	**96**	**25**	n	m	**4**	**100**
	Norway	1.8	1.2	a	7.8	0.3	2.0	n	0.7	6.2	0.6	0.1	24.6	10.0	**93**	**73**	n	m	**7**	**100**
	Poland	2.4	0.1	0.9	a	1.8	0.4	n	2.9	1.4	1.3	n	37.3	3.7	**98**	**90**	n	m	**2**	**100**
	Portugal	2.1	0.1	0.3	0.6	a	0.2	n	11.3	0.7	6.8	n	31.2	4.0	**93**	**80**	2.8	m	**7**	**100**
	Slovak Republic	0.7	0.1	0.3	0.3	0.3	a	0.1	0.6	0.1	0.6	n	8.4	1.1	**99**	**97**	n	m	**1**	**100**
	Slovenia	3.7	0.5	0.2	0.4	2.6	0.2	a	1.9	0.6	2.4	0.1	13.3	5.2	**90**	**80**	0.1	m	**10**	**100**
	Spain	2.6	0.2	0.3	3.2	7.1	0.2	n	a	1.1	4.2	0.1	23.5	12.5	**96**	**76**	0.5	m	**4**	**100**
	Sweden	1.4	0.7	7.8	5.4	0.2	0.3	n	1.1	a	2.0	0.2	25.6	17.7	**93**	**60**	0.1	m	**7**	**100**
	Switzerland	2.1	0.9	0.5	0.1	1.7	0.1	n	2.4	0.9	a	0.4	13.2	10.3	**93**	**74**	0.4	m	**7**	**100**
	Turkey	1.5	0.1	0.1	0.5	0.4	n	n	0.4	0.5	1.3	a	5.2	13.8	**78**	**60**	n	m	**22**	**100**
	United Kingdom	2.7	15.5	0.8	0.4	0.5	0.2	n	2.5	1.5	1.4	0.2	a	20.1	**86**	**37**	0.2	m	**14**	**100**
	United States	1.0	4.6	0.6	1.4	0.3	n	n	1.8	1.0	1.2	0.3	23.9	a	**78**	**47**	0.8	m	**22**	**100**
	Total from OECD	3.6	1.9	0.6	0.8	0.8	0.7	n	2.6	1.1	3.6	0.3	17.5	17.3	**91**	**58**	0.3	n	**9**	**100**
	Total from EU21	5.5	1.5	0.9	0.8	1.1	1.1	n	3.2	1.4	5.6	0.5	22.4	7.4	**94**	**74**	0.3	0.1	**6**	**100**
Partners	Argentina	0.3	0.9	0.3	0.1	0.5	n	n	33.2	0.3	1.1	n	2.6	15.8	**79**	**51**	6.7	m	**21**	**100**
	Brazil	0.6	1.0	0.3	0.1	18.1	n	0.1	6.7	0.4	1.6	n	6.4	22.7	**89**	**55**	a	m	**11**	**100**
	China	0.6	2.1	0.1	0.1	n	n	n	0.5	0.4	0.3	n	10.9	27.6	**86**	**21**	n	m	**14**	**100**
	Colombia	0.8	0.5	0.2	0.1	0.2	n	n	28.8	0.5	1.2	n	4.8	19.3	**93**	**54**	1.1	m	**7**	**100**
	India	0.4	4.4	0.1	0.1	n	n	n	0.2	0.7	0.4	n	17.4	44.7	**86**	**24**	n	m	**14**	**100**
	Indonesia	2.5	1.4	0.2	0.1	0.1	n	n	0.1	0.2	0.6	0.5	3.7	16.6	**66**	**15**	n	m	**34**	**100**
	Latvia	4.6	0.2	1.4	0.7	0.6	n	n	0.9	2.1	1.2	n	37.0	3.2	**82**	**75**	n	7.0	**18**	**100**
	Russian Federation	0.9	0.9	1.6	1.1	0.3	0.1	0.1	2.5	1.1	2.1	0.8	7.1	6.9	**73**	**56**	0.1	a	**27**	**100**
	Saudi Arabia	n	1.5	n	0.6	n	0.1	n	0.1	n	0.1	0.1	14.8	49.4	**83**	**18**	n	m	**17**	**100**
	South Africa	0.9	20.9	0.3	0.1	0.6	n	n	0.2	0.3	0.6	0.2	30.3	12.1	**83**	**39**	1.1	m	**17**	**100**
	Total from other G20	0.6	2.6	0.2	0.2	0.6	n	n	1.0	0.5	0.5	0.1	11.8	29.9	**85**	**25**	0.1	n	**15**	**100**
	Total from all countries	1.4	1.6	0.4	0.6	0.6	0.2	0.1	2.2	0.9	1.4	0.9	12.6	16.4	**75**	**39**	0.3	3.9	**25**	**100**

Note: The proportion of students abroad is based only on the total of students enrolled in countries reporting data to the OECD and UNESCO Institute for Statistics.

1. Data refers to international students
2. Excludes tertiary-type B programmes.
3. Year of reference 2011.
4. Excludes private institutions.
5. Excludes advanced research programmes (for Germany, advanced research programmes are included only in main geographic regions).
6. Excludes part-time students.

Sources: OECD and UNESCO Institute for Statistics for most data on non-OECD countries. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C4.5. Mobility patterns of foreign and international students (2012)

Regional and cross-border mobility, balance on mobility and use of the official language of the host country in countries of origin

		Percentage of national tertiary students enrolled abroad	Number of foreign students per national student abroad	Percentage of foreign students coming from neighbouring countries[1]	Percentage of students from countries with the same official language
		(1)	(2)	(3)	(4)
OECD	Australia	1	18	40	18
	Austria	6	4	59	53
	Belgium	3	4	52	66
	Canada[2]	3	4	4	33
	Chile	1	1	33	59
	Czech Republic[3]	3	3	65	n
	Denmark	3	4	36	n
	Estonia	8	n	70	n
	Finland	4	2	20	3
	France[3]	4	3	15	29
	Germany	5	2	14	9
	Greece[3]	6	1	76	44
	Hungary	3	2	42	n
	Iceland	19	n	10	n
	Ireland	13	1	18	44
	Israel[3]	4	n	n	n
	Italy[3]	4	1	28	5
	Japan	1	4	81	n
	Korea[3]	4	n	75	n
	Luxembourg	70	n	m	29
	Mexico	1	n	m	m
	Netherlands	3	3	47	5
	New Zealand	3	12	11	46
	Norway	8	1	25	n
	Poland	2	1	56	n
	Portugal	6	1	9	55
	Slovak Republic	15	n	60	n
	Slovenia	3	1	31	6
	Spain	2	3	22	40
	Sweden	5	2	20	6
	Switzerland	5	5	49	53
	Turkey[3]	2	n	28	11
	United Kingdom	2	13	14	32
	United States	n	11	6	25
	OECD total	2	3	21	24
	EU21 total	4	3	24	26
Partners	Argentina	n	n	m	92
	Brazil[3]	1	n	25	27
	China[3]	2	m	m	m
	Colombia	2	m	m	m
	India	1	m	m	m
	Indonesia[3]	1	m	m	m
	Latvia	9	n	m	m
	Russian Federation[3, 4]	1	3	68	37
	Saudi Arabia[3]	5	1	27	37
	South Africa[3]	1	5	60	81

1. Neighbour countries considered have land or maritime borders with the host country.
2. Year of reference 2011
3. Domestic tertiary students are calculated as total enrolment minus foreign students instead of total enrolment minus international students.
4. The percentage of foreign students coming from neighbouring countries includes those from former Soviet Union countries, mostly of central Asia.

Source: OECD and UNESCO Institute for Statistics for most data on non-OECD countries. Latvia: Eurostat. CIA World Factbook 2014 for worldwide official languages. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C4.6. Trends in the number of foreign students enrolled in tertiary education, by region of destination and origin (2000 to 2012)

Number of foreign students enrolled in tertiary education, head counts

Foreign students enrolled in the following destinations	Number of foreign students					Index of change (2011)				Foreign students enrolled in OECD countries from the following regions of origin (2012)
	2012	2011	2010	2005	2000	2011 = 100	2010 = 100	2005 = 100	2000 = 100	
Africa	196 568	191 037	178 716	108 765	100 031	103	110	181	197	346 511
Asia	806 281	772 410	726 054	458 377	334 562	104	111	176	241	1 662 788
Europe	2 160 874	2 086 980	1 984 442	1 388 027	935 879	104	109	156	231	969 377
North America	961 967	913 480	880 427	738 401	569 640	105	109	130	169	101 100
Latin America & the Caribbean	71 468	74 267	76 041	37 114	28 945	96	94	193	247	204 874
Oceania	330 886	343 466	350 165	251 904	118 646	96	94	131	279	26 617
Worldwide	**4 528 044**	**4 381 639**	**4 195 845**	**2 982 588**	**2 087 702**	**103**	**108**	**152**	**217**	**3 415 975**
OECD	3 415 975	3 316 209	3 181 939	2 373 011	1 604 601	103	107	144	213	1 085 398
EU countries	1 822 330	1 769 450	1 686 734	1 201 503	822 025	103	108	152	222	779 936
of which in EU21 countries	1 779 998	1 728 586	1 647 730	1 174 107	792 411	103	108	152	225	657 911
G20 countries	3 712 641	3 591 996	3 432 928	2 485 330	1 730 913	103	108	149	214	1 721 226

Note: Figures are based on the number of foreign students enrolled in OECD and non-OECD countries reporting data to the OECD and to UNESCO Institute for Statistics, in order to provide a global picture of foreign students worldwide. The coverage of these reporting countries has evolved over time, therefore missing data have been imputed wherever necessary to ensure the comparability of time series over time. Given the inclusion of UNESCO data for non-OECD countries and the imputation of missing data, the estimates of the number of foreign students may differ from those published in previous editions of *Education at a Glance*. Totals refering to years 2006 to 2009 and 2001 to 2004 are available for consultation on line (see *StatLink* below).

Source: OECD and UNESCO Institute for Statistics for most data on non-OECD countries. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

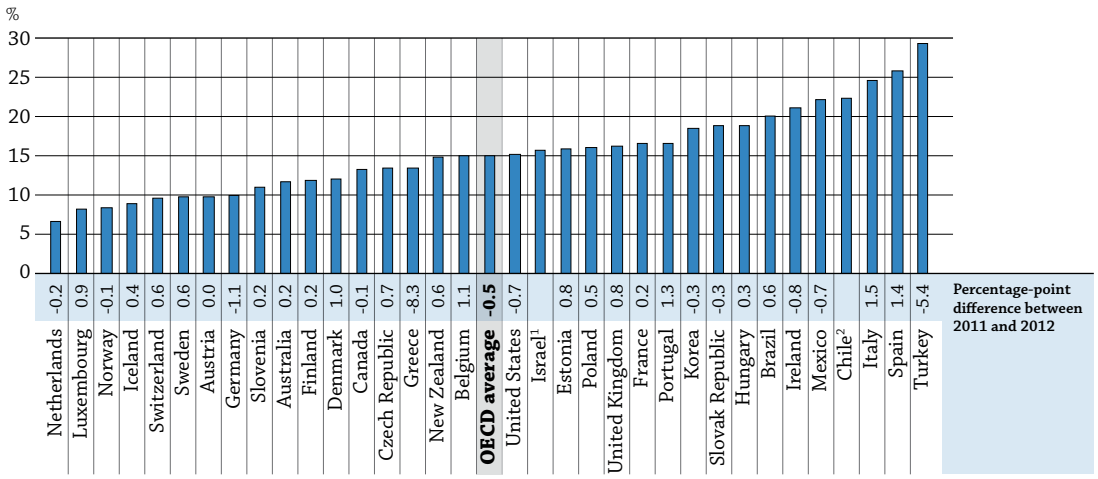
StatLink http://dx.doi.org/10.1787/888933118770

TRANSITION FROM SCHOOL TO WORK: WHERE ARE THE 15-29 YEAR-OLDS?

- During the height of the economic crisis, the proportion of employed 15-29 year-olds who are no longer in education shrank from 41% in 2008 to 36% in 2012, on average across OECD countries.
- In 2012, 15% of individuals between the ages of 15 and 29 were neither employed nor in education or training (the "NEET" population), on average across OECD countries.
- On average across OECD countries, about 40% of 15-29 year-olds working part time in 2012 would have liked to work more.

Chart C5.1. NEET population among 15-29 year-olds (2012) and change between 2011 and 2012

NEET population: People neither employed nor in education or training



1. 2011 and 2012 data are not comparable. See *Methodology* section below.
2. Year of reference 2011.

Countries are ranked in ascending order of the 2012 percentage of NEET population among 15-29 year-olds with upper secondary or post-secondary non-tertiary education.

Source: OECD. Table C5.3d, available on line. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*)

StatLink http://dx.doi.org/10.1787/888933119017

Context

The length and the quality of the schooling individuals receive have an impact on students' transition from education to work; so do labour-market conditions, the economic environment and demographics. National traditions also play an important role. For example, in some countries, young people traditionally complete schooling before they look for work; in others, education and employment are concurrent. In some countries, there is little difference between how young women and men experience their transitions from school to work, while in other countries, significant proportions of young women raise families full time after leaving the education system and do not enter employment.

The ageing of the population in OECD countries should favour employment among young adults, as, theoretically, when older people leave the labour market their jobs are made available to the young. However, during recessionary periods, fewer job vacancies make the transition from school to work substantially more difficult for young people, as those with more work experience are favoured over new entrants into the labour market. When labour-market conditions are unfavourable, younger people often tend to stay in education longer, because high unemployment rates drive down the opportunity costs of education. At the same time, most countries are adopting policies that raise the age of retirement. Delaying retirement slows job rotation, what tends to lead to a decrease in job vacancies. This may account for differences in the number of young people (entrants) and older people (leavers) in the labour market.

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To improve the transition from school to work, regardless of the economic climate, education systems should aim to ensure that individuals have the skills that are needed in the labour market. During recessions, public investment in education can be a sensible way to counterbalance unemployment and invest in future economic growth by building the needed skills. In addition, public investment could be directed towards potential employers in the form of incentives to hire young people.

Other findings

- On average across OECD countries in 2012, **49% of 15-29 year-olds were in education. Of the remaining 51%, 36% held a job, 7% were unemployed, and 8% were outside of the labour force**.
- In 2012, a typical **15-year-old in an OECD country could expect to spend about seven additional years in formal education during the next 15 years**. In addition, before turning 30, he/she could expect to hold a job for over five years, to be unemployed for nearly one year, and to be out of the labour force – that is, neither in education nor seeking work – for over one year.
- **Women between the ages of 15 and 29 were twice as likely as men of that age to be inactive**. During that period, they could expect to be completely out of the labour force for 1.7 years, compared to 0.8 years for men.

Trends

Governments' efforts to improve educational attainment among their populations have resulted in significant changes in participation in education over the years. In 2000, an average of 41% of 15-29 year-olds in OECD countries were in education; by 2012, that proportion had grown to 49% (Table C5.3a).

During the same period, the proportion of 15-29 year-olds not in education but employed fell from 44% to 36%. While the percentage of individuals in education increased steadily between 2000 and 2012, trends in youth employment have been marked by two periods of large drops: between 2000 and 2003 (-3.3 percentage points) and between 2008 and 2012 (-4.4 percentage points). These decreases in youth employment coincided with the slowdown in economic activity in the early 2000s and the recession triggered by the global financial crisis in 2008. The proportion of 15-29 year-olds neither in education nor employed (NEET) remained stable at around 15% between 2000 and 2012 (Table C5.3a).

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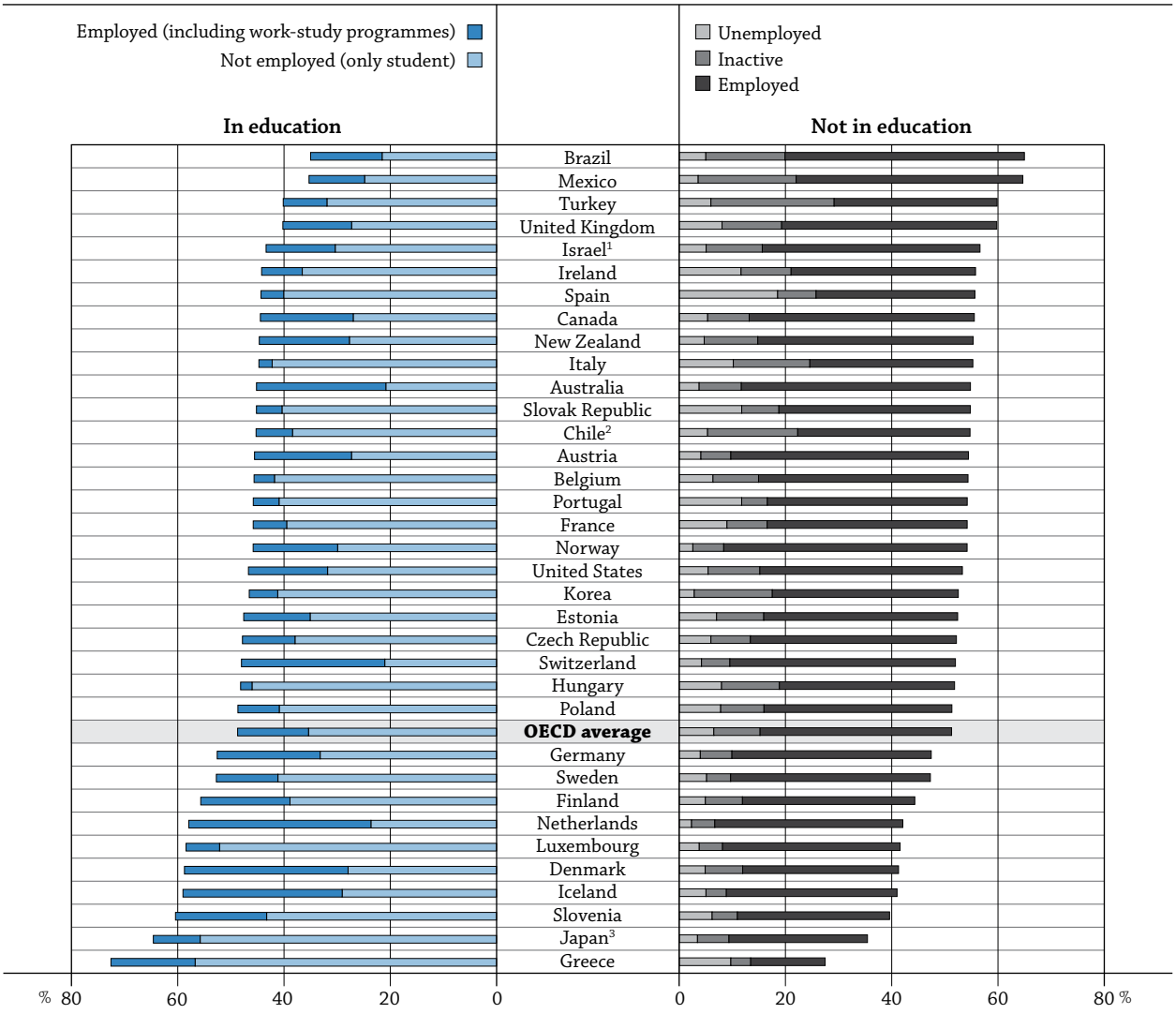
Analysis

Youth in education or not, and their labour market status

While further education improves young people's economic opportunities, the downturn in the global economy over the past several years has made it difficult for young people to find work.

Chart C5.2 shows that across OECD countries, about half the 15-29 year-olds are studying, and the picture is similar across countries, ranging from below 40% in Brazil and Mexico to over 60% in Greece, Japan and Slovenia. The differences among countries are greater when we look at the labour status of this population. Over half of the student population in Australia, Denmark, Iceland, the Netherlands and Switzerland is working at least part time while studying. In all other countries, the proportion of these young adults who work and study simultaneously is smaller; it is below 10% in Belgium, Hungary, Italy and Spain. For young adults who are no longer studying, the differences among countries are also large, but in all countries, most of these young adults are employed.

Chart C5.2. Percentage of 15-29 year-olds in education and not in education, by work status (2012)



1. The low proportion of population in education at these ages is due to mandatory military service for 18-21 year-olds.
2. Year of reference 2011.
3. Data refer to 15-24 year-olds.

Countries are ranked in descending order of the percentage of 15-29 year-olds not in education.

Source: OECD. Table C5.2a, available on line. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933119036

Unemployment and employment rates are useful indicators of how people engage in the labour market, but young individuals are particularly likely to delay their entry into the labour market or drop out of the labour force and become inactive (i.e. not employed and not looking actively for a job; see the *Definitions* section below). While increasing numbers of young people tend to stay in education beyond the age of compulsory schooling and are counted as inactive individuals too, it would be inappropriate to consider these young people as a high-risk group. Consequently, the proportion of young people neither in employment nor in education or training (NEET) is a better measure of the difficulties young adults face in finding a job, as it includes not only those who don't manage to enter the labour force but also those who don't continue studying.

Young people neither in employment nor in education or training (NEET)

Young adults leaving school and entering a difficult labour market may remain unemployed for long periods or may exit the labour force entirely, i.e. become inactive. The proportion of young people neither in employment nor in education or training (NEET) is a better indicator of the difficulty young people face in finding a job than the unemployment rate, as it includes not only those who don't manage to get a job (unemployed), but also those who are discouraged and do not actively seek employment (inactive).

A large NEET population often results from a declining economic situation. It can also indicate a break in the pathway from school to work or a mismatch between the skills of young people and the skills required by the labour market.

Inactive and long-term unemployed individuals in the NEET population may lose valuable skills and experience long-term effects on their future employment and earnings prospects, which, in turn, may result in fewer opportunities to accumulate human capital and foregone tax revenues for national economies. In addition, many studies have confirmed the association between unemployment and poor mental health, including depression, which may also translate into extra social costs for society (OECD, 2008).

Chart C5.1 shows that, across OECD countries between 2011 and 2012, the percentage of 15-29 year-olds who were neither employed nor in education or training fell by a slight 0.5 percentage point. However, in many countries, there was no such improvement. In Italy, for example, there was a 2.5 percentage-point increase in this population during the period, while the increase in Portugal was about 4.0 percentage points (Table C5.3d, available on line).

The 15-19 year-olds (youngest cohort) not in education or training

Because access to upper secondary education has expanded over the years, fewer 15-19 year-olds are outside the education system. Among these young people, those neither in employment nor in education or training (the NEET population) are particularly at risk.

When the labour market deteriorates, the youngest people (15-19 year-olds) making the transition from school to work are often the first to encounter difficulties. These young people might have lower qualifications, while employers tend to prefer more experienced workers for the few jobs on offer. Chart C5.3 shows that some countries are more successful than others in providing employment for 15-19 year-olds (shown in the chart as "not in education, employed"). Across OECD countries, about one in two 15-19 year-olds not in education is working; but in Greece, Italy, Slovenia and Spain, fewer than one young adult in five who is no longer in education is employed.

About 5% of the 15-19 year-olds across OECD countries are NEET and inactive, and these youth are considered to be at risk of exclusion because they have given up both further studying and looking for a job. In Brazil, Chile, Mexico and Turkey, over 15% of 15-19 year-olds are in this situation of not studying, not working and not looking for a job (Table C5.2a).

NEET population unemployed or inactive

The proportion of young people neither in employment nor in education or training (NEET) includes those who are unemployed or inactive. The latter group is particularly important as it includes discouraged young people who gave up looking for a job.

For all levels of education combined, in Chile, Ireland, Italy, Mexico, Spain and Turkey, more than 20% of 15-29 year-olds are NEET. In Spain, 19% of 15-29 year-olds are unemployed NEET youth and 7% are inactive. In Brazil, Chile, Mexico and Turkey the reverse pattern is seen: around 15% of NEET youth are inactive while 6% or fewer are unemployed. In Austria, Germany, Iceland, Luxembourg, the Netherlands, Norway, Sweden and Switzerland, fewer than 10% of 15-29 year-olds were neither in education nor employed (Table C5.2a).

On average across OECD countries in 2012, 17% of 15-29 year-old women were NEET (6% unemployed and 12% inactive) as were 13% of 15-29 year-old men (7% unemployed and 5% inactive) (Tables C5.2b and c, available on line).

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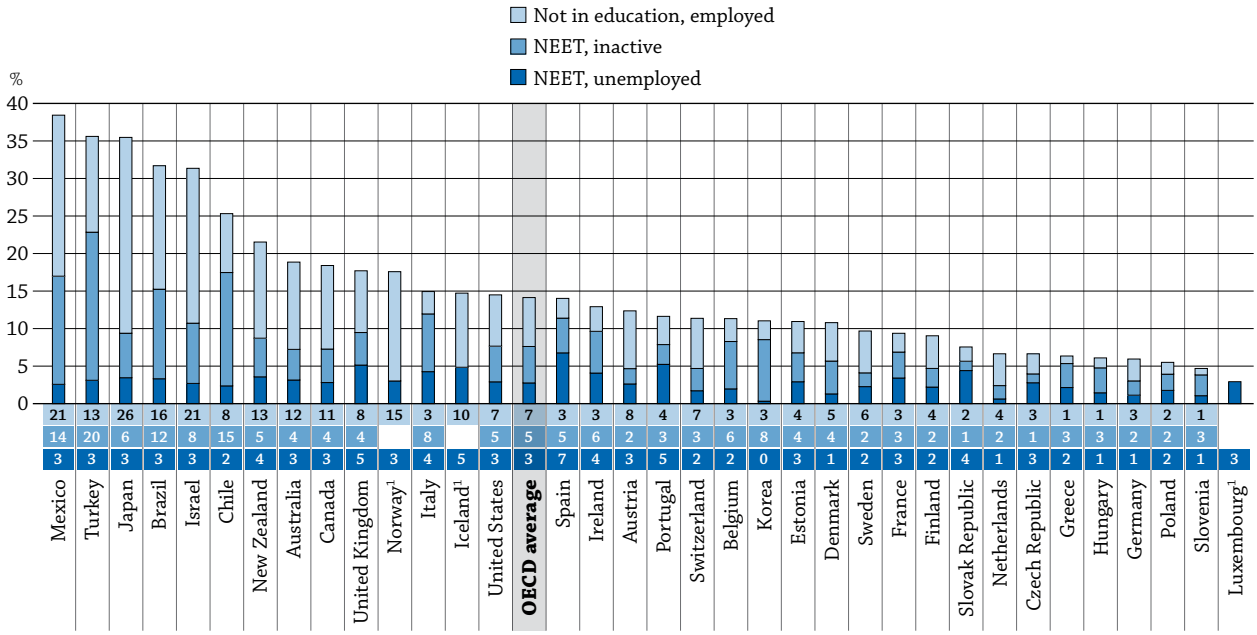
Chart C5.3. Percentage of 15-19 year-olds not in education, by labour market status (2012)



1. Total NEET population (unemployed + inactive).

Countries are ranked in descending order of the percentage of 15-19 year olds not in education.

Source: OECD. Table C5.2a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933119055

Part-time and full-time employment for those in education or not

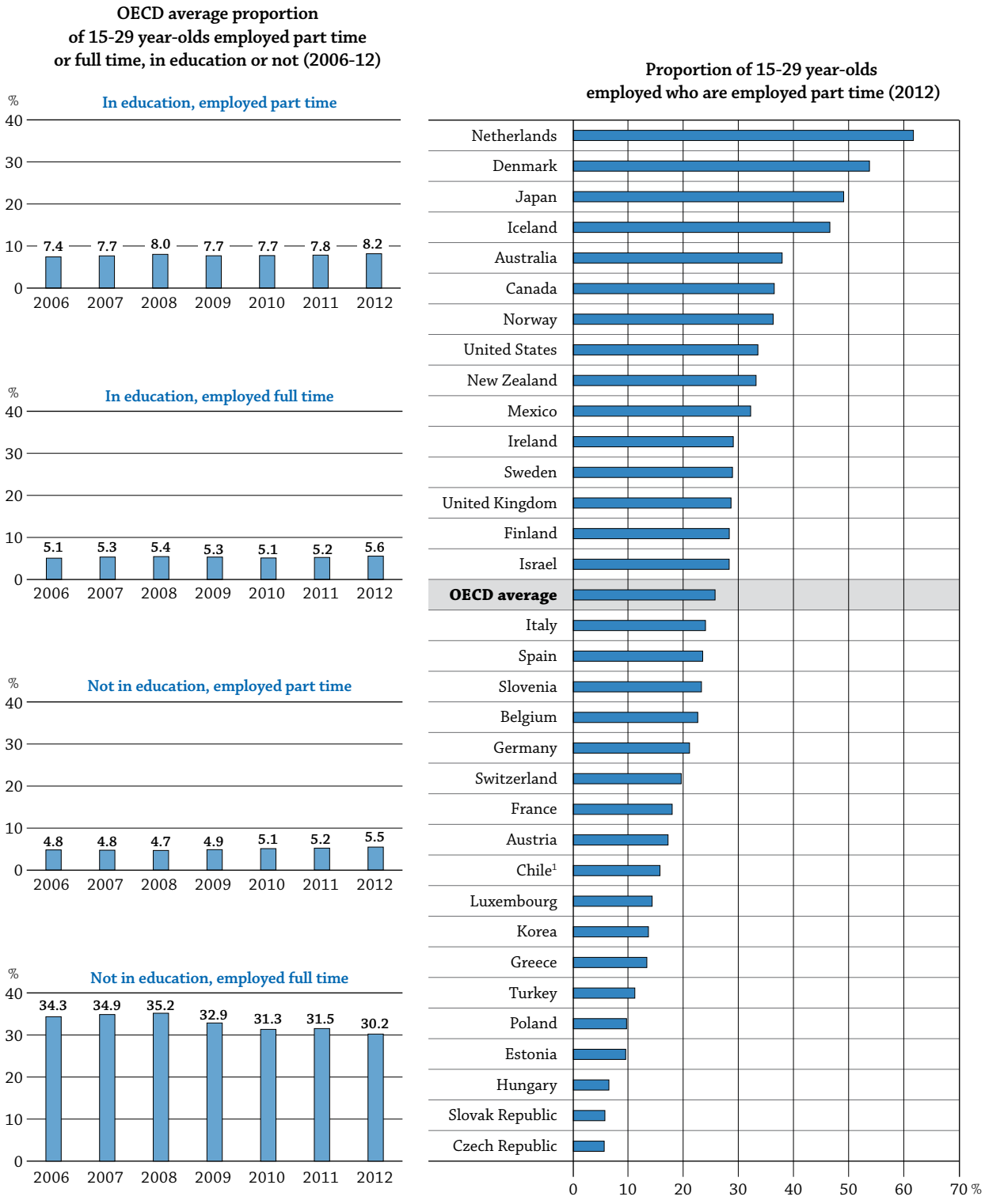
About one in two 15-29 year-olds in OECD countries is employed. Some 8% of these young people work part time while studying; 5% work part time but are no longer studying; 6% work full time while studying; and 30% work full time and are no longer in education. Considering only this age group, about one in four individuals works part time (14% of this 50% of young people), and, of those part-time workers, over 40% would like to work more, i.e. they are involuntarily in part-time work (Table C5.5).

Chart C5.4 shows that the prevalence of part-time work among young people differs significantly among countries. The OECD average proportion of 15-29 year-olds working part time is about one in four but it ranges from one in 20 in the Czech Republic and the Slovak Republic, to one in two in Denmark. This chart also shows that the proportion of young people who work part time or full time while studying has increased across OECD countries, while among those no longer in education, there has been a decrease in full-time employment that was only partially offset by an increase in part-time employment.

Part-time workers often would like to work longer hours, if they were given the opportunity to do so. Part-time work is considered positive only when voluntary. On average across the 19 OECD countries with comparable data, fewer than one in two young non-students who work part time do so voluntarily (Table C5.4). A large proportion of involuntary part-time work signals that individuals are having difficulty finding full-time jobs, and suggests that this employment is precarious. A part-time worker will progress more slowly up the salary and experience scales than a full-time worker, making it potentially more difficult for the individual to "catch up", in pay and in status in the work force, with his or her peers who work full time (OECD, 2010).

Among 15-29 year-olds who have completed their initial education, the level of education completed is positively associated with employment rates. Both part-time and full-time work are more frequent among the more qualified workers, but the share of part-time workers among the employed decreases with educational attainment, as does the share of involuntary part-time work (as a proportion of total employment). In 2012, 13% of employed 15-29 year-olds with tertiary education who were no longer in education worked part time (7.9% of the 61.5% not in education and employed work part time), while 21% of employed 15-29 year-olds with below upper secondary education who were no longer in education worked part time (3.2% of the 15.5% total).

Chart C5.4. Part-time and full-time employment among 15-29 year-olds (2006-12)



1. Year of reference 2011.

Countries are ranked in descending order of the proportion of part-time among 15-29 year-olds employed.

Source: OECD. Table C5.5. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933119074

The relative share of voluntary part-time employment also decreases as the education level increases: 7% of employed 15-29 year-olds with tertiary education who are no longer in education work part time voluntarily (4.2% of the 61.5% total), while 12% of employed 15-29 year-olds with below upper secondary education who are no longer in education work part time voluntarily (1.8% of the 15.5% total) (Table C5.4).

The gender gap in part-time employment among young people who are no longer in school is significant. On average across OECD countries, in 2012, 15-29 year-old women were twice as likely (7.2%) as men (3.8%) of the same age to be part-time workers when no longer in education. Across the 17 countries that reported information on involuntary part-time work, the proportion of young women working part time involuntarily was larger than that of men (3.5% versus 2.0%); but as a proportion of total part-time employment, according to gender, the share of involuntary part-time work was larger among men than women. Men are less likely to work part time; but when they do, it is less likely to be their choice (Tables C5.2b and c, available on line).

Expected years in education

On average across OECD countries, between the ages of 15 and 29, individuals spend seven years in education (studying part or full time) and almost eight years not in education (employed, unemployed or inactive, i.e. out of the labour market). On average, for nearly six of those eight years not in education young people are employed, for nearly one year they are unemployed, and for one year they are inactive. There are large differences among countries, however: in Brazil and Mexico, these young people spend an average of five years in education; in Denmark, Iceland, Luxembourg, the Netherlands and Slovenia, they spend an average of nine years; and in Greece, they spend an average of 11 years in education (Table C5.1a).

In most countries, 15-year-old students are about to finish compulsory education and efforts have been made over the past decade to encourage their participation in education beyond this level. As a result, the average number of years of formal education expected after compulsory schooling has increased considerably. On average across OECD countries, since 2000, one year has been added to the duration of formal education; in the Czech Republic, Luxembourg, the Netherlands, Turkey and the Slovak Republic, two years have been added, while in Greece five years have been added during this period (Table C5.1c, available on line).

In most countries, years spent in education are normally not combined with work; the only exceptions are Iceland, the Netherlands and Switzerland, where young people spend an average of more than four years working (including work-study programmes) while studying. On average across OECD countries, students spend two out of seven years in education working while studying (Table C5.1a).

There are no large differences between the genders in expected years in education, but there are larger differences, in some countries, in the employment experience of those who have left education. In Brazil, the Czech Republic, Mexico, Poland, the Slovak Republic and Turkey, men work about two years more than women (Table C5.1b, available on line).

Definitions

Employed individuals are those who had a job or were at work for one hour or more in paid employment or self-employment (following the ILO definition). The definition followed in this indicator excludes those attending work-study programmes. Please refer to Indicator A5 and Annex 3 for further explanations.

Full-time workers are those working usually 30 hours or more on their main job. A threshold ranging from 30 to 36 working hours is applied in a number of countries while others report self-designated full time status. Please refer to Indicator A6 and Annex 3 for further explanation.

Inactive individuals are those who are not in the labour force, i.e. those who are neither working nor looking for a job (unemployed). Please refer to Indicator A5 and Annex 3 for further explanations.

Levels of education: below upper secondary corresponds to ISCED levels 0, 1, 2 and 3C short programmes; **upper secondary or post-secondary non-tertiary** corresponds to ISCED levels 3A, 3B, 3C long programmes and ISCED level 4; and **tertiary** corresponds to ISCED levels 5A, 5B and 6. See the *Reader's Guide* at the beginning of the book for a presentation of all ISCED levels.

NEET: Neither in employment nor in education or training.

Part-time work is split between voluntary part-time, involuntary part-time and unknowns. Involuntary part-time comprises the following three categories, as measured in labour-force surveys: persons who usually work full-time,

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but during the reference week worked fewer hours than usual at their job for economic reasons, irrespective of how many fewer hours, or who worked part-time for economic reasons; persons who usually work part-time because they cannot find a full-time job; and persons who usually work part-time for reasons other than the inability to find full-time work and who worked fewer hours than usual at their job during the reference week for economic reasons. Involuntary part-time work includes all people wanting to work more hours, not necessarily full time.

Unemployed individuals are those who are, during the survey reference week, without work (i.e. neither had a job nor were at work for one hour or more in paid employment or self-employment), actively seeking employment (i.e. had taken specific steps during the four weeks prior to the reference week to seek paid employment or self-employment), and currently available to start work (i.e. were available for paid employment or self-employment before the end of the two weeks following the reference week). Please refer to Indicator A5 and Annex 3 for further explanations.

Methodology

Data on population, educational attainment and labour-market status for most countries are taken from OECD and Eurostat databases, which are compiled from National Labour Force Surveys by the OECD LSO (Labour Market and Social Outcomes of Learning) Network, and usually refer to the first quarter, or the average of the first three months of the calendar year. See Annex 3 (*www.oecd.org/edu/eag.htm*) for additional information.

Some discrepancies may exist in the data collected. Some countries may refer to all jobs instead of main job, or part time may refer to less than 35 hours per week instead of 30 hours. Details regarding coverage of involuntary part-time work are available in Annex 3.

For Israel, the proportion of NEETs in 2012 is not comparable with that in 2011. Conscripts in the army are now considered to be employed, as opposed to the previous year, when they were counted as not in the labour force.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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Tables of Indicator C5

StatLink http://dx.doi.org/10.1787/888933118903

	Table C5.1a	**Expected years in education and not in education for 15-29 year-olds, by work status (2012)**
WEB	Table C5.1b	**Expected years in education and not in education for 15-29 year-olds, by work status and gender (2012)**
WEB	Table C5.1c	**Trends in expected years in education and not in education for 15-29 year-olds, by gender (1999-2012)**
	Table C5.2a	**Percentage of 15-29 year-olds in education and not in education, by age group and work status (2012)**
WEB	Table C5.2b	**Percentage of 15-29 year-old men in education and not in education, by age group and work status (2012)**
WEB	Table C5.2c	**Percentage of 15-29 year-old women in education and not in education, by age group and work status (2012)**

...

	Table C5.3a	Trends in the percentage of 15-29 year-olds in education and not in education, employed or not, by age group (1997-2012)
WEB	Table C5.3b	Trends in the percentage of 15-29 year-old men in education and not in education, employed or not, by age group (1997-2012)
WEB	Table C5.3c	Trends in the percentage of 15-29 year-old women in education and not in education, employed or not, by age group (1997-2012)
WEB	Table C5.3d	Trends in the percentage of 15-29 year-olds in education and not in education, employed or not, by educational attainment (2006-12)
	Table C5.4	Percentage of 15-29 year-olds in education and not in education, by educational attainment and work status (2012)
	Table C5.5	Trends in the percentage of 15-29 year-old part-time and full-time workers in education and not in education (2006-12)

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Table C5.1a. Expected years in education and not in education for 15-29 year-olds, by work status (2012)

		Expected years in education			Expected years not in education			
		Not employed	Employed (including work-study programmes)[1]	Sub-total	Employed	Unemployed	Inactive	Sub-total
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
OECD	Australia	3.1	3.6	6.8	6.5	0.6	1.2	8.2
	Austria	4.1	2.7	6.8	6.7	0.6	0.8	8.2
	Belgium	6.3	0.6	6.8	5.9	1.0	1.3	8.2
	Canada	4.0	2.6	6.7	6.4	0.8	1.2	8.3
	Chile[2]	5.8	1.0	6.8	4.9	0.8	2.5	8.2
	Czech Republic	5.7	1.5	7.2	5.8	0.9	1.1	7.8
	Denmark	4.2	4.6	8.8	4.4	0.7	1.1	6.2
	Estonia	5.3	1.9	7.1	5.5	1.1	1.3	7.9
	Finland	5.8	2.5	8.3	4.9	0.7	1.0	6.7
	France	5.9	0.9	6.9	5.7	1.4	1.1	8.1
	Germany	5.0	2.9	7.9	5.6	0.6	0.9	7.1
	Greece	8.5	2.4	10.9	2.1	1.5	0.6	4.1
	Hungary	6.9	0.3	7.2	4.9	1.2	1.6	7.8
	Iceland	4.4	4.5	8.8	4.8	0.8	0.6	6.2
	Ireland	5.5	1.1	6.6	5.2	1.7	1.4	8.4
	Israel	4.6	1.9	6.5	6.2	0.8	1.6	8.5
	Italy	6.3	0.4	6.7	4.6	1.5	2.2	8.3
	Japan[3]	5.6	0.9	6.5	2.6	0.3	0.6	3.5
	Korea	6.2	0.8	7.0	5.3	0.4	2.3	8.0
	Luxembourg	7.8	0.9	8.8	5.0	0.6	0.7	6.2
	Mexico	3.7	1.6	5.3	6.4	0.5	2.8	9.7
	Netherlands	3.5	5.1	8.7	5.3	0.4	0.7	6.3
	New Zealand	4.2	2.5	6.7	6.1	0.7	1.5	8.3
	Norway	4.5	2.4	6.9	6.9	0.4	0.9	8.1
	Poland	6.1	1.2	7.3	5.3	1.2	1.2	7.7
	Portugal	6.1	0.7	6.9	5.6	1.8	0.7	8.1
	Slovak Republic	6.1	0.7	6.8	5.4	1.8	1.1	8.2
	Slovenia	6.5	2.6	9.1	4.3	0.9	0.7	5.9
	Spain	6.0	0.6	6.6	4.5	2.8	1.1	8.4
	Sweden	6.2	1.7	7.9	5.6	0.8	0.7	7.1
	Switzerland	3.2	4.0	7.2	6.4	0.6	0.8	7.8
	Turkey	4.8	1.2	6.0	4.6	0.9	3.5	9.0
	United Kingdom	4.2	2.0	6.2	6.3	1.1	1.3	8.8
	United States	4.8	2.2	7.0	5.7	0.8	1.5	8.0
	OECD average (excluding Chile and Japan)	5.3	2.0	7.3	5.4	1.0	1.3	7.7
	EU21 average	5.8	1.8	7.6	5.2	1.1	1.1	7.4
Partners	Argentina	m	m	m	m	m	m	m
	Brazil	3.2	2.0	5.2	6.8	0.8	2.2	9.8
	China	m	m	m	m	m	m	m
	Colombia	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m
	Indonesia	m	m	m	m	m	m	m
	Latvia	5.7	1.3	6.9	5.2	1.6	1.3	8.1
	Russian Federation	m	m	m	m	m	m	m
	Saudi Arabia	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m
	G20 average							

1. Students in work-study programmes are considered to be both in education and employed, irrespective of their labour market status according to the ILO definition.
2. Year of reference 2011.
3. Data refer to 15-24 year-olds.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933118922

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Table C5.2a. [1/6] Percentage of 15-29 year-olds in education and not in education, by age group and work status (2012)

		In education										
			Employed		Type of employment				Duration of unemployment			
	Age group	All employed (1) = (2) + (3) and/or (4) + (5) + unknowns	Students in work-study programmes[1] (2)	Other employed (3)	Full time (4)	Part time (PT) (5) = (6) + involuntary PT	Voluntary PT (6)	Unemployed (7) = (8) + (9) + unknowns	Less than 6 months (8)	More than 6 months (9)	Inactive (10)	Sub-total (employed + unemployed + inactive) (11) = (1) + (7) + (10)
OECD Australia	15-19	35.9	6.1	29.8	1.6	28.1	21.7	6.0	4.8	1.2	39.3	81.1
	20-24	26.9	4.7	22.2	5.6	16.6	13.8	2.4	2.0	0.4	12.4	41.7
	25-29	11.7	1.3	10.4	6.0	4.4	3.2	0.9	0.6	0.3	4.6	17.3
	15-29	24.3	3.9	20.4	4.6	15.8	12.5	3.0	2.4	0.6	17.8	45.1
Austria	15-19	29.7	24.6	5.1	c	4.3	m	1.2	0.9	c	56.8	87.6
	20-24	15.8	3.0	12.8	4.1	8.7	m	1.4	1.3	c	20.3	37.5
	25-29	10.6	c	10.5	5.0	5.5	m	0.8	0.7	c	5.3	16.8
	15-29	18.2	8.6	9.6	3.4	6.2	m	1.1	1.0	c	26.2	45.5
Belgium	15-19	3.2	1.5	1.7	c	1.5	1.5	c	c	c	85.4	88.7
	20-24	4.2	0.8	3.4	1.4	2.0	1.8	0.9	0.6	c	37.8	42.9
	25-29	4.1	c	3.8	2.6	1.2	0.9	0.5	c	c	4.2	8.8
	15-29	3.8	0.8	3.0	1.5	1.6	1.4	0.5	0.3	0.2	41.3	45.6
Canada	15-19	24.9	a	24.9	1.3	23.7	23.0	5.9	5.3	0.5	50.7	81.6
	20-24	21.2	a	21.2	3.6	17.6	16.8	2.0	1.8	0.1	18.9	42.1
	25-29	7.1	a	7.1	3.4	3.7	3.4	0.6	0.5	0.1	5.8	13.5
	15-29	17.4	a	17.4	2.8	14.7	14.1	2.7	2.4	0.2	24.2	44.4
Chile[3]	15-19	4.2	a	4.2	2.6	1.6	0.8	2.2	2.1	0.0	68.3	74.7
	20-24	8.8	a	8.8	5.2	3.6	1.7	2.3	2.2	0.1	28.9	40.0
	25-29	7.5	a	7.5	5.2	2.3	0.8	0.7	0.6	0.0	7.7	15.9
	15-29	6.8	a	6.8	4.3	2.5	1.1	1.8	1.7	0.0	36.6	45.2
Czech Republic	15-19	20.2	19.5	0.7	c	0.4	c	c	c	c	73.0	93.4
	20-24	7.1	1.5	5.6	3.1	2.5	2.4	0.6	0.5	c	42.4	50.1
	25-29	4.9	c	4.8	3.8	1.0	1.0	0.4	c	c	6.9	12.2
	15-29	9.9	5.9	4.0	2.6	1.4	1.3	0.4	0.4	c	37.5	47.8
Denmark	15-19	39.9	a	39.9	3.9	36.1	m	8.3	6.2	1.8	41.0	89.2
	20-24	34.0	a	34.0	9.9	24.1	m	4.3	3.2	1.1	18.5	56.9
	25-29	17.1	a	17.1	4.2	13.0	m	1.5	1.1	c	8.4	27.0
	15-29	30.8	a	30.8	6.0	24.8	m	4.8	3.6	1.1	23.1	58.7
Estonia	15-19	3.9	a	3.9	c	1.7	c	c	c	c	83.9	89.1
	20-24	18.9	a	18.9	14.0	4.9	4.8	2.4	c	c	28.4	49.6
	25-29	12.0	a	12.0	9.6	2.4	2.3	c	c	c	4.8	17.8
	15-29	12.5	a	12.5	9.4	3.1	3.1	1.6	1.0	c	33.5	47.5
Finland	15-19	11.0	a	11.0	1.4	9.6	m	6.7	5.9	c	73.3	91.0
	20-24	20.6	a	20.6	4.9	15.7	m	3.9	3.5	c	25.7	50.2
	25-29	18.5	a	18.5	11.8	6.6	m	1.9	1.8	c	8.4	28.7
	15-29	16.8	a	16.8	6.2	10.6	m	4.1	3.6	0.2	34.8	55.6
France	15-19	6.8	a	6.8	5.1	1.7	m	0.5	0.4	0.1	83.3	90.6
	20-24	9.7	a	9.7	5.8	3.9	m	0.7	0.5	0.2	32.9	43.3
	25-29	2.4	a	2.4	1.6	0.8	m	0.3	0.2	0.1	2.6	5.3
	15-29	6.3	a	6.3	4.2	2.1	m	0.5	0.4	0.1	39.0	45.8
Germany	15-19	22.9	15.3	7.6	16.9	6.0	c	1.2	0.8	0.4	70.0	94.1
	20-24	25.1	13.7	11.4	17.2	7.9	c	0.6	0.5	0.1	25.2	51.0
	25-29	10.5	2.2	8.4	4.8	5.8	c	0.4	0.3	0.1	8.0	18.9
	15-29	19.4	10.2	9.2	12.8	6.6	0.1	0.7	0.5	0.2	32.5	52.5
Greece	15-19	2.0	a	2.0	1.1	0.9	c	3.1	1.4	1.7	88.6	93.7
	20-24	13.9	a	13.9	11.3	2.6	c	14.5	4.8	9.7	44.8	73.3
	25-29	28.3	a	28.3	25.1	3.2	0.9	16.1	4.0	12.1	10.6	55.0
	15-29	15.8	a	15.8	13.5	2.3	0.8	11.6	3.4	8.1	45.1	72.5
Hungary	15-19	c	a	c	c	0.1	c	c	c	c	93.8	93.9
	20-24	2.5	a	2.5	1.5	1.0	0.9	c	c	c	45.0	48.2
	25-29	3.5	a	3.5	3.1	0.4	c	c	c	c	6.2	9.9
	15-29	2.1	a	2.1	1.6	0.5	0.5	0.3	c	c	45.7	48.1
Iceland	15-19	37.7	a	37.7	c	35.6	m	9.0	8.3	c	38.6	85.3
	20-24	36.5	a	36.5	7.4	29.2	m	6.0	5.1	c	20.4	62.9
	25-29	15.9	a	15.9	7.1	8.8	m	c	c	c	14.3	31.5
	15-29	29.9	a	29.9	5.7	24.2	m	5.3	4.6	c	23.7	59.0

1. Students in work-study programmes are considered to be both in education and employed, irrespective of their labour market status according to the ILO definition.
2. Young people neither in employment nor in education or training.
3. Year of reference 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Table C5.2a. [2/6] **Percentage of 15-29 year-olds in education and not in education, by age group and work status (2012)**

			Not in education										
				Type of employement					Type of unemployment				
			All employed	Full time	Part time (PT)	Voluntary PT	NEETS[2]	Unemployed	Less than 6 months	More than 6 months	Inactive	Sub-total (employed + unemployed + inactive)	Total in education and not in education
		Age group	(12) = (13) + (14) + unknowns	(13)	(14) = (15) + involuntary PT	(15)	(16) = (17) + (20)	(17) = (18) + (19)	(18)	(19)	(20)	(21) = (12) + (17) + (20)	(22) = (11) + (21)
OECD	Australia	15-19	11.6	6.0	5.6	2.4	7.2	3.1	2.2	1.0	4.1	18.9	100
		20-24	46.1	35.6	10.5	4.6	12.2	4.8	3.3	1.5	7.4	58.3	100
		25-29	67.6	56.3	11.3	7.4	15.1	3.3	2.5	0.8	11.8	82.7	100
		15-29	43.2	33.8	9.3	4.9	11.7	3.8	2.7	1.1	7.9	54.9	100
	Austria	15-19	7.7	7.1	c	m	4.7	2.6	1.4	1.2	2.0	12.4	100
		20-24	51.3	47.7	3.6	m	11.1	5.1	3.9	1.2	6.1	62.5	100
		25-29	70.4	61.5	8.9	m	12.8	4.5	2.7	1.7	8.3	83.2	100
		15-29	44.8	40.2	4.6	m	9.7	4.1	2.7	1.4	5.6	54.5	100
	Belgium	15-19	3.1	2.4	0.7	c	8.3	2.0	0.9	1.1	6.3	11.3	100
		20-24	39.6	31.8	7.8	2.2	17.5	8.3	3.6	4.7	9.3	57.1	100
		25-29	72.7	58.2	14.5	7.9	18.5	8.5	4.1	4.4	10.0	91.2	100
		15-29	39.5	31.6	7.9	3.6	15.0	6.4	2.9	3.5	8.6	54.4	100
	Canada	15-19	11.1	6.6	4.5	2.3	7.3	2.8	2.5	0.2	4.5	18.4	100
		20-24	43.0	34.4	8.6	3.4	14.8	6.6	5.6	0.8	8.2	57.9	100
		25-29	69.7	61.6	8.1	3.7	16.8	6.4	5.2	1.0	10.4	86.5	100
		15-29	42.4	35.3	7.1	3.2	13.2	5.4	4.5	0.7	7.8	55.6	100
	Chile[3]	15-19	7.8	6.6	1.2	0.7	17.5	2.4	2.3	0.1	15.1	25.3	100
		20-24	35.1	31.4	3.7	1.5	24.9	7.2	6.9	0.3	17.7	60.0	100
		25-29	59.1	52.6	6.6	2.3	25.0	6.7	6.3	0.4	18.3	84.1	100
		15-29	32.5	28.8	3.6	1.4	22.3	5.4	5.1	0.2	17.0	54.8	100
	Czech Republic	15-19	2.7	2.5	0.2	c	4.0	2.8	1.5	1.3	1.2	6.6	100
		20-24	36.5	35.6	0.9	0.7	13.4	7.8	3.2	4.6	5.6	49.9	100
		25-29	67.4	65.7	1.7	1.4	20.4	6.6	2.7	3.9	13.7	87.8	100
		15-29	38.8	37.8	1.0	0.8	13.4	6.0	2.6	3.4	7.4	52.2	100
	Denmark	15-19	5.1	2.1	3.0	m	5.7	1.3	1.0	c	4.4	10.8	100
		20-24	28.7	19.7	9.0	m	14.5	5.8	4.5	1.2	8.7	43.1	100
		25-29	56.8	45.8	11.0	m	16.2	7.9	5.5	2.3	8.3	73.0	100
		15-29	29.4	21.8	7.5	m	12.0	4.9	3.6	1.2	7.1	41.3	100
	Estonia	15-19	4.2	3.9	0.3	c	6.8	2.9	c	c	3.9	10.9	100
		20-24	33.3	32.3	1.1	c	17.1	9.1	4.4	4.7	8.0	50.4	100
		25-29	61.3	58.4	2.8	2.7	21.0	7.8	2.3	5.5	13.1	82.2	100
		15-29	36.5	35.0	1.5	1.3	15.9	7.1	2.9	4.2	8.9	52.5	100
	Finland	15-19	4.4	3.1	1.2	m	4.7	2.2	1.7	c	2.5	9.0	100
		20-24	34.6	30.6	4.1	m	15.2	7.0	5.3	1.6	8.2	49.8	100
		25-29	55.9	51.3	4.6	m	15.4	5.5	3.8	1.6	9.9	71.3	100
		15-29	32.5	29.1	3.4	m	11.9	4.9	3.6	1.2	7.0	44.4	100
	France	15-19	2.5	1.7	0.8	m	6.9	3.4	1.7	1.7	3.5	9.4	100
		20-24	36.6	29.2	7.4	m	20.1	12.0	5.4	6.5	8.0	56.7	100
		25-29	72.3	63.5	8.8	m	22.4	11.3	5.6	5.7	11.0	94.7	100
		15-29	37.7	31.9	5.7	m	16.6	9.0	4.3	4.7	7.6	54.2	100
	Germany	15-19	2.9	2.2	0.8	0.3	3.0	1.1	0.7	0.4	1.9	5.9	100
		20-24	37.8	33.3	4.6	2.0	11.2	4.9	2.7	2.1	6.3	49.0	100
		25-29	66.5	56.4	10.2	2.4	14.6	5.5	2.9	2.6	9.0	81.1	100
		15-29	37.5	32.1	5.4	1.6	9.9	4.0	2.2	1.8	6.0	47.5	100
	Greece	15-19	1.0	0.8	0.2	c	5.3	2.1	0.9	1.3	3.2	6.3	100
		20-24	11.4	9.7	1.6	c	15.4	11.7	3.5	8.2	3.7	26.7	100
		25-29	26.4	23.6	2.9	0.7	18.5	14.3	3.6	10.7	4.2	45.0	100
		15-29	14.0	12.3	1.7	0.4	13.5	9.7	2.7	7.0	3.7	27.5	100
	Hungary	15-19	1.3	1.2	0.1	c	4.8	1.4	c	c	3.3	6.1	100
		20-24	29.4	27.3	2.0	c	22.5	10.9	3.9	7.0	11.6	51.8	100
		25-29	62.8	59.9	2.9	1.1	27.3	10.8	4.1	6.7	16.5	90.1	100
		15-29	33.0	31.2	1.8	0.6	18.9	8.0	3.0	5.0	10.9	51.9	100
	Iceland	15-19	9.9	8.2	c	m	4.8	c	c	c	c	14.7	100
		20-24	28.1	21.6	6.3	m	9.0	5.9	4.7	c	c	37.1	100
		25-29	56.2	50.6	5.6	m	12.4	6.2	4.9	c	6.1	68.5	100
		15-29	32.2	27.4	4.7	m	8.9	5.1	4.0	c	3.8	41.0	100

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2. Young people neither in employment nor in education or training.
3. Year of reference 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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C5

Table C5.2a. [3/6] Percentage of 15-29 year-olds in education and not in education, by age group and work status (2012)

		In education										
			Employed		Type of employment				Duration of unemployment			
	Age group	All employed	Students in work-study programmes[1]	Other employed	Full time	Part time (PT)	Voluntary PT	Unemployed	Less than 6 months	More than 6 months	Inactive	Sub-total (employed + unemployed + inactive)
		(1) = (2) + (3) and/or (4) + (5) + unknowns	(2)	(3)	(4)	(5) = (6) + involuntary PT	(6)	(7) = (8) + (9) + unknowns	(8)	(9)	(10)	(11) = (1) + (7) + (10)
OECD Ireland	15-19	6.1	a	6.1	0.4	5.6	m	1.4	0.5	0.8	79.7	87.1
	20-24	12.0	a	12.0	2.8	9.2	m	1.3	0.6	0.7	28.6	41.8
	25-29	5.4	a	5.4	3.7	1.6	m	0.8	c	0.6	5.6	11.8
	15-29	7.6	a	7.6	2.4	5.2	m	1.1	0.4	0.7	35.4	44.2
Israel	15-19	5.3	a	5.3	0.5	4.8	4.5	1.3	1.0	c	62.0	68.6
	20-24	13.5	a	13.5	4.9	8.6	8.1	1.4	1.2	c	14.8	29.7
	25-29	20.4	a	20.4	9.1	11.4	10.7	1.6	1.4	c	8.7	30.7
	15-29	13.0	a	13.0	4.8	8.2	7.8	1.4	1.2	0.1	28.9	43.3
Italy	15-19	0.7	0.2	0.6	0.1	0.4	0.3	0.4	0.3	c	83.9	85.1
	20-24	2.9	0.2	2.6	0.8	1.9	1.3	1.2	0.6	0.6	34.8	38.9
	25-29	3.6	0.2	3.4	1.7	1.7	0.8	1.0	0.3	0.8	10.9	15.6
	15-29	2.5	0.2	2.3	0.9	1.4	0.8	0.9	0.4	0.5	41.3	44.7
Japan	15-24	8.8	a	8.8	0.3	8.5	m	0.2	m	m	55.6	64.5
Korea	15-19	4.5	a	4.5	1.3	3.2	3.2	0.3	0.3	0.0	84.1	89.0
	20-24	9.4	a	9.4	3.4	6.0	5.9	0.7	0.7	0.0	32.3	42.4
	25-29	2.8	a	2.8	1.9	0.9	0.9	0.3	0.3	0.0	5.7	8.8
	15-29	5.3	a	5.3	2.2	3.2	3.1	0.4	0.4	0.0	40.7	46.5
Luxembourg	15-19	2.8	a	2.8	c	c	m	0.3	c	c	92.6	95.7
	20-24	10.5	a	10.5	4.3	6.0	m	3.8	c	3.1	51.5	65.9
	25-29	5.7	a	5.7	3.7	2.0	m	c	c	c	13.2	20.0
	15-29	6.3	a	6.3	3.1	3.1	m	1.7	0.6	1.1	50.4	58.4
Mexico	15-19	14.2	a	14.2	3.1	11.0	4.0	0.6	0.5	0.0	46.8	61.6
	20-24	10.9	a	10.9	4.8	6.1	2.4	0.8	0.7	0.0	16.8	28.5
	25-29	4.9	a	4.9	3.1	1.7	0.7	0.3	0.2	0.0	2.6	7.8
	15-29	10.4	a	10.4	3.7	6.7	2.5	0.6	0.5	0.0	24.2	35.3
Netherlands	15-19	47.8	a	47.8	1.7	46.1	m	7.1	5.0	1.8	38.5	93.4
	20-24	37.8	a	37.8	5.6	32.2	m	3.2	2.1	1.0	17.3	58.3
	25-29	17.2	a	17.2	7.9	9.3	m	0.9	0.6	0.3	4.1	22.2
	15-29	34.2	a	34.2	5.1	29.2	m	3.7	2.6	1.0	19.9	57.9
New Zealand	15-19	20.8	a	20.8	2.5	18.2	16.2	6.9	4.9	1.3	50.8	78.5
	20-24	18.6	a	18.6	6.9	11.8	10.0	2.8	1.7	0.5	15.1	36.5
	25-29	11.0	a	11.0	7.5	3.5	2.8	1.3	0.7	c	5.6	17.9
	15-29	16.9	a	16.9	5.6	11.3	9.8	3.7	2.5	0.7	24.0	44.6
Norway	15-19	23.2	a	23.2	c	22.8	m	3.7	3.1	c	55.5	82.4
	20-24	18.3	a	18.3	c	17.5	m	c	c	c	20.9	40.6
	25-29	6.1	a	6.1	c	6.0	m	c	c	c	7.8	14.6
	15-29	15.9	a	15.9	c	15.4	m	1.9	1.6	c	28.0	45.8
Poland	15-19	2.9	a	2.9	0.8	2.1	c	1.0	0.7	0.3	90.6	94.5
	20-24	12.8	a	12.8	9.5	3.3	0.4	3.6	1.8	1.8	35.5	52.0
	25-29	7.0	a	7.0	6.0	0.9	c	1.0	0.5	0.6	3.4	11.4
	15-29	7.8	a	7.8	5.7	2.1	0.2	1.9	1.0	0.9	39.0	48.6
Portugal	15-19	1.9	a	1.9	m	m	m	1.6	0.9	c	84.9	88.4
	20-24	5.1	a	5.1	m	m	m	3.5	1.6	1.9	33.0	41.6
	25-29	6.9	a	6.9	m	m	m	2.8	0.8	2.0	5.6	15.3
	15-29	4.8	a	4.8	m	m	m	2.6	1.1	1.6	38.3	45.7
Slovak Republic	15-19	11.0	10.8	0.1	c	c	m	c	c	c	81.3	92.4
	20-24	2.3	c	1.9	1.4	c	m	c	c	c	44.1	46.7
	25-29	2.3	c	2.2	2.0	c	m	c	c	c	4.9	7.6
	15-29	4.8	3.3	1.5	1.2	0.3	m	0.3	c	0.2	40.1	45.1
Slovenia	15-19	7.0	a	7.0	1.6	5.4	m	c	c	c	87.9	95.3
	20-24	24.1	a	24.1	8.9	15.2	m	3.2	2.3	0.9	41.5	68.8
	25-29	18.1	a	18.1	12.6	5.5	m	2.2	1.3	0.9	7.0	27.3
	15-29	17.1	a	17.1	8.3	8.8	m	2.1	1.3	0.8	41.2	60.4

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2. Young people neither in employment nor in education or training.
3. Year of reference 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Table C5.2a. [4/6] Percentage of 15-29 year-olds in education and not in education, by age group and work status (2012)

			Not in education										
				Type of employement					Type of unemployment				
			All employed	Full time	Part time (PT)	Voluntary PT	NEETS[2]	Unemployed	Less than 6 months	More than 6 months	Inactive	Sub-total (employed + unemployed + inactive)	Total in education and not in education
		Age group	(12) = (13) + (14) + unknowns	(13)	(14) = (15) + involuntary PT	(15)	(16) = (17) + (20)	(17) = (18) + (19)	(18)	(19)	(20)	(21) = (12) + (17) + (20)	(22) = (11) + (21)
OECD	Ireland	15-19	3.3	1.6	1.7	m	9.6	4.1	1.0	3.0	5.6	12.9	100
		20-24	32.5	23.8	8.6	m	25.7	16.0	4.3	11.6	9.7	58.2	100
		25-29	61.7	51.6	10.1	m	26.5	14.1	3.0	11.0	12.3	88.2	100
		15-29	34.7	27.7	7.1	m	21.1	11.7	2.8	8.7	9.4	55.8	100
	Israel	15-19	20.6	18.1	2.5	1.5	10.7	2.7	2.1	0.6	8.0	31.4	100
		20-24	51.5	42.7	8.7	5.4	18.7	6.5	4.6	1.5	12.3	70.3	100
		25-29	51.6	41.5	10.1	6.8	17.7	6.2	4.0	1.7	11.5	69.3	100
		15-29	41.0	33.9	7.1	4.5	15.7	5.1	3.5	1.2	10.6	56.7	100
	Italy	15-19	3.0	2.2	0.8	c	12.0	4.3	1.3	3.0	7.7	14.9	100
		20-24	29.5	23.0	6.5	0.8	31.5	14.6	5.4	9.1	17.0	61.1	100
		25-29	55.4	44.0	11.3	2.4	29.0	11.2	4.2	7.1	17.8	84.4	100
		15-29	30.7	24.2	6.5	1.1	24.6	10.2	3.7	6.5	14.4	55.3	100
	Japan	15-24	26.1	17.4	8.6	m	9.4	3.5	m	m	5.9	35.5	100
	Korea	15-19	2.5	2.0	0.5	0.4	8.5	0.3	0.3	0.0	8.2	11.0	100
		20-24	35.1	32.2	3.0	2.6	22.5	3.7	3.5	0.2	18.8	57.6	100
		25-29	66.4	62.8	3.6	3.1	24.7	4.6	4.0	0.6	20.2	91.2	100
		15-29	35.0	32.7	2.3	2.0	18.5	2.9	2.6	0.3	15.6	53.5	100
	Luxembourg	15-19	c	c	c	m	2.9	c	c	c	1.9	4.3	100
		20-24	23.8	21.2	2.7	m	10.3	6.2	3.3	2.9	4.1	34.1	100
		25-29	69.1	64.8	4.3	m	10.9	4.2	2.8	c	6.7	80.0	100
		15-29	33.4	30.9	2.6	m	8.2	3.8	2.2	1.6	4.4	41.6	100
	Mexico	15-19	21.5	14.7	6.7	1.9	17.0	2.6	2.3	0.1	14.4	38.4	100
		20-24	48.0	37.1	10.6	3.2	23.6	4.3	3.8	0.3	19.3	71.5	100
		25-29	65.1	49.6	15.1	4.8	27.1	4.2	3.7	0.3	22.9	92.2	100
		15-29	42.7	32.1	10.4	3.1	22.0	3.6	3.2	0.2	18.5	64.7	100
	Netherlands	15-19	4.2	1.6	2.7	m	2.4	0.6	0.4	0.2	1.8	6.6	100
		20-24	34.5	19.8	14.7	m	7.1	2.8	1.8	0.9	4.3	41.7	100
		25-29	67.3	43.3	23.9	m	10.6	3.6	2.1	1.4	7.0	77.8	100
		15-29	35.4	21.6	13.8	m	6.7	2.3	1.5	0.8	4.4	42.1	100
	New Zealand	15-19	12.8	7.5	5.3	3.1	8.7	3.6	2.4	0.7	5.1	21.5	100
		20-24	46.6	37.6	9.0	5.9	16.9	6.2	3.9	1.7	10.7	63.5	100
		25-29	63.2	54.2	9.0	5.7	18.9	4.3	2.6	1.0	14.6	82.1	100
		15-29	40.6	32.8	7.7	4.9	14.8	4.7	3.0	1.1	10.1	55.4	100
	Norway	15-19	14.6	10.1	2.7	m	3.0	c	c	c	2.3	17.6	100
		20-24	48.8	38.2	9.3	m	10.7	3.9	2.9	c	6.7	59.4	100
		25-29	74.0	64.4	8.8	m	11.4	3.0	2.2	c	8.4	85.4	100
		15-29	45.8	37.6	7.0	m	8.4	2.6	1.9	0.5	5.8	54.2	100
	Poland	15-19	1.6	1.3	0.3	c	3.9	1.8	1.1	0.7	2.2	5.5	100
		20-24	29.1	26.8	2.3	0.6	18.9	10.5	4.4	6.1	8.4	48.0	100
		25-29	66.2	62.8	3.3	0.9	22.4	10.0	4.1	5.9	12.4	88.6	100
		15-29	35.4	33.3	2.1	0.6	16.0	7.8	3.3	4.5	8.2	51.4	100
	Portugal	15-19	3.8	m	m	m	7.9	5.2	3.2	2.0	2.6	11.6	100
		20-24	35.7	m	m	m	22.7	16.4	6.3	10.1	6.3	58.4	100
		25-29	66.4	m	m	m	18.3	13.0	4.3	8.7	5.3	84.7	100
		15-29	37.6	m	m	m	16.6	11.8	4.6	7.2	4.8	54.3	100
	Slovak Republic	15-19	1.9	1.5	c	m	5.6	4.4	0.8	3.6	1.2	7.6	100
		20-24	33.1	31.4	1.7	m	20.2	14.6	2.8	11.9	5.6	53.3	100
		25-29	64.9	61.7	3.1	m	27.5	14.8	2.2	12.7	12.7	92.4	100
		15-29	36.1	34.2	1.9	m	18.8	11.8	2.0	9.8	7.0	54.9	100
	Slovenia	15-19	0.9	c	c	m	3.8	1.1	c	1.1	2.8	4.7	100
		20-24	19.8	18.2	1.6	m	11.4	7.2	3.0	4.2	4.2	31.2	100
		25-29	56.9	54.0	3.0	m	15.7	9.0	3.6	5.4	6.7	72.7	100
		15-29	28.7	26.9	1.8	m	11.0	6.2	2.4	3.8	4.8	39.6	100

1. Students in work-study programmes are considered to be both in education and employed, irrespective of their labour market status according to the ILO definition.
2. Young people neither in employment nor in education or training.
3. Year of reference 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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C5

Table C5.2a. [5/6] Percentage of 15-29 year-olds in education and not in education, by age group and work status (2012)

			In education										
				Employed		Type of employment				Duration of unemployment			
			All employed	Students in work-study programmes[1]	Other employed	Full time	Part time (PT)	Voluntary PT	Unemployed	Less than 6 months	More than 6 months	Inactive	Sub-total (employed + unemployed + inactive)
		Age group	(1) = (2) + (3) and/or (4) + (5) + unknowns	(2)	(3)	(4)	(5) = (6) + involuntary PT	(6)	(7) = (8) + (9) + unknowns	(8)	(9)	(10)	(11) = (1) + (7) + (10)
OECD	Spain	15-19	1.1	a	1.1	c	0.9	0.8	2.7	1.2	1.4	82.2	86.0
		20-24	6.0	a	6.0	1.6	4.4	3.4	6.0	1.7	4.1	31.9	43.9
		25-29	5.2	a	5.2	3.2	2.0	1.3	3.1	1.0	2.0	5.0	13.2
		15-29	4.3	a	4.3	1.8	2.4	1.8	3.9	1.3	2.5	36.1	44.3
	Sweden	15-19	10.6	a	10.6	c	10.0	8.6	7.6	6.4	c	72.1	90.3
		20-24	13.1	a	13.1	3.0	10.0	8.5	6.5	4.5	1.2	25.5	45.0
		25-29	10.9	a	10.9	4.9	5.9	5.0	2.9	1.6	1.0	10.3	24.1
		15-29	11.6	a	11.6	2.8	8.6	7.4	5.7	4.2	0.9	35.4	52.7
	Switzerland	15-19	44.4	36.8	7.6	1.5	6.1	5.9	1.5	c	c	42.7	88.6
		20-24	26.6	11.3	15.3	5.6	9.7	9.6	1.6	c	c	15.4	43.7
		25-29	12.4	1.3	11.1	5.0	6.1	6.1	c	c	c	4.5	17.4
		15-29	26.9	15.5	11.4	4.1	7.3	7.2	1.2	0.8	0.4	19.8	48.0
	Turkey	15-19	5.6	a	5.6	3.2	2.4	m	1.0	0.5	0.5	57.8	64.4
		20-24	11.2	a	11.2	9.8	1.4	m	2.2	1.3	1.0	25.0	38.4
		25-29	8.2	a	8.2	7.6	0.6	m	0.9	0.4	0.5	8.0	17.1
		15-29	8.2	a	8.2	6.7	1.5	m	1.3	0.7	0.7	30.5	40.1
	United Kingdom	15-19	18.2	3.8	14.3	0.5	13.3	13.1	6.0	3.3	2.6	58.1	82.3
		20-24	13.7	2.6	11.1	3.8	6.9	6.6	2.0	1.3	0.7	17.9	33.6
		25-29	8.9	0.9	8.0	5.7	2.0	1.8	0.7	c	0.4	4.4	14.0
		15-29	13.5	2.4	11.1	3.5	7.2	6.9	2.8	1.5	1.2	25.4	41.6
	United States	15-19	15.6	a	15.6	1.7	13.4	13.0	3.8	2.8	1.0	66.1	85.5
		20-24	20.0	a	20.0	6.3	13.4	12.7	2.1	1.5	0.6	18.1	40.2
		25-29	8.7	a	8.7	5.8	2.9	2.6	0.9	0.6	c	4.3	14.0
		15-29	14.9	a	14.9	4.6	10.0	9.5	2.3	1.6	0.6	29.5	46.6
	OECD average (excluding Chile and Japan)	15-19	15.5		11.7	2.5	10.9	8.9	3.4	2.7	1.0	68.6	86.5
		20-24	15.8		14.6	5.8	10.0	6.4	3.0	1.8	1.4	27.9	46.4
		25-29	9.8		9.6	6.0	4.0	2.8	1.8	0.9	1.3	6.6	17.9
		15-29	13.5		12.0	4.7	7.9	4.8	2.4	1.6	1.0	32.9	48.8
	EU21 average	15-19	12.5		8.7	3.1	8.1	4.9	3.3	2.4	1.2	76.2	90.6
		20-24	13.9		12.9	5.7	8.5	3.3	3.3	1.8	1.9	32.5	49.5
		25-29	9.7		9.5	6.1	3.7	1.8	2.2	1.1	1.7	6.7	18.2
		15-29	11.9		10.4	4.8	6.4	2.2	2.5	1.5	1.3	36.2	50.6
Partners	Argentina		m	m	m	m	m	m	m	m	m	m	m
	Brazil	15-19	18.4	a	18.4	10.5	7.9	m	5.2	5.1	0.1	44.6	68.3
		20-24	13.4	a	13.4	10.8	2.6	m	1.9	1.8	0.1	7.7	23.0
		25-29	8.2	a	8.2	7.0	1.2	m	0.7	0.7	0.0	2.2	11.1
		15-29	13.4	a	13.4	9.4	4.0	m	2.7	2.6	0.1	18.8	35.0
	China		m	m	m	m	m	m	m	m	m	m	m
	Colombia		m	m	m	m	m	m	m	m	m	m	m
	India		m	m	m	m	m	m	m	m	m	m	m
	Indonesia		m	m	m	m	m	m	m	m	m	m	m
	Latvia	15-19	1.0	a	1.0	0.9	0.1	m	1.0	0.6	0.4	89.1	91.0
		20-24	11.9	a	11.9	7.6	4.3	m	4.0	1.5	2.5	30.1	46.0
		25-29	10.9	a	10.9	10.3	0.6	m	0.9	0.6	0.3	1.7	13.5
		15-29	8.5	a	8.5	6.8	1.8	m	2.0	0.9	1.1	35.7	46.3
	Russian Federation		m	m	m	m	m	m	m	m	m	m	m
	Saudi Arabia		m	m	m	m	m	m	m	m	m	m	m
	South Africa		m	m	m	m	m	m	m	m	m	m	m
	G20 average		m	m	m	m	m	m	m	m	m	m	m

1. Students in work-study programmes are considered to be both in education and employed, irrespective of their labour market status according to the ILO definition.
2. Young people neither in employment nor in education or training.
3. Year of reference 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C5.2a. [6/6] Percentage of 15-29 year-olds in education and not in education, by age group and work status (2012)

		Age group	Not in education										Total in education and not in education
				Type of employement					Type of unemployment				
			All employed	Full time	Part time (PT)	Voluntary PT	NEETS[2]	Unemployed	Less than 6 months	More than 6 months	Inactive	Sub-total (employed + unemployed + inactive)	
			(12) = (13) + (14) + unknowns	(13)	(14) = (15) + involuntary PT	(15)	(16) = (17) + (20)	(17) = (18) + (19)	(18)	(19)	(20)	(21) = (12) + (17) + (20)	(22) = (11) + (21)
OECD	Spain	15-19	2.6	1.7	0.9	0.3	11.4	6.8	2.1	4.5	4.6	14.0	100
		20-24	25.2	19.0	6.2	1.2	30.9	23.0	7.3	14.9	8.0	56.1	100
		25-29	54.3	45.7	8.6	2.0	32.5	23.8	7.7	15.1	8.6	86.8	100
		15-29	29.9	24.3	5.6	1.2	25.8	18.6	5.9	11.9	7.2	55.7	100
	Sweden	15-19	5.6	3.6	2.0	c	4.1	2.3	1.7	c	1.8	9.7	100
		20-24	41.5	33.2	8.2	3.3	13.5	7.5	5.2	1.9	5.9	55.0	100
		25-29	64.8	58.5	6.2	3.1	11.1	5.4	3.8	1.5	5.6	75.9	100
		15-29	37.6	32.0	5.6	2.4	9.7	5.2	3.6	1.3	4.5	47.3	100
	Switzerland	15-19	6.7	5.5	1.2	1.2	4.7	1.7	c	c	3.0	11.4	100
		20-24	44.2	38.6	5.6	5.5	12.1	6.0	4.0	1.9	6.1	56.3	100
		25-29	71.3	60.5	10.8	10.7	11.3	4.7	2.7	1.9	6.6	82.6	100
		15-29	42.5	36.4	6.1	6.1	9.6	4.2	2.6	1.5	5.3	52.0	100
	Turkey	15-19	12.8	10.8	1.9	m	22.8	3.1	2.1	1.0	19.7	35.6	100
		20-24	30.6	27.7	3.0	m	30.9	7.2	4.2	3.0	23.7	61.6	100
		25-29	48.8	45.1	3.7	m	34.1	7.8	4.4	3.4	26.3	82.9	100
		15-29	30.7	27.8	2.9	m	29.2	6.0	3.6	2.4	23.2	59.9	100
	United Kingdom	15-19	8.2	4.6	3.3	1.2	9.5	5.1	2.5	2.6	4.3	17.7	100
		20-24	46.1	34.7	10.4	4.9	20.2	10.2	4.6	5.6	10.0	66.4	100
		25-29	67.7	55.1	10.9	7.6	18.3	7.0	3.3	3.7	11.2	86.0	100
		15-29	42.1	32.7	8.4	4.7	16.3	7.6	3.5	4.0	8.7	58.4	100
	United States	15-19	6.8	3.8	2.9	1.6	7.7	2.9	2.1	0.8	4.8	14.5	100
		20-24	42.1	32.6	9.3	4.2	17.7	6.8	4.2	2.6	10.9	59.8	100
		25-29	65.8	56.0	9.6	5.2	20.2	6.6	3.7	2.9	13.6	86.0	100
		15-29	38.2	30.7	7.3	3.7	15.2	5.5	3.3	2.1	9.7	53.4	100
	OECD average (excluding Chile and Japan)	15-19	6.5	4.8	2.0	1.5	7.2	2.8	1.6	1.5	4.6	13.5	100
		20-24	36.1	29.9	6.1	3.1	17.5	8.5	4.2	4.5	9.1	53.6	100
		25-29	62.7	54.5	8.0	4.2	19.4	8.0	3.7	4.5	11.3	82.1	100
		15-29	36.2	30.7	5.4	2.7	15.0	6.6	3.2	3.4	8.4	51.2	100
	EU21 average	15-19	3.5	2.5	1.2	0.6	6.1	2.9	1.3	1.9	3.3	9.4	100
		20-24	32.9	27.4	5.3	2.0	17.6	10.1	4.2	5.8	7.6	50.5	100
		25-29	62.2	54.3	7.7	2.9	19.5	9.5	3.7	5.9	10.0	81.8	100
		15-29	34.5	29.5	4.8	1.7	14.8	7.7	3.1	4.5	7.2	49.4	100
Partners	Argentina		m	m	m	m	m	m	m	m	m	m	m
	Brazil	15-19	16.5	13.9	2.5	m	15.2	3.3	3.2	0.1	11.9	31.7	100
		20-24	53.3	47.7	5.6	m	23.7	6.8	6.4	0.4	16.9	77.0	100
		25-29	67.6	60.2	7.4	m	21.3	5.1	4.7	0.4	16.2	88.9	100
		15-29	45.1	40.0	5.1	m	20.0	5.0	4.7	0.3	14.9	65.0	100
	China		m	m	m	m	m	m	m	m	m	m	m
	Colombia		m	m	m	m	m	m	m	m	m	m	m
	India		m	m	m	m	m	m	m	m	m	m	m
	Indonesia		m	m	m	m	m	m	m	m	m	m	m
	Latvia	15-19	1.8	1.5	0.3	m	7.2	4.0	2.4	1.6	3.1	9.0	100
		20-24	33.7	30.8	2.9	m	20.3	12.5	4.4	8.1	7.8	54.0	100
		25-29	59.9	55.6	4.3	m	26.7	13.9	5.7	8.2	12.8	86.5	100
		15-29	34.6	31.9	2.7	m	19.1	10.7	4.3	6.4	8.4	53.7	100
	Russian Federation		m	m	m	m	m	m	m	m	m	m	m
	Saudi Arabia		m	m	m	m	m	m	m	m	m	m	m
	South Africa		m	m	m	m	m	m	m	m	m	m	m
	G20 average		m	m	m	m	m	m	m	m	m	m	m

1. Students in work-study programmes are considered to be both in education and employed, irrespective of their labour market status according to the ILO definition.
2. Young people neither in employment nor in education or training.
3. Year of reference 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Table C5.3a. [1/3] Trends in the percentage of 15-29 year-olds in education and not in education, employed or not, by age group (1997-2012)

	Age group	2000			2005			2010			2012		
		In education	Not in education		In education	Not in education		In education	Not in education		In education	Not in education	
		Total	Employed	Not employed	Total	Employed	Not employed	Total	Employed	Not employed	Total	Employed	Not employed
		(10)	(11)	(12)	(25)	(26)	(27)	(40)	(41)	(42)	(46)	(47)	(48)
OECD Australia	15-19	79.5	13.7	6.8	78.3	14.3	7.4	79.0	12.9	8.1	81.1	11.6	7.2
	20-24	35.9	50.9	13.3	39.4	49.0	11.6	41.5	47.3	11.2	41.7	46.1	12.2
	25-29	15.5	65.5	19.0	16.6	68.0	15.4	18.9	65.2	15.9	17.3	67.6	15.1
	15-29	42.8	44.0	13.2	45.0	43.5	11.4	45.6	42.6	11.8	45.1	43.2	11.7
Austria	15-19	m	m	m	84.4	8.7	6.9	86.6	8.1	5.3	87.6	7.7	4.7
	20-24	m	m	m	30.4	57.2	12.4	34.4	53.0	12.6	37.5	51.3	11.1
	25-29	m	m	m	12.0	74.6	13.4	17.5	67.8	14.7	16.8	70.4	12.8
	15-29	m	m	m	41.3	47.7	11.0	44.8	44.1	11.1	45.5	44.8	9.7
Belgium	15-19	89.9	3.6	6.5	90.1	3.7	6.2	91.8	2.3	5.9	88.7	3.1	8.3
	20-24	43.8	40.2	16.0	38.1	43.6	18.3	43.0	38.9	18.0	42.9	39.6	17.5
	25-29	11.8	72.5	15.7	7.4	74.9	17.7	8.1	73.6	18.3	8.8	72.7	18.5
	15-29	46.9	40.2	12.9	44.4	41.4	14.2	46.8	39.0	14.2	45.6	39.5	15.0
Canada	15-19	80.6	11.2	8.2	80.3	12.7	7.0	81.5	10.2	8.2	81.6	11.1	7.3
	20-24	35.8	48.5	15.7	39.2	46.4	14.5	39.5	45.1	15.3	42.1	43.0	14.8
	25-29	10.6	72.2	17.2	12.5	71.7	15.8	12.9	70.4	16.8	13.5	69.7	16.8
	15-29	42.5	43.9	13.7	44.0	43.5	12.4	43.9	42.5	13.5	44.4	42.4	13.2
Chile		m	m	m	m	m	m	m	m	m	m	m	m
Czech Republic	15-19	82.1	10.0	7.9	90.3	4.4	5.3	93.2	3.0	3.8	93.4	2.7	4.0
	20-24	19.7	60.0	20.3	35.9	47.5	16.6	48.4	38.1	13.6	50.1	36.5	13.4
	25-29	2.4	72.1	25.6	4.4	72.4	23.2	12.0	67.6	20.4	12.2	67.4	20.4
	15-29	31.7	49.7	18.5	39.5	44.6	15.9	48.1	38.7	13.2	47.8	38.8	13.4
Denmark	15-19	89.9	7.4	2.7	88.4	7.3	4.3	87.4	7.0	5.5	89.2	5.1	5.7
	20-24	54.8	38.6	6.6	54.4	37.2	8.3	53.4	34.5	12.1	56.9	28.7	14.5
	25-29	36.1	56.4	7.5	27.0	61.3	11.6	27.6	58.1	14.3	27.0	56.8	16.2
	15-29	57.7	36.5	5.8	55.5	36.3	8.2	57.2	32.3	10.5	58.7	29.4	12.0
Estonia	15-19	m	m	m	92.0	2.9	5.2	92.5	c	6.1	89.1	4.2	6.8
	20-24	m	m	m	50.9	32.7	16.3	50.2	27.3	22.4	49.6	33.3	17.1
	25-29	m	m	m	14.2	61.8	24.0	12.1	61.9	26.1	17.8	61.3	21.0
	15-29	m	m	m	54.0	31.3	14.8	48.7	32.2	19.1	47.5	36.5	15.9
Finland	15-19	m	m	m	90.2	4.5	5.2	91.7	3.2	5.1	91.0	4.4	4.7
	20-24	m	m	m	52.8	34.1	13.0	52.0	32.2	15.8	50.2	34.6	15.2
	25-29	m	m	m	25.7	60.3	14.0	26.3	56.9	16.8	28.7	55.9	15.4
	15-29	m	m	m	55.4	33.7	10.9	56.0	31.3	12.6	55.6	32.5	11.9
France	15-19	88.2	4.8	7.0	90.5	3.2	6.3	88.9	3.2	7.9	90.6	2.5	6.9
	20-24	39.4	43.0	17.6	42.5	39.7	17.8	40.4	38.9	20.6	43.3	36.6	20.1
	25-29	5.9	73.7	20.4	5.1	75.1	19.8	4.3	74.7	21.0	5.3	72.3	22.4
	15-29	44.1	40.9	15.0	46.8	38.7	14.5	44.0	39.4	16.6	45.8	37.7	16.6
Germany	15-19	87.4	6.8	5.7	92.9	2.7	4.4	92.3	4.1	3.7	94.1	2.9	3.0
	20-24	34.1	49.0	16.9	44.2	37.1	18.7	47.5	38.8	13.7	51.0	37.8	11.2
	25-29	12.7	69.8	17.5	18.5	60.3	21.2	18.3	63.9	17.8	18.9	66.5	14.6
	15-29	44.9	41.8	13.3	52.2	33.1	14.7	51.3	36.7	12.0	52.5	37.5	9.9
Greece	15-19	82.6	8.1	9.3	82.2	6.1	11.7	88.8	3.7	7.5	93.7	1.0	5.3
	20-24	30.7	43.4	25.9	40.4	38.0	21.6	46.6	31.8	21.6	73.3	11.4	15.4
	25-29	5.1	65.8	29.2	6.4	69.8	23.7	9.2	67.2	23.6	55.0	26.4	18.5
	15-29	39.0	39.4	21.5	38.6	41.7	19.7	43.9	37.8	18.3	72.5	14.0	13.5
Hungary	15-19	83.7	7.7	8.6	90.6	3.0	6.4	94.0	1.4	4.6	93.9	1.3	4.8
	20-24	32.3	45.7	22.0	46.6	34.5	18.9	48.1	30.4	21.5	48.2	29.4	22.5
	25-29	9.4	61.4	29.2	13.1	63.0	24.0	9.8	61.5	28.6	9.9	62.8	27.3
	15-29	40.7	39.1	20.2	46.3	36.5	17.2	48.3	32.8	18.9	48.1	33.0	18.9
Iceland	15-19	83.1	14.8	c	86.4	10.7	c	85.0	8.2	6.8	85.3	9.9	4.8
	20-24	48.0	47.7	c	53.0	37.1	10.0	55.3	34.1	10.5	62.9	28.1	9.0
	25-29	34.9	59.2	5.9	30.9	61.5	7.6	32.9	54.3	12.8	31.5	56.2	12.4
	15-29	56.0	39.9	4.1	57.0	36.2	6.8	55.8	33.9	10.3	59.0	32.2	8.9

Note: Columns showing additional years are available for consultation on line (see *StatLink* below).

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C5.3a. [2/3] Trends in the percentage of 15-29 year-olds in education and not in education, employed or not, by age group (1997-2012)

		Age group	2000			2005			2010			2012		
			In education	Not in education		In education	Not in education		In education	Not in education		In education	Not in education	
			Total	Employed	Not employed	Total	Employed	Not employed	Total	Employed	Not employed	Total	Employed	Not employed
			(10)	(11)	(12)	(25)	(26)	(27)	(40)	(41)	(42)	(46)	(47)	(48)
OECD	Ireland	15-19	80.0	15.6	4.4	82.4	13.1	4.5	85.7	4.2	10.1	87.1	3.3	9.6
		20-24	26.7	63.6	9.7	27.7	60.0	12.3	36.9	37.0	26.1	41.8	32.5	25.7
		25-29	3.3	83.4	13.3	5.3	80.9	13.8	11.1	64.6	24.2	11.8	61.7	26.5
		15-29	37.9	53.2	9.0	36.2	53.4	10.5	41.1	38.1	20.8	44.2	34.7	21.1
	Israel	15-19	m	m	m	68.9	6.3	24.7	72.0	5.5	22.5	68.6	20.6	10.7
		20-24	m	m	m	28.3	31.4	40.3	30.9	32.1	36.9	29.7	51.5	18.7
		25-29	m	m	m	21.4	54.3	24.2	27.0	50.1	22.9	30.7	51.6	17.7
		15-29	m	m	m	40.2	30.2	29.6	44.0	28.6	27.4	43.3	41.0	15.7
	Italy	15-19	77.1	9.8	13.1	81.8	7.0	11.2	83.6	4.0	12.5	85.1	3.0	12.0
		20-24	36.0	36.5	27.5	38.6	37.3	24.1	40.8	32.1	27.1	38.9	29.5	31.5
		25-29	17.0	56.1	26.9	14.4	59.8	25.8	16.9	54.9	28.2	15.6	55.4	29.0
		15-29	39.9	36.8	23.3	41.5	37.5	21.1	45.3	31.7	23.0	44.7	30.7	24.6
	Japan	15-24	62.1	29.2	8.8	59.7	31.5	8.8	61.7	28.4	9.9	64.5	26.1	9.4
	Korea	15-19	m	m	m	m	m	m	89.4	2.1	8.5	89.0	2.5	8.5
		20-24	m	m	m	m	m	m	40.9	35.5	23.5	42.4	35.1	22.5
		25-29	m	m	m	m	m	m	9.2	64.9	25.9	8.8	66.4	24.7
		15-29	m	m	m	m	m	m	45.4	35.3	19.2	46.5	35.0	18.5
	Luxembourg	15-19	92.2	6.1	c	93.4	4.4	2.2	92.1	c	6.3	95.7	c	2.9
		20-24	42.8	48.9	8.2	47.4	43.3	9.3	63.1	29.4	7.5	65.9	23.8	10.3
		25-29	11.6	75.5	12.9	8.6	81.2	10.3	15.5	76.9	7.6	20.0	69.1	10.9
		15-29	45.3	46.6	8.1	48.5	44.2	7.3	54.7	38.1	7.1	58.4	33.4	8.2
	Mexico	15-19	47.9	33.8	18.3	57.6	24.2	18.2	60.7	22.3	17.1	61.6	21.5	17.0
		20-24	17.7	55.2	27.1	24.3	48.7	27.0	26.1	49.2	24.6	28.5	48.0	23.6
		25-29	4.0	65.8	30.2	5.7	62.8	31.5	6.6	65.8	27.6	7.8	65.1	27.1
		15-29	25.4	50.0	24.6	31.9	43.2	24.9	34.1	43.3	22.5	35.3	42.7	22.0
	Netherlands	15-19	80.6	15.7	3.7	89.2	7.0	3.9	90.3	6.6	3.1	93.4	4.2	2.4
		20-24	36.5	55.2	8.2	49.1	41.8	9.1	55.3	37.3	7.4	58.3	34.5	7.1
		25-29	5.0	83.0	12.1	18.2	70.2	11.6	19.5	70.6	9.9	22.2	67.3	10.6
		15-29	38.1	53.6	8.3	52.1	39.7	8.2	55.4	37.9	6.8	57.9	35.4	6.7
	New Zealand	15-19	m	m	m	75.6	17.2	7.2	78.3	13.1	8.6	78.5	12.8	8.7
		20-24	m	m	m	39.2	46.7	14.0	38.9	43.3	17.8	36.5	46.6	16.9
		25-29	m	m	m	19.1	65.5	15.4	17.7	62.3	20.1	17.9	63.2	18.9
		15-29	m	m	m	46.3	41.7	12.0	46.1	38.6	15.3	44.6	40.6	14.8
	Norway	15-19	92.4	5.9	c	87.4	10.1	2.5	81.4	15.1	3.5	82.4	14.6	3.0
		20-24	41.7	50.3	8.0	41.5	48.9	9.6	42.2	48.8	9.0	40.6	48.8	10.7
		25-29	17.5	72.1	10.4	15.7	72.0	12.3	13.5	73.5	13.0	14.6	74.0	11.4
		15-29	48.4	44.6	7.0	48.6	43.4	8.1	46.2	45.3	8.5	45.8	45.8	8.4
	Poland	15-19	92.8	2.6	4.5	97.9	0.4	1.7	94.2	2.2	3.6	94.5	1.6	3.9
		20-24	34.9	34.3	30.8	62.7	17.2	20.1	52.9	29.5	17.6	52.0	29.1	18.9
		25-29	8.0	62.9	29.1	16.4	54.3	29.3	12.3	65.8	21.9	11.4	66.2	22.4
		15-29	43.8	34.1	22.1	55.7	26.0	18.4	50.2	34.8	15.0	48.6	35.4	16.0
	Portugal	15-19	72.6	19.7	7.7	79.3	12.2	8.4	85.2	7.4	7.4	88.4	3.8	7.9
		20-24	36.5	52.6	11.0	37.4	48.4	14.1	39.6	44.1	16.4	41.6	35.7	22.7
		25-29	11.0	76.6	12.5	11.5	73.6	14.9	13.8	70.5	15.7	15.3	66.4	18.3
		15-29	38.2	51.2	10.5	38.9	48.2	12.9	43.1	43.5	13.5	45.7	37.6	16.6
	Slovak Republic	15-19	67.3	6.4	26.3	90.4	3.3	6.3	93.8	1.7	4.6	92.4	1.9	5.6
		20-24	18.1	48.8	33.1	31.0	43.8	25.2	44.8	33.0	22.1	46.7	33.1	20.2
		25-29	1.3	66.9	31.8	6.1	64.9	29.0	7.3	65.1	27.5	7.6	64.9	27.5
		15-29	29.3	40.3	30.4	41.1	38.3	20.5	45.9	35.2	18.8	45.1	36.1	18.8
	Slovenia	15-19	m	m	m	92.4	2.7	4.9	95.0	1.8	3.2	95.3	0.9	3.8
		20-24	m	m	m	55.7	31.3	13.0	65.3	25.5	9.3	68.8	19.8	11.4
		25-29	m	m	m	24.6	63.9	11.5	30.4	57.2	12.4	27.3	56.9	15.7
		15-29	m	m	m	55.5	34.4	10.1	60.6	30.7	8.8	60.4	28.7	11.0

Note: Columns showing additional years are available for consultation on line (see *StatLink* below).

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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C5

Table C5.3a. [3/3] Trends in the percentage of 15-29 year-olds in education and not in education, employed or not, by age group (1997-2012)

		Age group	2000			2005			2010			2012		
			In education	Not in education		In education	Not in education		In education	Not in education		In education	Not in education	
			Total	Employed	Not employed	Total	Employed	Not employed	Total	Employed	Not employed	Total	Employed	Not employed
			(10)	(11)	(12)	(25)	(26)	(27)	(40)	(41)	(42)	(46)	(47)	(48)
OECD	Spain	15-19	80.6	11.4	8.0	78.2	11.0	10.8	82.6	4.6	12.8	86.0	2.6	11.4
		20-24	44.6	40.3	15.0	35.1	45.5	19.4	39.3	33.3	27.4	43.9	25.2	30.9
		25-29	16.2	62.4	21.4	10.9	69.3	19.8	11.3	60.1	28.6	13.2	54.3	32.5
		15-29	45.0	39.8	15.3	37.1	45.7	17.2	40.3	35.9	23.7	44.3	29.9	25.8
	Sweden	15-19	90.6	5.8	3.6	89.6	5.8	4.7	89.5	5.2	5.3	90.3	5.6	4.1
		20-24	42.1	47.2	10.7	42.5	44.1	13.4	46.0	39.8	14.2	45.0	41.5	13.5
		25-29	21.9	68.9	9.2	23.6	66.5	10.0	24.8	63.6	11.6	24.1	64.8	11.1
		15-29	50.2	41.9	7.9	52.9	38.0	9.2	54.5	35.2	10.3	52.7	37.6	9.7
	Switzerland	15-19	84.6	7.5	7.9	85.3	7.2	7.5	88.5	6.7	4.8	88.6	6.7	4.7
		20-24	37.4	56.7	5.9	37.9	50.3	11.9	45.8	43.1	11.1	43.7	44.2	12.1
		25-29	15.1	73.9	11.0	12.3	75.9	11.8	17.2	70.0	12.8	17.4	71.3	11.3
		15-29	45.1	46.6	8.3	44.4	45.2	10.4	49.3	41.1	9.7	48.0	42.5	9.6
	Turkey	15-19	39.2	29.6	31.2	45.8	18.1	36.1	59.7	14.7	25.6	64.4	12.8	22.8
		20-24	12.7	43.1	44.2	15.4	34.9	49.7	25.2	31.1	43.7	38.4	30.6	30.9
		25-29	2.9	58.8	38.3	4.0	50.2	45.8	8.1	50.1	41.8	17.1	48.8	34.1
		15-29	18.5	43.7	37.8	22.4	34.0	43.6	31.4	32.0	36.6	40.1	30.7	29.2
	United Kingdom	15-19	77.0	15.0	8.0	76.0	14.6	9.3	80.6	9.4	10.0	82.3	8.2	9.5
		20-24	32.4	52.2	15.4	32.1	51.0	16.8	33.7	46.9	19.3	33.6	46.1	20.2
		25-29	13.3	70.3	16.3	13.3	70.1	16.6	14.3	67.6	18.1	14.0	67.7	18.3
		15-29	40.0	46.6	13.3	41.2	44.6	14.2	42.1	42.0	15.9	41.6	42.1	16.3
	United States	15-19	81.3	11.7	7.0	85.6	8.3	6.1	85.5	6.8	7.6	85.5	6.8	7.7
		20-24	32.5	53.1	14.4	36.1	48.4	15.5	38.6	42.0	19.4	40.2	42.1	17.7
		25-29	11.4	72.8	15.8	11.9	70.0	18.1	14.6	64.2	21.2	14.0	65.8	20.2
		15-29	43.1	44.6	12.2	45.2	41.7	13.1	46.0	37.8	16.1	46.6	38.2	15.2
	OECD average (excluding Japan)	15-19	80.1	11.4	9.4	83.7	8.3	8.2	85.6	6.7	8.0	86.5	6.5	7.2
		20-24	34.7	48.2	17.7	40.3	42.2	17.5	44.0	37.6	18.4	46.4	36.1	17.5
		25-29	12.2	68.7	19.1	14.1	67.1	18.8	15.7	64.4	19.9	17.9	62.7	19.4
		15-29	41.4	43.6	15.1	45.1	39.9	14.9	47.2	37.1	15.7	48.8	36.2	15.0
	EU21 average	15-19	83.2	9.2	7.9	87.7	6.1	6.2	89.5	4.4	6.4	90.6	3.5	6.1
		20-24	35.6	47.0	17.3	42.6	41.2	16.1	46.8	35.8	17.4	49.5	32.9	17.6
		25-29	11.3	69.3	19.4	13.7	68.0	18.3	15.4	65.2	19.4	18.2	62.2	19.5
		15-29	41.9	43.0	15.0	46.4	39.8	13.8	48.7	36.5	14.8	50.6	34.5	14.8
Partners	Argentina		m	m	m	m	m	m	m	m	m	m	m	m
	Brazil	15-19	m	m	m	m	m	m	m	m	m	68.3	16.5	15.2
		20-24	m	m	m	m	m	m	m	m	m	23.0	53.3	23.7
		25-29	m	m	m	m	m	m	m	m	m	11.1	67.6	21.3
		15-29	m	m	m	m	m	m	m	m	m	35.0	45.1	20.0
	China		m	m	m	m	m	m	m	m	m	m	m	m
	Colombia		m	m	m	m	m	m	m	m	m	m	m	m
	India		m	m	m	m	m	m	m	m	m	m	m	m
	Indonesia		m	m	m	m	m	m	m	m	m	m	m	m
	Latvia	15-19	m	m	m	m	m	m	91.8	1.8	6.4	91.0	1.8	7.2
		20-24	m	m	m	m	m	m	39.8	30.3	29.9	46.0	33.7	20.3
		25-29	m	m	m	m	m	m	10.0	60.9	29.2	13.5	59.9	26.7
		15-29	m	m	m	m	m	m	44.5	32.7	22.9	46.3	34.6	19.1
	Russian Federation		m	m	m	m	m	m	m	m	m	m	m	m
	Saudi Arabia		m	m	m	m	m	m	m	m	m	m	m	m
	South Africa		m	m	m	m	m	m	m	m	m	m	m	m
	G20 average		m	m	m	m	m	m	m	m	m	m	m	m

Note: Columns showing additional years are available for consultation on line (see *StatLink* below).

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C5.4. [1/6] Percentage of 15-29 year-olds in education and not in education, by educational attainment and work status (2012)

	Educational attainment	In education										
		All employed	Employed		Type of employment			Unemployed	Duration of unemployment		Inactive	Sub-total (employed + unemployed + inactive)
			Students in work-study programmes[1]	Other employed	Full time	Part time (PT)	Voluntary PT		Less than 6 months	More than 6 months		
		(1) = (2) + (3) and/or (4) + (5) + unknowns	(2)	(3)	(4)	(5) = (6) + involuntary PT	(6)	(7) = (8) + (9) + unknowns	(8)	(9)	(10)	(11) = (1) + (7) + (10)
OECD Australia	0/1/2	25.0	4.7	20.3	1.2	19.1	15.3	4.8	3.7	1.2	34.1	63.9
	3/4	28.1	5.1	23.0	5.4	17.6	13.7	2.6	2.3	0.4	12.9	43.6
	5/6	16.5	0.9	15.6	7.1	8.4	6.7	1.4	1.0	0.4	7.5	25.3
Austria	0/1/2	26.4	22.3	4.1	c	3.4	m	1.0	0.8	c	47.5	74.9
	3/4	13.0	1.6	11.4	3.8	7.5	m	1.3	1.1	c	15.5	29.7
	5/6	19.7	a	19.7	11.0	8.7	m	c	c	c	10.6	31.1
Belgium	0/1/2	2.9	1.3	1.7	c	1.5	1.3	0.5	c	c	61.5	64.9
	3/4	3.8	0.5	3.2	1.8	1.4	1.3	0.5	c	c	37.4	41.7
	5/6	5.4	0.7	4.7	2.8	1.9	1.5	c	c	c	16.7	22.6
Canada	0/1/2	19.0	a	19.0	0.8	18.2	17.6	5.6	4.9	0.6	46.3	71.0
	3/4	18.3	a	18.3	2.7	15.6	14.9	2.3	2.0	0.1	20.8	41.4
	5/6	15.1	a	15.1	4.4	10.6	10.1	1.1	1.0	0.1	11.4	27.6
Chile[3]	0/1/2	3.7	a	3.7	2.6	1.1	0.6	1.8	1.8	0.0	54.6	60.1
	3/4	10.1	a	10.1	6.2	3.9	1.7	2.1	2.0	0.1	28.8	41.0
	5/6	1.1	a	1.1	0.7	0.4	0.1	0.0	0.0	0.0	0.9	2.1
Czech Republic	0/1/2	19.2	18.4	0.8	c	0.3	c	c	c	c	63.4	82.7
	3/4	4.9	0.9	4.0	2.6	1.4	1.3	0.5	0.4	c	27.8	33.2
	5/6	10.3	a	10.3	6.9	3.4	3.4	c	c	c	22.6	33.8
Denmark	0/1/2	35.2	a	35.2	6.7	28.5	m	7.2	5.2	1.8	34.2	76.6
	3/4	29.2	a	29.2	5.5	23.8	m	3.0	2.4	0.5	14.7	46.8
	5/6	24.8	a	24.8	5.9	18.8	m	2.4	1.8	c	9.9	37.1
Estonia	0/1/2	4.3	a	4.3	2.8	1.4	c	c	c	c	62.9	68.5
	3/4	16.3	a	16.3	12.5	3.8	3.6	1.9	c	c	22.3	40.5
	5/6	17.3	a	17.3	12.9	4.5	4.5	c	c	c	10.7	29.2
Finland	0/1/2	10.7	a	10.7	2.2	8.4	m	5.9	5.1	c	64.3	80.8
	3/4	19.9	a	19.9	6.5	13.4	m	3.4	3.2	c	20.6	44.0
	5/6	22.0	a	22.0	15.4	6.6	m	c	c	c	6.4	29.7
France	0/1/2	4.2	a	4.2	3.4	0.8	m	0.2	0.1	0.1	60.6	65.0
	3/4	7.7	a	7.7	4.6	3.1	m	0.8	0.6	0.2	32.4	40.9
	5/6	6.7	a	6.7	4.4	2.3	m	0.5	0.4	0.1	18.7	26.0
Germany	0/1/2	24.1	17.5	6.6	19.3	4.8	c	1.0	0.6	0.3	52.9	78.0
	3/4	16.8	6.0	10.9	8.8	8.0	c	0.5	0.4	0.1	20.6	37.9
	5/6	12.6	0.9	11.7	5.6	6.9	c	0.8	0.6	c	7.8	21.1
Greece	0/1/2	13.4	a	13.4	11.5	1.9	c	9.3	2.6	6.7	49.7	72.3
	3/4	18.7	a	18.7	15.9	2.8	0.9	14.2	4.4	9.8	32.3	65.2
	5/6	28.6	a	28.6	25.5	3.1	c	19.2	5.1	14.1	4.4	52.2
Hungary	0/1/2	c	a	c	c	0.0	c	c	c	c	73.2	73.3
	3/4	2.4	a	2.4	1.8	0.6	0.6	c	c	c	36.0	38.8
	5/6	6.6	a	6.6	5.1	1.4	c	c	c	c	9.5	16.4
Iceland	0/1/2	31.5	a	31.5	4.1	27.4	m	7.4	6.3	c	27.6	66.5
	3/4	32.4	a	32.4	7.1	25.4	m	c	c	c	22.8	58.6
	5/6	14.4	a	14.4	c	c	m	c	c	c	c	24.5
Ireland	0/1/2	2.6	a	2.6	0.3	2.2	m	0.9	c	0.6	64.1	67.5
	3/4	10.6	a	10.6	2.2	8.4	m	1.6	0.6	1.0	29.1	41.3
	5/6	9.6	a	9.6	5.6	4.0	m	0.8	c	0.5	10.8	21.2

Note: Rows showing data for all levels of education combined are available for consultation on line (see *StatLink* below).

1. Students in work-study programmes are considered to be both in education and employed, irrespective of their labour market status according to the ILO definition.
2. Young people neither in employment nor in education or training.
3. Year of reference 2011.
4. Data refer to 15-24 year-olds.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933118979

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Table C5.4. [2/6] Percentage of 15-29 year-olds in education and not in education, by educational attainment and work status (2012)

	Educational attainment	Not in education										Total in education and not in education
		All employed	Type of employement			NEETS[2]	Unemployed	Type of unemployment		Inactive	Sub-total (employed + unemployed + inactive)	
			Full time	Part time (PT)	Voluntary PT			Less than 6 months	More than 6 months			
		(12) + unknowns	(13)	(14) = (15) + involuntary PT	(15)	(16) = (17) + (20)	(17) = (18) + (19) + unknowns	(18)	(19)	(20)	(21) = (12) + (17) + (20)	(22) = (11) + (21)
OECD Australia	0/1/2	20.8	15.1	5.6	2.5	15.4	4.8	3.2	1.6	10.6	36.1	100
	3/4	45.2	35.0	10.3	5.5	11.2	3.7	2.5	1.2	7.5	56.4	100
	5/6	66.3	54.3	12.0	6.7	8.4	2.8	2.5	c	5.6	74.7	100
Austria	0/1/2	13.3	10.4	2.8	m	11.8	4.8	2.5	2.4	7.0	25.1	100
	3/4	61.3	55.8	5.5	m	9.0	4.0	3.1	0.9	5.0	70.3	100
	5/6	62.4	56.7	5.7	m	6.5	c	c	c	4.5	68.9	100
Belgium	0/1/2	16.0	12.1	3.8	1.8	19.1	6.7	2.9	3.8	12.4	35.1	100
	3/4	43.8	34.4	9.4	4.2	14.5	7.1	3.0	4.1	7.4	58.3	100
	5/6	68.2	56.8	11.4	5.4	9.3	4.6	2.8	1.8	4.6	77.4	100
Canada	0/1/2	14.9	11.4	3.5	1.9	14.1	4.6	3.8	0.7	9.5	29.0	100
	3/4	44.3	36.0	8.4	3.8	14.3	6.2	5.2	0.7	8.2	58.6	100
	5/6	61.5	53.2	8.3	3.3	10.9	4.9	4.1	0.6	6.0	72.4	100
Chile[3]	0/1/2	18.5	16.1	2.5	1.0	21.3	4.1	4.0	0.1	17.2	39.9	100
	3/4	35.4	31.8	3.5	1.4	23.7	5.9	5.6	0.3	17.8	59.0	100
	5/6	79.2	69.4	9.9	3.3	18.7	7.7	7.1	0.7	11.0	97.9	100
Czech Republic	0/1/2	5.6	5.3	0.3	c	11.6	5.2	1.2	4.0	6.4	17.3	100
	3/4	51.7	50.5	1.1	0.9	15.1	6.9	3.3	3.5	8.3	66.8	100
	5/6	55.8	53.8	2.0	1.7	10.4	4.2	2.5	1.7	6.2	66.2	100
Denmark	0/1/2	11.9	8.3	3.7	m	11.5	3.5	2.3	1.2	8.0	23.4	100
	3/4	41.5	30.9	10.6	m	11.7	5.7	4.5	1.1	6.0	53.2	100
	5/6	52.1	41.7	10.4	m	10.8	8.0	6.3	c	2.9	62.9	100
Estonia	0/1/2	15.5	14.8	0.7	c	16.0	7.7	2.5	5.2	8.3	31.5	100
	3/4	42.1	40.7	1.3	c	17.4	7.9	3.5	4.4	9.6	59.5	100
	5/6	58.4	55.1	3.3	c	12.4	4.1	c	c	8.3	70.8	100
Finland	0/1/2	8.7	7.7	1.1	m	10.4	3.2	2.5	0.7	7.2	19.2	100
	3/4	41.9	37.0	4.9	m	14.1	7.1	5.1	1.9	7.0	56.0	100
	5/6	61.8	57.6	4.1	m	8.5	2.2	1.8	c	6.3	70.3	100
France	0/1/2	15.9	12.6	3.3	m	19.0	9.2	3.3	5.8	9.9	35.0	100
	3/4	41.5	33.9	7.5	m	17.6	10.3	5.2	5.0	7.4	59.1	100
	5/6	63.0	56.8	6.2	m	11.0	6.5	4.0	2.4	4.5	74.0	100
Germany	0/1/2	10.3	7.3	3.0	1.0	11.7	4.3	1.9	2.4	7.4	22.0	100
	3/4	52.8	46.1	6.7	2.1	9.3	4.2	2.6	1.6	5.1	62.1	100
	5/6	73.1	64.4	8.7	1.9	5.8	1.8	1.3	0.5	4.0	78.9	100
Greece	0/1/2	12.9	11.3	1.6	c	14.8	8.9	2.4	6.5	5.9	27.7	100
	3/4	17.1	15.0	2.1	c	17.7	12.2	3.5	8.7	5.5	34.8	100
	5/6	27.4	24.4	3.0	c	20.5	18.4	5.1	13.3	2.1	47.8	100
Hungary	0/1/2	7.7	6.9	0.7	c	19.0	5.4	2.1	3.3	13.6	26.7	100
	3/4	42.0	39.9	2.1	0.8	19.2	10.0	3.5	6.5	9.2	61.2	100
	5/6	66.2	63.1	3.1	c	17.3	7.3	3.2	4.1	10.0	83.6	100
Iceland	0/1/2	24.4	20.3	3.9	m	9.1	5.7	4.8	c	3.3	33.5	100
	3/4	33.7	28.9	4.9	m	7.7	c	c	c	c	41.4	100
	5/6	63.5	55.6	c	m	12.0	c	c	c	c	75.5	100
Ireland	0/1/2	9.0	6.2	2.8	m	23.5	10.4	2.1	8.3	13.1	32.5	100
	3/4	35.3	25.9	9.4	m	23.4	14.6	3.6	10.9	8.8	58.7	100
	5/6	65.3	56.8	8.5	m	13.5	8.5	2.3	6.0	5.0	78.8	100

Note: Rows showing data for all levels of education combined are available for consultation on line (see *StatLink* below).

1. Students in work-study programmes are considered to be both in education and employed, irrespective of their labour market status according to the ILO definition.
2. Young people neither in employment nor in education or training.
3. Year of reference 2011.
4. Data refer to 15-24 year-olds.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933118979

Table C5.4. [3/6] **Percentage of 15-29 year-olds in education and not in education, by educational attainment and work status (2012)**

		Educational attainment	In education										
				Employed		Type of employment				Duration of unemployment			
			All employed	Students in work-study programmes[1]	Other employed	Full time	Part time (PT)	Voluntary PT	Unemployed	Less than 6 months	More than 6 months	Inactive	Sub-total (employed + unemployed + inactive)
			(1) = (2) + (3) and/or (4) + (5) + unknowns	(2)	(3)	(4)	(5) = (6) + involuntary PT	(6)	(7) = (8) + (9) + unknowns	(8)	(9)	(10)	(11) = (1) + (7) + (10)
OECD	Israel	0/1/2	5.2	a	5.2	0.5	4.7	4.4	1.4	1.1	c	68.1	74.7
		3/4	15.7	a	15.7	5.7	10.0	9.5	1.4	1.2	c	15.2	32.3
		5/6	18.1	a	18.1	9.4	8.7	7.9	1.7	1.4	c	4.7	24.5
	Italy	0/1/2	0.7	0.1	0.6	0.3	0.4	0.3	0.3	0.1	0.1	56.0	57.0
		3/4	3.3	0.3	3.0	1.2	1.8	1.2	1.1	0.6	0.6	30.8	35.2
		5/6	6.4	0.4	6.0	2.5	3.4	1.7	2.6	0.7	1.9	26.5	35.5
	Japan[4]	0/1/2/3	14.9	a	14.9	0.7	14.3	m	0.3	m	m	40.6	55.9
		3/4	m	a	m	m	m	m	m	m	m	m	m
		5/6	m	a	m	m	m	m	m	m	m	m	m
	Korea	0/1/2	1.6	a	1.6	0.6	0.9	0.9	0.2	0.2	n	90.5	92.3
		3/4	10.8	a	10.8	4.1	6.7	6.6	0.9	0.9	n	36.8	48.5
		5/6	1.4	a	1.4	0.9	0.5	0.5	0.1	0.1	n	1.8	3.3
	Luxembourg	0/1/2	5.6	a	5.6	3.3	2.3	m	0.4	c	c	73.2	79.1
		3/4	7.3	a	7.3	2.9	4.4	m	3.0	c	2.4	44.1	54.4
		5/6	5.7	a	5.7	c	c	m	c	c	c	11.1	18.9
	Mexico	0/1/2	8.3	a	8.3	2.2	6.1	2.2	0.4	0.3	n	25.0	33.7
		3/4	16.5	a	16.5	6.7	9.7	3.8	1.0	0.9	n	27.4	44.9
		5/6	9.9	a	9.9	6.0	3.7	1.5	0.8	0.6	0.1	9.7	20.4
	Netherlands	0/1/2	38.3	a	38.3	3.1	35.2	m	5.9	4.0	1.7	30.6	74.7
		3/4	35.4	a	35.4	5.5	29.8	m	3.0	2.0	0.9	15.5	53.9
		5/6	25.7	a	25.7	8.4	17.3	m	1.2	1.0	c	8.5	35.4
	New Zealand	0/1/2	11.5	a	11.5	2.2	9.3	8.4	4.7	3.5	0.9	37.9	54.2
		3/4	23.2	a	23.2	7.7	15.6	13.7	4.0	2.6	0.7	23.3	50.5
		5/6	13.4	a	13.4	6.9	6.4	4.6	1.9	1.1	c	6.4	21.7
	Norway	0/1/2	17.5	a	17.5	c	17.1	m	2.8	2.3	c	41.7	62.0
		3/4	16.5	a	16.5	c	16.0	m	c	c	c	19.2	36.8
		5/6	11.0	a	11.0	c	10.5	m	c	c	c	11.2	23.4
	Poland	0/1/2	3.2	a	3.2	0.9	2.3	c	0.8	0.4	0.4	76.1	80.0
		3/4	9.0	a	9.0	6.9	2.0	0.2	2.5	1.3	1.2	24.8	36.2
		5/6	12.4	a	12.4	10.0	2.4	0.4	2.3	1.2	1.0	11.8	26.5
	Portugal	0/1/2	2.5	a	2.5	m	m	m	2.7	1.0	1.7	47.3	52.5
		3/4	6.0	a	6.0	m	m	m	2.1	1.1	1.0	36.3	44.4
		5/6	9.5	a	9.5	m	m	m	3.7	c	2.5	13.8	26.9
	Slovak Republic	0/1/2	10.3	10.3	n	c	c	m	c	c	c	73.2	83.6
		3/4	1.7	c	1.5	1.2	c	m	0.5	c	c	24.6	26.8
		5/6	4.6	c	4.6	3.9	c	m	c	c	c	27.9	32.7
	Slovenia	0/1/2	7.5	a	7.5	2.3	5.3	m	1.2	c	0.8	75.7	84.4
		3/4	21.9	a	21.9	10.9	11.0	m	2.3	1.4	0.9	31.7	55.9
		5/6	17.5	a	17.5	10.3	7.2	m	3.1	3.0	c	7.1	27.7
	Spain	0/1/2	1.3	a	1.3	0.6	0.7	0.5	3.1	0.9	2.1	42.4	46.9
		3/4	5.9	a	5.9	1.6	4.3	3.4	5.0	2.0	2.8	41.8	52.6
		5/6	9.0	a	9.0	4.9	4.1	2.8	4.3	1.3	2.9	14.2	27.5
	Sweden	0/1/2	9.7	a	9.7	c	8.9	7.6	7.8	6.3	0.8	66.3	83.9
		3/4	8.2	a	8.2	2.6	5.6	4.6	4.7	2.9	1.3	13.8	26.7
		5/6	19.1	a	19.1	6.0	12.9	11.4	4.3	3.3	c	26.0	49.4

Note: Rows showing data for all levels of education combined are available for consultation on line (see *StatLink* below).

1. Students in work-study programmes are considered to be both in education and employed, irrespective of their labour market status according to the ILO definition.
2. Young people neither in employment nor in education or training.
3. Year of reference 2011.
4. Data refer to 15-24 year-olds.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C5.4. [4/6] Percentage of 15-29 year-olds in education and not in education, by educational attainment and work status (2012)

		Educational attainment	Not in education											Total in education and not in education
			All employed	Type of employement			NEETS[2]	Unemployed	Type of unemployment		Inactive	Sub-total (employed + unemployed + inactive)		
				Full time	Part time (PT)	Voluntary PT			Less than 6 months	More than 6 months				
			(12) + unknowns	(13)	(14) = (15) + involuntary PT	(15)	(16) = (17) + (20)	(17) = (18) + (19) + unknowns	(18)	(19)	(20)	(21) = (12) + (17) + (20)		(22) = (11) + (21)
OECD	Israel	0/1/2	12.8	10.2	2.6	1.4	12.5	3.6	2.3	1.1	8.9	25.3		100
		3/4	50.0	42.5	7.5	4.8	17.6	5.6	4.0	1.2	12.1	67.7		100
		5/6	61.2	47.5	13.7	9.3	14.2	6.1	4.0	1.8	8.1	75.5		100
	Italy	0/1/2	18.7	14.7	4.0	0.6	24.3	7.9	2.6	5.4	16.4	43.0		100
		3/4	39.3	30.8	8.4	1.5	25.5	12.2	4.3	7.9	13.3	64.8		100
		5/6	42.8	34.4	8.4	1.4	21.7	10.8	5.8	5.0	10.9	64.5		100
	Japan[4]	0/1/2/3	30.4	19.2	11.2	m	13.8	4.8	m	m	9.0	44.1		100
		3/4	m	m	m	m	m	m	m	m	m	m		m
		5/6	80.7	57.9	22.8	m	19.3	8.2	m	m	11.1	100.0		100
	Korea	0/1/2	2.7	2.4	0.3	0.2	5.1	0.2	0.2	0.0	4.9	7.7		100
		3/4	28.7	26.3	2.3	2.0	22.9	2.6	2.4	0.2	20.3	51.5		100
		5/6	72.3	68.2	4.1	3.6	24.4	5.6	4.9	0.7	18.9	96.7		100
	Luxembourg	0/1/2	12.0	11.1	c	m	8.9	3.5	c	2.3	5.4	20.9		100
		3/4	38.7	34.4	4.3	m	6.9	3.9	3.1	c	3.0	45.6		100
		5/6	71.8	68.8	3.0	m	9.3	4.4	2.8	c	4.9	81.1		100
	Mexico	0/1/2	41.4	30.3	10.8	3.0	24.9	3.1	2.8	0.2	21.8	66.3		100
		3/4	38.3	30.5	7.5	2.5	16.9	3.7	3.3	0.2	13.2	55.1		100
		5/6	64.8	49.3	15.0	5.8	14.8	7.1	5.7	0.8	7.7	79.6		100
	Netherlands	0/1/2	17.3	11.0	6.3	m	8.0	2.1	1.1	0.9	5.9	25.3		100
		3/4	40.2	23.1	17.1	m	5.9	2.6	1.6	1.0	3.3	46.1		100
		5/6	60.7	39.3	21.4	m	3.9	2.0	1.7	c	1.9	64.6		100
	New Zealand	0/1/2	25.1	18.7	6.5	3.8	20.7	5.9	3.6	1.9	14.7	45.8		100
		3/4	37.6	29.7	7.9	5.2	11.9	4.2	2.5	1.1	7.7	49.5		100
		5/6	66.4	57.0	9.3	6.0	12.0	4.0	3.0	c	8.0	78.3		100
	Norway	0/1/2	28.4	22.1	4.8	m	9.6	2.7	1.8	c	6.9	38.0		100
		3/4	55.8	46.2	8.3	m	7.4	2.6	1.9	c	4.8	63.2		100
		5/6	70.5	60.0	9.9	m	6.0	c	c	c	3.7	76.6		100
	Poland	0/1/2	8.0	7.0	0.9	c	12.0	4.4	1.7	2.7	7.5	20.0		100
		3/4	42.8	40.2	2.6	0.7	21.0	10.5	4.4	6.1	10.5	63.8		100
		5/6	59.9	56.9	3.0	0.8	13.7	7.9	3.7	4.2	5.8	73.5		100
	Portugal	0/1/2	30.5	m	m	m	17.0	10.5	4.0	6.5	6.4	47.5		100
		3/4	40.1	m	m	m	15.5	11.9	4.9	7.0	3.6	55.6		100
		5/6	55.0	m	m	m	18.1	15.4	6.0	9.4	2.6	73.1		100
	Slovak Republic	0/1/2	3.6	1.6	2.0	m	12.9	6.8	0.7	6.0	6.1	16.4		100
		3/4	49.8	47.9	1.9	m	23.4	15.5	2.7	12.8	7.9	73.2		100
		5/6	52.8	51.1	1.7	m	14.5	8.7	1.7	7.0	5.8	67.3		100
	Slovenia	0/1/2	6.0	5.3	0.7	m	9.6	3.2	0.5	2.7	6.4	15.6		100
		3/4	32.9	30.7	2.2	m	11.2	7.0	3.0	4.1	4.1	44.1		100
		5/6	59.3	56.9	2.4	m	13.1	9.2	4.1	5.1	3.9	72.3		100
	Spain	0/1/2	22.5	18.6	4.0	0.8	30.6	21.5	6.0	14.9	9.1	53.1		100
		3/4	27.7	22.4	5.3	1.4	19.7	14.5	5.2	8.8	5.2	47.4		100
		5/6	49.9	40.3	9.6	1.9	22.6	16.9	6.7	9.2	5.7	72.5		100
	Sweden	0/1/2	8.6	6.8	1.7	c	7.5	3.3	2.2	0.9	4.3	16.1		100
		3/4	59.0	48.5	10.3	4.5	14.3	8.5	5.8	2.0	5.8	73.3		100
		5/6	45.4	41.4	3.8	1.8	5.2	2.9	2.2	c	2.4	50.6		100

Note: Rows showing data for all levels of education combined are available for consultation on line (see *StatLink* below).

1. Students in work-study programmes are considered to be both in education and employed, irrespective of their labour market status according to the ILO definition.
2. Young people neither in employment nor in education or training.
3. Year of reference 2011.
4. Data refer to 15-24 year-olds.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933118979

Table C5.4. [5/6] Percentage of 15-29 year-olds in education and not in education, by educational attainment and work status (2012)

		Educational attainment	In education										
				Employed		Type of employment				Duration of unemployment			
			All employed	Students in work-study programmes[1]	Other employed	Full time	Part time (PT)	Voluntary PT	Unemployed	Less than 6 months	More than 6 months	Inactive	Sub-total (employed + unemployed + inactive)
			(1) = (2) + (3) and/or (4) + (5) + unknowns	(2)	(3)	(4)	(5) = (6) + involuntary PT	(6)	(7) = (8) + (9) + unknowns	(8)	(9)	(10)	(11) = (1) + (7) + (10)
OECD	Switzerland	0/1/2	43.2	37.0	6.2	1.2	5.0	4.9	1.2	c	c	34.7	79.1
		3/4	18.9	4.3	14.6	5.8	8.8	8.8	1.1	0.8	c	12.8	32.8
		5/6	14.7	c	14.0	6.0	8.0	8.0	c	c	c	7.3	23.6
	Turkey	0/1/2	7.5	a	7.5	5.7	1.8	m	0.8	0.4	0.4	37.4	45.7
		3/4	8.1	a	8.1	7.1	1.1	m	2.0	1.3	0.7	25.8	35.9
		5/6	12.0	a	12.0	11.2	0.8	m	2.7	1.0	1.7	6.0	20.7
	United Kingdom	0/1/2	4.5	2.1	2.4	0.9	1.5	1.3	1.5	0.7	0.7	46.4	52.4
		3/4	17.6	3.3	14.2	2.6	11.1	10.7	4.1	2.3	1.8	25.3	46.9
		5/6	13.2	0.7	12.5	7.9	4.3	4.2	1.2	0.8	0.5	10.0	24.4
	United States	0/1/2	10.2	a	10.2	0.7	9.0	8.8	3.3	2.3	1.0	61.8	75.2
		3/4	18.2	a	18.2	5.4	12.5	11.8	2.4	1.7	0.6	19.5	40.0
		5/6	13.8	a	13.8	8.0	5.6	5.2	0.8	c	c	8.7	23.3
	OECD average (excluding Chile and Japan)	0/1/2	13.1		9.5	3.2	7.6	5.7	2.9	2.3	1.1	54.0	69.3
		3/4	14.4		13.8	5.3	9.3	5.9	2.5	1.6	1.2	25.5	42.4
		5/6	13.0		12.8	7.4	6.1	4.4	2.6	1.3	1.8	11.3	26.2
	EU21 average	0/1/2	11.3		7.7	4.1	5.8	2.2	2.9	2.1	1.4	58.2	71.4
		3/4	12.4		11.8	5.1	7.6	2.8	2.8	1.7	1.7	27.5	42.5
		5/6	13.6		13.5	8.2	6.3	3.7	3.6	1.8	2.9	13.6	29.8
Partners	Argentina		m	m	m	m	m	m	m	m	m	m	m
	Brazil	0/1/2	13.2	a	13.2	7.9	5.3	m	3.6	3.6	0.1	28.9	45.7
		3/4	14.6	a	14.6	12.0	2.6	m	1.6	1.6	0.1	7.1	23.4
		5/6	8.6	a	8.6	6.7	1.9	m	1.0	0.9	0.1	4.7	14.3
	China		m	m	m	m	m	m	m	m	m	m	m
	Colombia		m	m	m	m	m	m	m	m	m	m	m
	India		m	m	m	m	m	m	m	m	m	m	m
	Indonesia		m	m	m	m	m	m	m	m	m	m	m
	Latvia	0/1/2	1.3	a	1.3	1.2	0.1	m	0.9	0.4	0.5	66.0	68.2
		3/4	12.3	a	12.3	9.7	2.7	m	3.7	1.6	2.1	25.7	41.7
		5/6	12.9	a	12.9	10.0	2.9	m	0.2	0.2	n	4.9	18.0
	Russian Federation		m	m	m	m	m	m	m	m	m	m	m
	Saudi Arabia		m	m	m	m	m	m	m	m	m	m	m
	South Africa		m	m	m	m	m	m	m	m	m	m	m
	G20 average		m	m	m	m	m	m	m	m	m	m	m

Note: Rows showing data for all levels of education combined are available for consultation on line (see *StatLink* below).

1. Students in work-study programmes are considered to be both in education and employed, irrespective of their labour market status according to the ILO definition.
2. Young people neither in employment nor in education or training.
3. Year of reference 2011.
4. Data refer to 15-24 year-olds.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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C5

Table C5.4. [6/6] Percentage of 15-29 year-olds in education and not in education, by educational attainment and work status (2012)

		Educational attainment	Not in education											Total in education and not in education
			All employed	Type of employement			NEETS[2]	Unemployed	Type of unemployment		Inactive	Sub-total (employed + unemployed + inactive)		
				Full time	Part time (PT)	Voluntary PT			Less than 6 months	More than 6 months				
			(12) + unknowns	(13)	(14) = (15) + involuntary PT	(15)	(16) = (17) + (20)	(17) = (18) + (19) + unknowns	(18)	(19)	(20)	(21) = (12) + (17) + (20)		(22) = (11) + (21)
OECD	Switzerland	0/1/2	12.4	9.9	2.5	2.5	8.5	3.2	1.5	1.6	5.4	20.9		100
		3/4	56.5	48.9	7.6	7.5	10.7	4.8	3.0	1.7	5.9	67.2		100
		5/6	68.4	58.6	9.7	9.7	8.0	4.5	3.9	c	3.5	76.4		100
	Turkey	0/1/2	25.0	21.6	3.4	m	29.2	5.0	3.5	1.5	24.3	54.3		100
		3/4	32.8	31.3	1.5	m	31.3	6.3	3.8	2.5	25.0	64.1		100
		5/6	54.8	52.1	2.8	m	24.5	10.6	3.5	7.0	13.9	79.3		100
	United Kingdom	0/1/2	22.4	16.2	5.6	2.8	25.2	10.0	3.9	6.1	15.2	47.6		100
		3/4	38.1	28.0	9.3	5.3	14.9	7.5	3.5	4.0	7.4	53.1		100
		5/6	66.1	56.0	8.7	4.6	9.5	5.1	3.1	2.0	4.3	75.6		100
	United States	0/1/2	12.1	9.0	3.1	1.4	12.6	3.9	2.4	1.5	8.7	24.8		100
		3/4	41.3	31.6	9.4	4.6	18.7	7.0	4.1	2.9	11.7	60.0		100
		5/6	65.9	57.5	8.0	4.6	10.9	4.1	2.9	1.2	6.7	76.7		100
	OECD average (excluding Chile and Japan)	0/1/2	15.5	11.8	3.2	1.8	15.2	5.8	2.5	3.4	9.4	30.7		100
		3/4	41.8	35.5	6.3	3.3	15.8	7.4	3.7	3.8	8.7	57.6		100
		5/6	61.6	53.7	7.9	4.2	13.0	6.9	3.8	4.0	6.4	74.5		100
	EU21 average	0/1/2	13.2	9.8	2.6	1.4	15.5	6.8	2.4	4.4	8.7	28.6		100
		3/4	41.9	35.8	6.1	2.4	15.6	8.8	3.8	5.1	6.8	57.5		100
		5/6	58.0	51.6	6.4	2.4	12.3	7.4	3.5	5.1	5.1	70.2		100
Partners	Argentina		m	m	m	m	m	m	m	m	m	m		m
	Brazil	0/1/2	34.1	29.2	4.9	m	20.2	4.0	3.8	0.2	16.3	54.3		100
		3/4	55.7	50.7	5.0	m	20.9	6.6	6.2	0.4	14.3	76.6		100
		5/6	74.1	66.4	7.7	m	11.6	4.5	4.2	0.4	7.1	85.7		100
	China		m	m	m	m	m	m	m	m	m	m		m
	Colombia		m	m	m	m	m	m	m	m	m	m		m
	India		m	m	m	m	m	m	m	m	m	m		m
	Indonesia		m	m	m	m	m	m	m	m	m	m		m
	Latvia	0/1/2	14.9	13.0	1.9	m	16.9	7.6	3.6	4.0	9.3	31.8		100
		3/4	36.3	34.0	2.3	m	22.0	13.7	4.9	8.7	8.3	58.3		100
		5/6	65.7	60.7	5.1	m	16.3	9.5	4.4	5.1	6.8	82.0		100
	Russian Federation		m	m	m	m	m	m	m	m	m	m		m
	Saudi Arabia		m	m	m	m	m	m	m	m	m	m		m
	South Africa		m	m	m	m	m	m	m	m	m	m		m
	G20 average		m	m	m	m	m	m	m	m	m	m		m

Note: Rows showing data for all levels of education combined are available for consultation on line (see *StatLink* below).

1. Students in work-study programmes are considered to be both in education and employed, irrespective of their labour market status according to the ILO definition.
2. Young people neither in employment nor in education or training.
3. Year of reference 2011.
4. Data refer to 15-24 year-olds.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Table C5.5. [1/2] Trends in the percentage of 15-29 year-old part-time and full-time workers in education and not in education (2006-12)

		2006					2010				
		Employed PT as % of 15-29 year-olds		Employed FT as % of 15-29 year-olds			Employed PT as % of 15-29 year-olds		Employed FT as % of 15-29 year-olds		
		In education	Not in education	In education	Not in education	PT as % of employed	In education	Not in education	In education	Not in education	PT as % of employed
		(1)	(2)	(3)	(4)	(5)	(21)	(22)	(23)	(24)	(25)
OECD	Australia	16.2	8.0	9.3	35.6	35.0	15.9	8.6	8.6	34.0	36.5
	Austria	4.0	3.9	11.3	41.7	12.9	5.9	4.3	11.7	39.8	16.5
	Belgium	1.3	6.8	1.6	36.1	17.6	1.3	6.3	1.8	32.7	18.1
	Canada	15.7	6.4	2.9	37.5	35.4	15.0	7.0	2.8	35.5	36.5
	Chile	m	m	m	m	m	m	m	m	m	m
	Czech Republic	0.6	0.6	1.7	42.5	2.6	1.3	0.7	2.6	37.9	4.7
	Denmark	24.2	5.9	8.1	29.8	44.1	23.1	4.8	7.6	27.4	44.2
	Estonia	3.2	1.3	5.0	36.6	9.8	3.2	1.2	5.7	31.0	10.6
	Finland	10.4	4.3	5.4	29.7	29.5	10.1	3.7	5.5	27.6	29.5
	France	2.7	5.2	3.3	33.5	17.6	2.0	5.9	4.2	33.5	17.3
	Germany	5.4	5.7	12.9	28.4	21.2	5.4	5.7	13.2	31.0	20.1
	Greece	0.9	2.9	1.4	38.7	8.7	1.0	3.1	1.9	34.7	10.2
	Hungary	0.3	0.6	3.8	32.5	2.1	0.3	0.8	1.5	30.0	3.4
	Iceland	21.2	5.4	6.2	32.5	40.6	23.3	7.9	5.2	25.9	50.0
	Ireland	m	m	m	m	m	5.3	6.8	2.7	31.3	26.2
	Israel	7.7	7.8	3.5	21.3	38.5	6.9	7.2	3.6	21.3	36.0
	Italy	1.8	4.5	1.6	32.7	15.6	1.5	5.2	1.4	26.6	19.4
	Japan[1]	7.0	11.3	0.2	22.9	44.2	7.7	8.8	0.2	19.6	45.5
	Korea	m	m	m	m	m	2.7	2.6	2.3	32.7	13.0
	Luxembourg	0.6	2.9	1.2	38.9	8.2	1.6	3.5	3.3	34.5	11.9
	Mexico	3.5	5.0	3.9	37.9	16.8	6.6	10.5	3.3	32.6	32.0
	Netherlands	22.8	6.9	7.9	32.9	41.9	24.6	7.6	7.9	30.3	45.5
	New Zealand	13.4	5.4	6.5	37.7	29.9	12.4	7.6	4.8	31.0	35.9
	Norway	15.4	7.3	0.4	38.7	36.3	15.2	6.4	0.3	38.0	35.5
	Poland	2.2	2.8	5.8	26.9	13.3	2.1	2.0	6.9	32.8	9.5
	Portugal	m	m	m	m	m	m	m	m	m	m
	Slovak Republic	0.3	0.8	1.7	38.3	2.7	0.3	1.2	2.1	34.0	4.1
	Slovenia	6.4	1.9	9.1	31.7	16.9	9.5	2.2	9.6	28.5	23.5
	Spain	3.5	5.3	2.3	41.7	16.5	2.8	5.4	2.0	30.6	20.1
	Sweden	7.9	5.3	2.4	32.2	27.5	8.2	5.3	2.6	29.7	29.3
	Switzerland	6.7	6.4	18.7	38.9	18.4	8.0	5.3	19.4	35.8	19.3
	Turkey	0.4	2.0	2.8	31.2	6.5	1.0	3.2	4.0	28.8	11.5
	United Kingdom	9.8	7.4	6.0	36.8	26.8	8.0	7.0	4.8	33.7	26.9
	United States	m	m	m	m	m	m	m	m	m	m
	OECD average (excluding Chile, Ireland, Japan, Korea, Portugal and the United States)	7.4	4.8	5.1	34.3	22.0	7.7	5.1	5.1	31.3	24.3
	EU21 average	5.7	3.9	4.9	34.8	17.7	5.9	4.1	4.9	31.9	19.5
Partners	Argentina	m	m	m	m	m	m	m	m	m	m
	Brazil	m	m	m	m	m	m	m	m	m	m
	China	m	m	m	m	m	m	m	m	m	m
	Colombia	m	m	m	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m	m	m	m
	Indonesia	m	m	m	m	m	m	m	m	m	m
	Latvia	m	m	m	m	m	1.9	2.9	5.2	29.7	12.2
	Russian Federation	m	m	m	m	m	m	m	m	m	m
	Saudi Arabia	m	m	m	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m	m	m	m
	G20 average	m	m	m	m	m	m	m	m	m	m

Note: Columns showing additional years are available for consultation on line (see *StatLink* below).

1. Data refer to 15-24 year-olds.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933118998

C5

Table C5.5. [2/2] **Trends in the percentage of 15-29 year-old part-time and full-time workers in education and not in education (2006-12)**

		2012					
		Employed PT as % of 15-29 year-olds		Employed FT as % of 15-29 year-olds		PT as % of employed	Involuntary PT/ Total PT
		In education	Not in education	In education	Not in education		
		(32)	(33)	(34)	(35)	(36)	(37)
OECD	Australia	16.3	9.3	8.1	33.8	37.9	30.7
	Austria	6.2	4.6	12.0	40.2	17.2	m
	Belgium	1.8	7.9	1.6	31.6	22.6	46.9
	Canada	14.7	7.1	2.8	35.3	36.5	21.1
	Chile	m	m	m	m	m	m
	Czech Republic	1.4	1.0	2.7	37.8	5.6	8.6
	Denmark	24.8	7.5	6.0	21.8	53.7	m
	Estonia	3.1	1.5	9.4	35.0	9.5	c
	Finland	10.6	3.4	6.2	29.1	28.3	m
	France	2.1	5.7	4.2	31.9	17.9	m
	Germany	6.6	5.4	12.8	32.1	21.1	86.1
	Greece	2.3	1.7	13.5	12.3	13.3	71.3
	Hungary	0.5	1.8	1.6	31.2	6.5	51.2
	Iceland	24.2	4.7	5.7	27.4	46.5	m
	Ireland	5.2	7.1	2.4	27.7	29.0	m
	Israel	8.2	7.1	4.8	33.9	28.3	19.4
	Italy	1.5	6.5	1.0	24.2	24.0	75.1
	Japan[1]	8.5	8.6	0.3	17.4	49.1	m
	Korea	3.2	2.3	2.2	32.7	13.6	6.5
	Luxembourg	3.1	2.6	3.1	30.9	14.3	m
	Mexico	6.7	10.4	3.7	32.1	32.2	16.7
	Netherlands	29.2	13.8	5.1	21.6	61.7	m
	New Zealand	11.3	7.7	5.6	32.8	33.2	23.1
	Norway	15.4	7.0	0.4	37.6	36.3	m
	Poland	2.1	2.1	5.7	33.3	9.7	81.5
	Portugal	m	m	m	m	m	m
	Slovak Republic	0.3	1.9	1.2	34.2	5.7	m
	Slovenia	8.8	1.8	8.3	26.9	23.3	m
	Spain	2.4	5.6	1.8	24.3	23.5	62.0
	Sweden	8.6	5.6	2.8	32.0	28.9	30.9
	Switzerland	7.5	6.1	19.5	36.4	19.6	c
	Turkey	1.5	2.9	6.7	27.8	11.2	m
	United Kingdom	7.2	8.1	4.7	31.3	28.6	25.4
	United States	10.3	7.5	4.6	30.7	33.5	23.0
	OECD average (excluding Chile, Ireland, Japan, Korea, Portugal and the United States)	8.2	5.5	5.6	30.2	25.7	43.3
	EU21 average	6.4	4.8	5.3	29.5	22.2	53.9
Partners	Argentina	m	m	m	m	m	m
	Brazil	4.0	5.1	9.4	40.0	15.6	m
	China	m	m	m	m	m	m
	Colombia	m	m	m	m	m	m
	India	m	m	m	m	m	m
	Indonesia	m	m	m	m	m	m
	Latvia	1.8	2.7	6.8	31.9	10.5	m
	Russian Federation	m	m	m	m	m	m
	Saudi Arabia	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m
	G20 average	m	m	m	m	m	m

Note: Columns showing additional years are available for consultation on line (see *StatLink* below).

1. Data refer to 15-24 year-olds.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

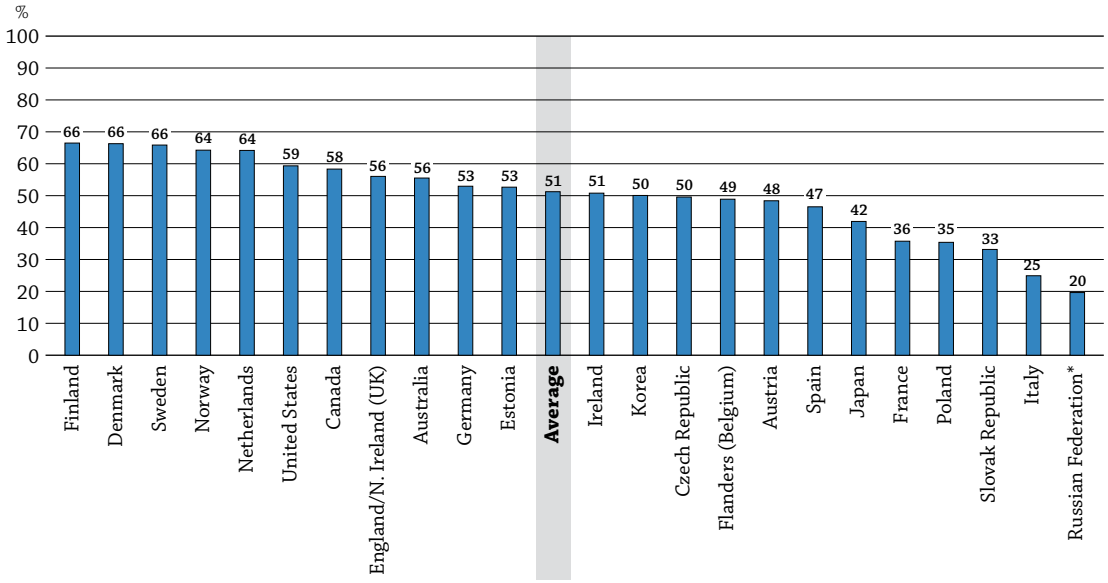
StatLink http://dx.doi.org/10.1787/888933118998

HOW MANY ADULTS PARTICIPATE IN EDUCATION AND LEARNING?

- Across countries, more than 50% of adults participate in formal and/or non-formal education in a given year. The proportion ranges from more than two out of three people in Denmark, Finland and Sweden, to one out of three people in the Slovak Republic, one out of four people in Italy, and one out of five people in the Russian Federation.
- Participation in formal and/or non-formal education is strongly related to proficiency levels in literacy, educational attainment, age group, labour force status and parents' education.
- Overall, 25% of adults in OECD countries wanted to participate in learning activities in the 12 months prior to the Survey of Adult Skills (PIAAC), but had not begun. Some 45% of those potential participants cited the burden of work or family responsibility as the reason for not starting the activity.
- On average across countries, 10% of 25-64 year-olds participate in learning activities organised by the formal education system. The proportion ranges from 2% in Japan to 17% in Australia.

Chart C6.1. Participation in formal and/or non-formal education (2012)

25-64 year-olds



* See note on data for the Russian Federation in the *Methodology* section.

Countries are ranked in descending order of the percentage of 25-64 year-olds participating in formal and/or non-formal education.

Source: OECD. Table C6.4. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933119207

Context

Adult learning can play an important role in helping adults to develop and maintain key information-processing skills, and acquire other knowledge and skills, throughout life. It is crucial to provide, and ensure access to, organised learning opportunities for adults beyond initial formal education, especially for workers who need to adapt to changes throughout their careers. The relevance of continued learning opportunities now extends to workers in both high- and low-skilled occupations. In high-technology sectors, workers need to update their competencies and keep pace with rapidly changing techniques. Workers in low-technology sectors and those performing low-skilled tasks must learn to be adaptable, since they are at higher risk of losing their job, as routine tasks are increasingly performed by machines, and companies may relocate to countries with lower labour costs (OECD, 2013).

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Lifelong learning can also contribute to non-economic goals, such as personal fulfilment, improved health, civic participation and social inclusion (see Indicator "What are the social outcomes of education?" in previous editions of *Education at a Glance*). The large variation in adult learning activities and participation among OECD countries at similar levels of economic development suggests that there are significant differences in learning cultures, learning opportunities at work, and adult-education structures. Results from the Survey of Adult Skills, a product of the OECD Programme for the International Assessment of Adult Competencies (PIAAC), show a clear relationship between the extent of participation in organised adult learning activities and the average level of key information-processing skills in a given country.

Other findings

- **Participation in formal and/or non-formal education in all countries is strongly related to proficiency levels in key skills and educational attainment**. These factors combine to create a virtuous circle for persons with high skills proficiency and educational attainment who tend to acquire yet more skills through attending adult education activities. The factors also combine to establish a vicious circle of low educational attainment, low skills proficiency, and no access to formal education to redress skills deficiencies.
- **Participation in formal and/or non-formal education is most common among younger adults (25-34 year-olds) and declines steadily among older adults (55-64 year-olds).** This pattern holds within each level of literacy proficiency. In countries with high overall participation in formal and/or non-formal education, age and literacy skills have less influence on participation in adult learning activities.
- **Adults who grew up in disadvantaged families (defined here as having two parents who have less than an upper secondary education) participate less in formal and/or non-formal adult education activities**. This is even true among those who have achieved high levels of literacy proficiency, as measured by the Survey of Adult Skills.
- In general, countries with high participation rates in formal education among adults also tend to have high adult participation rates in non-formal education. **Two out of three adults in formal education also participate in non-formal education**.

Analysis

Large differences among countries

On average across countries, 51% of 25-64 year-olds participated in at least one learning activity, in formal and/or non-formal education in the previous year. The countries surveyed fall into six groups, divided by significant differences in participation rates (Table C6.1 [L]).

- Group 1, with participation rates above 60%, includes Denmark, Finland, the Netherlands, Norway and Sweden.
- Group 2, with participation rates between 55% and 59%, includes Australia, Canada, England/Northern Ireland (UK) and the United States.
- Group 3, with participation rates around the OECD average of 48% to 53%, includes Austria, the Czech Republic, Estonia, Flanders (Belgium), Germany, Ireland and Korea.
- Group 4 consists of two countries with participation rates between 38% and 47%: Japan and Spain.
- Group 5, with participation rates between 33% and 36%, includes France, Poland and the Slovak Republic.
- Group 6, with participation rates below 25%, consists of Italy and the Russian Federation.

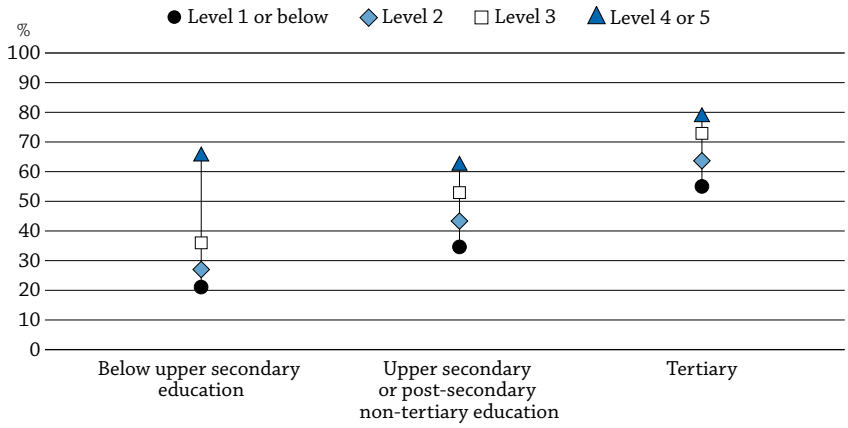
Education leads to further education

The levels of skills and the educational attainment of an individual both affect adult learning. On average across countries, 30% of those with low literacy proficiency (Level 1 or below in the Survey of Adult Skills) participated in formal and/or non-formal education during the 12 months prior to the survey, while 74% of adults with high literacy proficiency (Level 4 or 5) did. A highly proficient person was thus almost 2.5 times more likely to participate in formal and/or non-formal education than a person with low literacy proficiency. Some 27% of adults without upper secondary education participated in formal and/or non-formal education, while 71% of adults with tertiary education did. Tertiary-educated adults were thus over 2.5 times more likely to participate in formal and/or non-formal education than adults without upper secondary education. The strong positive relationship between participation in formal and/or non-formal education, literacy skills and educational attainment is consistent across countries (Tables C6.1 [L] and C6.2a [L]).

Proficiency levels in literacy and educational attainment seem to have a mutually reinforcing effect on participation in formal and/or non-formal education. Some 79% of people with high levels of proficiency in literacy and with tertiary education participated in formal and/or non-formal education. They were almost four times more likely to be participants than persons with low levels of proficiency in literacy and who did not have upper secondary education.

Chart C6.2. Participation in formal and/or non-formal education, by literacy proficiency level and educational attainment (2012)

Survey of Adult Skills, 25-64 year-olds, average



Note: Adult participation in formal and/or non-formal education, by literacy proficiency level, by educational attainment and by country is available on line.

Source: OECD. Table C6.2a (L). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933119226

Only 21% of this latter group participated. These mutually reinforcing aspects create a virtuous cycle for adults with high proficiency and a vicious cycle for those with low proficiency. In contrast to low-skilled adults, high-skilled adults will be more likely to participate in learning activities that enhance their skills – which makes these individuals more likely to continue to benefit from learning opportunities (Chart C6.2).

Denmark, the Netherlands, Norway and Sweden are the most successful in providing opportunities for participation in formal and/or non-formal education to those adults who scored at Level 1 or below in the Survey of Adult Skills and who have less than upper secondary education: in each of these countries, more than 30% of this group of adults participate (Table C6.2a [L]).

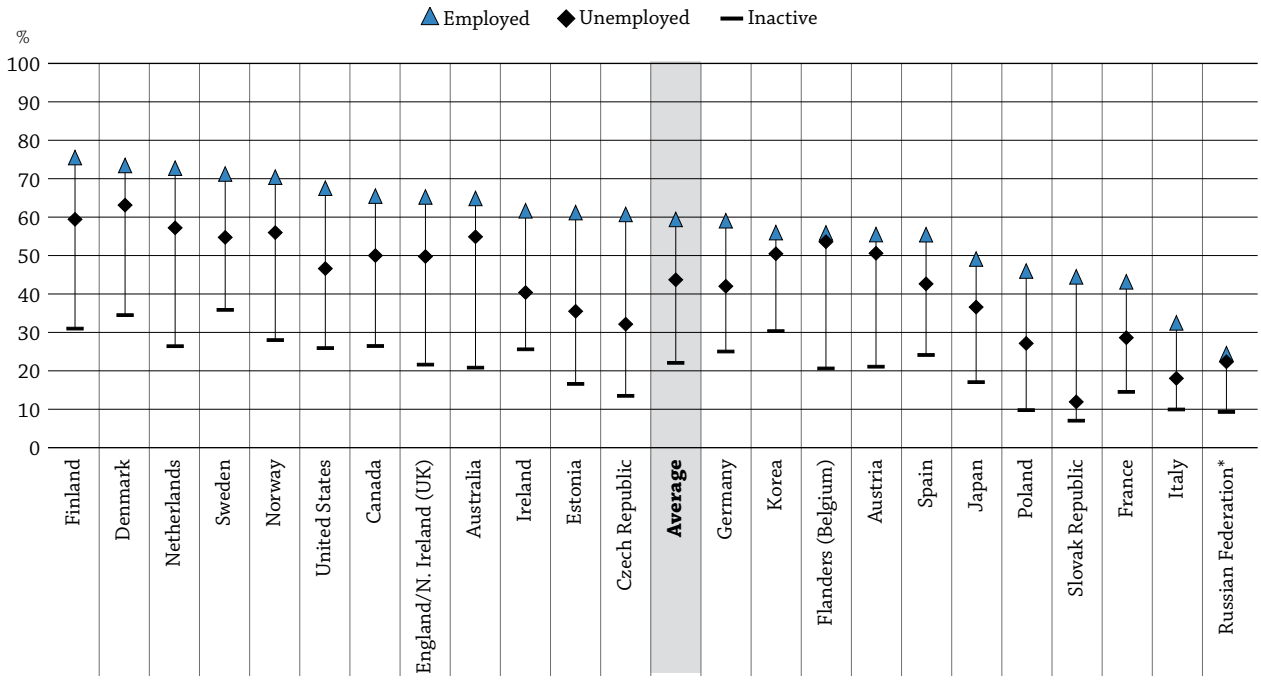
Differences in participation among social groups

There are considerable differences among countries in the extent of adult participation in formal education. Several factors influence the participation rate in adult learning in a similar way across the national entities surveyed. These factors include labour force status, age, parents' educational attainment and, to a lesser degree, gender.

Across OECD countries, employed adults participate more often in formal and/or non-formal education (59%) than unemployed adults (44%) and adults outside of the labour force (22%) (Chart C6.3). Among employed adults, those with high literacy proficiency (Level 4 or 5) are almost twice as likely to participate in education as those with low levels of literacy proficiency (at or below Level 1). Most countries show this pattern, while differences in participation rates related to literacy proficiency tend to be larger in countries with low participation rates overall (correlation = -0.54) (Table C6.2d [L], available on line).

Chart C6.3. Participation in formal and/or non-formal education, by labour market status (2012)

25-64 year-olds



* See note on data for the Russian Federation in the *Methodology* section.

Countries are ranked in descending order of the percentage of employed 25-64 year-olds participating in formal and/or non-formal education.

Source: OECD. Table C6.2d (L), available on line. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933119245

In many countries, participation in all types of adult learning – formal, non-formal and informal – tends to decline among older persons (OECD, 2011, and OECD/Statistics Canada, 2011). On average across countries, the youngest age group (25-34 year-olds) participates most in formal and/or non-formal education (participation rate of 62%) while the oldest age group (55-64 year-olds) participates least (participation rate of 34%), on average across the

countries surveyed. The age groups between these two extremes show moderate levels of participation (56% for 35-44 year-olds, 51% for 45-54 year-olds) (Table C6.2b [L], available on line).

The steady decline of participation in formal and/or non-formal education by age group holds within each proficiency level in literacy, on average across countries. Thus the youngest adults with high literacy skills (proficiency Level 4 or 5) participate to the greatest extent (79%), while the oldest adults with low literacy skills (Level 1 or below) show the lowest participation (21%). Young adults who are highly skilled are thus 3.8 times more likely to participate in formal and/or non-formal education than older adults with low skills proficiency (Table C6.2b [L], available on line).

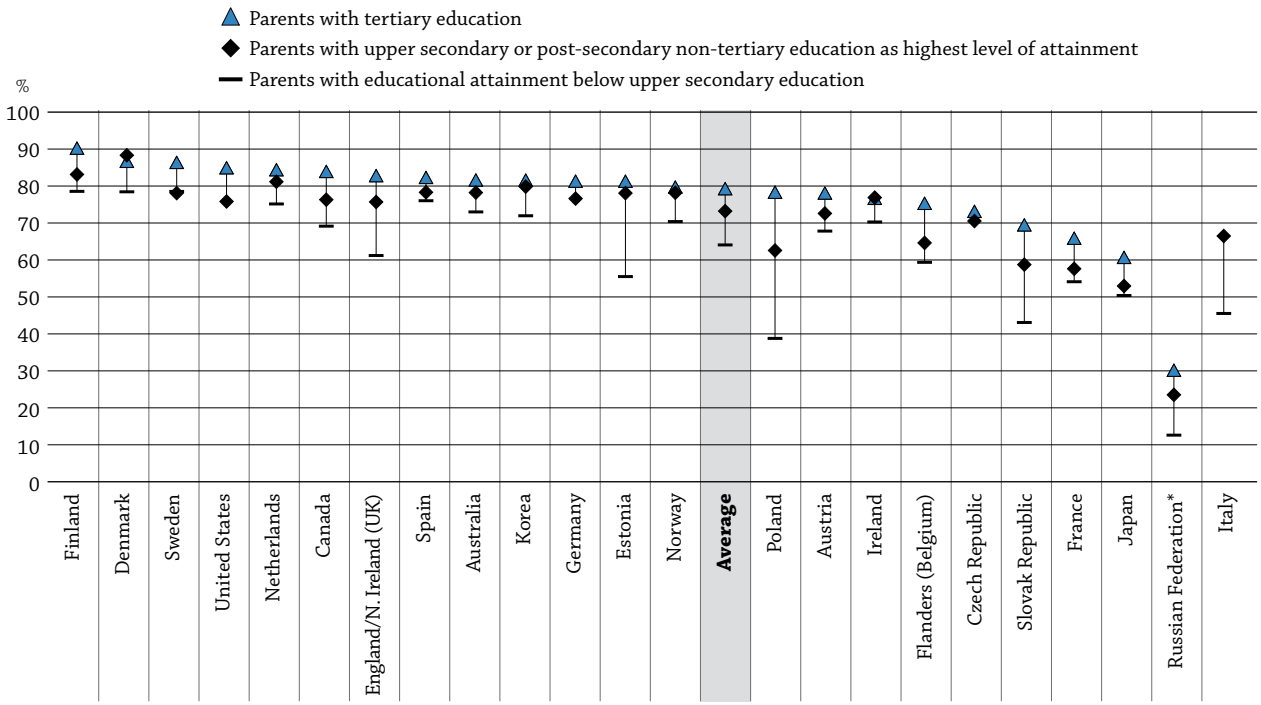
Age and proficiency in literacy seem to mutually reinforce adult learning. The relationship is found in every country surveyed, although there are some differences in the strength of this association. In the United States, for example, the difference by age group and literacy proficiency is smallest: young people with high literacy skills are 2.6 times more likely to participate in formal and/or non-formal education than are older adults with low levels of proficiency. This difference is largest in Poland, where young high-skilled people are more than nine times more likely to participate than older low-skilled adults. The higher the overall participation rate of a country, the smaller the relative advantage of these young adults; the lower the overall participation rate, the greater their relative advantage (correlation = -0.86) (Table C6.2b [L], available on line).

There are several possible reasons for the lower participation rates among older adults. These include high inactivity among older people (see Indicator A5), low employer investment in the skills of older workers, and fewer incentives for older workers to improve their skills.

The level of parents' education can be seen as a proxy for socio-economic status (OECD, 2013). Parents' education is related to an individual's own educational attainment (see Indicator A4) and to skills proficiency (OECD, 2013). Participation in formal and/or non-formal education as an adult could help to compensate for the negative effects of disadvantage earlier in life.

Chart C6.4. Participation in formal and/or non-formal education among adults scoring at literacy proficiency Level 4/5, by parents' level of education (2012)

Survey of Adult Skills, 25-64 year-olds



* See note on data for the Russian Federation in the *Methodology* section.

Countries are ranked in descending order of the percentage of 25-64 year-olds participating in formal and/or non-formal education and scoring at literacy proficiency Level 4 or 5, whose parents attained tertiary education.

Source: OECD. Table C6.2e (L), available on line. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933119264

On average across countries, 68% of adults with at least one parent who had attained tertiary education participated in formal and/or non-formal education. Some 56% of adults with at least one parent who had attained upper secondary education participated, while 40% of adults, neither of whose parents had attained upper secondary education, participated. Adults with tertiary-educated parents are 1.7 times more likely to participate in adult education than those whose parents do not have an upper secondary education (Table C6.2e [L], available on line). Chart C6.4 shows that, among those adults scoring at literacy proficiency Level 4 or 5 in the Survey of Adult Skills, 79% of those with at least one parent who had attained tertiary education participate in formal and/or non-formal education, 73% of those with at least one parent who had attained upper secondary education participate, and 64% of those with parents who do not have an upper secondary education participate.

Countries with a high overall participation rate in formal and/or non-formal education show smaller differences in participation related to parents' educational attainment (correlation = -0.74). The countries showing the weakest influence of parents' education on participation among highly skilled adults are Australia, Denmark, Ireland, Korea, the Netherlands, Norway, Spain, and Sweden; the influence is strongest in Estonia, Germany, Italy, Poland, the Russian Federation and the Slovak Republic.

Barriers to participation in learning activities

All adults (25-64 year-olds) were asked whether they had wanted to participate in (more) formal or non-formal learning activities during the previous 12 months, but did not start the activity. Chart C6.5 shows that across countries, 25% of all adults were interested in participating but were not able to do so. Three out of four of the adults interested in further participation had taken part in other formal and/or non-formal education activities during the previous 12 months (18% of all adults). Only a small minority (7%) of all adults had been interested in participating but did not do so during the previous 12 months, and could thus be considered as potential new participants. The proportion of adults who had wanted to participate in learning activities but did not ranges from more than 33% in Denmark, Korea and the United States, to less than 15% in Poland, the Russian Federation and the Slovak Republic. In all countries surveyed, more participants than non-participants wanted to take up (further) learning activities. The difference is small in France, Italy and the Russian Federation. Overall, countries with higher participation rates in formal and/or non-formal education also have larger proportions of people who want to begin learning activities (correlation = 0.76) (Table C6.4).

The people who wanted to take up a learning activity were asked to cite why they did not start the activity. Seven alternatives and the category "other" were suggested. Across OECD countries, 30% of the respondents cited the reason "I was too busy at work". A further 15% of the respondents cited the reason "I did not have time because of childcare or family responsibilities". Thus, for 45% of the respondents, the burden of work or family seemed to leave no time for (more) learning activities. Factors related to how the learning activities were organised also prevented people from taking up learning activities: "The course or programme was offered at an inconvenient time or place" (12%), "Education or training was too expensive/I could not afford it" (14%) and "I did not have the prerequisites" (3%) were cited by a total of 29% the respondents. Some 8% of respondents cited "Lack of employer's support" as the reason for not taking up a wanted learning activity, and some 4% said that "Something unexpected came up that prevented me from taking education or training" (Table C6.5).

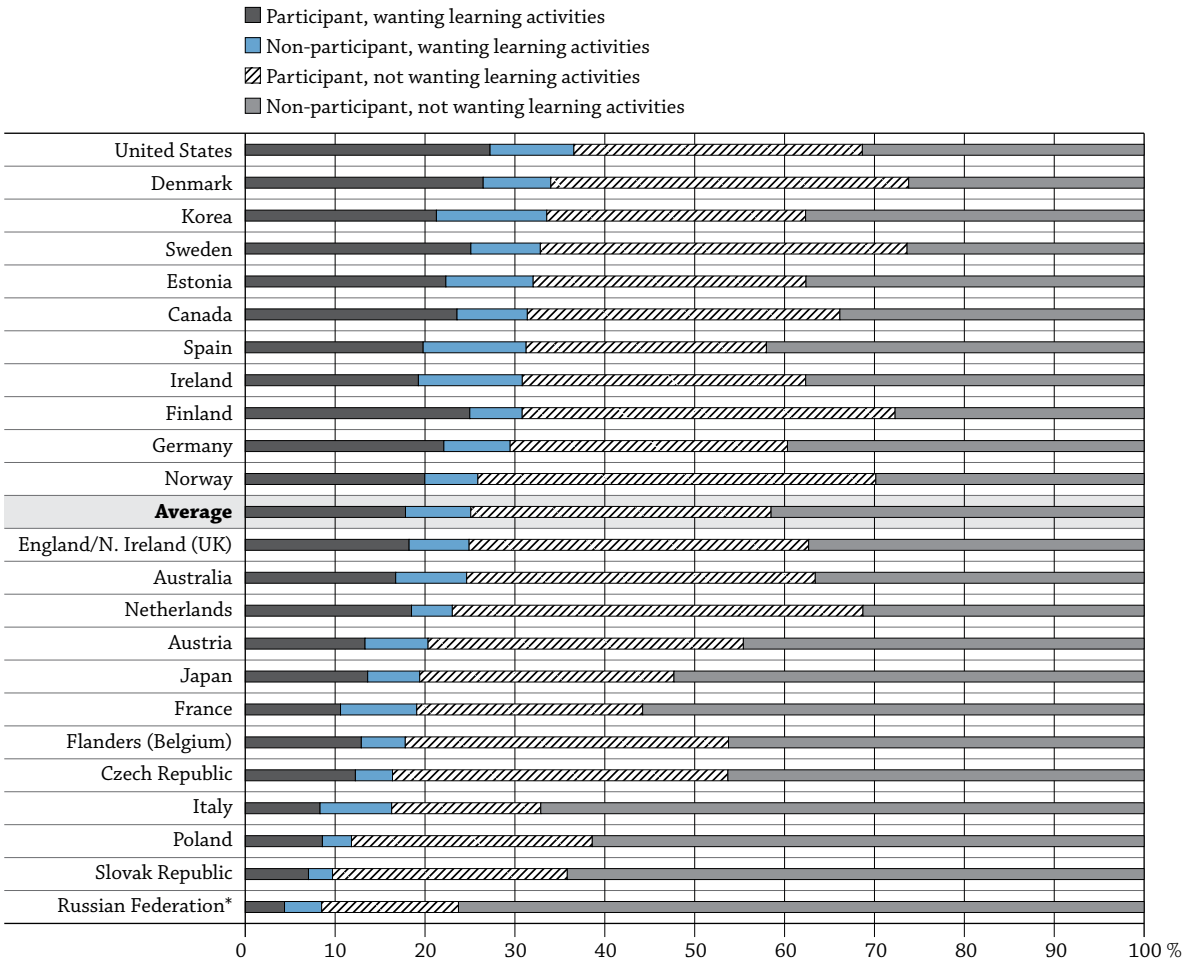
The reason "I was too busy at work" was cited by more than 35% of the respondents in the Czech Republic, Italy, Japan, and Korea, and by less than 25% in France, Ireland and Poland. "I did not have time because of childcare or family responsibilities" was cited by 20% or more in Australia, Flanders (Belgium), Ireland, and Spain; and by 10% or less in Denmark, Estonia, Finland, France and the Slovak Republic. "The course or programme was offered at an inconvenient time or place" was cited by more than 17% of respondents in Finland, Flanders (Belgium), and Japan, and by less than 7% in the Czech Republic, France and Italy. "Education or training was too expensive/I could not afford it" was cited by 20% of respondents or more in Ireland, Poland, the Russian Federation and the United States, and by 9% of respondents or less in Finland, Flanders (Belgium), Germany, Japan and Norway (Table C6.5).

The reasons cited for non-participation also differed according to whether adults were participants in formal and/or non-formal education or non-participants. On average across countries, 34% of participants and 22% of non-participants cited the reason "I was too busy at work". In every country, participants cited the burden of work more often than non-participants. Some 21% of non-participants felt hindered by childcare and family responsibilities more often than participants (12%). "The course or programme was offered at an inconvenient time or place" was cited by 13% of participants, and 8% of non-participants. In every country surveyed, participants cited this reason more often than non-participants (Table C6.5).

C6

Chart C6.5. Participation in formal and/or non-formal education and desired learning activities (2012)

25-64 year-olds



* See note on data for the Russian Federation in the Methodology section.

Countries are ranked in descending order of the sum of the participants, wanting learning activities and non-participants, wanting learning activities.

Source: OECD. Table C6.4. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933119283

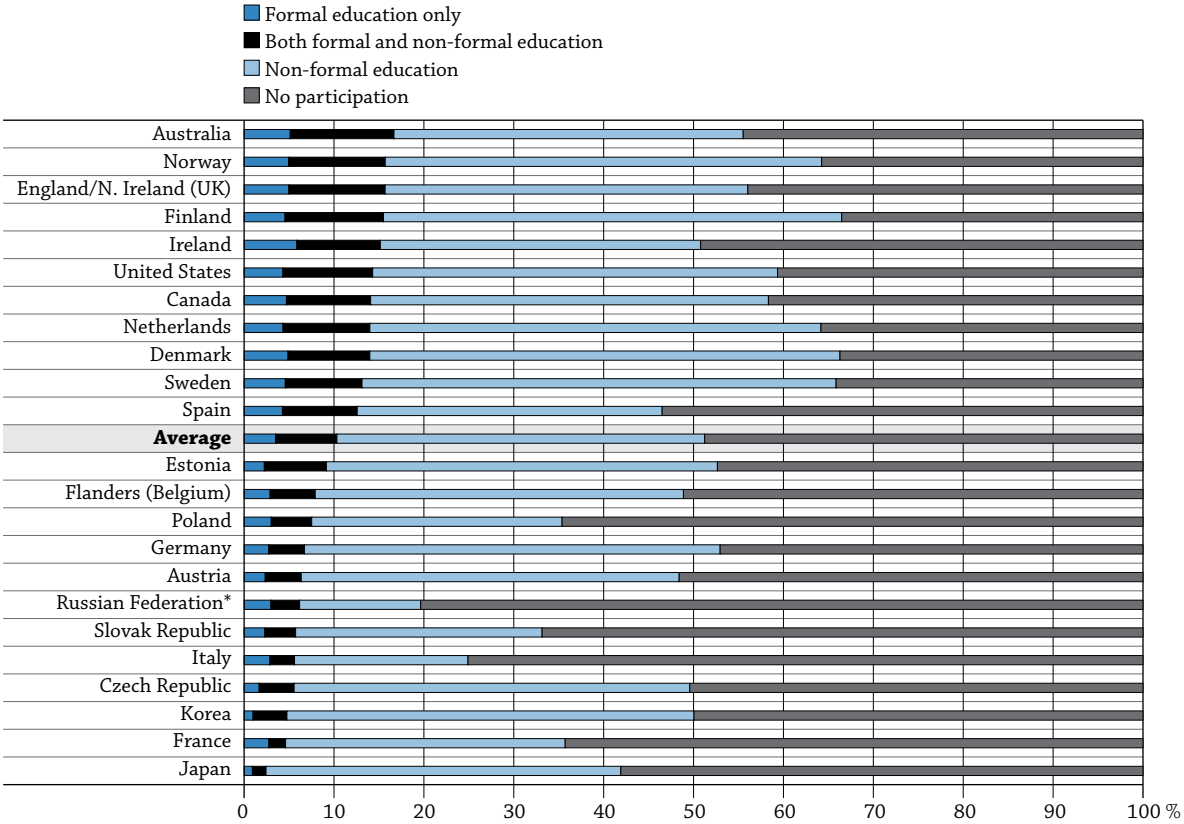
Participation in formal versus participation in non-formal education

Countries differ in the extent in which adults have access to the formal education system to meet their education and training needs. Across countries, an average of 10% of 25-64 year-olds participate in formal education. The proportions range from 17% in Australia to 2% in Japan. Canada, all Anglo-Saxon countries (i.e. Australia, England/Northern Ireland [UK], Ireland and the United States) and all Nordic countries (i.e. Denmark, Finland, Norway and Sweden) show an above-average proportion of adults attending formal institutions. Apart from these two groups, only the Netherlands and Spain show above–average participation rates. By contrast, less than 5% of adults in France, Japan and Korea participate in formal education (Table C6.3).

In general, countries with high rates of adult participation in formal education also have high rates of adult participation in non-formal education. The relationship (correlation = 0.66) is not perfect: the Czech Republic and Korea combine low participation rates in formal education with average rates of participation in non-formal education.

On average, two out of three adult participants in formal education also participate in non-formal education, an indication that these persons take advantage of a variety of learning opportunities. Chart C6.6 shows that about half of adults do not participate in any formal or non-formal education.

Chart C6.6. Participation in formal and/or non-formal education (2012)
25-64 year-olds



* See note on data for the Russian Federation in the *Methodology* section.
Countries are ranked in descending order of the sum of participants in formal education only and both formal and non-formal education.
Source: OECD. Table C6.3. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933119302

Definitions

Age groups: adults refers to 25-64 year-olds; **younger adults** refers to 25-34 year-olds; **older adults** refers to 55-64 year-olds.

Formal education and training is defined as planned education provided in the system of schools, colleges, universities and other formal educational institutions, and which normally constitutes a continuous "ladder" of full-time education for children and young people. The providers may be public or private.

Levels of education: below upper secondary corresponds to ISCED levels 0, 1, 2 and 3C short programmes; **upper secondary or post-secondary non-tertiary** corresponds to ISCED levels 3A, 3B, 3C long programmes, and ISCED level 4; and **tertiary** corresponds to ISCED levels 5A, 5B and 6. See the Reader's Guide at the beginning of the book for a presentation of all ISCED levels.

Non-formal education and training is defined as a sustained educational activity that does not correspond exactly to the above definition of formal education. Non-formal education may therefore take place both within and outside educational institutions and cater to individuals of all ages. Depending on country contexts, it may cover education programmes in adult literacy, basic education for out-of-school children, life skills, work skills, and general culture. The Survey of Adult Skills uses a list of possible non-formal education activities, including open or distance learning courses, private lessons, organised sessions for on-the-job training, and workshops or seminars to prompt respondents to list all of their learning activities during the previous 12 months. Some of these learning activities might be of short duration.

Parents' educational attainment: below upper secondary means that both parents have attained ISCED level 0, 1, 2 or 3C short programmes; **upper secondary or post-secondary non-tertiary** means that at least one parent

(whether mother or father) has attained ISCED level 3A, 3B, 3C long programmes, or ISCED level 4; and **tertiary** means that at least one parent (whether mother or father) has attained ISCED level 5A, 5B or 6. See the Reader's Guide at the beginning of the book for a presentation of all ISCED levels.

Methodology

All data are based on the Survey of Adult Skills (PIAAC) (2012). PIAAC is the OECD Programme for the International Assessment of Adult Competencies. See *About the Survey of Adult Skills* at the beginning of this publication and Annex 3 (*www.oecd.org/edu/eag.htm*) for additional information.

Note regarding data from the Russian Federation in the Survey of Adult Skills (PIAAC)

Readers should note that the sample for the Russian Federation does not include the population of the Moscow municipal area. The data published, therefore, do not represent the entire resident population aged 16-65 in Russia but rather the population of Russia *excluding* the population residing in the Moscow municipal area. More detailed information regarding the data from the Russian Federation as well as that of other countries can be found in the *Technical Report of the Survey of Adult Skills* (OECD, forthcoming).

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Tables of Indicator C6

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	Table C6.1 (L)	Participation in formal and/or non-formal education, by literacy proficiency level (2012)
WEB	Table C6.1 (N)	Participation in formal and/or non-formal education, by numeracy proficiency level (2012)
	Table C6.2a (L)	Participation in formal and/or non-formal education, by literacy proficiency level and educational attainment (2012)
WEB	Table C6.2a (N)	Participation in formal and/or non-formal education, by numeracy proficiency level and educational attainment (2012)
WEB	Table C6.2b (L)	Participation in formal and/or non-formal education, by literacy proficiency level and age group (2012)
WEB	Table C6.2b (N)	Participation in formal and/or non-formal education, by numeracy proficiency level and age group (2012)
WEB	Table C6.2c (L)	Participation in formal and/or non-formal education, by literacy proficiency level and gender (2102)
WEB	Table C6.2c (N)	Participation in formal and/or non-formal education, by numeracy proficiency level and gender (2012)
WEB	Table C6.2d (L)	Participation in formal and/or non-formal education, by literacy proficiency level and labour market status (2012)
WEB	Table C6.2d (N)	Participation in formal and/or non-formal education, by numeracy proficiency level and labour market status (2012)
WEB	Table C6.2e (L)	Participation in formal and/or non-formal education, by literacy proficiency level and parents' level of education (2012)
WEB	Table C6.2e (N)	Participation in formal and/or non-formal education, by numeracy proficiency level and parents' level of education (2012)
	Table C6.3	Participation in formal and/or non-formal education, by gender (2012)
	Table C6.4	Participation in formal and/or non-formal education and desired learning activities (2012)
	Table C6.5	Reasons given for not engaging in more/any learning activity, by participation status in formal and/or non-formal education activities (2012)

Table C6.1 (L). Participation in formal and/or non-formal education, by literacy proficiency level (2012)

Survey of Adult Skills, 25-64 year-olds

	Level 0/1		Level 2		Level 3		Level 4/5		Total	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
OECD										
National entities										
Australia	28	(2.3)	45	(1.8)	63	(1.3)	78	(2.0)	56	(0.7)
Austria	27	(2.6)	41	(1.5)	60	(1.5)	74	(3.3)	48	(0.7)
Canada	34	(1.6)	51	(1.1)	68	(1.0)	80	(1.5)	58	(0.6)
Czech Republic	32	(4.0)	44	(2.1)	56	(2.1)	71	(4.3)	50	(1.2)
Denmark	42	(1.8)	61	(1.4)	75	(1.2)	86	(2.2)	66	(0.6)
Estonia	33	(2.3)	46	(1.6)	59	(1.3)	77	(2.3)	53	(0.7)
Finland	38	(2.6)	55	(1.7)	72	(1.1)	84	(1.3)	66	(0.7)
France	20	(1.2)	31	(1.0)	47	(1.4)	60	(3.0)	36	(0.6)
Germany	29	(2.2)	46	(2.0)	64	(1.6)	79	(2.6)	53	(1.0)
Ireland	33	(2.3)	46	(1.3)	59	(1.5)	75	(2.9)	51	(0.7)
Italy	14	(1.5)	21	(1.4)	40	(2.3)	57	(6.1)	25	(1.0)
Japan	22	(3.5)	30	(2.0)	43	(1.3)	56	(2.0)	42	(0.8)
Korea	25	(1.9)	43	(1.4)	62	(1.5)	77	(2.9)	50	(0.8)
Netherlands	41	(3.1)	53	(1.8)	72	(1.2)	81	(1.7)	64	(0.6)
Norway	46	(2.9)	55	(1.9)	71	(1.3)	78	(2.0)	64	(0.7)
Poland	18	(2.0)	29	(1.6)	45	(1.7)	65	(3.2)	35	(0.8)
Slovak Republic	13	(2.0)	26	(1.4)	40	(1.4)	59	(3.9)	33	(0.8)
Spain	29	(1.5)	44	(1.3)	63	(1.9)	79	(3.9)	47	(0.7)
Sweden	42	(3.0)	58	(2.0)	73	(1.3)	83	(1.9)	66	(0.8)
United States	37	(2.5)	52	(2.1)	70	(1.3)	82	(2.5)	59	(1.1)
Sub-national entities										
Flanders (Belgium)	27	(1.9)	40	(1.7)	58	(1.4)	68	(2.4)	49	(0.8)
England (UK)	38	(2.6)	49	(1.8)	63	(1.7)	76	(2.4)	56	(0.9)
Northern Ireland (UK)	26	(2.5)	43	(2.2)	60	(2.1)	74	(4.2)	49	(0.9)
England/N. Ireland (UK)	38	(2.5)	48	(1.7)	63	(1.6)	76	(2.3)	56	(0.9)
Average	30	(0.5)	44	(0.4)	60	(0.3)	74	(0.6)	51	(0.2)
Partners										
Russian Federation*	32	(6.8)	38	(7.7)	26	(6.7)	4	(2.9)	15	(2.5)

* See note on data for the Russian Federation in the *Methodology* section.

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C6.2a (L). [1/2] Participation in formal and/or non-formal education, by literacy proficiency level and educational attainment (2012)

Survey of Adult Skills, 25-64 year-olds

	Educational attainment	Level 0/1 % (1)	Level 0/1 S.E. (2)	Level 2 % (3)	Level 2 S.E. (4)	Level 3 % (5)	Level 3 S.E. (6)	Level 4/5 % (7)	Level 4/5 S.E. (8)	Total % (9)	Total S.E. (10)
OECD National entities											
Australia	Below upper secondary	19	(2.9)	31	(2.6)	44	(3.3)	60	(8.9)	32	(1.5)
	Upper secondary or post-secondary non-tertiary	31	(4.7)	45	(3.2)	56	(2.4)	67	(4.7)	51	(1.1)
	Tertiary	59	(6.1)	66	(3.3)	77	(1.8)	84	(1.9)	76	(1.1)
Austria	Below upper secondary	20	(3.2)	23	(2.9)	37	(5.4)	c	c	25	(1.8)
	Upper secondary or post-secondary non-tertiary	31	(3.6)	44	(1.7)	57	(1.9)	67	(5.0)	48	(0.9)
	Tertiary	53	(10.3)	58	(4.0)	74	(2.3)	80	(3.7)	71	(1.5)
Canada	Below upper secondary	22	(2.0)	29	(3.0)	35	(5.0)	c	c	26	(1.3)
	Upper secondary or post-secondary non-tertiary	33	(2.5)	47	(1.7)	59	(1.7)	71	(3.7)	50	(1.0)
	Tertiary	50	(3.4)	61	(1.7)	75	(1.3)	82	(1.7)	70	(0.8)
Czech Republic	Below upper secondary	14	(4.7)	18	(5.0)	27	(10.0)	c	c	19	(2.6)
	Upper secondary or post-secondary non-tertiary	38	(5.0)	45	(2.4)	52	(2.2)	60	(8.3)	48	(1.4)
	Tertiary	c	c	65	(6.4)	70	(3.7)	78	(4.7)	71	(2.6)
Denmark	Below upper secondary	33	(2.8)	46	(3.5)	59	(5.4)	c	c	44	(1.9)
	Upper secondary or post-secondary non-tertiary	45	(3.2)	60	(2.0)	68	(1.9)	83	(5.5)	62	(1.0)
	Tertiary	64	(4.3)	77	(2.0)	83	(1.3)	88	(2.0)	82	(0.7)
Estonia	Below upper secondary	23	(2.8)	28	(3.0)	34	(4.3)	c	c	28	(1.4)
	Upper secondary or post-secondary non-tertiary	31	(3.1)	39	(2.0)	48	(1.8)	64	(4.2)	43	(0.9)
	Tertiary	51	(4.4)	64	(2.3)	72	(1.6)	83	(2.5)	70	(1.0)
Finland	Below upper secondary	24	(4.1)	34	(3.6)	44	(4.8)	c	c	34	(2.2)
	Upper secondary or post-secondary non-tertiary	40	(3.8)	56	(2.2)	68	(1.9)	77	(3.6)	62	(1.0)
	Tertiary	71	(6.7)	71	(2.6)	81	(1.5)	88	(1.3)	81	(0.9)
France	Below upper secondary	15	(1.4)	18	(1.8)	26	(3.6)	c	c	17	(1.0)
	Upper secondary or post-secondary non-tertiary	26	(2.2)	32	(1.4)	37	(1.9)	44	(6.9)	33	(1.0)
	Tertiary	33	(5.1)	47	(2.6)	60	(1.8)	65	(3.3)	56	(1.1)
Germany	Below upper secondary	17	(3.6)	24	(5.0)	40	(10.1)	c	c	22	(2.7)
	Upper secondary or post-secondary non-tertiary	31	(3.1)	44	(2.6)	57	(2.5)	73	(4.3)	47	(1.4)
	Tertiary	47	(7.2)	62	(3.4)	73	(2.1)	82	(2.8)	71	(1.3)
Ireland	Below upper secondary	27	(2.6)	30	(2.7)	32	(5.3)	c	c	29	(1.5)
	Upper secondary or post-secondary non-tertiary	35	(3.6)	46	(1.9)	50	(2.2)	60	(7.4)	47	(1.2)
	Tertiary	59	(7.1)	66	(2.8)	74	(1.8)	82	(2.8)	72	(1.1)
Italy	Below upper secondary	11	(1.8)	12	(1.8)	16	(3.9)	c	c	12	(1.2)
	Upper secondary or post-secondary non-tertiary	19	(3.1)	26	(2.2)	40	(2.8)	46	(9.5)	31	(1.4)
	Tertiary	36	(6.7)	51	(4.8)	65	(3.8)	70	(8.1)	59	(2.1)
Japan	Below upper secondary	16	(4.7)	21	(4.0)	25	(4.0)	c	c	22	(2.2)
	Upper secondary or post-secondary non-tertiary	24	(6.2)	27	(3.2)	35	(2.4)	40	(3.8)	32	(1.2)
	Tertiary	c	c	46	(3.3)	54	(2.0)	62	(2.2)	56	(1.1)
Korea	Below upper secondary	15	(2.0)	24	(2.5)	31	(6.1)	c	c	21	(1.3)
	Upper secondary or post-secondary non-tertiary	32	(3.6)	39	(2.1)	51	(2.4)	62	(8.1)	43	(1.3)
	Tertiary	65	(8.0)	62	(2.4)	73	(1.7)	82	(3.6)	71	(1.1)
Netherlands	Below upper secondary	36	(3.4)	38	(2.7)	51	(3.3)	70	(11.2)	42	(1.3)
	Upper secondary or post-secondary non-tertiary	50	(6.0)	59	(2.6)	70	(1.9)	70	(3.8)	65	(1.3)
	Tertiary	63	(11.0)	75	(3.7)	82	(1.6)	86	(1.9)	82	(0.9)
Norway	Below upper secondary	37	(4.3)	38	(3.5)	49	(3.7)	c	c	42	(1.9)
	Upper secondary or post-secondary non-tertiary	51	(4.4)	57	(2.7)	67	(2.3)	70	(5.9)	62	(1.4)
	Tertiary	61	(6.8)	71	(3.6)	80	(1.4)	82	(2.0)	78	(0.9)
Poland	Below upper secondary	10	(2.9)	17	(3.6)	18	(5.9)	c	c	14	(1.9)
	Upper secondary or post-secondary non-tertiary	17	(2.1)	23	(1.6)	30	(2.2)	39	(7.3)	24	(1.0)
	Tertiary	53	(8.4)	60	(4.1)	68	(2.4)	75	(3.1)	67	(1.5)
Slovak Republic	Below upper secondary	3	(1.3)	6	(1.6)	14	(3.3)	c	c	6	(0.9)
	Upper secondary or post-secondary non-tertiary	19	(3.2)	26	(1.8)	33	(1.5)	52	(5.8)	30	(1.1)
	Tertiary	c	c	55	(4.7)	62	(2.6)	69	(5.3)	62	(1.5)
Spain	Below upper secondary	22	(1.4)	32	(1.7)	41	(3.4)	c	c	28	(1.0)
	Upper secondary or post-secondary non-tertiary	43	(4.8)	46	(2.8)	54	(4.2)	72	(11.9)	49	(2.0)
	Tertiary	56	(5.4)	65	(2.5)	75	(2.0)	82	(3.5)	71	(1.2)
Sweden	Below upper secondary	34	(4.1)	43	(4.5)	55	(6.4)	c	c	43	(2.2)
	Upper secondary or post-secondary non-tertiary	45	(4.6)	60	(2.9)	69	(2.2)	78	(4.3)	64	(1.1)
	Tertiary	61	(6.6)	76	(3.6)	82	(1.9)	86	(1.9)	81	(1.1)
United States	Below upper secondary	25	(3.0)	29	(5.7)	44	(11.9)	c	c	28	(2.2)
	Upper secondary or post-secondary non-tertiary	40	(3.6)	48	(2.6)	58	(2.5)	68	(6.4)	50	(1.6)
	Tertiary	63	(6.0)	71	(3.3)	80	(1.4)	85	(2.1)	79	(1.2)

* See note on data for the Russian Federation in the *Methodology* section.

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C6.2a (L). [2/2] **Participation in formal and/or non-formal education, by literacy proficiency level and educational attainment (2012)**

Survey of Adult Skills, 25-64 year-olds

		Educational attainment	Level 0/1 % (1)	Level 0/1 S.E. (2)	Level 2 % (3)	Level 2 S.E. (4)	Level 3 % (5)	Level 3 S.E. (6)	Level 4/5 % (7)	Level 4/5 S.E. (8)	Total % (9)	Total S.E. (10)
OECD	**Sub-national entities**											
	Flanders (Belgium)	Below upper secondary	17	(2.4)	20	(2.7)	29	(5.7)	c	c	20	(1.8)
		Upper secondary or post-secondary non-tertiary	33	(3.4)	39	(2.3)	46	(2.4)	52	(6.1)	41	(1.3)
		Tertiary	47	(7.3)	64	(3.6)	71	(1.9)	73	(2.7)	69	(1.2)
	England (UK)	Below upper secondary	26	(3.2)	33	(3.0)	42	(4.9)	c	c	33	(1.7)
		Upper secondary or post-secondary non-tertiary	47	(4.7)	48	(3.0)	59	(2.7)	67	(5.4)	54	(1.4)
		Tertiary	54	(7.3)	67	(3.5)	72	(2.2)	81	(2.4)	72	(1.3)
	Northern Ireland (UK)	Below upper secondary	17	(2.4)	25	(2.8)	31	(4.9)	c	c	23	(1.5)
		Upper secondary or post-secondary non-tertiary	39	(5.3)	48	(3.3)	55	(3.7)	68	(8.2)	51	(1.9)
		Tertiary	55	(10.0)	68	(4.1)	73	(2.7)	77	(4.4)	72	(1.5)
	England/N. Ireland (UK)	Below upper secondary	26	(3.0)	32	(2.8)	41	(4.7)	67	(13.5)	33	(1.6)
		Upper secondary or post-secondary non-tertiary	47	(4.6)	48	(2.9)	59	(2.6)	67	(5.3)	54	(1.4)
		Tertiary	54	(7.1)	67	(3.3)	72	(2.1)	81	(2.3)	72	(1.2)
	Average	Below upper secondary	21	(0.7)	27	(0.7)	36	(1.3)	66	(6.5)	27	(0.4)
		Upper secondary or post-secondary non-tertiary	35	(0.9)	43	(0.5)	53	(0.5)	63	(1.4)	47	(0.3)
		Tertiary	55	(1.6)	64	(0.7)	73	(0.4)	79	(0.7)	71	(0.3)
Partners	Russian Federation*	Below upper secondary	4	(4.5)	c	c	c	c	c	c	6	(3.0)
		Upper secondary or post-secondary non-tertiary	9	(3.1)	12	(3.5)	12	(3.1)	7	(4.8)	11	(2.1)
		Tertiary	24	(3.2)	22	(3.0)	26	(2.2)	29	(4.6)	24	(1.8)

* See note on data for the Russian Federation in the *Methodology* section.

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes *(www.oecd.org/edu/eag.htm)*.

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933119131

C6

Table C6.3. Participation in formal and/or non-formal education, by gender (2012)

25-64 year-olds

	Participated in:											
	Formal education		Non-formal education		Formal education only		Both formal and non-formal education		Non-formal education only		No participation	
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD												
National entities												
Australia	17	(0.5)	50	(0.7)	5	(0.4)	12	(0.5)	39	(0.8)	44	(0.7)
Austria	6	(0.4)	46	(0.8)	2	(0.2)	4	(0.3)	42	(0.7)	52	(0.7)
Canada	14	(0.4)	54	(0.6)	5	(0.3)	9	(0.4)	44	(0.6)	42	(0.6)
Czech Republic	6	(0.5)	48	(1.2)	2	(0.3)	4	(0.4)	44	(1.2)	50	(1.2)
Denmark	14	(0.5)	61	(0.6)	5	(0.3)	9	(0.4)	52	(0.6)	34	(0.6)
Estonia	9	(0.4)	50	(0.7)	2	(0.2)	7	(0.3)	44	(0.7)	47	(0.7)
Finland	16	(0.5)	62	(0.7)	5	(0.3)	11	(0.4)	51	(0.7)	34	(0.7)
France	5	(0.3)	33	(0.6)	3	(0.2)	2	(0.2)	31	(0.6)	64	(0.6)
Germany	7	(0.4)	50	(1.1)	3	(0.3)	4	(0.3)	46	(1.1)	47	(1.0)
Ireland	15	(0.6)	45	(0.8)	6	(0.4)	9	(0.4)	36	(0.8)	49	(0.7)
Italy	6	(0.4)	22	(0.9)	3	(0.3)	3	(0.3)	19	(0.8)	75	(1.0)
Japan	2	(0.3)	41	(0.8)	1	(0.2)	2	(0.2)	39	(0.8)	58	(0.8)
Korea	5	(0.3)	49	(0.8)	1	(0.1)	4	(0.3)	45	(0.8)	50	(0.8)
Netherlands	14	(0.6)	60	(0.6)	4	(0.4)	10	(0.5)	50	(0.7)	36	(0.6)
Norway	16	(0.5)	59	(0.7)	5	(0.3)	11	(0.5)	49	(0.7)	36	(0.7)
Poland	8	(0.4)	32	(0.8)	3	(0.3)	4	(0.3)	28	(0.7)	65	(0.8)
Slovak Republic	6	(0.4)	31	(0.8)	2	(0.2)	3	(0.3)	27	(0.8)	67	(0.8)
Spain	13	(0.5)	42	(0.7)	4	(0.3)	8	(0.4)	34	(0.7)	53	(0.7)
Sweden	13	(0.5)	61	(0.8)	5	(0.4)	9	(0.4)	53	(0.8)	34	(0.8)
United States	14	(0.6)	55	(1.1)	4	(0.4)	10	(0.5)	45	(1.1)	41	(1.1)
Sub-national entities												
Flanders (Belgium)	8	(0.4)	46	(0.8)	3	(0.2)	5	(0.4)	41	(0.8)	51	(0.8)
England (UK)	16	(0.6)	51	(0.8)	5	(0.4)	11	(0.5)	40	(0.8)	44	(0.9)
Northern Ireland (UK)	12	(0.8)	45	(0.9)	4	(0.4)	8	(0.6)	37	(1.0)	51	(0.9)
England/N. Ireland (UK)	16	(0.6)	51	(0.8)	5	(0.4)	11	(0.5)	40	(0.8)	44	(0.9)
Average	10	(0.1)	48	(0.2)	4	(0.1)	7	(0.1)	41	(0.2)	49	(0.2)
Partners												
Russian Federation*	6	(0.6)	17	(1.4)	3	(0.3)	3	(0.5)	13	(1.0)	80	(1.6)

* See note on data for the Russian Federation in the *Methodology* section.

Note: Rows showing data for men and women separately are available for consultation on line (see *StatLink* below).

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933119150

C6

Table C6.4. Participation in formal and/or non-formal education and desired learning activities (2012)

25-64 year-olds

	Participated in formal and/or non-formal education		Learning Activities - Wanted but didn't start		Participant, wanting learning activities		Non-participant, wanting learning activities		Participant, not wanting learning activities		Non-participant, not wanting learning activities		Total
	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%
	(1)=(5)+(9)	(2)	(3)=(5)+(7)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)=(5)+(7)+(9)+(11)
OECD													
National entities													
Australia	56	(0.7)	25	(0.8)	17	(0.6)	8	(0.5)	39	(0.8)	37	(0.7)	100
Austria	48	(0.7)	20	(0.6)	13	(0.5)	7	(0.4)	35	(0.7)	45	(0.7)	100
Canada	58	(0.6)	31	(0.5)	24	(0.5)	8	(0.3)	35	(0.5)	34	(0.5)	100
Czech Republic	50	(1.2)	16	(0.9)	12	(0.6)	4	(0.6)	37	(1.1)	46	(1.3)	100
Denmark	66	(0.6)	34	(0.7)	26	(0.7)	8	(0.4)	40	(0.7)	26	(0.6)	100
Estonia	53	(0.7)	32	(0.6)	22	(0.5)	10	(0.5)	30	(0.7)	38	(0.6)	100
Finland	66	(0.7)	31	(0.8)	25	(0.7)	6	(0.4)	41	(0.7)	28	(0.7)	100
France	36	(0.6)	19	(0.5)	11	(0.4)	8	(0.3)	25	(0.5)	56	(0.7)	100
Germany	53	(1.0)	29	(0.8)	22	(0.7)	7	(0.5)	31	(0.9)	40	(1.1)	100
Ireland	51	(0.7)	31	(0.8)	19	(0.6)	12	(0.5)	32	(0.7)	38	(0.8)	100
Italy	25	(1.0)	16	(0.9)	8	(0.6)	8	(0.6)	17	(0.7)	67	(1.1)	100
Japan	42	(0.8)	19	(0.7)	14	(0.6)	6	(0.3)	28	(0.6)	52	(0.8)	100
Korea	50	(0.8)	34	(0.8)	21	(0.6)	12	(0.5)	29	(0.7)	38	(0.8)	100
Netherlands	64	(0.6)	23	(0.6)	18	(0.5)	5	(0.4)	46	(0.7)	31	(0.6)	100
Norway	64	(0.7)	26	(0.8)	20	(0.6)	6	(0.4)	44	(0.8)	30	(0.7)	100
Poland	35	(0.8)	12	(0.5)	9	(0.5)	3	(0.3)	27	(0.7)	61	(0.8)	100
Slovak Republic	33	(0.8)	10	(0.5)	7	(0.4)	3	(0.2)	26	(0.8)	64	(0.8)	100
Spain	47	(0.7)	31	(0.6)	20	(0.6)	11	(0.5)	27	(0.6)	42	(0.6)	100
Sweden	66	(0.8)	33	(0.8)	25	(0.7)	8	(0.5)	41	(0.9)	26	(0.7)	100
United States	59	(1.1)	37	(1.0)	27	(0.8)	9	(0.6)	32	(0.9)	31	(1.1)	100
Sub-national entities													
Flanders (Belgium)	49	(0.8)	18	(0.6)	13	(0.5)	5	(0.4)	36	(0.7)	46	(0.8)	100
England (UK)	56	(0.9)	25	(0.9)	18	(0.8)	7	(0.4)	38	(0.8)	37	(0.9)	100
Northern Ireland (UK)	49	(0.9)	18	(0.8)	13	(0.6)	5	(0.4)	36	(1.0)	46	(0.9)	100
England/N. Ireland (UK)	56	(0.9)	25	(0.9)	18	(0.7)	7	(0.4)	38	(0.8)	37	(0.9)	100
Average	51	(0.2)	25	(0.2)	18	(0.1)	7	(0.1)	33	(0.2)	42	(0.2)	100
Partners													
Russian Federation*	20	(1.6)	8	(0.6)	4	(0.4)	4	(0.4)	15	(1.2)	76	(1.8)	100

* See note on data for the Russian Federation in the *Methodology* section.

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C6.5. [1/2] Reasons given for not engaging in more/any learning activity, by participation status in formal and/or non-formal education activities (2012)

25-64 year-olds

	Status of participation	Reason for not starting more/any learning activities															
		I was too busy at work		The course or programme was offered at an inconvenient time or place		Education or training was too expensive/ I could not afford it		I did not have time because of childcare or family responsibilities		Lack of employer's support		Something unexpected came up that prevented me from taking education or training		I did not have the prerequisites		Other	
		%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
OECD National entities																	
Australia	Participant	30	(1.4)	13	(1.3)	18	(1.5)	18	(1.5)	7	(1.1)	2	(0.5)	1	(0.4)	10	(1.0)
	Non-participant	20	(2.5)	7	(1.7)	19	(2.5)	27	(2.2)	4	(1.1)	4	(1.1)	3	(0.8)	17	(1.9)
	Total	27	(1.2)	11	(1.0)	18	(1.5)	21	(1.3)	6	(0.9)	3	(0.5)	2	(0.3)	12	(0.9)
Austria	Participant	38	(1.8)	16	(1.7)	13	(1.8)	13	(1.3)	3	(0.7)	6	(1.0)	1	(0.5)	10	(1.5)
	Non-participant	29	(3.0)	11	(2.1)	8	(1.8)	19	(2.4)	1	(0.7)	9	(1.6)	2	(0.9)	20	(2.7)
	Total	35	(1.6)	14	(1.3)	11	(1.3)	15	(1.2)	2	(0.5)	7	(0.9)	1	(0.5)	13	(1.3)
Canada	Participant	33	(1.1)	13	(0.9)	17	(1.0)	15	(1.0)	7	(0.6)	3	(0.4)	2	(0.3)	11	(0.7)
	Non-participant	22	(1.7)	7	(0.9)	23	(2.0)	21	(1.9)	4	(1.0)	4	(0.7)	2	(0.7)	16	(1.4)
	Total	30	(0.9)	12	(0.7)	19	(0.9)	17	(1.0)	6	(0.5)	3	(0.4)	2	(0.3)	12	(0.6)
Czech Republic	Participant	36	(3.7)	8	(1.9)	15	(2.2)	11	(2.4)	12	(2.7)	5	(1.1)	3	(1.2)	9	(1.7)
	Non-participant	33	(6.6)	3	(1.7)	11	(3.0)	17	(3.8)	3	(1.3)	8	(3.0)	3	(1.3)	21	(6.0)
	Total	36	(3.5)	7	(1.4)	14	(1.7)	13	(2.0)	10	(2.1)	6	(1.1)	3	(0.9)	12	(2.2)
Denmark	Participant	29	(1.3)	10	(0.9)	13	(1.0)	5	(0.7)	17	(1.1)	4	(0.6)	2	(0.4)	20	(1.1)
	Non-participant	20	(2.7)	6	(1.4)	19	(2.3)	7	(1.3)	10	(1.6)	6	(1.4)	4	(1.2)	27	(2.5)
	Total	27	(1.2)	9	(0.8)	14	(0.9)	5	(0.6)	15	(1.0)	5	(0.5)	2	(0.4)	22	(1.0)
Estonia	Participant	32	(1.1)	17	(1.1)	18	(1.0)	9	(0.8)	8	(0.8)	3	(0.4)	3	(0.5)	11	(0.9)
	Non-participant	24	(1.7)	12	(1.2)	21	(1.5)	13	(1.5)	5	(1.2)	4	(0.8)	5	(1.0)	16	(1.4)
	Total	29	(0.9)	15	(0.8)	19	(0.9)	10	(0.6)	7	(0.7)	3	(0.4)	4	(0.5)	13	(0.8)
Finland	Participant	33	(1.6)	21	(1.2)	7	(0.8)	8	(0.7)	11	(1.0)	3	(0.4)	2	(0.5)	15	(1.2)
	Non-participant	14	(2.1)	18	(2.4)	7	(1.8)	16	(2.3)	5	(1.5)	3	(1.1)	4	(1.2)	33	(2.6)
	Total	29	(1.4)	21	(1.1)	7	(0.7)	9	(0.8)	10	(0.8)	3	(0.4)	3	(0.5)	18	(1.2)
France	Participant	26	(1.7)	5	(0.7)	16	(1.3)	6	(0.9)	21	(1.3)	4	(0.7)	1	(0.4)	22	(1.3)
	Non-participant	18	(1.8)	3	(0.7)	19	(1.7)	10	(1.3)	14	(1.5)	3	(0.6)	4	(0.9)	28	(1.9)
	Total	23	(1.3)	4	(0.5)	17	(1.1)	8	(0.7)	18	(1.0)	4	(0.4)	3	(0.5)	24	(1.1)
Germany	Participant	36	(1.7)	17	(1.2)	9	(0.9)	11	(1.1)	10	(1.2)	2	(0.5)	1	(0.3)	14	(1.3)
	Non-participant	22	(2.9)	6	(1.7)	11	(2.0)	26	(2.8)	8	(1.6)	3	(1.3)	2	(0.8)	21	(2.8)
	Total	33	(1.5)	14	(1.0)	9	(0.9)	15	(1.2)	10	(1.0)	3	(0.5)	1	(0.3)	15	(1.2)
Ireland	Participant	26	(1.6)	10	(0.9)	23	(1.5)	17	(1.2)	6	(0.9)	3	(0.5)	2	(0.5)	13	(1.4)
	Non-participant	14	(1.6)	8	(1.3)	19	(1.7)	24	(1.9)	3	(0.8)	6	(1.1)	3	(0.8)	23	(2.0)
	Total	22	(1.1)	10	(0.8)	21	(1.1)	20	(1.1)	5	(0.7)	4	(0.5)	3	(0.4)	17	(1.2)
Italy	Participant	47	(3.4)	6	(1.4)	15	(2.4)	12	(1.5)	5	(1.4)	2	(0.9)	1	(1.0)	12	(2.0)
	Non-participant	32	(3.1)	4	(1.5)	14	(2.8)	26	(3.4)	2	(0.8)	5	(1.6)	5	(1.8)	12	(2.4)
	Total	40	(2.3)	5	(1.0)	15	(1.6)	19	(1.8)	3	(0.8)	4	(0.8)	3	(1.0)	12	(1.4)
Japan	Participant	42	(2.3)	25	(1.7)	8	(1.3)	15	(1.3)	1	(0.4)	1	(0.5)	4	(0.8)	5	(0.9)
	Non-participant	30	(3.1)	16	(2.2)	7	(1.6)	27	(3.2)	n	n	1	(0.9)	5	(1.6)	14	(2.3)
	Total	38	(1.9)	22	(1.5)	8	(1.0)	19	(1.4)	1	(0.3)	1	(0.4)	4	(0.7)	7	(0.9)
Korea	Participant	49	(1.6)	19	(1.2)	11	(1.0)	11	(0.8)	1	(0.3)	3	(0.5)	2	(0.4)	5	(0.6)
	Non-participant	40	(2.0)	10	(1.2)	10	(1.3)	27	(1.8)	0	(0.2)	2	(0.5)	2	(0.6)	7	(0.9)
	Total	46	(1.3)	16	(0.9)	11	(0.9)	17	(0.8)	1	(0.2)	2	(0.4)	2	(0.4)	6	(0.5)
Netherlands	Participant	34	(2.0)	9	(1.0)	13	(1.3)	10	(1.0)	9	(1.0)	7	(0.9)	1	(0.4)	17	(1.4)
	Non-participant	14	(2.8)	6	(1.8)	19	(3.3)	17	(2.7)	10	(2.4)	8	(2.1)	1	(0.8)	24	(3.5)
	Total	30	(1.7)	8	(0.9)	14	(1.3)	12	(1.0)	9	(0.9)	7	(0.9)	1	(0.4)	18	(1.4)
Norway	Participant	36	(1.7)	10	(1.2)	8	(1.1)	10	(1.2)	13	(1.1)	5	(0.7)	2	(0.6)	15	(1.1)
	Non-participant	19	(2.3)	8	(1.7)	13	(2.2)	16	(2.7)	8	(1.8)	11	(2.3)	3	(1.3)	22	(2.8)
	Total	33	(1.3)	9	(1.0)	9	(0.9)	12	(1.0)	12	(0.9)	6	(0.7)	3	(0.6)	17	(1.1)
Poland	Participant	18	(2.1)	15	(1.7)	23	(2.6)	10	(2.0)	11	(2.0)	4	(1.0)	4	(1.1)	15	(2.5)
	Non-participant	9	(2.7)	8	(2.2)	14	(3.7)	25	(3.8)	3	(1.8)	13	(2.9)	9	(2.4)	19	(3.7)
	Total	16	(1.7)	13	(1.5)	20	(2.2)	14	(2.1)	9	(1.5)	7	(1.2)	5	(1.1)	16	(2.3)
Slovak Republic	Participant	35	(3.0)	9	(1.7)	13	(2.2)	6	(1.6)	18	(3.2)	3	(1.0)	1	(0.9)	14	(2.4)
	Non-participant	27	(4.9)	6	(2.1)	16	(4.0)	20	(3.8)	5	(3.2)	6	(2.2)	6	(2.1)	15	(3.3)
	Total	33	(2.6)	8	(1.4)	14	(1.9)	10	(1.7)	14	(2.4)	4	(1.0)	2	(0.9)	14	(2.0)
Spain	Participant	30	(1.8)	9	(1.0)	11	(1.1)	19	(1.2)	3	(0.6)	2	(0.6)	5	(0.6)	21	(1.5)
	Non-participant	28	(1.8)	7	(1.2)	9	(1.2)	28	(2.0)	2	(0.6)	2	(0.7)	4	(0.9)	20	(1.5)
	Total	29	(1.3)	8	(0.8)	10	(0.9)	22	(1.0)	3	(0.4)	2	(0.4)	5	(0.5)	20	(1.0)
Sweden	Participant	29	(1.6)	12	(1.0)	11	(1.1)	12	(1.1)	8	(0.8)	4	(0.7)	3	(0.7)	20	(1.5)
	Non-participant	16	(2.7)	7	(1.7)	17	(2.5)	16	(2.5)	8	(1.6)	6	(1.2)	5	(1.6)	25	(3.2)
	Total	26	(1.3)	11	(0.9)	12	(1.0)	13	(0.9)	8	(0.7)	4	(0.6)	4	(0.6)	21	(1.4)
United States	Participant	31	(1.7)	12	(1.1)	22	(1.3)	17	(1.4)	5	(0.6)	4	(0.8)	2	(0.4)	7	(0.8)
	Non-participant	19	(2.3)	7	(1.3)	27	(3.1)	18	(2.0)	2	(0.8)	9	(1.8)	3	(0.8)	16	(1.9)
	Total	28	(1.5)	11	(0.9)	23	(1.3)	17	(1.1)	4	(0.5)	6	(0.8)	2	(0.3)	9	(0.9)

* See note on data for the Russian Federation in the *Methodology* section.

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C6.5. [2/2] Reasons given for not engaging in more/any learning activity, by participation status in formal and/or non-formal education activities (2012)

25-64 year-olds

		Status of participation	Reason for not starting more/any learning activities															
			I was too busy at work		The course or programme was offered at an inconvenient time or place		Education or training was too expensive/ I could not afford it		I did not have time because of childcare or family responsibilities		Lack of employer's support		Something unexpected came up that prevented me from taking education or training		I did not have the prerequisites		Other	
			%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.	%	S.E.
			(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
OECD	**Sub-national entities**																	
	Flanders (Belgium)	Participant	37	(2.6)	19	(1.9)	5	(1.0)	16	(1.7)	7	(1.2)	3	(0.7)	1	(0.5)	12	(1.4)
		Non-participant	20	(3.1)	14	(2.5)	5	(1.7)	31	(3.2)	3	(1.3)	6	(1.5)	3	(1.2)	18	(2.8)
		Total	32	(1.8)	18	(1.5)	5	(0.8)	20	(1.4)	6	(1.0)	4	(0.7)	2	(0.5)	14	(1.4)
	England (UK)	Participant	34	(1.8)	10	(1.1)	19	(1.5)	12	(1.0)	10	(1.2)	3	(0.7)	1	(0.5)	10	(1.2)
		Non-participant	19	(2.7)	5	(1.2)	21	(3.0)	19	(2.2)	3	(1.2)	6	(1.6)	1	(0.7)	25	(3.0)
		Total	30	(1.6)	9	(0.9)	20	(1.4)	14	(0.9)	8	(1.0)	4	(0.7)	1	(0.4)	14	(1.1)
	Northern Ireland (UK)	Participant	32	(2.8)	14	(1.8)	16	(2.1)	14	(1.6)	8	(1.5)	1	(0.6)	1	(0.7)	13	(1.9)
		Non-participant	11	(2.4)	14	(2.8)	18	(3.9)	23	(2.9)	4	(1.3)	7	(2.2)	3	(1.6)	21	(3.4)
		Total	26	(2.2)	14	(1.7)	17	(1.8)	16	(1.5)	7	(1.1)	3	(0.8)	2	(0.7)	15	(1.7)
	England/N. Ireland (UK)	Participant	34	(1.8)	10	(1.1)	19	(1.4)	12	(1.0)	10	(1.2)	3	(0.7)	1	(0.5)	10	(1.2)
		Non-participant	19	(2.6)	6	(1.2)	21	(2.9)	19	(2.2)	3	(1.2)	6	(1.5)	1	(0.7)	25	(2.9)
		Total	30	(1.6)	9	(0.9)	19	(1.4)	14	(0.9)	8	(1.0)	4	(0.7)	1	(0.4)	14	(1.1)
	Average	Participant	34	(0.4)	13	(0.3)	14	(0.3)	12	(0.3)	9	(0.3)	3	(0.2)	2	(0.1)	13	(0.3)
		Non-participant	22	(0.6)	8	(0.4)	15	(0.5)	21	(0.6)	5	(0.3)	6	(0.3)	4	(0.3)	20	(0.6)
		Total	30	(0.4)	12	(0.2)	14	(0.3)	15	(0.3)	8	(0.2)	4	(0.1)	3	(0.1)	15	(0.3)
Partners	Russian Federation*	Participant	31	(3.2)	22	(4.5)	18	(4.4)	7	(2.3)	8	(2.5)	7	(2.3)	2	(1.2)	6	(2.0)
		Non-participant	23	(5.1)	8	(2.1)	30	(4.1)	20	(4.2)	2	(0.8)	7	(4.8)	3	(1.4)	7	(4.0)
		Total	27	(2.6)	15	(2.8)	24	(2.8)	13	(2.8)	5	(1.2)	7	(2.4)	2	(0.7)	7	(2.1)

* See note on data for the Russian Federation in the *Methodology* section.

Source: OECD. Survey of Adult Skills (PIAAC) (2012). PIAAC refers to the OECD Programme for the International Assessment of Adult Competencies. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

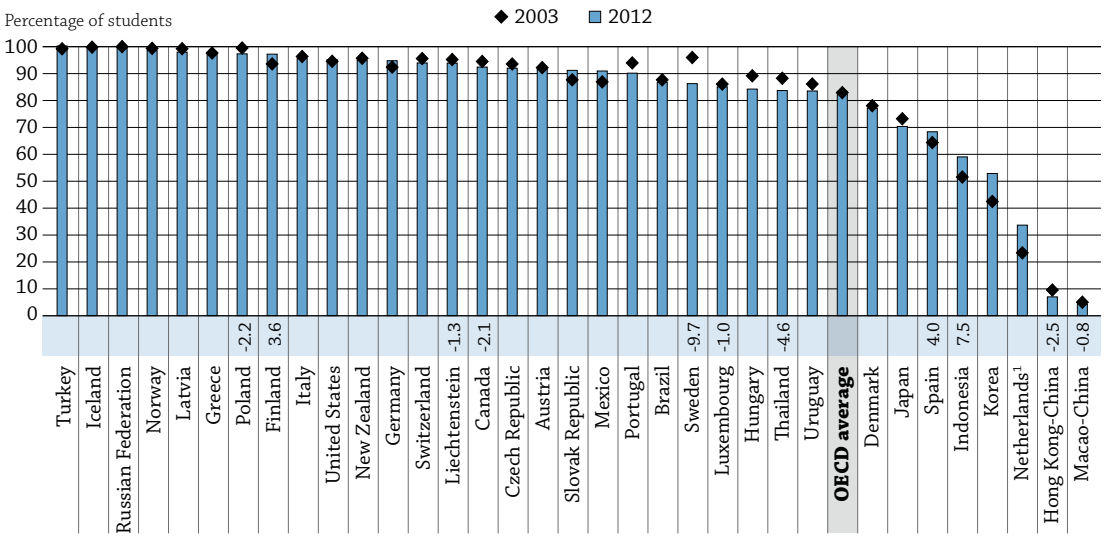
Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933119188

IN WHAT WAYS DO PUBLIC AND PRIVATE SCHOOLS/INSTITUTIONS DIFFER?

- In most countries, private schools provide education to a minority of students, from primary through upper secondary levels. Only about 3% of all primary and secondary students attended independent private schools in 2012. The proportions of pupils enrolled in private pre-primary schools are considerably larger. Some 11% of pupils in pre-primary education are enrolled in independent private schools.
- Students who attend private schools, either government-dependent or independent private schools, tend to perform significantly better in the OECD Programme for International Student Assessment (PISA) surveys than students who attend public schools; but students in public schools in a similar socio-economic context as private schools tend to do equally well.
- On average across OECD countries, class size in primary and secondary education is about the same in public and private schools. This suggests that in countries in which a substantial proportion of pupils and families choose private schools, class size is not a determining factor in their decision.

Chart C7.1. Percentage of 15-year-olds students who are enrolled in public schools (2003, 2012)



Notes: Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
The percentage-point difference in the share of students attending public schools in 2012 and 2003 (2012 - 2003) is shown above the country/economy name. Only statistically significant differences are shown.
OECD average 2003 compares only OECD countries with comparable data since 2003.
1. About 99% of 15 year old students in the Netherlands are in publicly-funded schools: 1/3 of these schools are publicly-governed while 2/3 are privately-governed.
Countries and economies are ranked in descending order of the share of students in public schools in 2012.
Source: OECD. Tables C7.2 and C7.3. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*)
StatLink http://dx.doi.org/10.1787/888933119454

Context

At some point in their child's education, many parents have considered whether it would be worth the expense to enrol their child in a private school. Similarly, an increasing number of students have decided to enter private universities. For parents or students, private schools may offer a particular kind of instruction that is not available in public schools. Some education systems also promote private schools under the assumption that, with the flexibility that accompanies autonomy in designing curricula and allocating resources, private schools may be seen as stimulating innovation in the school system. However, private schools may segregate students and reinforce inequities in educational opportunities, particularly when these schools charge parents a fee. With greater financial resources, these schools can afford to attract and recruit the best students and teachers.

However, as of this writing, there is no clear evidence about the relationship between the prevalence of private schools and the academic performance of education systems. Studies in Chile (Lara, Mizala and Repetto, 2009), the Czech Republic (Filer and Munich, 2003), Sweden (Sandstrom and Bergstrom, 2005), the United Kingdom (Green et al., 2011) and the United States (Couch, Shugart and Williams, 1993; Peterson et al., 2003) show, for example, that larger proportions of private school enrolments are related to better performance, based on cross-sectional or longitudinal data. But the debate on performance is far from conclusive, as other studies report little, negative or insignificant effects, or show that results often depend on methodological choices.

For example, some studies based on state-level data from the United States concluded that higher private school enrolment is not significantly related to performance (Wrinkle et al., 1999; Sander, 1999; Geller, Sjoquist and Walker, 2006). A few studies show small negative effects (Smith and Meier, 1995), negative effects for low-income districts (Maranto, Milliman and Scott, 2000), or that the relationship depends on the education outcome that is measured (Greene and Kang, 2004). Across OECD countries and all countries and economies that participated in PISA 2012, the percentage of students enrolled in private schools is not related to a system's overall performance (see Volume IV of PISA 2012).

When analysing private schools, a distinction is made between government-dependent and independent private schools, depending on the degree of dependence on government funding. In fact, not all privately managed schools are privately funded, as often assumed.

Other findings

- **In most PISA-participating countries and economies, the average socio-economic background of students who attend government-dependent or independent-private schools is more advantaged than that of those who attend public schools**.
- **Private schools tend to have more autonomy in "allocating resources" or "in making decisions about curricula and assessments" than public schools**. However, the degree of autonomy of private schools significantly varies between countries and between government-dependent and independent private schools.
- **Principals in public schools reported more teacher shortage than those in private schools** in 34 out of 47 countries and economies.
- **On average across OECD countries, pupils enrolled in private schools spend one hour more per week doing homework, or other study set by teachers, than pupils enrolled in public schools** (5.6 and 4.7 hours, respectively). The additional time exceeds 1.5 hours in Australia, Austria, Canada, Colombia, New Zealand, Portugal, Qatar, the United States and the United Arab Emirates.
- In 2012, **72% of students in tertiary-type A education attended public institutions, 14% attended government-dependent private institutions, and 14% attended independent private institutions**. Enrolment in a private institution entails an additional cost for students because, in most countries, private institutions charge higher tuition fees than public institutions.

Trends

The share of 15-year-olds enrolled in private schools did not increase, on average, between 2003 and 2012, but some countries saw significant shifts toward public or private schools over this period.

By contrast, in 21 of the 29 OECD countries with available data for 2003 and 2012, the share of students enrolled in private institutions at the tertiary level increased significantly between 2003 and 2012. Similarly, enrolments in tertiary-type A (academically oriented) private institutions increased two percentage points, from 23% to 25%, on average across countries with available data for 2003 and 2012, while enrolments in tertiary-type B (vocationally oriented) private institutions increased by four percentage points, from 33% to 37% during the same period.

Analysis

Enrolment in public and private schools

Schooling mainly takes place in public schools around the world, defined as schools managed directly or indirectly by a public education authority, government agency, or governing board appointed by government or elected by public franchise. On average across OECD countries in 2012, almost 89% of primary pupils, 86% of lower secondary pupils and 81% of upper secondary pupils were enrolled in public schools.

When analysing private schools, a distinction is made between government-dependent and independent private schools, depending on the degree of dependence on government funding. In fact, not all privately managed schools are privately funded, as often assumed (see *Definitions and methodology* section). Thus, in Australia, Belgium, Chile and Spain and, to a lesser extent, Argentina, Denmark, France and Israel, significant proportions (14% or more) of students attend primary and lower secondary schools controlled by a non-government organisation but largely funded by public money (Table C7.1).

By contrast, on average across OECD countries, only about 3% of all pupils attend independent private schools in primary and secondary education (e.g. those that are managed directly or indirectly by a non-government organisation and receive less than 50% of their core funding from government agencies). However, as the level of education rises, so does enrolment in independent private schools. For example, 2% of primary pupils are enrolled in independent private schools while 3% of lower secondary and 5% of upper secondary students are (Table C7.1). In Brazil, Colombia, Indonesia, Japan, Mexico, Poland and Portugal, more than 10% of upper secondary students attend independent private schools.

The proportion of pupils enrolled in private pre-primary schools is considerably larger than the proportion of students enrolled in private primary and secondary schools. Some 11% of pupils in pre-primary education are enrolled in independent private schools. When considering pre-primary independent private and government-dependent private schools together, 31% of pupils are enrolled in pre-primary programmes. This proportion exceeds 50% in Australia, Belgium, Chile, Germany, Indonesia, Ireland, Japan, Korea and New Zealand (Table C7.1).

Change in enrolment in private school between 2003 and 2012

In 2003, on average across OECD countries, 83% of 15-year-old students attended public schools, 14% attended government-dependent private schools, and 4% attended independent private schools. These average proportions have remained stable since then, but with some variations among countries. In 2012, over 98% of 15-year-old students in Bulgaria, Croatia, Iceland, Israel, Lithuania, Montenegro, Norway, Romania, the Russian Federation, Serbia, Tunisia and Turkey attended public schools. By contrast, fewer than one in two 15-year-old students in Chile, Hong Kong-China, Macao-China and the Netherlands attends public schools; the majority of 15-year-old students in these countries attends government-dependent private schools (Tables C7.2 and C7.3).

Trend data show different patterns among countries. Between 2003 and 2012, some countries and economies saw an increase in public school enrolments (e.g. Finland, Indonesia, Korea, Mexico, the Slovak Republic and Spain), while others, such as Canada, Hong Kong-China, Hungary, Japan, Poland, Portugal, Sweden, Thailand and Uruguay, saw a shift towards private schools. Among the most significant changes, in Finland, Indonesia, Mexico and Spain, a larger proportion of 15-year-old students attended public schools in 2012 than their counterparts did in 2003. In Indonesia, there was a 21 percentage-point reduction in the share of students attending independent private schools, with a consequent 13 percentage-point increase in enrolment in government-dependent private schools and a 7 percentage-point increase in public school enrolments. In Finland, Mexico and Spain, there was a four percentage-point increase in the share of pupils attending public schools. In Sweden, the share of pupils enrolled in public schools shrank by ten percentage points, with a consequently larger share of pupils attending government-dependent private schools. A similar shift in enrolment towards government-dependent schools was observed in Thailand and, to a lesser degree, Poland (Tables C7.2, C7.3 and Chart C7.1).

School type and student performance

When 15-year-old students' average performance in mathematics is compared between public and private schools, without accounting for differences in students' socio-economic status , private schools (either government-dependent or independent private schools) tend to show statistically significant better performance than public schools in 27 out of the 45 countries and economies with available data (Chart C7.2 and Table C7.2). The score-point difference ranges from 23 points in the United Kingdom to 108 points – or the equivalent of nearly three years of schooling – in Qatar.

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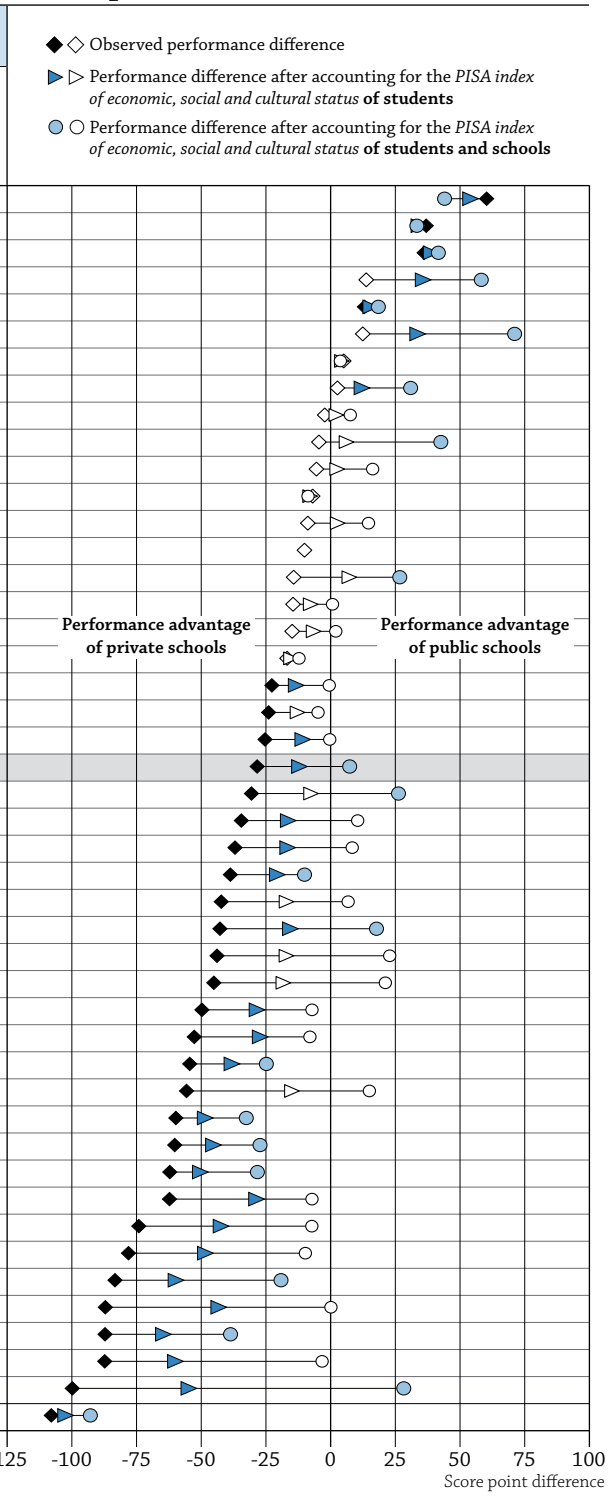
Chart C7.2. School type and mathematics performance (2012)

	Percentage of students attending:		
	Government or public schools[1]	Government-dependent private schools[2]	Government-independent private schools[3]
Chinese Taipei	68	5	28
Hong Kong-China	7	92	1
Thailand	83	12	5
Viet Nam	93	0	7
Luxembourg	85	13	2
Switzerland	94	1	5
Indonesia	59	17	24
Italy	95	2	3
Kazakhstan	97	1	2
Japan	70	0	30
Czech Republic	92	7	1
Netherlands	34	66	0
Estonia	98	2	1
Albania	92	0	8
United States	95	0	5
Hungary	84	16	0
Sweden	86	14	0
Korea	53	31	16
United Kingdom	56	36	8
Finland	97	3	0
Denmark	77	19	4
OECD average	82	14	4
France	83	17	0
Shanghai-China	91	0	9
Australia	61	26	13
Spain	68	24	7
Slovak Republic	91	9	0
Mexico	91	0	9
Germany	95	5	0
Austria	91	8	1
Colombia	86	4	10
Chile	37	48	14
Canada	92	4	3
Poland	97	2	1
Jordan	83	1	16
Argentina	68	26	7
United Arab Emirates	55	1	45
Portugal	90	6	4
Peru	85	0	15
Costa Rica	87	4	10
Brazil	87	1	13
New Zealand	95	0	5
Malaysia	97	0	3
Slovenia	98	2	0
Uruguay	83	0	17
Qatar	62	1	37



Notes: White symbols represent differences that are not statistically significant.
1. Schools that are directly controlled or managed by: a public education authority or agency, or a government agency directly or a governing body, most of whose members are either appointed by a public authority or elected by public franchise.
2. Schools that receive 50% or more of their core funding (i.e. funding that supports the basic educational services of the institution) from government agencies.
3. Schools that receive less than 50% of their core funding (i.e. funding that supports the basic educational services of the institution) from government agencies.
Countries and economies are ranked in descending order of the score-point difference in mathematics performance between public and private schools (government-dependent and government-independent schools combined).
Source: OECD. Table C7.2. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933119473

The opposite (statistically significant better performance in public schools) is true in only 4 out of those 45 countries and economies: in Hong Kong-China, Luxembourg, Chinese Taipei and Thailand, public schools perform 13 to 60 points higher, on average, than private schools. Between 2003 and 2012, the overall difference in mathematics performance between public and private school students across OECD countries widened by nine points (and up to 28 points in favour of students in private schools) (Table C7.3).

A similar pattern is observed when public schools are compared with government-dependent private schools only. In these cases, government-dependent private schools show statistically significantly better performance than public schools in 16 out of the 30 countries and economies with available data (Table C7.2). The score-point difference ranges from 21 points in Australia to 112 points in Chinese Taipei. Only Italy and Switzerland present atypical patterns. In Switzerland, 15-year-old students enrolled in government-dependent private schools perform on average, statistically, significantly better than their counterparts enrolled in public or independent private schools, while the opposite is true for Italy.

However, this evidence is strongly influenced by the socio-economic status of 15-year-old students. In 37 participating countries and economies, students who attend private schools (either government-dependent or independent private schools) tend to be more socio-economically advantaged than pupils who attend public schools. In 2012, the difference between public and private schools in their students' average socio-economic status was particularly large in Brazil, Costa Rica, Mexico, Peru, Poland and Uruguay. Only in Chinese Taipei is the average socio-economic status of students who attend public schools more advantaged than that of students who attend private schools. On average, students enrolled in public schools have lower socio-economic status than pupils attending private schools by an order of around 0.5 points in the *PISA index of economic social and cultural status*. A similar pattern is observed when comparing public and government-dependent schools, but the difference is smaller. On average, students enrolled in public schools have lower socio-economic status than pupils attending government-dependent private schools by an order of around 0.3 points in the *PISA index of economic social and cultural status* (Table C7.2).

However, the performance advantage of private schools compared with public schools is no longer observed in most countries/economies when the socio-economic status of students and schools are taken into account. After accounting for the socio-economic status of students and schools, private schools outperform public schools in only 8 countries and economies, and public schools outperform private schools in 12 countries and economies. Thus, private schools – and public schools with students from socio-economically advantaged backgrounds – benefit the individual students who attend them; but there is no evidence to suggest that private schools help to raise the level of performance of the school system as a whole (Table C7.2 and Chart C7.2).

The learning environment in public and private schools

Teacher shortages

Teachers are an essential resource for learning: the quality of a school system cannot exceed the quality of its teachers. According to PISA results, schools that suffer from a high incidence of teacher shortage tend to have lower scores in PISA. Thus, attracting and retaining effective teachers is a priority for public policy, and the challenge is greater in public schools (but also, more globally, in disadvantaged schools), which report more teacher shortage than private schools do.

Teacher shortage is measured in PISA by the standard deviation of the *index of teacher shortage*. Higher values on the index indicate principals' perception that there are more problems with instruction because of teacher shortage. The overall value observed (for all schools) is comparatively large in Colombia, Israel, Jordan, Luxembourg, Shanghai-China Thailand and Turkey, and comparatively small in Bulgaria, Lithuania, Poland, Portugal, Serbia, Slovenia and Spain (Table C7.4).

Table C7.4 also shows that public schools suffer teacher shortages more often than government-dependent and independent private schools. In 33 out of 47 countries and economies, principals in public schools reported more teacher shortage than those in private schools. Particularly wide gaps in the incidence of teacher shortage between public and private schools are observed in Australia, Brazil, Italy, Jordan, Luxembourg, Mexico, New Zealand, Peru, Qatar, the United Arab Emirates, Uruguay and Viet Nam, where the difference is greater than 0.5 index points (i.e. half the standard deviation of this index). The gap narrows slightly when public schools are only compared with government-dependent private schools, but public schools still report more teacher shortage than these private schools in 20 out of the 33 OECD countries with available data (Table C7.4).

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Time spent doing homework or other study set by teachers

Students who attend private schools also spend more time doing homework or other study set by teachers than their counterparts enrolled in public schools. To measure this, PISA asked 15-year-old students to report the average time they spend each week on various types of after-school study activities, all school subjects combined.

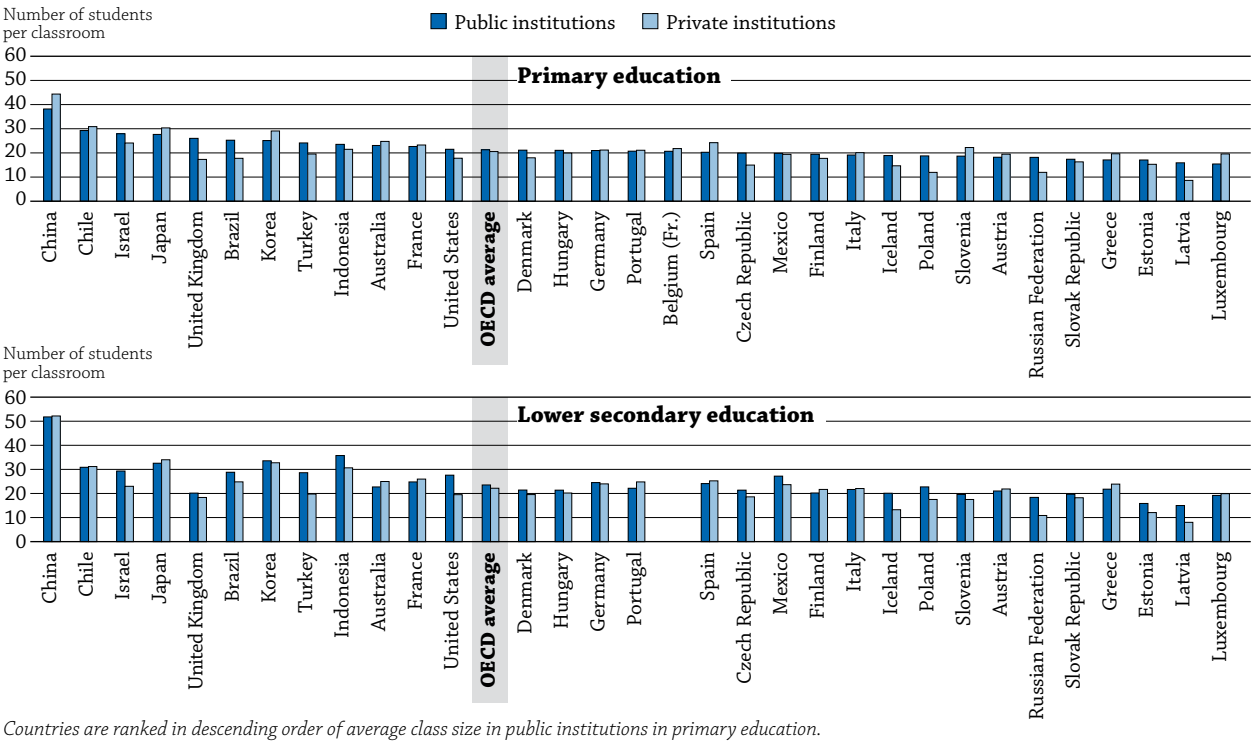
Across OECD countries, students reported that they spend 4.9 hours per week on homework or other study set by their teacher. Students in Italy, Kazakhstan, Romania, the Russian Federation, Shanghai-China and Singapore reported that they spend at least seven hours per week on homework or other study set by their teachers. By contrast, in Argentina, Brazil, Chile, Costa Rica, the Czech Republic, Japan, Liechtenstein, Portugal, the Slovak Republic, Slovenia, Sweden, Switzerland and Tunisia, pupils spend less than four hours per week on this (Table C7.4).

Differences in this measure are also observed between students in public and private schools. On average across OECD countries, students enrolled in private schools spend one hour more per week doing homework, or other study set by teachers, than students enrolled in public schools (5.6 and 4.7 hours, respectively). In 38 out of the 47 countries and economies with available data, students enrolled in private schools spend more time doing homework than students in public schools; the opposite is true in only 9 countries/economies. The additional time spent on homework by students enrolled in private schools exceeds 1.5 hours in Australia, Austria, Canada, Colombia, New Zealand, Portugal, Qatar, the United States and the United Arab Emirates (Table C7.4). The differences are also significant when government-dependent schools are compared to independent private schools. On average, students in independent private schools spend respectively 0.4 hours more and 2 hours more than their counterparts enrolled in government-dependent and public schools to do homework or other study set by their teachers (Table C7.4).

Class size

Class size is one factor that parents may consider when choosing a school for their children and that may have an impact on the learning environment. Among OECD and G20 countries for which data are available, average class size across OECD countries generally does not differ between public and private schools by more than two students per class in both primary and lower secondary education (Chart C7.3 and see Indicator D2).

Chart C7.3. Average class size in public and private institutions, by level of education (2012)



Countries are ranked in descending order of average class size in public institutions in primary education.

Source: OECD. Table D2.1. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933119492

But there are marked differences among countries. For example, in Brazil, the Czech Republic, Iceland, Israel, Latvia, Poland, the Russian Federation, Turkey, the United Kingdom and the United States, the average public school primary class is larger by four or more pupils than the average private school class. However, with the exception of Brazil and Israel, the private sector in education is relatively small in all of these countries (Table C7.1), representing 5% of pupils, at most, at the primary level. In contrast, in Spain, where 32% of primary pupils are enrolled in private schools, the average primary class in private schools is larger by four pupils (Chart C7.3 and see Indicator D2).

The comparison of class size between public and private schools shows a mixed picture at the lower secondary level, where private schools are more prevalent. In 12 countries, the average class in lower secondary schools is larger in private schools than in public schools, although the differences tend to be smaller than in primary education. In countries where private schools are more prevalent at the primary and lower secondary levels (i.e. countries where more than 10% of students at these levels are enrolled in private schools), there may be large differences in class size between public and private schools (Table C7.1 and see Indicator D2).

Similarly, PISA 2012 data show that there is no difference, on average across OECD countries, in class size between public and private schools in which 15-year-old students are enrolled. However, some differences are observed among countries: in 21 countries and economies, students tend to be in larger mathematics classes in public schools while in 26 other countries and economies, students tend to be in larger mathematics classes in private schools (Table C7.4). This suggests that in countries in which a substantial proportion of students and families choose private schools, class size is not a determining factor in their decision.

The degree of autonomy in allocating resources and in determining curricula and assessments

Among the many decisions that school systems and schools have to make, those concerning the curriculum and the way resources are allocated and managed have a direct impact on teaching and learning. Since the early 1980s, many school systems have granted individual schools increasing authority to make autonomous decisions on curricula and resource allocation, on the premise that individual schools are good judges of their students' learning needs and of the most effective use of resources. The rationale was to raise performance levels by encouraging responsiveness to student and school needs at the local level (Whitty, 1997; Carnoy, 2000; Clark; 2009; Machin and Vernoit, 2011). This has involved increasing the decision-making responsibility and accountability of principals and, in some cases, the management responsibilities of teachers or department heads.

PISA 2012 asked school principals to report whether the teachers, the principal, the school's governing board, the regional or local education authorities or the national education authority had considerable responsibility for allocating resources to schools (appointing and dismissing teachers; determining teachers' starting salaries and salary raises; and formulating school budgets and allocating them within the school) and responsibility for the curriculum and instructional assessment within the school (establishing student-assessment policies; choosing textbooks; and determining which courses are offered and the content of those courses). This information was combined to create two composite indices: an *index of school responsibility for resource allocation,* and an *index of school responsibility for curriculum and assessment,* such that both indices have an average of zero and a standard deviation of one for OECD countries. Higher values indicate more autonomy for school principals and teachers (Table C7.5).

The results show that private schools tend to have higher degrees of autonomy than public schools on the two indices. However, it is particularly more pronounced on the *index of school responsibility for resource allocation*. On this index, in virtually all participating countries and economies, government–dependent and independent private schools have more autonomy in allocating resources than public schools. A similar hierarchy is observed when the two kinds of private schools are compared: in most countries, independent private schools have greater autonomy in allocating resources than government-dependent schools. The differences in the degree of autonomy between public and private schools are largest in Brazil, Colombia, Finland, Luxembourg, Malaysia, Mexico and Peru.

The difference between public and private schools is less strong for the index showing school autonomy in making decisions about curricula and assessments, especially when government-dependent schools are compared with public schools. In 26 countries and economies, private schools have greater autonomy in this index, but in Austria, Estonia, the Netherlands, New Zealand, the Slovak Republic, Slovenia and Chinese Taipei, the opposite is observed (Table C7.5).

School systems also differ in the degree of autonomy granted to private schools. Private schools in OECD countries, for example, show varying degrees of autonomy in allocating resources. School principals in Austria, Belgium, France, Germany, Korea and Spain reported relatively low levels of autonomy (index values of less than 2), while principals in the Czech Republic, Finland, the Netherlands, Sweden and the United Kingdom reported the opposite (index values of over 1.68) (Table C7.5).

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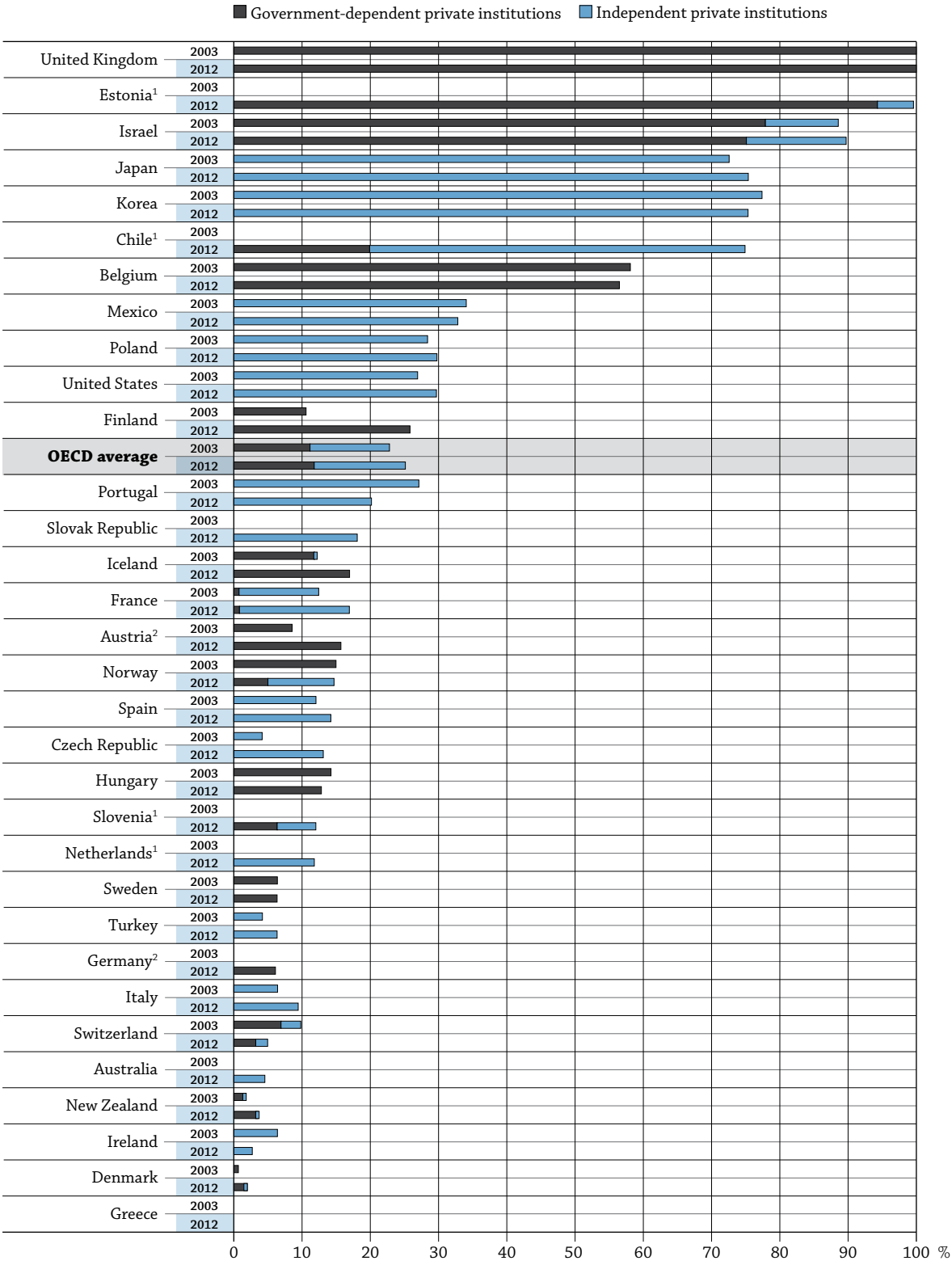
Chart C7.4. Students enrolled in tertiary-type A and advanced research programmes, by type of private institutions (2003, 2012)



1. 2003 data are missing.
2. Including independent private institutions.

Countries are ranked in descending order of the share of 5A/6 students enrolled in private institutions in 2012.

Source: OECD. Table C7.6. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933119511

Enrolment and financing of public and private tertiary institutions

The proportion of students enrolled in independent private institutions is largest at the tertiary level of education. Some 17% of students in tertiary-type B programmes, and 14% of students in tertiary-type A and advanced research programmes are enrolled in independent private institutions. When considering tertiary-level independent private and government-dependent private institutions together, 41% of students are enrolled in tertiary-type B programmes and at least 28% of students are enrolled in tertiary-type A and advanced research programmes (Table C7.6).

In 2003, on average across OECD countries, 77% of students in tertiary-type A programmes attended public institutions, 11% attended government-depended private institutions and 12% attended independent private institutions. The share of students enrolled in private institutions at the tertiary level has increased in 21 of the 29 OECD countries with available data between 2003 and 2012. Similarly, enrolments in tertiary-type A private institutions in OECD countries grew by an average of two percentage points, from 23% to 25%, between 2003 and 2012, while the enrolments in tertiary-type B programmes increased by four percentage points, from 33% to 37%, during the same period. The countries showing the greatest growth in enrolments in tertiary-type A private institutions during this period are Austria, the Czech Republic, Finland, Germany, and the Slovak Republic, with observed increases exceeding 6 percentage points (Table C7.6 and Chart C7.4).

The expansion of private institutions at the tertiary level of education is a response to the significant increase in demand for tertiary education observed during the past few decades. However, in most countries, enrolment in a private institution entails additional costs for students. OECD and G20 countries differ significantly in the amount of tuition fees charged by their tertiary institutions. In eight OECD countries, public institutions charge no tuition fees, but in one-third of the 26 OECD countries with available data, public institutions charge annual tuition fees in excess of USD 1 500 for national students. In most countries, private institutions charge higher tuition fees than public institutions. Finland and Sweden are the only countries with no tuition fees in either public or private institutions. Variations within countries tend to be greatest in those countries in which the largest proportions of students are enrolled in independent private tertiary-type A institutions. In contrast, in most countries, tuition fees charged by institutions differ less between public and government-dependent private institutions than between public and independent private institutions. In Austria, there is no difference in the tuition fees charged by these two types of institutions (see Indicator B5).

With an increasing variety of education opportunities, programmes and providers, governments are forging new partnerships to mobilise resources for tertiary education and to design new policies that allow the different stakeholders to participate more fully and to share costs and benefits more equitably. Therefore, companies are also more involved in financing tertiary public institutions. In Australia, Austria, Canada, the Czech Republic, Israel, Japan, Korea, the Netherlands, the Slovak Republic, Sweden, the United Kingdom and the United States, 9% or more of expenditure on tertiary institutions is covered by private entities other than households. In Sweden, these contributions are largely directed to sponsoring research and development (see Indicator B3).

Definitions and methodology

School type: As the indicator is mainly based on the UOE and PISA data collection, the definitions of school type are the same in these two surveys. Schools are classified as either public or private, according to whether a public agency or a private entity has the ultimate power to make decisions concerning its affairs. This information is combined with information on the percentage of total funding that comes from government sources. The indicators include three categories: **independent private schools**, controlled by a non-government organisation or with a governing board not selected by a government agency, that receive less than 50% of their core funding from government agencies; **government-dependent private schools,** controlled by a non-government organisation or with a governing board not selected by a government agency, that receive more than 50% of their core funding from government agencies; and **public schools** controlled and managed by a public education authority or agency.

Teacher shortage: In order to assess how school principals perceive the adequacy of the supply of teachers, PISA 2012 asked the extent to which they think instruction in their school is hindered by a lack of qualified teachers and staff in key areas. This information was combined to create a composite *index of teacher shortage*, such that the index has an average of 0 and a standard deviation of 1 for OECD countries. Higher values on the index indicate principals' perception that there are more problems with instruction because of teacher shortage. Caution is required in interpreting these results: school principals across countries and economies, and even within countries and economies, may have different expectations and benchmarks to determine whether there is a lack of qualified teachers. Nonetheless, these reports provide valuable information that can be used to assess whether schools or school systems are providing their students with adequate human resources.

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Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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Tables of Indicator C7

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Table C7.1. Students in pre-primary, primary and secondary education, by type of school (2012)

Distribution of students, by type of school

	Pre-primary education			Primary			Lower secondary			Upper secondary		
	Public	Government-dependent private	Independent private	Public	Government-dependent private	Independent private	Public	Government-dependent private	Independent private	Public	Government-dependent private	Independent private
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD												
Australia[1]	22	78	m	69	31	a	64	36	m	63	36	m
Austria	70	30	x(2)	94	6	x(5)	91	9	x(8)	90	10	x(11)
Belgium[1]	47	53	m	46	54	m	39	61	m	43	57	m
Canada[2]	m	m	m	94	6	x(5)	91	9	x(8)	94	6	x(11)
Chile	34	60	6	40	53	7	45	48	7	38	55	7
Czech Republic	98	2	a	98	2	a	97	3	a	86	14	a
Denmark	81	19	n	85	15	n	73	26	1	98	2	n
Estonia	97	a	3	96	a	4	96	a	4	97	a	3
Finland	92	8	a	98	2	a	95	5	a	81	19	a
France	87	12	n	85	14	n	78	22	n	69	31	1
Germany	35	65	x(2)	96	4	x(5)	91	9	x(8)	92	8	x(11)
Greece	93	a	7	93	a	7	95	a	5	96	a	4
Hungary	93	7	a	89	11	a	88	12	a	76	24	a
Iceland	88	12	n	97	3	n	99	1	n	79	20	1
Ireland	2	a	98	99	a	1	100	a	a	99	a	1
Israel	91	a	9	77	23	a	84	16	a	94	6	a
Italy	70	a	30	93	a	7	96	a	4	91	4	5
Japan	29	a	71	99	a	1	93	a	7	69	a	31
Korea	16	84	a	98	a	2	82	18	a	56	44	a
Luxembourg	91	n	9	91	n	9	81	10	9	84	7	9
Mexico	86	a	14	92	a	8	89	a	11	83	a	17
Netherlands	70	a	30	100	a	n	97	a	3	91	a	9
New Zealand	1	99	n	98	a	2	95	a	5	85	8	7
Norway	54	46	x(2)	98	2	x(5)	97	3	x(8)	90	10	x(11)
Poland	84	1	14	97	1	3	95	1	4	85	1	14
Portugal	53	30	16	88	4	8	85	7	8	78	5	17
Slovak Republic	96	4	n	94	6	n	93	7	n	85	15	n
Slovenia	97	2	n	99	1	n	100	n	a	96	2	2
Spain	65	24	11	68	28	4	69	28	3	79	12	9
Sweden	83	17	n	91	9	n	86	14	n	83	17	n
Switzerland	96	n	4	95	2	3	92	3	5	87	9	4
Turkey	91	a	9	97	a	3	97	a	3	97	a	3
United Kingdom	63	31	6	93	3	5	55	40	5	33	62	5
United States	60	a	40	92	a	8	92	a	8	92	a	8
OECD average	68	20	11	89	8	3	86	11	3	81	14	5
EU21 average	75	15	11	90	8	2	86	12	2	82	14	4
Partners												
Argentina[2]	68	25	7	76	20	4	77	19	3	71	24	5
Brazil	71	a	29	85	a	15	88	a	12	84	a	16
China	51	49	x(2)	94	6	x(5)	91	9	x(8)	89	11	x(11)
Colombia	64	a	36	81	a	19	81	a	19	77	a	23
India	m	m	m	m	m	m	m	m	m	m	m	m
Indonesia	3	a	97	83	a	17	64	a	36	50	a	50
Latvia	95	a	5	99	a	1	99	a	1	98	a	2
Russian Federation	99	a	1	99	a	1	99	a	1	98	a	2
Saudi Arabia	59	41	x(2)	90	10	x(5)	92	8	x(8)	83	17	x(11)
South Africa[2]	94	6	x(2)	96	4	x(5)	96	4	x(8)	96	4	x(11)
G20 average	59	23	18	91	5	4	85	10	5	78	14	8

1. Excluding independent private institutions.
2. Year of reference 2011.

Source: OECD. Argentina, China, Colombia, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics (World Education Indicators Programme). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C7.2. [1/2] **School type and performance in mathematics (2012)**
Results based on school principals' reports

		Public schools				Government-dependent schools				Independent private schools			
		Percentage of students		Performance on the mathematics scale		Percentage of students		Performance on the mathematics scale		Percentage of students		Performance on the mathematics scale	
		%	S.E.	Mean score	S.E.	%	S.E.	Mean score	S.E.	%	S.E.	Mean score	S.E.
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD	Australia	61.0	(0.7)	489	(2.3)	26.5	(1.0)	510	(2.9)	12.5	(0.9)	559	(3.6)
	Austria	91.4	(2.3)	502	(3.2)	7.5	(2.1)	546	(15.9)	1.1	(0.9)	559	(14.5)
	Belgium	w	w	w	w	w	w	w	w	w	w	w	w
	Canada	92.2	(0.8)	514	(2.0)	4.3	(0.6)	570	(8.1)	3.5	(0.8)	566	(10.1)
	Chile	37.5	(1.6)	390	(5.0)	48.1	(2.7)	424	(4.9)	14.5	(2.2)	503	(6.6)
	Czech Republic	91.8	(1.9)	498	(3.8)	6.9	(1.6)	493	(17.3)	1.3	(0.9)	c	c
	Denmark	77.0	(1.8)	494	(2.5)	18.9	(2.0)	517	(6.2)	4.2	(1.5)	527	(13.0)
	Estonia	97.5	(1.0)	520	(2.0)	1.9	(1.0)	509	(36.3)	0.5	(0.0)	c	c
	Finland	97.0	(0.7)	518	(2.0)	3.0	(0.7)	542	(7.2)	0.0	c	c	c
	France	82.8	(1.4)	490	(3.2)	17.2	(1.4)	521	(6.6)	0.0	c	c	c
	Germany	94.5	(1.6)	511	(3.5)	5.0	(1.6)	549	(19.4)	0.5	(0.4)	c	c
	Greece	97.7	(0.7)	450	(2.7)	0.0	c	c	c	2.3	(0.7)	c	c
	Hungary	84.0	(2.9)	475	(3.4)	16.0	(2.9)	489	(14.1)	0.0	c	c	c
	Iceland	99.5	(0.1)	493	(1.7)	0.5	(0.1)	c	c	0.0	c	c	c
	Ireland	w	w	w	w	w	w	w	w	w	w	w	w
	Israel	100.0	c	466	(4.7)	0.0	c	c	c	0.0	c	c	c
	Italy	95.3	(0.7)	487	(2.3)	1.8	(0.4)	437	(7.1)	2.9	(0.5)	515	(8.9)
	Japan	70.1	(1.2)	535	(3.3)	0.0	c	c	c	29.9	(1.2)	540	(9.6)
	Korea	52.7	(4.1)	546	(7.1)	31.4	(3.8)	539	(7.2)	15.9	(3.1)	609	(10.5)
	Luxembourg	84.9	(0.1)	492	(1.3)	13.4	(0.0)	464	(2.4)	1.8	(0.0)	c	c
	Mexico	90.7	(0.9)	408	(1.5)	0.1	(0.1)	c	c	9.2	(0.8)	452	(6.0)
	Netherlands[1]	33.6	(4.4)	516	(10.0)	66.4	(4.4)	523	(5.6)	0.0	c	c	c
	New Zealand	94.7	(1.4)	496	(2.5)	0.0	c	c	c	5.3	(1.4)	583	(6.8)
	Norway	98.3	(1.0)	489	(2.8)	1.7	(1.0)	c	c	0.0	c	c	c
	Poland	97.1	(0.4)	516	(3.6)	1.9	(0.4)	566	(22.1)	1.0	(0.2)	581	(14.9)
	Portugal	89.9	(2.0)	481	(3.8)	5.8	(1.9)	516	(7.3)	4.2	(1.4)	581	(5.2)
	Slovak Republic	91.0	(2.4)	478	(4.1)	8.6	(2.5)	520	(20.2)	0.5	(0.3)	c	c
	Slovenia	97.6	(0.1)	501	(1.3)	2.4	(0.1)	589	(6.9)	0.0	c	c	c
	Spain	68.2	(0.8)	471	(2.5)	24.4	(1.1)	506	(3.6)	7.4	(1.0)	523	(4.8)
	Sweden	86.0	(0.7)	476	(2.4)	14.0	(0.7)	491	(7.9)	0.0	c	c	c
	Switzerland	93.7	(1.3)	532	(3.3)	1.5	(0.8)	567	(18.4)	4.8	(1.0)	505	(13.0)
	Turkey	100.0	c	447	(4.9)	0.0	c	c	c	0.0	c	c	c
	United Kingdom	56.2	(3.1)	485	(3.6)	36.0	(3.2)	494	(7.6)	7.8	(0.7)	569	(12.7)
	United States	94.9	(0.9)	482	(4.0)	0.0	c	c	c	5.1	(0.9)	496	(10.0)
	OECD average	81.7	(0.3)	489	(0.7)	14.2	(0.4)	517	(2.6)	4.1	(0.2)	542	(2.5)
Partners	Albania	91.7	(2.1)	393	(2.2)	0.0	c	c	c	8.3	(2.1)	403	(6.4)
	Argentina	67.7	(2.3)	368	(4.1)	25.6	(2.9)	428	(5.7)	6.7	(2.2)	428	(14.3)
	Brazil	86.5	(1.3)	376	(2.0)	0.6	(0.4)	c	c	12.8	(1.3)	461	(6.9)
	Bulgaria	98.8	(0.9)	438	(4.1)	0.0	c	c	c	1.2	(0.9)	c	c
	Colombia	85.9	(1.4)	369	(2.8)	4.0	(0.8)	362	(8.0)	10.1	(1.4)	441	(12.7)
	Costa Rica	86.9	(1.4)	396	(3.3)	3.6	(0.9)	465	(17.1)	9.5	(1.5)	478	(9.5)
	Croatia	98.2	(1.1)	471	(3.6)	0.8	(0.8)	c	c	0.9	(0.7)	c	c
	Hong Kong-China	7.0	(0.2)	597	(9.5)	91.9	(0.8)	560	(3.5)	1.2	(0.7)	c	c
	Indonesia	58.9	(2.6)	377	(5.0)	17.5	(2.3)	342	(5.6)	23.7	(2.7)	395	(10.7)
	Jordan	83.3	(1.5)	376	(3.1)	0.9	(0.6)	c	c	15.8	(1.2)	440	(10.8)
	Kazakhstan	97.2	(1.0)	432	(3.0)	0.7	(0.5)	c	c	2.1	(0.9)	436	(14.7)
	Latvia	97.7	(1.5)	490	(2.9)	0.4	(0.4)	c	c	1.9	(1.3)	c	c
	Liechtenstein	93.6	(0.4)	541	(3.9)	0.0	c	c	c	6.4	(0.4)	c	c
	Lithuania	98.6	(0.7)	478	(2.7)	1.1	(0.6)	c	c	0.4	(0.4)	c	c
	Macao-China	4.2	(0.0)	c	c	81.3	(0.0)	537	(1.1)	14.5	(0.0)	559	(2.9)
	Malaysia	96.6	(0.7)	418	(3.2)	0.0	c	c	c	3.4	(0.7)	505	(27.3)
	Montenegro	99.6	(0.0)	410	(1.1)	0.0	c	c	c	0.4	(0.0)	c	c
	Peru	85.3	(1.8)	350	(3.2)	0.0	c	c	c	14.7	(1.8)	424	(11.3)
	Qatar	61.9	(0.1)	335	(1.0)	0.9	(0.0)	c	c	37.2	(0.1)	442	(1.3)
	Romania	99.4	(0.6)	444	(3.7)	0.0	c	c	c	0.6	(0.6)	c	c
	Russian Federation	99.4	(0.6)	482	(3.0)	0.0	c	c	c	0.6	(0.6)	c	c
	Serbia	99.6	(0.4)	448	(3.9)	0.0	c	c	c	0.4	(0.4)	c	c
	Shanghai-China	90.7	(1.8)	609	(3.4)	0.0	c	c	c	9.3	(1.8)	644	(9.3)
	Singapore	97.6	(0.7)	574	(1.2)	0.0	c	c	c	2.4	(0.7)	c	c
	Chinese Taipei	67.6	(1.4)	581	(3.7)	4.6	(1.3)	469	(9.5)	27.9	(1.9)	529	(7.9)
	Thailand	83.5	(0.6)	433	(3.8)	11.6	(1.5)	396	(5.1)	4.9	(1.3)	398	(23.2)
	Tunisia	99.4	(0.4)	389	(3.9)	0.0	c	c	c	0.6	(0.4)	c	c
	United Arab Emirates	54.5	(1.7)	399	(2.6)	0.6	(0.4)	c	c	44.9	(1.7)	461	(4.3)
	Uruguay	83.3	(1.2)	393	(2.6)	0.0	c	c	c	16.7	(1.2)	492	(6.6)
	Viet Nam	92.6	(1.1)	513	(5.1)	0.0	c	c	c	7.4	(1.1)	499	(11.6)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. In the Netherlands, government-dependent private schools are publicly financed, they differ from public schools with regard to religious conviction and/or pedagogic orientation.

Source: OECD, PISA 2012 Database. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C7.2. [2/2] School type and performance in mathematics (2012)

Results based on school principals' reports

		Difference in performance on the mathematics scale between public and government-dependent private schools		Difference in performance on the mathematics scale between public and private schools (government-dependent and government-independent schools combined)		Difference in performance on the mathematics scale between public and private schools after accounting for the PISA index of economic, social and cultural status of:			
						Students		Students and schools	
		Dif. (Pub. - Priv.)	S.E.	Dif. (Pub. - Priv.)	S.E.	Dif. (Pub. - Priv.)	S.E.	Dif. (Pub. - Priv.)	S.E.
		(13)	(14)	(15)	(16)	(29)	(30)	(31)	(32)
OECD	Australia	**-21**	(3.6)	**-37**	(3.4)	**-17**	(3.4)	8	(4.3)
	Austria	**-43**	(16.9)	**-45**	(14.9)	-18	(13.3)	21	(15.7)
	Belgium	w	w	w	w	w	w	w	w
	Canada	**-56**	(8.3)	**-54**	(6.7)	**-38**	(6.5)	**-25**	(6.6)
	Chile	**-34**	(7.1)	**-53**	(6.1)	**-27**	(6.0)	-8	(6.7)
	Czech Republic	5	(17.9)	-6	(17.3)	3	(14.0)	16	(12.5)
	Denmark	**-24**	(6.7)	**-25**	(6.4)	**-11**	(5.0)	0	(4.6)
	Estonia	12	(36.4)	-9	(30.5)	3	(26.7)	15	(22.0)
	Finland	**-24**	(7.7)	**-24**	(7.7)	-13	(6.9)	-5	(6.7)
	France	**-31**	(7.4)	**-31**	(7.4)	-8	(6.6)	**26**	(7.9)
	Germany	**-38**	(20.6)	**-44**	(19.7)	-17	(16.0)	23	(15.7)
	Greece	c	c	c	c	c	c	c	c
	Hungary	-15	(15.1)	-15	(15.1)	-8	(10.8)	1	(8.6)
	Iceland	c	c	c	c	c	c	c	c
	Ireland	**w**	w	w	w	w	w	w	w
	Israel	c	c	c	c	c	c	c	c
	Italy	**50**	(7.8)	3	(7.7)	**12**	(6.1)	**31**	(7.8)
	Japan	c	c	-5	(10.3)	6	(8.7)	**43**	(6.7)
	Korea	7	(11.2)	-17	(10.1)	-15	(8.4)	-12	(6.9)
	Luxembourg	**28**	(2.8)	**13**	(2.7)	**15**	(3.0)	**18**	(2.8)
	Mexico	c	c	**-43**	(6.5)	**-16**	(5.4)	**18**	(4.6)
	Netherlands[1]	-7	(12.5)	-7	(12.5)	-8	(10.6)	-9	(7.8)
	New Zealand	c	c	**-87**	(6.9)	**-43**	(7.2)	0	(9.4)
	Norway	c	c	c	c	c	c	c	c
	Poland	**-50**	(21.8)	**-56**	(12.9)	-15	(11.3)	15	(12.9)
	Portugal	**-35**	(7.9)	**-62**	(9.4)	**-29**	(4.8)	-7	(7.2)
	Slovak Republic	**-42**	(21.5)	**-42**	(20.4)	-17	(14.8)	7	(11.9)
	Slovenia	**-87**	(6.9)	**-87**	(6.9)	**-60**	(7.4)	-3	(7.0)
	Spain	**-35**	(4.0)	**-39**	(3.3)	**-21**	(3.3)	**-10**	(4.1)
	Sweden	-15	(8.4)	-15	(8.4)	-7	(6.4)	2	(5.0)
	Switzerland	**-35**	(19.0)	12	(14.8)	**34**	(14.3)	**71**	(15.5)
	Turkey	c	c	c	c	c	c	c	c
	United Kingdom	-10	(8.6)	**-23**	(8.1)	**-13**	(5.9)	-1	(5.2)
	United States	c	c	-14	(11.4)	7	(8.1)	**27**	(6.4)
	OECD average	**-23**	(2.8)	**-28**	(2.1)	**-12**	(1.7)	**7**	(1.6)
Partners	Albania	c	c	-10	(6.8)	c	c	c	c
	Argentina	**-60**	(7.3)	**-60**	(7.3)	**-45**	(6.3)	**-27**	(8.3)
	Brazil	c	c	**-83**	(6.7)	**-60**	(6.0)	**-19**	(7.1)
	Bulgaria	c	c	c	c	c	c	c	c
	Colombia	7	(8.2)	**-50**	(11.0)	**-28**	(9.0)	-7	(8.2)
	Costa Rica	**-68**	(17.4)	**-78**	(8.6)	**-48**	(8.4)	-10	(10.8)
	Croatia	c	c	c	c	c	c	c	c
	Hong Kong-China	**36**	(10.1)	**37**	(10.1)	**34**	(10.0)	**33**	(12.0)
	Indonesia	**35**	(7.6)	5	(8.9)	4	(7.6)	4	(6.8)
	Jordan	c	c	**-60**	(10.7)	**-48**	(9.7)	**-33**	(8.4)
	Kazakhstan	c	c	-2	(12.4)	2	(11.3)	8	(10.6)
	Latvia	c	c	c	c	c	c	c	c
	Liechtenstein	c	c	c	c	c	c	c	c
	Lithuania	c	c	c	c	c	c	c	c
	Macao-China	c	c	c	c	c	c	c	c
	Malaysia	c	c	**-87**	(27.8)	**-65**	(23.2)	**-39**	(18.9)
	Montenegro	c	c	c	c	c	c	c	c
	Peru	c	c	**-74**	(12.0)	**-42**	(9.0)	-7	(7.4)
	Qatar	c	c	**-108**	(1.7)	**-102**	(1.7)	**-93**	(1.6)
	Romania	c	c	c	c	c	c	c	c
	Russian Federation	c	c	c	c	c	c	c	c
	Serbia	c	c	c	c	c	c	c	c
	Shanghai-China	c	c	**-35**	(10.1)	**-16**	(7.7)	10	(9.4)
	Singapore	c	c	c	c	c	c	c	c
	Chinese Taipei	**112**	(10.4)	**60**	(7.3)	**54**	(5.0)	**44**	(4.4)
	Thailand	**37**	(6.3)	**36**	(8.9)	**39**	(6.4)	**42**	(5.2)
	Tunisia	c	c	c	c	c	c	c	c
	United Arab Emirates	c	c	**-62**	(4.9)	**-50**	(4.5)	**-28**	(4.4)
	Uruguay	c	c	**-100**	(7.1)	**-55**	(5.9)	**28**	(8.8)
	Viet Nam	c	c	14	(12.4)	**36**	(12.9)	**58**	(16.3)

Note: Values that are statistically significant are indicated in bold (see Annex A3).

1. In the Netherlands, government-dependent private schools are publicly financed, they differ from public schools with regard to religious conviction and/or pedagogic orientation.

Source: OECD, PISA 2012 Database. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C7.3. [1/2] **School type and performance in mathematics (2003)**
Results based on school principals' reports

	Public schools				Government-dependent schools				Independent private schools			
	Percentage of students		Performance on the mathematics scale		Percentage of students		Performance on the mathematics scale		Percentage of students		Performance on the mathematics scale	
	%	S.E.	Mean score	S.E.	%	S.E.	Mean score	S.E.	%	S.E.	Mean score	S.E.
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD												
Australia	w	w	w	w	w	w	w	w	w	w	w	w
Austria	92.0	(1.9)	504	(3.4)	6.7	(1.6)	518	(12.6)	1.3	(0.6)	c	c
Belgium	w	w	w	w	w	w	w	w	w	w	w	w
Canada	94.2	(0.7)	529	(1.8)	3.8	(0.6)	573	(10.8)	1.9	(0.3)	563	(11.1)
Czech Republic	93.3	(1.7)	517	(3.8)	5.8	(1.6)	505	(13.5)	0.9	(0.5)	c	c
Denmark	77.8	(2.5)	515	(3.1)	21.7	(2.6)	511	(6.3)	0.5	(0.5)	c	c
Finland	93.3	(1.6)	545	(1.8)	6.7	(1.6)	539	(12.2)	0.0	c	c	c
France	w	w	w	w	w	w	w	w	w	w	w	w
Germany	92.2	(1.7)	497	(3.7)	7.5	(1.8)	566	(12.7)	0.4	(0.4)	c	c
Greece	97.4	(1.9)	442	(3.6)	0.0	c	c	c	2.6	(1.9)	507	(30.1)
Hungary	88.9	(2.5)	489	(3.6)	9.8	(2.3)	504	(16.8)	1.2	(0.8)	c	c
Iceland	99.5	(0.1)	515	(1.6)	0.0	c	c	c	0.5	(0.1)	c	c
Ireland	w	w	w	w	w	w	w	w	w	w	w	w
Italy	96.1	(1.2)	468	(3.1)	0.4	(0.2)	392	(61.4)	3.5	(1.3)	452	(35.4)
Japan	73.0	(1.7)	544	(4.7)	0.6	(0.6)	c	c	26.4	(1.8)	513	(7.5)
Korea	42.3	(3.7)	527	(6.1)	36.0	(4.1)	532	(7.5)	21.7	(3.4)	593	(9.6)
Luxembourg	85.9	(0.1)	498	(1.1)	14.1	(0.1)	463	(2.9)	0.0	c	c	c
Mexico	86.7	(1.9)	375	(3.5)	0.1	(0.1)	c	c	13.2	(1.9)	430	(8.9)
Netherlands[1]	23.3	(4.2)	516	(14.0)	76.7	(4.2)	541	(4.5)	0.0	c	c	c
New Zealand	95.4	(0.5)	522	(2.3)	0.0	c	c	c	4.6	(0.5)	579	(17.1)
Norway	99.1	(0.7)	494	(2.4)	0.9	(0.7)	c	c	0.0	c	c	c
Poland	99.2	(0.4)	489	(2.5)	0.4	(0.4)	c	c	0.4	(0.3)	c	c
Portugal	93.7	(1.3)	465	(3.6)	4.2	(1.2)	459	(8.5)	2.1	(1.2)	c	c
Slovak Republic	87.4	(2.7)	495	(3.7)	12.6	(2.7)	523	(9.3)	0.0	c	c	c
Spain	64.2	(1.5)	472	(3.4)	28.1	(2.1)	505	(4.2)	7.7	(1.7)	520	(9.7)
Sweden	95.7	(0.5)	509	(2.6)	4.3	(0.5)	516	(11.0)	0.0	c	c	c
Switzerland	95.3	(1.0)	528	(3.8)	0.9	(0.7)	546	(34.2)	3.8	(0.7)	497	(23.2)
Turkey	99.0	(1.0)	420	(6.6)	0.0	c	c	c	1.0	(1.0)	c	c
United States	94.3	(1.0)	483	(3.6)	0.0	c	c	c	5.7	(1.0)	507	(9.1)
OECD average (for countries with available data for 2003 and 2012)	82.7	(0.3)	494	(0.9)	13.6	(0.4)	514	(4.5)	3.7	(0.3)	516	(5.9)
Partners												
Brazil	87.4	(2.3)	342	(6.2)	0.0	c	c	c	12.6	(2.3)	454	(11.3)
Hong Kong-China	9.5	(0.4)	571	(11.4)	90.1	(0.5)	548	(4.8)	0.4	(0.3)	c	c
Indonesia	51.4	(2.3)	373	(4.9)	4.1	(1.5)	326	(19.3)	44.5	(2.6)	345	(7.0)
Latvia	99.0	(0.7)	485	(3.7)	0.0	c	c	c	1.0	(0.7)	c	c
Liechtenstein	95.0	(0.3)	539	(4.1)	0.0	c	c	c	5.0	(0.3)	c	c
Macao-China	5.0	(0.1)	c	c	49.3	(0.2)	528	(3.5)	45.8	(0.2)	529	(5.2)
Russian Federation	99.7	(0.2)	468	(4.3)	0.0	c	c	c	0.3	(0.2)	c	c
Thailand	88.0	(1.2)	416	(3.0)	6.0	(1.1)	419	(18.8)	6.0	(1.6)	428	(13.7)
Tunisia	m	m	m	m	m	m	m	m	m	m	m	m
Uruguay	85.9	(0.8)	409	(3.7)	0.0	c	c	c	14.1	(0.8)	501	(6.1)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).
Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.
1. In the Netherlands, government-dependent private schools are publicly financed, they differ from public schools with regard to religious conviction and/or pedagogic orientation.
Source: OECD, PISA 2003 Database. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
Please refer to the Reader's Guide for information concerning the symbols replacing missing data.
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Table C7.3. [2/2] School type and performance in mathematics (2003)

Results based on school principals' reports

		Difference in performance on the mathematics scale between public and government-dependent private schools		Difference in performance on the mathematics scale between public and private schools (government-dependent and government-independent schools combined)		Difference in performance on the mathematics scale between public and private schools after accounting for the PISA index of economic, social and cultural status of:			
						Students		Students and schools	
		Dif. (Pub. - Priv.)	S.E.	Dif. (Pub. - Priv.)	S.E.	Dif. (Pub. - Priv.)	S.E.	Dif. (Pub. - Priv.)	S.E.
		(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
OECD	Australia	w	w	w	w	w	w	w	w
	Austria	-14	(12.9)	-18	(12.0)	-6	(10.3)	10	(11.9)
	Belgium	w	w	w	w	w	w	w	w
	Canada	**-44**	(10.9)	**-41**	(8.3)	**-27**	(6.4)	**-14**	(6.6)
	Czech Republic	12	(14.4)	3	(13.5)	12	(9.8)	17	(10.5)
	Denmark	4	(7.2)	4	(7.1)	5	(5.2)	5	(4.8)
	Finland	5	(12.3)	5	(12.3)	13	(11.0)	14	(11.2)
	France	w	w	w	w	w	w	w	w
	Germany	**-68**	(14.1)	**-66**	(13.7)	**-29**	(10.7)	17	(11.7)
	Greece	c	c	**-65**	(30.4)	-19	(15.5)	**42**	(9.0)
	Hungary	-15	(18.4)	-17	(18.1)	-4	(13.1)	8	(9.8)
	Iceland	c	c	c	c	c	c	c	c
	Ireland	**w**	w	w	w	w	w	w	w
	Italy	**76**	(61.2)	22	(22.4)	31	(22.5)	46	(23.5)
	Japan	c	c	**31**	(8.6)	**41**	(6.8)	**62**	(5.6)
	Korea	-5	(11.1)	**-28**	(10.1)	-14	(8.2)	10	(7.1)
	Luxembourg	**35**	(3.3)	**35**	(3.3)	**27**	(3.5)	**13**	(3.4)
	Mexico	c	c	**-55**	(9.8)	**-25**	(8.0)	**19**	(8.1)
	Netherlands[1]	-25	(16.4)	-25	(16.4)	-10	(10.7)	-2	(8.6)
	New Zealand	c	c	**-57**	(17.3)	-23	(12.8)	12	(9.7)
	Norway	c	c	c	c	c	c	c	c
	Poland	c	c	c	c	c	c	c	c
	Portugal	6	(9.3)	-19	(16.9)	-11	(9.9)	-2	(10.6)
	Slovak Republic	**-27**	(10.3)	**-27**	(10.3)	-15	(7.8)	-2	(7.3)
	Spain	**-32**	(5.7)	**-35**	(5.4)	**-20**	(4.4)	-6	(4.3)
	Sweden	-8	(11.3)	-8	(11.3)	6	(8.2)	**17**	(7.0)
	Switzerland	-18	(34.7)	21	(22.3)	**40**	(20.1)	**62**	(19.6)
	Turkey	c	c	c	c	c	c	c	c
	United States	c	c	**-24**	(9.9)	-6	(8.3)	11	(9.7)
	OECD average (for countries with available data for 2003 and 2012)	**-11**	-(4.7)	**-19**	(3.0)	-4	(2.2)	**14**	(2.1)
Partners	Brazil	c	c	**-112**	(13.5)	**-73**	(14.0)	12	(20.3)
	Hong Kong-China	23	(12.3)	23	(12.3)	**22**	(10.0)	**20**	(8.9)
	Indonesia	**47**	(20.1)	**29**	(8.1)	**27**	(7.2)	**23**	(6.1)
	Latvia	c	c	c	c	c	c	c	c
	Liechtenstein	c	c	c	c	c	c	c	c
	Macao-China	c	c	c	c	c	c	c	c
	Russian Federation	c	c	c	c	c	c	c	c
	Thailand	-3	(19.1)	-7	(12.7)	3	(11.9)	13	(11.5)
	Tunisia	c	c	m	m	m	m	m	m
	Uruguay	c	c	**-92**	(6.8)	**-55**	(6.7)	16	(11.4)

Notes: Values that are statistically significant are indicated in bold (see Annex A3).

Only countries and economies with comparable data from PISA 2003 and PISA 2012 are shown.

1. In the Netherlands, government-dependent private schools are publicly financed, they differ from public schools with regard to religious conviction and/or pedagogic orientation.

Source: OECD, PISA 2003 Database. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C7.4. [1/2] Learning environment, by type of school (2012)

Results based on school principals' reports and students' self-reports

		Class size in which 15-year-old students are enrolled (PISA results based on students' self-reports)										Index of teacher shortage (PISA results based on school principals' reports)[1]					
		All schools		Public schools		Government-dependent schools		Independent private schools		Private schools		All schools		Public schools		Government-dependent schools	
		Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
OECD	Australia	22.6	(0.1)	22.4	(0.2)	23.4	(0.2)	21.6	(0.3)	22.8	(0.2)	0.2	(0.0)	0.4	(0.0)	0.1	(0.1)
	Austria	20.7	(0.2)	20.7	(0.2)	21.4	(1.0)	21.4	(1.0)	21.4	(0.9)	-0.1	(0.1)	-0.1	(0.1)	-0.3	(0.3)
	Belgium	18.8	(0.2)	18.1	(0.3)	18.9	(0.2)	c	c	18.9	(0.2)	0.3	(0.1)	0.3	(0.1)	0.2	(0.1)
	Canada	24.3	(0.1)	24.0	(0.1)	29.3	(0.7)	24.3	(1.6)	27.1	(0.8)	-0.3	(0.0)	-0.3	(0.0)	-0.2	(0.2)
	Chile	34.3	(0.4)	33.7	(0.7)	36.0	(0.7)	30.2	(1.1)	34.6	(0.6)	0.6	(0.1)	0.9	(0.2)	0.5	(0.1)
	Czech Republic	22.1	(0.3)	22.2	(0.3)	23.0	(1.1)	c	c	22.6	(1.0)	-0.4	(0.0)	-0.4	(0.1)	-0.8	(0.1)
	Denmark	19.7	(0.2)	19.8	(0.2)	19.4	(0.7)	19.9	(0.7)	19.5	(0.6)	-0.2	(0.1)	-0.1	(0.1)	-0.4	(0.1)
	Estonia	20.6	(0.2)	20.6	(0.2)	18.8	(4.3)	c	c	19.7	(3.3)	0.0	(0.0)	0.0	(0.0)	-0.6	(0.3)
	Finland	18.3	(0.2)	18.2	(0.2)	20.9	(1.0)	c	c	20.9	(1.0)	-0.4	(0.0)	-0.4	(0.0)	-0.3	(0.2)
	France	27.1	(0.2)	27.1	(0.3)	27.8	(0.6)	c	c	27.8	(0.6)	-0.2	(0.1)	-0.2	(0.1)	0.0	(0.2)
	Germany	24.1	(0.2)	23.8	(0.2)	25.9	(0.5)	c	c	25.7	(0.5)	0.4	(0.1)	0.4	(0.1)	0.0	(0.2)
	Greece	22.9	(0.2)	22.9	(0.2)	c	c	c	c	c	c	-0.4	(0.1)	-0.4	(0.1)	c	c
	Hungary	27.0	(0.3)	27.0	(0.3)	26.9	(1.1)	c	c	26.9	(1.1)	-0.6	(0.1)	-0.7	(0.1)	-0.5	(0.1)
	Iceland	19.2	(0.1)	19.3	(0.1)	c	c	c	c	c	c	0.2	(0.0)	0.2	(0.0)	c	c
	Ireland	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w	w
	Israel	27.1	(0.4)	27.1	(0.4)	c	c	c	c	c	c	0.7	(0.1)	0.7	(0.1)	c	c
	Italy	21.3	(0.1)	21.5	(0.1)	19.9	(0.4)	19.0	(1.1)	19.4	(0.7)	0.2	(0.0)	0.3	(0.0)	0.0	(0.4)
	Japan	37.2	(0.3)	37.3	(0.4)	c	c	37.0	(0.6)	37.0	(0.6)	-0.3	(0.1)	-0.3	(0.1)	c	c
	Korea	30.5	(0.4)	30.8	(0.6)	28.5	(0.6)	33.6	(0.7)	30.2	(0.5)	0.1	(0.1)	0.0	(0.1)	0.3	(0.1)
	Luxembourg	20.9	(0.1)	21.0	(0.1)	20.7	(0.2)	c	c	20.3	(0.1)	1.1	(0.0)	1.3	(0.0)	0.0	(0.0)
	Mexico	33.8	(0.3)	34.6	(0.3)	c	c	28.9	(0.9)	28.6	(0.8)	0.5	(0.0)	0.6	(0.0)	c	c
	Netherlands	24.4	(0.2)	24.1	(0.5)	24.4	(0.3)	c	c	24.4	(0.3)	0.6	(0.1)	0.6	(0.1)	0.6	(0.1)
	New Zealand	23.9	(0.2)	24.1	(0.2)	c	c	21.3	(0.9)	21.3	(0.9)	0.1	(0.1)	0.1	(0.1)	c	c
	Norway	23.4	(0.2)	23.4	(0.3)	c	c	c	c	c	c	0.3	(0.1)	0.3	(0.1)	c	c
	Poland	22.8	(0.2)	23.0	(0.3)	19.1	(1.4)	15.7	(1.1)	17.8	(1.1)	-1.0	(0.0)	-1.0	(0.0)	-1.1	(0.0)
	Portugal	21.7	(0.3)	21.5	(0.3)	23.7	(0.6)	24.1	(0.8)	23.9	(0.5)	-0.8	(0.1)	-0.8	(0.1)	-0.8	(0.1)
	Slovak Republic	21.4	(0.3)	21.4	(0.3)	21.7	(1.3)	c	c	21.5	(1.3)	-0.3	(0.0)	-0.3	(0.1)	-0.5	(0.2)
	Slovenia	24.8	(0.2)	24.8	(0.2)	29.0	(0.3)	c	c	29.0	(0.3)	-0.7	(0.0)	-0.7	(0.0)	-0.4	(0.0)
	Spain	22.2	(0.1)	21.8	(0.2)	22.8	(0.3)	23.3	(0.6)	22.9	(0.3)	-0.7	(0.0)	-0.7	(0.0)	-0.8	(0.0)
	Sweden	21.1	(0.3)	21.1	(0.3)	21.1	(1.0)	c	c	21.1	(1.0)	-0.1	(0.1)	-0.1	(0.1)	-0.1	(0.2)
	Switzerland	19.0	(0.2)	18.9	(0.2)	20.6	(2.0)	19.0	(0.9)	19.4	(0.8)	0.1	(0.1)	0.1	(0.1)	-0.1	(0.8)
	Turkey	23.2	(0.3)	23.3	(0.3)	c	c	c	c	c	c	0.9	(0.1)	0.9	(0.1)	c	c
	United Kingdom	24.2	(0.1)	25.0	(0.2)	24.8	(0.3)	16.7	(0.7)	23.3	(0.3)	-0.2	(0.1)	-0.1	(0.1)	-0.2	(0.1)
	United States	24.5	(0.4)	24.8	(0.4)	c	c	19.8	(1.2)	19.8	(1.2)	-0.4	(0.1)	-0.4	(0.1)	c	c
	OECD average	23.9	(0.0)	23.9	(0.1)	23.7	(0.2)	23.5	(0.2)	23.8	(0.2)	0.0	(0.0)	0.0	(0.0)	-0.2	(0.0)
Partners	Albania	26.0	(0.3)	26.0	(0.3)	c	c	24.5	(1.8)	24.5	(1.8)	-0.2	(0.1)	-0.2	(0.1)	c	c
	Argentina	28.5	(0.4)	27.0	(0.4)	31.3	(0.7)	29.6	(1.6)	31.0	(0.8)	-0.1	(0.1)	0.0	(0.1)	-0.3	(0.2)
	Brazil	32.8	(0.3)	32.6	(0.2)	32.6	(2.8)	32.8	(1.5)	32.9	(1.5)	0.2	(0.1)	0.3	(0.1)	0.9	(0.5)
	Bulgaria	22.0	(0.3)	22.0	(0.3)	c	c	c	c	c	c	-0.8	(0.0)	-0.8	(0.0)	c	c
	Colombia	33.5	(0.4)	33.7	(0.4)	34.7	(2.1)	33.9	(2.4)	34.1	(1.8)	0.7	(0.1)	0.7	(0.1)	-0.6	(0.2)
	Costa Rica	25.6	(0.4)	25.6	(0.4)	31.2	(2.1)	23.2	(1.2)	25.6	(1.2)	0.0	(0.1)	0.0	(0.1)	-0.5	(0.4)
	Croatia	26.9	(0.2)	27.0	(0.2)	c	c	c	c	c	c	-0.4	(0.1)	-0.4	(0.1)	c	c
	Hong Kong-China	33.2	(0.3)	36.1	(0.9)	33.1	(0.3)	c	c	32.9	(0.3)	-0.2	(0.1)	-0.3	(0.4)	-0.2	(0.1)
	Indonesia	31.8	(0.4)	32.8	(0.4)	28.9	(1.0)	31.8	(1.5)	30.6	(0.9)	0.3	(0.1)	0.2	(0.1)	0.9	(0.1)
	Jordan	30.8	(0.4)	31.7	(0.5)	c	c	26.8	(0.6)	26.8	(0.6)	1.0	(0.1)	1.1	(0.1)	c	c
	Kazakhstan	19.5	(0.3)	19.6	(0.3)	c	c	17.7	(1.3)	16.1	(1.4)	0.3	(0.1)	0.3	(0.1)	c	c
	Latvia	18.7	(0.3)	18.8	(0.3)	c	c	c	c	c	c	-0.4	(0.1)	-0.4	(0.1)	c	c
	Liechtenstein	17.6	(0.7)	17.8	(0.7)	c	c	c	c	c	c	0.1	(0.0)	0.0	(0.0)	c	c
	Lithuania	23.8	(0.2)	23.9	(0.2)	c	c	c	c	c	c	-0.7	(0.0)	-0.7	(0.0)	c	c
	Macao-China	35.7	(0.1)	c	c	35.7	(0.1)	39.5	(0.4)	36.3	(0.1)	0.0	(0.0)	c	c	0.1	(0.0)
	Malaysia	30.3	(0.4)	29.9	(0.3)	c	c	39.6	(4.6)	39.6	(4.6)	0.2	(0.1)	0.2	(0.1)	c	c
	Montenegro	29.1	(0.2)	29.2	(0.2)	c	c	c	c	c	c	-0.5	(0.0)	-0.5	(0.0)	c	c
	Peru	26.9	(0.5)	26.8	(0.5)	c	c	26.9	(0.7)	26.9	(0.7)	0.6	(0.1)	0.8	(0.1)	c	c
	Qatar	27.4	(0.1)	26.7	(0.1)	c	c	28.5	(0.1)	28.3	(0.1)	-0.1	(0.0)	0.2	(0.0)	c	c
	Romania	27.5	(0.2)	27.5	(0.2)	c	c	c	c	c	c	-0.5	(0.1)	-0.5	(0.1)	c	c
	Russian Federation	20.0	(0.2)	20.1	(0.2)	c	c	c	c	c	c	0.4	(0.1)	0.4	(0.1)	c	c
	Serbia	26.4	(0.3)	26.4	(0.3)	c	c	c	c	c	c	-0.7	(0.1)	-0.7	(0.1)	c	c
	Shanghai-China	35.9	(0.4)	35.4	(0.4)	c	c	40.1	(1.3)	40.1	(1.3)	0.8	(0.1)	0.7	(0.1)	c	c
	Singapore	33.0	(0.1)	33.5	(0.1)	c	c	c	c	c	c	0.1	(0.0)	0.2	(0.0)	c	c
	Chinese Taipei	39.0	(0.3)	35.5	(0.2)	45.2	(1.9)	45.3	(0.7)	45.3	(0.6)	-0.2	(0.1)	-0.2	(0.1)	0.1	(0.3)
	Thailand	36.7	(0.4)	36.8	(0.5)	35.0	(1.6)	39.1	(2.0)	36.2	(1.3)	0.9	(0.1)	1.0	(0.1)	0.7	(0.3)
	Tunisia	25.5	(0.3)	25.6	(0.3)	c	c	c	c	c	c	-0.1	(0.1)	-0.1	(0.1)	c	c
	United Arab Emirates	24.5	(0.2)	24.1	(0.3)	c	c	24.4	(0.4)	24.3	(0.4)	0.1	(0.1)	0.5	(0.1)	c	c
	Uruguay	24.8	(0.3)	24.7	(0.3)	c	c	25.6	(0.7)	25.6	(0.7)	0.3	(0.1)	0.5	(0.1)	c	c
	Viet Nam	41.0	(0.3)	41.0	(0.3)	c	c	40.2	(1.1)	40.2	(1.1)	0.4	(0.1)	0.5	(0.1)	c	c

1. PISA 2012 asked the extent to which they think instruction in their school is hindered by a lack of qualified teachers and staff in key areas. This information was combined to create a composite *index of teacher shortage*, such that the index has an average of 0 and a standard deviation of 1 for OECD countries. Higher values on the index indicate principals' perception that there are more problems with instruction because of teacher shortage.

Source: OECD, PISA 2012 Database. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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C7

Table C7.4. [2/2] Learning environment, by type of school (2012)

Results based on school principals' reports and students' self-reports

	Index of teacher shortage (PISA results based on school principals' reports)[1]				Time spent (per week) doing homework or other study set by teachers (in hours) (PISA results based on students' self-reports)									
	Independent private schools		Private schools		All schools		Public schools		Government-dependent schools		Independent private schools		Private schools	
	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.	Mean	S.E.
	(17)	(18)	(19)	(20)	(21)	(22)	(23)	(24)	(25)	(26)	(27)	(28)	(29)	(30)
OECD														
Australia	-0.4	(0.1)	-0.1	(0.1)	6.0	(0.1)	5.1	(0.1)	6.6	(0.2)	9.0	(0.3)	7.4	(0.2)
Austria	-0.9	(0.2)	-0.4	(0.2)	4.5	(0.1)	4.4	(0.1)	6.0	(0.5)	8.5	(0.4)	6.3	(0.5)
Belgium	c	c	0.2	(0.1)	5.5	(0.1)	4.7	(0.2)	5.7	(0.1)	c	c	5.8	(0.1)
Canada	-0.6	(0.3)	-0.4	(0.1)	5.5	(0.1)	5.3	(0.1)	6.4	(0.4)	7.8	(0.7)	7.0	(0.4)
Chile	0.2	(0.2)	0.4	(0.1)	3.5	(0.1)	3.2	(0.1)	3.4	(0.1)	4.4	(0.2)	3.7	(0.1)
Czech Republic	c	c	-0.8	(0.1)	3.1	(0.1)	3.1	(0.1)	3.1	(0.3)	c	c	3.2	(0.3)
Denmark	-0.3	(0.2)	-0.4	(0.1)	4.3	(0.1)	4.2	(0.1)	4.4	(0.2)	4.6	(0.7)	4.4	(0.2)
Estonia	c	c	-0.4	(0.3)	6.9	(0.1)	7.0	(0.1)	4.8	(0.3)	c	c	5.3	(0.3)
Finland	c	c	-0.3	(0.2)	2.8	(0.1)	2.8	(0.1)	3.4	(0.3)	c	c	3.4	(0.3)
France	c	c	0.0	(0.2)	5.1	(0.1)	4.8	(0.1)	6.1	(0.3)	c	c	6.1	(0.3)
Germany	c	c	0.0	(0.2)	4.7	(0.1)	4.6	(0.1)	5.5	(0.3)	c	c	5.0	(0.5)
Greece	c	c	c	c	5.3	(0.1)	5.1	(0.1)	c	c	c	c	c	c
Hungary	c	c	-0.5	(0.1)	6.2	(0.1)	6.0	(0.1)	7.4	(0.5)	c	c	7.4	(0.5)
Iceland	c	c	c	c	4.1	(0.1)	4.1	(0.1)	c	c	c	c	c	c
Ireland	w	w	w	w	w	w	w	w	w	w	w	w	w	w
Israel	c	c	c	c	4.6	(0.1)	4.6	(0.1)	c	c	c	c	c	c
Italy	-0.4	(0.2)	-0.3	(0.2)	8.7	(0.1)	8.9	(0.1)	3.6	(0.5)	9.8	(0.5)	7.4	(0.6)
Japan	-0.3	(0.1)	-0.3	(0.1)	3.8	(0.1)	3.8	(0.1)	c	c	3.9	(0.3)	3.9	(0.3)
Korea	-0.2	(0.3)	0.1	(0.1)	2.9	(0.1)	2.7	(0.2)	2.6	(0.1)	3.9	(0.4)	3.1	(0.2)
Luxembourg	c	c	-0.1	(0.0)	4.6	(0.1)	4.4	(0.1)	5.1	(0.2)	c	c	5.4	(0.2)
Mexico	-0.1	(0.1)	-0.1	(0.1)	5.2	(0.1)	5.2	(0.1)	c	c	5.6	(0.2)	5.6	(0.2)
Netherlands	c	c	0.6	(0.1)	5.8	(0.1)	5.7	(0.3)	6.0	(0.2)	c	c	6.0	(0.2)
New Zealand	-0.4	(0.3)	-0.4	(0.3)	4.2	(0.1)	4.1	(0.1)	c	c	7.2	(0.6)	7.2	(0.6)
Norway	c	c	c	c	4.7	(0.1)	4.7	(0.1)	c	c	c	c	c	c
Poland	-1.0	(0.1)	-1.1	(0.0)	6.6	(0.1)	6.6	(0.1)	6.7	(0.7)	7.4	(0.7)	6.9	(0.5)
Portugal	-1.1	(0.0)	-0.9	(0.1)	3.8	(0.1)	3.7	(0.1)	4.7	(0.4)	6.1	(0.6)	5.3	(0.5)
Slovak Republic	c	c	-0.4	(0.2)	3.2	(0.1)	3.2	(0.1)	3.9	(0.4)	c	c	3.9	(0.4)
Slovenia	c	c	-0.4	(0.0)	3.7	(0.1)	3.7	(0.1)	4.4	(0.4)	c	c	4.4	(0.4)
Spain	-0.8	(0.1)	-0.8	(0.0)	6.5	(0.1)	6.2	(0.1)	7.1	(0.2)	7.5	(0.5)	7.2	(0.1)
Sweden	c	c	-0.1	(0.2)	3.6	(0.1)	3.4	(0.1)	4.4	(0.2)	c	c	4.4	(0.2)
Switzerland	-0.1	(0.3)	-0.1	(0.3)	4.0	(0.1)	3.9	(0.1)	4.9	(1.0)	5.2	(0.7)	5.1	(0.6)
Turkey	c	c	c	c	4.2	(0.1)	4.3	(0.1)	c	c	c	c	c	c
United Kingdom	-1.0	(0.1)	-0.3	(0.1)	4.9	(0.1)	4.5	(0.1)	4.7	(0.3)	9.1	(0.6)	5.4	(0.3)
United States	-0.2	(0.2)	-0.2	(0.2)	6.1	(0.2)	6.0	(0.2)	c	c	8.2	(1.1)	8.2	(1.1)
OECD average	-0.5	(0.0)	-0.3	(0.0)	4.9	(0.0)	4.7	(0.0)	5.1	(0.1)	6.8	(0.1)	5.6	(0.1)
Partners														
Albania	-0.4	(0.3)	-0.4	(0.3)	5.1	(0.1)	5.1	(0.1)	c	c	4.9	(0.3)	4.9	(0.3)
Argentina	0.0	(0.3)	-0.2	(0.1)	3.7	(0.1)	3.4	(0.1)	4.3	(0.2)	4.1	(0.3)	4.3	(0.2)
Brazil	-0.5	(0.1)	-0.4	(0.2)	3.3	(0.1)	3.1	(0.1)	4.0	(0.2)	4.2	(0.2)	4.2	(0.2)
Bulgaria	c	c	c	c	5.6	(0.2)	5.6	(0.2)	c	c	c	c	c	c
Colombia	0.7	(0.7)	0.4	(0.5)	5.3	(0.1)	5.1	(0.1)	5.8	(0.5)	7.0	(0.9)	6.7	(0.6)
Costa Rica	-0.2	(0.2)	-0.3	(0.2)	3.5	(0.2)	3.3	(0.2)	4.6	(0.4)	4.8	(0.7)	4.8	(0.5)
Croatia	c	c	c	c	5.9	(0.1)	5.9	(0.1)	c	c	c	c	c	c
Hong Kong-China	c	c	-0.2	(0.1)	6.0	(0.2)	6.0	(1.0)	6.0	(0.2)	c	c	6.1	(0.2)
Indonesia	0.1	(0.2)	0.4	(0.1)	4.9	(0.2)	5.2	(0.2)	3.7	(0.2)	5.1	(0.3)	4.5	(0.2)
Jordan	0.4	(0.3)	0.5	(0.3)	4.2	(0.1)	4.1	(0.1)	c	c	4.8	(0.4)	4.9	(0.4)
Kazakhstan	0.5	(0.3)	0.6	(0.2)	8.8	(0.2)	8.9	(0.2)	c	c	6.5	(0.6)	6.9	(0.6)
Latvia	c	c	c	c	6.2	(0.1)	6.1	(0.2)	c	c	c	c	c	c
Liechtenstein	c	c	c	c	3.3	(0.2)	3.2	(0.2)	c	c	c	c	c	c
Lithuania	c	c	c	c	6.7	(0.1)	6.7	(0.1)	c	c	c	c	c	c
Macao-China	-0.3	(0.0)	0.0	(0.0)	5.9	(0.1)	c	c	5.7	(0.1)	7.8	(0.3)	6.0	(0.1)
Malaysia	0.8	(0.4)	0.8	(0.4)	4.8	(0.1)	4.8	(0.1)	c	c	5.6	(0.7)	5.6	(0.7)
Montenegro	c	c	c	c	4.3	(0.1)	4.3	(0.1)	c	c	c	c	c	c
Peru	-0.2	(0.2)	-0.2	(0.2)	5.5	(0.1)	5.4	(0.1)	c	c	5.2	(0.3)	5.2	(0.3)
Qatar	-0.7	(0.0)	-0.7	(0.0)	4.3	(0.0)	3.5	(0.1)	c	c	5.4	(0.1)	5.5	(0.1)
Romania	c	c	c	c	7.3	(0.2)	7.3	(0.2)	c	c	c	c	c	c
Russian Federation	c	c	c	c	9.7	(0.2)	9.7	(0.2)	c	c	c	c	c	c
Serbia	c	c	c	c	4.4	(0.1)	4.4	(0.1)	c	c	c	c	c	c
Shanghai-China	0.9	(0.4)	0.9	(0.4)	13.8	(0.3)	13.7	(0.3)	c	c	14.9	(0.9)	14.9	(0.9)
Singapore	c	c	c	c	9.4	(0.2)	9.4	(0.1)	c	c	c	c	c	c
Chinese Taipei	0.0	(0.2)	0.0	(0.2)	5.3	(0.1)	5.9	(0.2)	3.4	(0.3)	4.6	(0.3)	4.4	(0.3)
Thailand	0.8	(0.3)	0.7	(0.3)	5.6	(0.1)	5.8	(0.2)	4.3	(0.2)	4.2	(0.8)	4.3	(0.3)
Tunisia	c	c	c	c	3.5	(0.1)	3.6	(0.1)	c	c	c	c	c	c
United Arab Emirates	-0.3	(0.1)	-0.3	(0.1)	6.2	(0.1)	4.9	(0.1)	c	c	7.1	(0.2)	7.0	(0.2)
Uruguay	-0.3	(0.2)	-0.3	(0.2)	4.7	(0.1)	4.5	(0.1)	c	c	5.4	(0.2)	5.4	(0.2)
Viet Nam	-0.7	(0.2)	-0.7	(0.2)	5.8	(0.2)	5.9	(0.2)	c	c	5.6	(0.7)	5.6	(0.7)

1. PISA 2012 asked the extent to which they think instruction in their school is hindered by a lack of qualified teachers and staff in key areas. This information was combined to create a composite *index of teacher shortage*, such that the index has an average of 0 and a standard deviation of 1 for OECD countries. Higher values on the index indicate principals' perception that there are more problems with instruction because of teacher shortage.

Source: OECD, PISA 2012 Database. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C7.5. [1/2] **School responsibility for resource allocation, curriculum and assessment, by type of school and education level (2012)**

Results based on school principals' reports

		Index of school responsibility for resource allocation									
		All schools		Public schools		Government-dependent schools		Independent private schools		Private schools	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
OECD	Australia	0.06	(0.03)	-0.43	(0.02)	0.44	(0.08)	1.46	(0.14)	0.77	(0.06)
	Austria	-0.56	(0.03)	-0.57	(0.03)	-0.42	(0.04)	-0.32	(0.52)	-0.41	(0.06)
	Belgium	-0.29	(0.01)	-0.38	(0.03)	-0.23	(0.01)	c	c	-0.23	(0.01)
	Canada	-0.35	(0.03)	-0.48	(0.01)	0.83	(0.26)	1.46	(0.32)	1.11	(0.22)
	Chile	0.57	(0.07)	-0.65	(0.02)	1.21	(0.14)	1.62	(0.19)	1.31	(0.11)
	Czech Republic	1.22	(0.10)	1.47	(0.10)	1.87	(0.30)	c	c	2.01	(0.27)
	Denmark	0.18	(0.06)	-0.04	(0.04)	1.18	(0.23)	0.73	(0.40)	1.10	(0.22)
	Estonia	0.14	(0.04)	0.12	(0.05)	0.44	(0.52)	c	c	0.83	(0.47)
	Finland	-0.28	(0.02)	-0.34	(0.02)	1.68	(0.39)	c	c	1.68	(0.39)
	France	-0.54	(0.01)	-0.62	(0.01)	-0.26	(0.08)	c	c	-0.26	(0.08)
	Germany	-0.58	(0.01)	-0.62	(0.01)	-0.49	(0.06)	c	c	-0.49	(0.05)
	Greece	-0.70	(0.01)	-0.72	(0.01)	c	c	c	c	c	c
	Hungary	0.46	(0.10)	0.26	(0.08)	1.57	(0.27)	c	c	1.57	(0.27)
	Iceland	-0.04	(0.00)	-0.05	(0.00)	c	c	c	c	c	c
	Ireland	w	w	w	w	w	w	w	w	w	w
	Israel	-0.24	(0.04)	-0.24	(0.04)	c	c	c	c	c	c
	Italy	-0.59	(0.02)	-0.70	(0.01)	1.03	(0.39)	1.08	(0.28)	1.06	(0.22)
	Japan	-0.27	(0.04)	-0.64	(0.03)	c	c	0.61	(0.11)	0.61	(0.11)
	Korea	-0.44	(0.05)	-0.68	(0.01)	-0.18	(0.11)	-0.14	(0.20)	-0.17	(0.09)
	Luxembourg	-0.20	(0.00)	-0.51	(0.00)	1.49	(0.00)	c	c	1.54	(0.00)
	Mexico	-0.31	(0.02)	-0.55	(0.01)	c	c	1.40	(0.15)	1.39	(0.15)
	Netherlands	1.26	(0.10)	1.16	(0.15)	1.65	(0.12)	c	c	1.65	(0.12)
	New Zealand	0.11	(0.05)	0.10	(0.05)	c	c	1.56	(0.42)	1.56	(0.42)
	Norway	-0.18	(0.03)	-0.21	(0.03)	c	c	c	c	c	c
	Poland	-0.34	(0.02)	-0.39	(0.02)	1.29	(0.47)	1.87	(0.57)	1.50	(0.36)
	Portugal	-0.48	(0.03)	-0.58	(0.02)	0.07	(0.31)	0.85	(0.39)	0.40	(0.25)
	Slovak Republic	0.78	(0.09)	0.77	(0.09)	0.80	(0.30)	c	c	0.90	(0.28)
	Slovenia	-0.11	(0.02)	-0.13	(0.02)	1.03	(0.08)	c	c	1.03	(0.08)
	Spain	-0.42	(0.03)	-0.69	(0.01)	0.10	(0.12)	0.28	(0.19)	0.14	(0.10)
	Sweden	0.63	(0.07)	0.40	(0.08)	2.06	(0.17)	c	c	2.06	(0.17)
	Switzerland	-0.13	(0.04)	-0.22	(0.04)	0.40	(0.21)	1.59	(0.29)	1.31	(0.24)
	Turkey	-0.72	(0.01)	-0.73	(0.01)	c	c	c	c	c	c
	United Kingdom	1.10	(0.08)	0.80	(0.09)	1.64	(0.14)	2.18	(0.21)	1.73	(0.11)
	United States	0.08	(0.06)	0.01	(0.06)	c	c	1.26	(0.35)	1.26	(0.35)
	OECD average	-0.05	(0.01)	-0.20	(0.01)	0.75	(0.05)	1.09	(0.08)	0.92	(0.04)
Partners	Albania	-0.60	(0.04)	-0.70	(0.01)	c	c	0.37	(0.48)	0.37	(0.48)
	Argentina	m	m	c	c	c	c	c	c	c	c
	Brazil	-0.32	(0.04)	-0.73	(0.01)	0.01	(0.45)	1.82	(0.15)	1.74	(0.16)
	Bulgaria	0.86	(0.10)	0.83	(0.09)	c	c	c	c	c	c
	Colombia	-0.36	(0.04)	-0.68	(0.01)	1.30	(0.33)	1.43	(0.40)	1.39	(0.30)
	Costa Rica	-0.36	(0.04)	-0.66	(0.01)	0.15	(0.39)	1.62	(0.33)	1.21	(0.27)
	Croatia	-0.34	(0.03)	-0.36	(0.02)	c	c	c	c	c	c
	Hong Kong-China	0.42	(0.09)	-0.48	(0.04)	0.45	(0.10)	c	c	0.48	(0.10)
	Indonesia	0.33	(0.09)	-0.31	(0.10)	1.30	(0.18)	1.24	(0.21)	1.27	(0.14)
	Jordan	-0.51	(0.03)	-0.67	(0.02)	c	c	0.32	(0.14)	0.26	(0.14)
	Kazakhstan	-0.33	(0.04)	-0.38	(0.04)	c	c	0.91	(0.44)	1.34	(0.45)
	Latvia	0.60	(0.08)	0.56	(0.08)	c	c	c	c	c	c
	Liechtenstein	-0.08	(0.02)	-0.27	(0.01)	c	c	c	c	c	c
	Lithuania	0.78	(0.08)	0.76	(0.08)	c	c	c	c	c	c
	Macao-China	1.64	(0.00)	c	c	1.73	(0.00)	1.74	(0.00)	1.73	(0.00)
	Malaysia	-0.49	(0.03)	-0.58	(0.01)	c	c	2.09	(0.45)	2.09	(0.45)
	Montenegro	-0.33	(0.00)	-0.34	(0.00)	c	c	c	c	c	c
	Peru	0.18	(0.07)	-0.51	(0.05)	c	c	2.32	(0.18)	2.32	(0.18)
	Qatar	-0.37	(0.00)	-0.39	(0.00)	c	c	-0.33	(0.00)	-0.33	(0.00)
	Romania	-0.57	(0.02)	-0.57	(0.02)	c	c	c	c	c	c
	Russian Federation	0.03	(0.07)	0.01	(0.06)	c	c	c	c	c	c
	Serbia	-0.39	(0.02)	-0.41	(0.02)	c	c	c	c	c	c
	Shanghai-China	-0.28	(0.05)	-0.38	(0.04)	c	c	0.67	(0.30)	0.67	(0.30)
	Singapore	-0.36	(0.01)	-0.40	(0.00)	c	c	c	c	c	c
	Chinese Taipei	0.07	(0.06)	-0.41	(0.03)	0.52	(0.28)	1.00	(0.19)	0.93	(0.17)
	Thailand	0.70	(0.08)	0.46	(0.08)	1.79	(0.22)	2.29	(0.31)	1.94	(0.20)
	Tunisia	-0.20	(0.06)	-0.20	(0.06)	c	c	c	c	c	c
	United Arab Emirates	0.39	(0.05)	-0.56	(0.03)	c	c	1.10	(0.10)	1.09	(0.10)
	Uruguay	-0.46	(0.04)	-0.73	(0.01)	c	c	0.89	(0.20)	0.89	(0.20)
	Viet Nam	-0.43	(0.06)	-0.54	(0.04)	c	c	1.03	(0.58)	1.03	(0.58)

Note: PISA 2012 asked school principals to report whether the teachers, the principal, the school's governing board, the regional or local education authorities or the national education authority had considerable responsibility for allocating resources to schools and responsibility for the curriculum and instructional assessment within the school. This information was combined to create two composite indices: an *index of school responsibility for resource allocation,* and an *index of school responsibility for curriculum and assessment,* such that both indices have an average of zero and a standard deviation of one for OECD countries. Higher values indicate more autonomy for school principals and teachers

Source: OECD, PISA 2012 Database. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C7.5. [2/2] School responsibility for resource allocation, curriculum and assessment, by type of school and education level (2012)

Results based on school principals' reports

		Index of school responsibility for curriculum and assessment									
		All schools		Public schools		Government-dependent schools		Independent private schools		Private schools	
		Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.	Mean index	S.E.
		(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
OECD	Australia	0.13	(0.04)	-0.06	(0.04)	0.35	(0.07)	0.50	(0.10)	0.40	(0.06)
	Austria	-0.30	(0.06)	-0.29	(0.07)	-0.32	(0.17)	-0.47	(0.37)	-0.34	(0.16)
	Belgium	-0.11	(0.05)	-0.19	(0.09)	-0.04	(0.06)	c	c	-0.05	(0.06)
	Canada	-0.49	(0.03)	-0.56	(0.03)	0.11	(0.18)	0.43	(0.24)	0.25	(0.14)
	Chile	0.12	(0.07)	-0.35	(0.11)	0.34	(0.12)	0.54	(0.17)	0.39	(0.10)
	Czech Republic	0.75	(0.06)	1.03	(0.06)	1.01	(0.18)	c	c	1.05	(0.15)
	Denmark	-0.05	(0.06)	-0.11	(0.07)	0.44	(0.17)	0.40	(0.32)	0.43	(0.14)
	Estonia	0.49	(0.05)	0.50	(0.05)	0.12	(0.32)	c	c	-0.08	(0.24)
	Finland	-0.05	(0.07)	-0.06	(0.07)	0.72	(0.17)	c	c	0.72	(0.17)
	France	-0.10	(0.06)	-0.19	(0.06)	0.48	(0.21)	c	c	0.48	(0.21)
	Germany	-0.19	(0.05)	-0.14	(0.05)	0.32	(0.31)	c	c	0.26	(0.29)
	Greece	-1.15	(0.02)	-1.17	(0.01)	c	c	c	c	c	c
	Hungary	0.02	(0.07)	-0.07	(0.07)	0.53	(0.19)	c	c	0.53	(0.19)
	Iceland	0.15	(0.00)	0.16	(0.00)	c	c	c	c	c	c
	Ireland	w	w	w	w	w	w	w	w	w	w
	Israel	0.00	(0.06)	0.01	(0.06)	c	c	c	c	c	c
	Italy	0.36	(0.04)	0.41	(0.04)	0.68	(0.19)	0.47	(0.20)	0.55	(0.15)
	Japan	1.15	(0.05)	1.04	(0.07)	c	c	1.43	(0.01)	1.43	(0.01)
	Korea	0.71	(0.08)	0.72	(0.11)	0.80	(0.14)	0.47	(0.23)	0.69	(0.11)
	Luxembourg	-0.84	(0.00)	-0.89	(0.00)	-0.80	(0.00)	c	c	-0.54	(0.01)
	Mexico	-0.87	(0.02)	-0.94	(0.01)	c	c	-0.31	(0.11)	-0.30	(0.11)
	Netherlands	0.96	(0.08)	1.30	(0.07)	1.18	(0.07)	c	c	1.18	(0.07)
	New Zealand	0.47	(0.07)	0.66	(0.07)	c	c	0.26	(0.31)	0.26	(0.31)
	Norway	-0.55	(0.05)	-0.55	(0.05)	c	c	c	c	c	c
	Poland	0.37	(0.07)	0.36	(0.07)	0.91	(0.30)	0.68	(0.40)	0.83	(0.25)
	Portugal	-0.68	(0.03)	-0.72	(0.03)	-0.44	(0.27)	-0.04	(0.29)	-0.27	(0.21)
	Slovak Republic	0.48	(0.08)	0.53	(0.08)	-0.11	(0.24)	c	c	-0.03	(0.20)
	Slovenia	-0.35	(0.01)	-0.31	(0.01)	-0.79	(0.00)	c	c	-0.79	(0.00)
	Spain	-0.47	(0.04)	-0.66	(0.04)	-0.03	(0.12)	-0.17	(0.18)	-0.06	(0.09)
	Sweden	-0.25	(0.06)	-0.27	(0.06)	-0.09	(0.10)	c	c	-0.09	(0.10)
	Switzerland	-0.60	(0.04)	-0.67	(0.04)	-0.38	(0.16)	0.75	(0.27)	0.48	(0.25)
	Turkey	-1.12	(0.02)	-1.14	(0.02)	c	c	c	c	c	c
	United Kingdom	0.93	(0.05)	0.93	(0.06)	1.21	(0.07)	1.44	(0.00)	1.25	(0.06)
	United States	-0.39	(0.08)	-0.49	(0.07)	c	c	0.87	(0.27)	0.87	(0.27)
	OECD average	-0.04	(0.01)	-0.06	(0.01)	0.25	(0.04)	0.45	(0.06)	0.33	(0.03)
Partners	Albania	-0.27	(0.07)	-0.30	(0.07)	c	c	0.13	(0.36)	0.13	(0.36)
	Argentina	-0.51	(0.06)	-0.57	(0.05)	-0.47	(0.10)	0.03	(0.40)	-0.37	(0.14)
	Brazil	-0.42	(0.03)	-0.59	(0.03)	0.23	(0.76)	0.41	(0.14)	0.39	(0.14)
	Bulgaria	-0.84	(0.03)	-0.84	(0.03)	c	c	c	c	c	c
	Colombia	-0.08	(0.07)	-0.20	(0.07)	0.21	(0.21)	0.77	(0.17)	0.61	(0.14)
	Costa Rica	-0.65	(0.05)	-0.88	(0.04)	0.10	(0.46)	0.75	(0.20)	0.57	(0.20)
	Croatia	-0.86	(0.03)	-0.85	(0.03)	c	c	c	c	c	c
	Hong Kong-China	0.96	(0.07)	0.98	(0.32)	0.99	(0.07)	c	c	0.99	(0.07)
	Indonesia	0.65	(0.08)	0.49	(0.11)	0.85	(0.14)	0.87	(0.18)	0.86	(0.12)
	Jordan	-1.04	(0.04)	-1.12	(0.04)	c	c	-0.58	(0.13)	-0.61	(0.13)
	Kazakhstan	-0.76	(0.05)	-0.77	(0.05)	c	c	-0.73	(0.16)	-0.21	(0.34)
	Latvia	-0.19	(0.06)	-0.21	(0.06)	c	c	c	c	c	c
	Liechtenstein	-0.33	(0.02)	-0.45	(0.02)	c	c	c	c	c	c
	Lithuania	0.66	(0.05)	0.65	(0.05)	c	c	c	c	c	c
	Macao-China	0.78	(0.00)	c	c	0.86	(0.00)	0.52	(0.00)	0.81	(0.00)
	Malaysia	-0.88	(0.04)	-0.95	(0.04)	c	c	1.07	(0.30)	1.07	(0.30)
	Montenegro	-0.83	(0.00)	-0.84	(0.00)	c	c	c	c	c	c
	Peru	-0.09	(0.05)	-0.41	(0.07)	c	c	0.99	(0.13)	0.99	(0.13)
	Qatar	-0.90	(0.00)	-0.94	(0.00)	c	c	-0.84	(0.00)	-0.84	(0.00)
	Romania	-0.52	(0.05)	-0.52	(0.05)	c	c	c	c	c	c
	Russian Federation	-0.22	(0.05)	-0.22	(0.05)	c	c	c	c	c	c
	Serbia	-0.86	(0.02)	-0.87	(0.02)	c	c	c	c	c	c
	Shanghai-China	-0.56	(0.05)	-0.55	(0.05)	c	c	-0.57	(0.23)	-0.57	(0.23)
	Singapore	-0.25	(0.01)	-0.24	(0.00)	c	c	c	c	c	c
	Chinese Taipei	0.21	(0.07)	0.15	(0.09)	0.12	(0.30)	0.38	(0.12)	0.34	(0.12)
	Thailand	0.98	(0.05)	0.95	(0.06)	1.02	(0.16)	1.44	(0.00)	1.15	(0.11)
	Tunisia	-0.58	(0.08)	-0.58	(0.08)	c	c	c	c	c	c
	United Arab Emirates	-0.44	(0.04)	-1.07	(0.04)	c	c	0.01	(0.07)	0.03	(0.07)
	Uruguay	-0.83	(0.04)	-1.02	(0.02)	c	c	0.11	(0.21)	0.11	(0.21)
	Viet Nam	-0.98	(0.03)	-1.05	(0.03)	c	c	-0.48	(0.38)	-0.48	(0.38)

Note: PISA 2012 asked school principals to report whether the teachers, the principal, the school's governing board, the regional or local education authorities or the national education authority had considerable responsibility for allocating resources to schools and responsibility for the curriculum and instructional assessment within the school. This information was combined to create two composite indices: an *index of school responsibility for resource allocation*, and an *index of school responsibility for curriculum and assessment*, such that both indices have an average of zero and a standard deviation of one for OECD countries. Higher values indicate more autonomy for school principals and teachers

Source: OECD, PISA 2012 Database. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table C7.6. Students in tertiary education, by type of institution (2003, 2012)

Distribution of students, by type of institution and programme destination

		2012									2003								
		Tertiary education			Tertiary-type B education			Tertiary-type A and advanced research programmes			Tertiary education			Tertiary-type B education			Tertiary-type A and advanced research programmes		
		Public	Government-dependent private	Independent private	Public	Government-dependent private	Independent private	Public	Government-dependent private	Independent private	Public	Government-dependent private	Independent private	Public	Government-dependent private	Independent private	Public	Government-dependent private	Independent private
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
OECD	Australia[1]	**91**	4	5	**72**	20	8	**95**	a	5	**100**	n	n	**98**	2	n	**100**	n	nn
	Austria	**83**	17	x(2)	**74**	26	x(5)	**84**	16	x(8)	**88**	12	n	**65**	35	n	**91**	9	n
	Belgium[1]	**43**	57	m	**42**	58	m	**44**	56	m	**44**	56	m	**47**	53	m	**42**	58	m
	Canada	**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m
	Chile	**16**	12	72	**4**	2	94	**25**	20	55	**26**	18	56	**m**	m	m	**m**	m	m
	Czech Republic	**86**	2	12	**73**	27	n	**87**	a	13	**93**	3	4	**68**	31	1	**96**	n	4
	Denmark	**98**	2	n	**97**	3	1	**98**	2	n	**99**	1	a	**100**	n	a	**99**	1	a
	Estonia	**17**	72	11	**56**	20	24	**n**	94	5	**m**	m	m	**m**	m	m	**m**	m	m
	Finland	**74**	26	a	**100**	n	a	**74**	26	a	**89**	11	a	**83**	17	a	**89**	11	a
	France	**80**	3	17	**69**	10	21	**83**	1	16	**84**	3	13	**72**	9	19	**88**	1	12
	Germany[2]	**87**	13	x(2)	**54**	46	x(5)	**94**	6	x(8)	**95**	5	x(11)	**65**	35	x(14)	**100**	a	a
	Greece	**100**	a	a	**100**	a	a	**100**	a	a	**100**	a	a	**100**	a	a	**100**	a	a
	Hungary	**83**	17	a	**49**	51	a	**87**	13	a	**85**	15	a	**65**	35	a	**86**	14	a
	Iceland	**82**	18	n	**24**	76	n	**83**	17	n	**86**	14	n	**59**	41	n	**88**	12	n
	Ireland	**98**	a	2	**100**	a	n	**97**	a	3	**94**	a	6	**94**	a	6	**94**	a	6
	Israel	**14**	74	12	**30**	70	a	**10**	75	15	**1**	76	9	**33**	67	x(14)	**11**	78	11
	Italy	**91**	a	9	**88**	a	12	**91**	a	9	**93**	a	7	**84**	a	16	**94**	a	6
	Japan	**21**	a	79	**8**	a	92	**25**	a	75	**23**	a	77	**9**	a	91	**27**	a	73
	Korea	**19**	a	81	**2**	a	98	**25**	a	75	**19**	a	81	**15**	a	85	**23**	a	77
	Luxembourg	**m**	m	m	**29**	71	n	**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m
	Mexico	**68**	a	32	**96**	a	4	**67**	a	33	**67**	a	33	**96**	a	4	**66**	a	34
	Netherlands	**87**	a	13	**10**	a	90	**88**	a	12	**m**	a	m	**m**	a	m	**m**	a	m
	New Zealand	**87**	12	1	**57**	40	3	**96**	4	n	**91**	9	n	**70**	28	2	**98**	2	n
	Norway	**85**	5	10	**42**	32	26	**85**	5	10	**85**	15	x(11)	**78**	22	x(14)	**85**	15	x(17)
	Poland	**70**	a	30	**88**	a	12	**70**	a	30	**72**	n	28	**82**	n	17	**72**	a	28
	Portugal	**80**	a	20	**100**	a	n	**80**	a	20	**72**	a	28	**43**	a	57	**73**	a	27
	Slovak Republic	**82**	n	18	**75**	25	n	**82**	n	18	**99**	n	n	**90**	10	n	**100**	n	n
	Slovenia	**86**	6	7	**79**	5	17	**88**	6	6	**m**	m	m	**m**	m	m	**m**	m	m
	Spain	**85**	2	13	**79**	14	7	**86**	n	14	**86**	2	11	**76**	16	7	**88**	n	12
	Sweden	**91**	9	n	**54**	46	n	**94**	6	n	**93**	6	1	**66**	1	33	**94**	6	a
	Switzerland	**82**	9	9	**31**	32	37	**95**	3	2	**78**	13	8	**33**	38	29	**90**	7	3
	Turkey	**95**	a	5	**97**	a	3	**94**	a	6	**97**	a	3	**99**	a	1	**96**	a	4
	United Kingdom	**a**	100	n	**a**	100	n	**a**	100	n	**a**	100	n	**a**	100	n	**a**	100	n
	United States	**72**	a	28	**78**	a	22	**70**	a	30	**77**	a	23	**89**	a	11	**73**	a	27
	OECD average	**70**	14	15	**59**	23	17	**72**	14	14	**74**	12	13	**67**	19	14	**77**	11	12
	EU21 average	**73**	20	7	**67**	24	9	**76**	16	7	**83**	12	5	**72**	19	9	**84**	11	5
	OECD average for countries with 2003 and 2012 data	**71**	13	16	**63**	24	12	**75**	12	13	**74**	12	13	**67**	19	14	**77**	11	12
Partners	Argentina[3]	**74**	5	20	**64**	17	20	**79**	a	21	**78**	8	13	**m**	m	m	**m**	m	m
	Brazil	**29**	a	71	**15**	a	85	**31**	a	69	**32**	a	68	**m**	m	m	**m**	m	m
	China	**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m
	Colombia	**53**	a	47	**m**	a	m	**m**	a	m	**m**	m	m	**m**	m	m	**m**	m	m
	India	**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m
	Indonesia	**34**	a	66	**43**	a	57	**32**	a	68	**39**	a	61	**m**	m	m	**m**	m	m
	Latvia	**7**	64	29	**42**	17	41	**a**	74	26	**m**	m	m	**m**	m	m	**m**	m	m
	Russian Federation[2]	**86**	a	14	**95**	a	5	**84**	a	16	**91**	a	9	**m**	m	m	**m**	m	m
	Saudi Arabia	**95**	5	a	**100**	n	n	**95**	5	a	**m**	m	m	**m**	m	m	**m**	m	m
	South Africa	**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m
	G20 average	**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m	**m**	m	m

1. Excluding independent private institutions.
2. Excludes advanced research programmes.
3. Year of reference 2011 instead of 2012.

Source: OECD. Argentina, Colombia, Indonesia, Saudi Arabia: UNESCO Institute for Statistics (World Education Indicators Programme).
See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Chapter

D

The Learning Environment and Organisation of Schools

Indicator D1 How much time do students spend in the classroom?
StatLink http://dx.doi.org/10.1787/888933119530

Indicator D2 What is the student-teacher ratio and how big are classes?
StatLink http://dx.doi.org/10.1787/888933119682

Indicator D3 How much are teachers paid?
StatLink http://dx.doi.org/10.1787/888933119815

Indicator D4 How much time do teachers spend teaching?
StatLink http://dx.doi.org/10.1787/888933120005

Indicator D5 Who are the teachers?
StatLink http://dx.doi.org/10.1787/888933120138

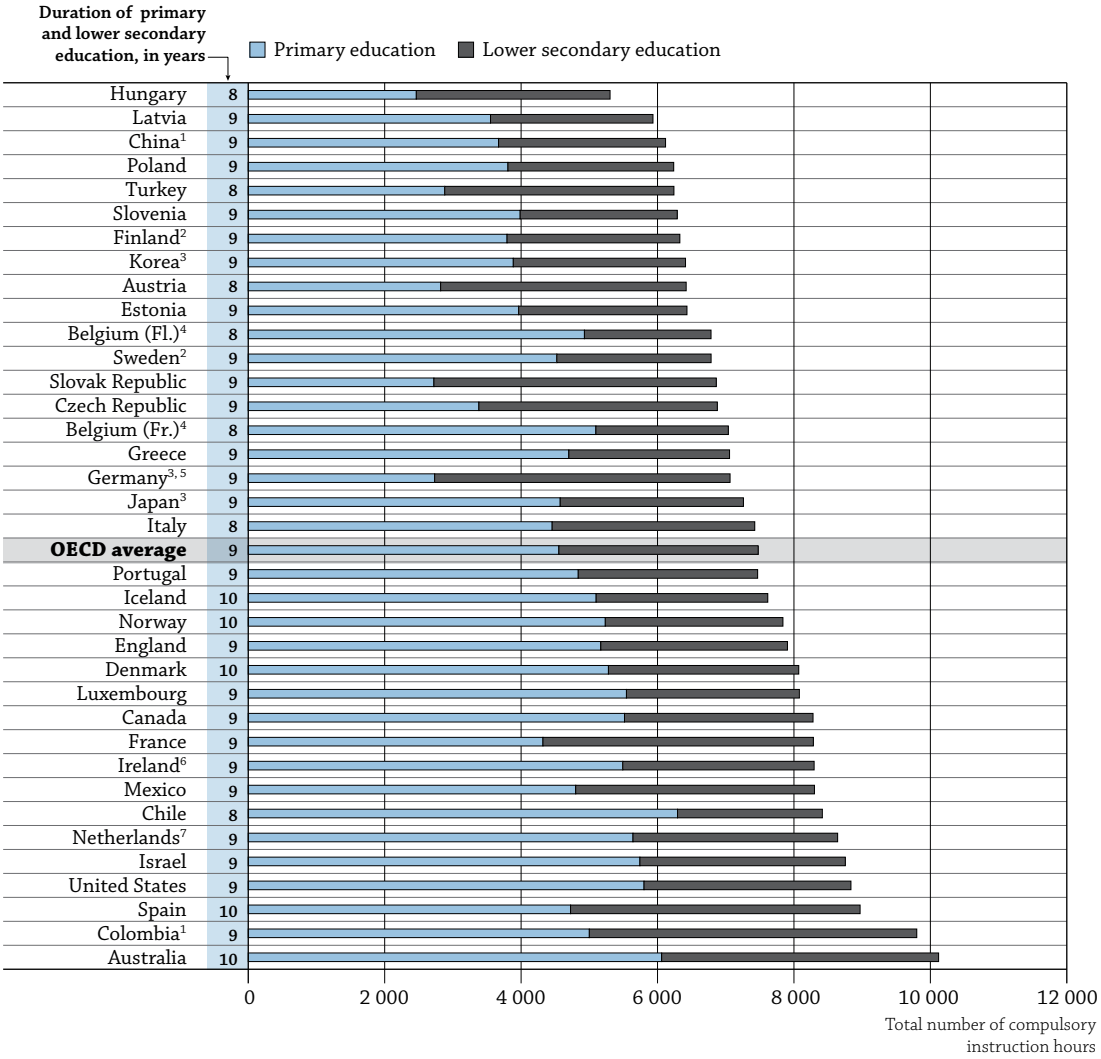
Indicator D6 What does it take to become a teacher?
StatLink http://dx.doi.org/10.1787/888933120252

Indicator D7 How extensive are professional development activities for teachers?
StatLink http://dx.doi.org/10.1787/888933120461

HOW MUCH TIME DO STUDENTS SPEND IN THE CLASSROOM?

- Students in OECD countries receive an average of 7 475 hours of compulsory instruction during their primary and lower secondary education.
- On average across OECD countries, instruction in reading, writing and literature, mathematics, and the arts represents 45% of compulsory instruction time for primary school students; instruction in reading, writing and literature, first and other foreign languages, and mathematics represents 39% of compulsory instruction time for lower secondary school students.

Chart D1.1. Compulsory instruction time in general education (2014)



1. Year of reference 2012.
2. Estimated number of hours by level of education as the allocation of instruction time across multiple grades is flexible.
3. Year of reference 2013.
4. It is compulsory for students to attend full-time education up to the age of 15 or 16. However, those in general education must continue until they are 18.
5. Excludes the last year of compulsory education, which can be classified either at the lower secondary level or at the upper secondary level.
6. Actual instruction time for lower secondary education.
7. The number of grades in lower secondary education is 3 or 4 years depending on the track.

Countries are ranked in ascending order of the total number of compulsory instruction hours.

Source: OECD. Table D1.1. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933119625

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Context

Providing instruction in formal classroom settings accounts for a large portion of public investment in education. Countries make various choices concerning the overall amount of time devoted to instruction and which subjects are compulsory. These choices reflect national and/or regional priorities and preferences concerning what material students should be taught and at what age. Countries usually have statutory or regulatory requirements regarding hours of instruction. These are most often stipulated as the minimum number of hours of instruction a school must offer, and are based on the understanding that sufficient instruction time is required for good learning outcomes. Matching resources with students' needs and making optimal use of time are central to education policy. Teachers' salaries, institutional maintenance and provision of other educational resources constitute the main costs of education. The length of time during which these resources are made available to students (as partly shown in this indicator) is an important factor in determining how funds for education are allocated (see Indicator B7, which shows the factors influencing the salary cost of teachers per student).

Other findings

- In OECD countries, **compulsory instruction time for primary students averages 794 hours per year**; lower secondary students receive an average of 111 more hours of compulsory education per year than primary students do.
- **The proportion of the compulsory curriculum for primary students that is devoted to reading, writing and literature ranges from 18% in Poland to 37% in France; for lower secondary students, it ranges from 12% in the Czech Republic, Finland, Ireland and Japan to 33% in Italy.**
- **In OECD countries, an average of 14% (for primary students) and 6% (for lower secondary students) of compulsory instruction time is devoted to compulsory subjects with a flexible timetable.** An average of 4% of compulsory instruction time for both groups of students is devoted to compulsory flexible subjects chosen by schools.
- **In about one-third of countries with available data, the allocation of instruction time across grades is flexible,** i.e. instruction time for a specific subject is defined for a certain number of grades, or even the whole of compulsory education, without specifying the time to be allocated to each grade.

Analysis

Compulsory general education

Annual instruction time should be examined together with the length of compulsory education. In some countries, the duration of compulsory education is shorter and students bear a heavier workload and, in other countries, the workload is distributed evenly over a greater number of years.

In about three-quarters of countries with available data, students start primary education at the age of 6. However, in Estonia, Finland, Latvia, Poland and Sweden students do not start until age 7. Only in Australia, England and Scotland does primary education start at age 5. There is also substantial variation in the duration of primary education. On average, primary education lasts six years, but ranges from four years in Austria, Germany, Hungary, the Slovak Republic and Turkey, to seven years in Denmark, Iceland, Norway and Scotland. Lower secondary education averages three years but ranges from two years in Belgium (Flemish and French Communities), and Chile to five years in the Slovak Republic. In slightly more than half of countries with available data, at least one year of upper secondary education is part of compulsory full-time education (Table D1.2).

Countries also allocate annual instruction time differently over the year. On average across OECD countries, primary and lower secondary students attend 185 and 183 instruction days per year, respectively. However, students in China (primary and lower secondary), France (primary), Greece (lower secondary), Iceland (primary and lower secondary), Ireland (lower secondary), Latvia (primary) and Luxembourg (lower secondary) attend 170 instruction days, or fewer, per year. In contrast, primary and lower secondary school students in Brazil, Colombia, Israel, Italy, Japan and Mexico attend at least 200 instruction days per year (Table D1.2).

Compulsory instruction time

Compulsory instruction time refers to the amount and allocation of instruction time that has to be provided in almost every public school and must be attended by almost all public sector students, as per public regulations.

Students in OECD countries attend an average of 4 553 hours of instruction during primary school and an average of 2 922 hours during lower secondary education. While the average total compulsory instruction time for primary and lower secondary students in OECD countries is 7 475 hours, formal instruction-time requirements range from 5 304 hours in Hungary to 10 120 hours in Australia (Table D1.1).

Compulsory instruction time can differ from actual instruction time, as it only captures the time spent by students in formal classroom settings. This is only a part of the total time students spend receiving instruction. Instruction also occurs outside the classroom and/or school. In some countries, secondary school students are encouraged to take after-school classes in subjects already taught in school to help them improve their performance. Students can participate in after-school lessons in the form of remedial "catch-up" classes or enrichment courses, with individual tutors or in group lessons provided by school teachers, or in other independent courses. These lessons can be financed through public funds or by students and their families (see Box D1.1 in OECD, 2011).

Intended instruction time

Total intended instruction time is the number of hours during which schools are obliged to offer instruction in compulsory, and if applicable, non-compulsory subjects.

Intended instruction time is fully compulsory, i.e. intended and compulsory instruction time are of the same length, in primary and lower secondary education in about three-quarters of countries with available data. However, in Finland, Greece, Poland, Portugal and Slovenia, the total intended instruction time in primary and lower secondary education is at least 5% longer than the compulsory instruction time.

Instruction time per subject

Primary students spend an average of 45% of the compulsory curriculum on three subjects: reading, writing and literature (22%), mathematics (15%) and the arts (9%). Together with physical education and health (8%), natural sciences (7%) and social studies (6%), these six study areas form the major part of the curriculum in all OECD countries where instruction time per subject is specified. Foreign languages, religion/ethics/moral education, information and communication technologies (ICT), technology, practical and vocational skills, and other subjects make up the remainder (16%) of the non-flexible compulsory curriculum at the primary level (Table D1.3a and Chart D1.2a).

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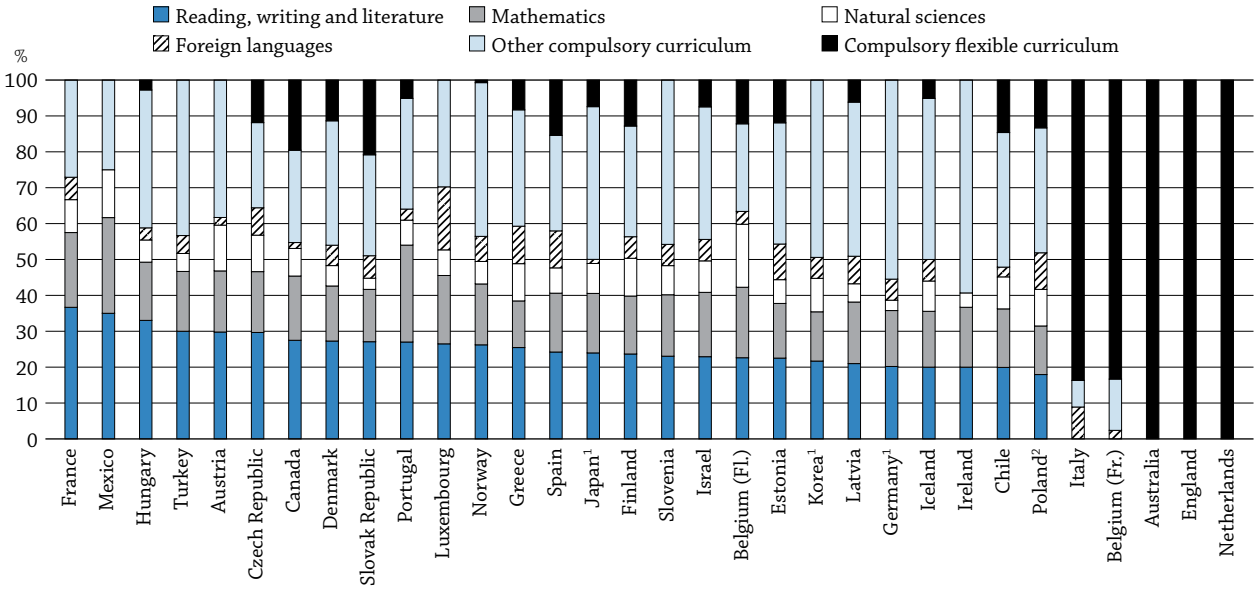
Chart D1.2a. Instruction time per subject in primary education (2014)

As a percentage of total compulsory instruction time



1. Year of reference 2013.
2. Excludes the first three years of primary education where a large proportion of the time allocated to compulsory subjects is flexible.
Countries are ranked in descending order of the proportion of instruction hours devoted to reading, writing and literature.
Source: OECD. Table D1.3a. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933119644

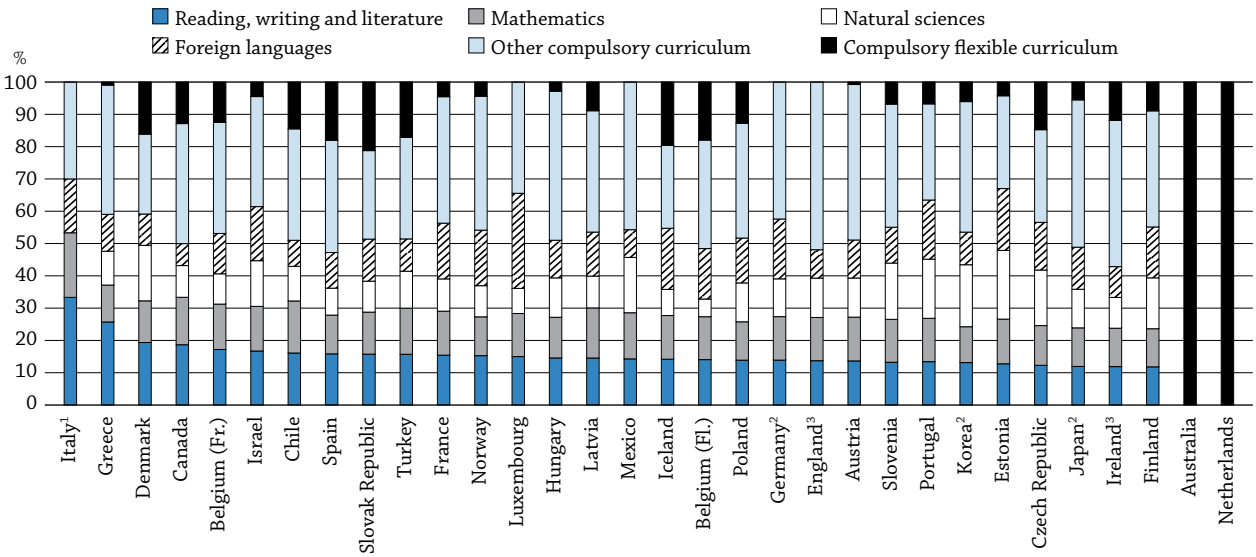
On average, the largest portion of the primary school curriculum is devoted to reading, writing and literature, but the size of that portion differs widely. For example, in Chile, Germany, Iceland, Ireland, and Poland, reading, writing and literature accounts for 20% or less of compulsory instruction time while in France and Mexico, it accounts for 35% or more of compulsory instruction time. The variations between countries in the time spent learning mathematics and arts are also very large. In Greece, Korea and Poland mathematics accounts for 14% or less of instruction time; In Mexico and Portugal, it accounts for 27% of instruction time. In Israel and Mexico, arts education accounts for 5% of instruction time, while in Estonia, Germany, Iceland, Norway and Slovenia, it accounts for 15% or more of compulsory instruction time. In Finland, arts education accounts for at least 13% of compulsory instruction time but schools must also allocate additional flexible time to arts, music or crafts.

At the lower secondary level, an average of 39% of the compulsory curriculum is composed of three subjects: reading, writing and literature (14%), first and other foreign languages (13%) and mathematics (12%). On average, an additional 11% of the compulsory curriculum is devoted to natural sciences and 10% to social studies. Together with physical education and health (7%) and the arts (7%), these seven study areas form the major part of the curriculum for this age group in all OECD and partner countries where instruction time per subject is specified. Religion/ethics/moral education, ICT, technology, practical and vocational skills, and other subjects make up the remainder (12%) of the non-flexible compulsory curriculum for students at this level of education (Table D1.3b and Chart D1.2b).

There is a significant shift in the allocation of time from primary to lower secondary schooling. Instruction in reading, writing and literature drops from 22% of the compulsory curriculum to 14%. Instruction in mathematics drops from 15% to 12% of compulsory instruction time. Conversely, instruction in both natural science and social studies climbs from 7% and 6% of the compulsory curriculum to 11% and 10% respectively, while instruction in foreign languages (first and others) climbs from 5% to 13%. Instruction in foreign languages accounts for the largest share of the compulsory core curriculum at the lower secondary level in Belgium (Flemish Community), Finland (together with natural sciences), France, Germany, Iceland, Israel (together with reading, writing and literature), Japan, Luxembourg, Norway, Poland (together with reading, writing and literature) and Portugal (together with natural sciences) (Tables D1.3a and b).

Chart D1.2b. Instruction time per subject in lower secondary education (2014)

As a percentage of total compulsory instruction time



1. Natural sciences included in mathematics.
2. Year of reference 2013.
3. Actual instruction time.

Countries are ranked in descending order of the proportion of instruction hours devoted to reading, writing and literature.

Source: OECD. Table D1.3b. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933119663

At the lower secondary level, there is substantial variation in how countries allocate time among the different subjects within the compulsory curriculum. For example, reading, writing and literature accounts for 12% of compulsory instruction time in the Czech Republic, Finland, Ireland and Japan, while it accounts for more than 25% of compulsory instruction time in Greece and Italy. In Canada, England and Greece, instruction in a first foreign language accounts for 7% or less of compulsory instruction time while it accounts for 17% in Luxembourg. In addition, in slightly less than half of the countries with available data, studying a second foreign language is compulsory for lower secondary students.

As seen at the primary and lower secondary levels, there are significant differences in how time is allocated to school subjects as students grow older. On average across OECD countries, 25% of instruction time for 7-year-olds is devoted to reading, writing and literature; for 11-year-olds, 17% of instruction time is devoted to these subjects, and for 15-year-olds, 12% of instruction time is devoted to them. By contrast, whereas an average of 2% of instruction time for 7-year-olds is devoted to foreign languages, 9% of instruction time for 11-year-olds is spent studying a first foreign language and 2% studying other foreign languages, and 10% and 4% of instruction time for 15-year-olds is devoted to the first and other foreign languages respectively (Tables D1.5b, f and j, available on line).

Flexibility in the curriculum

In most countries, central and state authorities establish regulations or recommendations regarding instruction time and the curriculum. However, local authorities, schools, teachers and/or students also have varying degrees of freedom in organising instruction time or in choosing subjects.

In about one-third of countries with available data, the allocation of instruction time across grades is flexible, i.e. instruction time for a specific subject is defined for a certain number of grades, or even the whole of compulsory education, without specifying the time to be allocated to each grade. In such cases, schools/local authorities are free to decide how much time should be allocated for each grade (Table D1.2).

Setting compulsory subjects within a flexible timetable is more common at the primary level where, on average across OECD countries, it accounts for 14% of the compulsory instruction time. In this case, compulsory subjects and total instruction time are specified, but not the time to be allocated to each subject. Local authorities, schools and/or teachers are free to decide how much time should be allocated to each compulsory subject.

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In Belgium (French Community) and Italy, compulsory subjects within a flexible timetable account for around 85% of instruction time at the primary level and up to 100% in Australia, England and the Netherlands. This is also the case in Denmark for the first year of primary education. At the lower secondary level, Australia and the Netherlands also allow complete flexibility in allocating instruction time across compulsory subjects. In Scotland, at both primary and lower secondary levels, some compulsory subjects are specified, but there is no regulation on total instruction time, which is the responsibility of local authorities.

Flexibility in the choice of subjects is less common across OECD countries than flexibility in the allocation of instruction time across compulsory subjects. On average, 4% of compulsory instruction time is allocated to subjects chosen by schools at the primary level. At the lower secondary level, 4% of compulsory instruction time is allocated to subjects chosen by schools and another 4% to subjects chosen by the students. However, some countries allocate a substantial part of the compulsory instruction time to flexible subjects. For example, in Belgium (Flemish Community, primary level), Chile, the Czech Republic, Estonia (primary level), Ireland (lower secondary level) and Poland, at least 10% of compulsory instruction time is allocated to subjects chosen by schools; up to 21% of compulsory instruction time is so allocated in the Slovak Republic. In Iceland, Spain and Turkey, at least 17% of the compulsory instruction time is allocated to subjects chosen by lower secondary students (Tables D1.3a and b).

Non-compulsory instruction time

Among OECD countries, the non-compulsory part of the curriculum accounts for an average of 4% of the total compulsory instruction time at the primary level, and 2% at the lower secondary level. Nevertheless, a considerable amount of additional non-compulsory instruction time is provided in some countries. At the primary level, additional non-compulsory time accounts for 36% in Greece and 23% in Portugal. At the lower secondary level, non-compulsory instruction time accounts for 13% of the total compulsory instruction time in Slovenia and 10% in France (Tables D1.3a and b).

Box D1.1. Extracurricular activities at school

Intended instruction time only captures the time spent by students in formal classroom settings. In addition to formal instruction time, students may participate in extracurricular activities before and/or after the school day or during school holidays, on school premises.

In OECD and partner countries, extracurricular activities are more commonly offered during the school year (before and/or after classes) than during school holidays. Although schools often have the autonomy to decide whether they provide these activities or not, it is sometimes compulsory for all schools to offer extracurricular activities. For example, this is the case at the primary and/or the lower secondary level, in France, Poland and Slovenia. In Hungary, not only do primary and lower secondary schools have to organise extracurricular activities until 4 pm, but students are also required to attend them.

These activities can be organised by schools, as in Brazil and Hungary, by municipalities, as in Israel, or by volunteer school staff, as in Ireland. External public partners are also often involved in organising extracurricular activities on school premises as are private stakeholders, though less commonly so. For example, in Portugal, these activities can be organised by parent associations and non-governmental organisations. In 18 of 36 countries with available data, additional payments are offered to teachers to participate in these extracurricular activities (see Indicator D3).

Before- and/or after-school activities typically include childcare (at the primary level), tutoring or remedial courses, sports and/or artistic and cultural activities. In Hungary and Turkey, these activities also include community service; in Spain, classes in foreign languages, ICT and reading and writing workshops are offered.

Definitions

Compulsory curriculum refers to the amount and allocation of instruction time that has to be provided in almost every public school and must be attended by almost all public sector students. The compulsory curriculum may be flexible as local authorities, schools, teachers and/or pupils may have varying degrees of freedom to choose the subjects and/or the allocation of compulsory instruction time.

Compulsory flexible subjects chosen by schools refer to the total amount of compulsory instruction time indicated by the central authorities, which regional authorities, local authorities, schools or teachers allocate to subjects of their choice (or subjects they chose from a list defined by central education authorities). It is compulsory for the school to offer one of these subjects and students must attend it.

Compulsory options chosen by the students refer to the total amount of instruction time in one or more subjects that pupils have to select (from a set of subjects that are compulsory for schools to offer) in order to cover part of their compulsory instruction time.

Compulsory subjects with a flexible timetable refer to the total amount of instruction time indicated by the central authorities for a given group of subjects, which regional authorities, local authorities, schools or teachers allocate to individual subjects. There is flexibility in the time spent on a subject, but not in the subjects to be taught.

Flexible allocation of instruction time across multiple grades refers to the case when the curriculum only indicates the total instruction time for a specific subject for a certain number of grades, or even the whole of compulsory education, without specifying the time to be allocated to each grade. In such cases, schools/local authorities are free to decide how much time should be assigned for each grade.

Instruction time refers to the number of 60-minute hours per school year a public school is expected to provide instruction to students on all the subjects integrated into the compulsory and non-compulsory curriculum, on school premises or in before-/after-school activities, that are formal parts of the compulsory programme. Instruction time excludes breaks between classes or other types of interruptions, non-compulsory time outside the school day, time dedicated to homework activities, and individual tutoring or private study.

Intended instruction time refers to the number of hours per year of the compulsory and non-compulsory part of the curriculum that students are entitled to receive in public schools. The intended curriculum can be based on regulations or standards of the central (or top level) education authorities or may be established as a set of recommendations at the regional level.

The **non-compulsory part of the curriculum** refers to the total amount of instruction time to which students are entitled beyond the compulsory hours of instruction and that almost every public school is expected to provide. Subjects can vary from school to school or from region to region and take the form of elective subjects. Students are not required to choose one of the elective subjects, but all public schools are expected to offer this possibility.

Methodology

Data on instruction time are from the 2013 Joint Eurydice-OECD Instruction time data collection and refer to instruction time during compulsory primary and full time (lower and upper) secondary general education for the school year 2013/14.

In the previous editions of *Education at a Glance*, data on instruction time used to be collected with another survey using a different scope, methodology and definitions than the 2013 Joint Eurydice-OECD Instruction time data collection. As a consequence, data on instruction time are not comparable with the figures published in the previous editions of *Education at a Glance*.

This indicator captures intended instruction time, as established in public regulations, as a measure of learning in formal classroom settings. It does not show the actual number of hours of instruction that students receive and does not cover learning outside of the formal classroom setting. Differences may exist across countries between the regulatory minimum hours of instruction and the actual hours of instruction received by students. A study conducted by Regioplan Beleidsonderzoek in the Netherlands showed that, given such factors as school timetables, lesson cancellations and teacher absenteeism, schools may not consistently attain the regulatory minimum instruction time (see Box D1.1 in OECD, 2007).

The indicator also illustrates how minimum instruction hours are allocated across different curricular areas. It shows the intended net hours of instruction for those grades that are part of compulsory full-time general education. Although the data are difficult to compare among countries because of different curricular policies, they nevertheless provide an indication of how much formal instruction time is considered necessary for students to achieve the desired educational goals.

When the allocation of instruction time across grades is flexible, i.e. instruction time for a specific subject is defined for a certain number of grades, or even the whole of compulsory education, without specifying the time to be

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allocated to each grade, instruction time per age or level of education was estimated by dividing the total number of instruction hours by the number of grades.

Notes on definitions and methodologies for each country are provided in Annex 3, available at *www.oecd.org/edu/eag.htm*.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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OECD (2007), *Education at a Glance 2007: OECD Indicators,* OECD Publishing, Paris, *http://dx.doi.org/10.1787/eag-2007-en.*

Tables of Indicator D1

StatLink http://dx.doi.org/10.1787/888933119530

	Table D1.1	Instruction time in compulsory general education (2014)
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WEB	Table D1.5c	Instruction time per subject for 8-year-olds (2014)
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WEB	Table D1.5g	Instruction time per subject for 12-year-olds (2014)
WEB	Table D1.5h	Instruction time per subject for 13-year-olds (2014)
WEB	Table D1.5i	Instruction time per subject for 14-year-olds (2014)
WEB	Table D1.5j	Instruction time per subject for 15-year-olds (2014)
WEB	Table D1.5k	Instruction time per subject for 16-year-olds (2014)
WEB	Table D1.5l	Instruction time per subject for 17-year-olds (2014)

D1

Table D1.1. [1/2] Instruction time in compulsory general education[1] (2014)

By level of education, in public institutions

	Primary education							Lower secondary education			
		Average hours per year			Total number of hours				Average hours per year		
	Number of grades that are part of compulsory education	Compulsory instruction time	Non-compulsory instruction time	Intended instruction time	Compulsory instruction time	Non-compulsory instruction time	Intended instruction time	Number of grades that are part of compulsory education	Compulsory instruction time	Non-compulsory instruction time	Intended instruction time
	(1)	(2)	(3)	(4)=(2)+(3)	(5)	(6)	(7)=(5)+(6)	(8)	(9)	(10)	(11)=(9)+(10)
OECD											
Australia	6	1 010	m	m	6 060	m	m	4	1 015	m	m
Austria	4	705	m	m	2 820	m	m	4	900	m	m
Belgium (Fl.)[2]	6	821	n	821	4 928	n	4 928	2	928	n	928
Belgium (Fr.)[2]	6	849	m	m	5 096	m	m	2	971	m	m
Canada	6	919	n	919	5 515	n	5 515	3	921	3	924
Chile	6	1 049	a	1 049	6 293	a	6 293	2	1 062	a	1 062
Czech Republic	5	676	m	m	3 381	m	m	4	874	m	m
Denmark	7	754	a	754	5 280	a	5 280	3	930	a	930
England	6	861	m	m	5 168	m	m	3	912	n	912
Estonia	6	661	a	661	3 964	a	3 964	3	823	a	823
Finland[3]	6	632	29	661	3 794	171	3 965	3	844	57	901
France	5	864	n	864	4 320	n	4 320	4	991	99	1 090
Germany[4, 5]	4	683	a	683	2 732	a	2 732	5	866	a	866
Greece	6	783	282	1 065	4 699	1 690	6 390	3	785	n	785
Hungary	4	616	a	616	2 464	a	2 464	4	710	a	710
Iceland	7	729	a	729	5 100	a	5 100	3	839	a	839
Ireland[6]	6	915	a	915	5 490	a	5 490	3	935	a	935
Israel	6	957	n	957	5 741	n	5 741	3	1 004	n	1 004
Italy	5	891	a	891	4 455	a	4 455	3	990	a	990
Japan[4]	6	762	m	m	4 573	m	m	3	895	m	m
Korea[4]	6	648	a	648	3 885	a	3 885	3	842	a	842
Luxembourg	6	924	a	924	5 544	a	5 544	3	845	a	845
Mexico	6	800	a	800	4 800	a	4 800	3	1 167	a	1 167
Netherlands[7]	6	940	m	m	5 640	m	m	3	1 000	m	m
New Zealand	m	m	m	m	m	m	m	m	m	m	m
Norway	7	748	a	748	5 234	a	5 234	3	868	a	868
Poland	6	635	58	693	3 807	348	4 155	3	810	64	874
Portugal	6	806	189	995	4 838	1 133	5 971	3	877	27	903
Scotland[8]	7	a	a	a	a	a	a	3	a	a	a
Slovak Republic	4	680	a	680	2 722	a	2 722	5	828	a	828
Slovenia	6	664	79	743	3 986	473	4 459	3	767	102	869
Spain	6	787	a	787	4 725	a	4 725	4	1 061	a	1 061
Sweden[3]	6	754	m	m	4 523	m	m	3	754	m	m
Switzerland	m	m	m	m	m	m	m	m	m	m	m
Turkey	4	720	a	720	2 880	a	2 880	4	840	a	840
United States[9]	6	967	m	m	5 802	m	m	3	1 011	m	m
OECD average[8]	6	794	26	~	4 553	159	~	3	905	14	~
EU21 average[8]	6	768	40	~	4 290	238	~	3	882	21	~
Partners											
Argentina	m	m	m	m	m	m	m	m	m	m	m
Brazil[8]	5	m	m	m	m	m	m	4	m	m	m
China[9]	6	612	m	m	3 669	m	m	3	816	m	m
Colombia[9]	5	1 000	m	m	5 000	m	m	4	1 200	m	m
India	m	m	m	m	m	m	m	m	m	m	m
Indonesia	m	m	m	m	m	m	m	m	m	m	m
Latvia	6	592	m	m	3 551	m	m	3	794	m	m
Russian Federation	m	m	m	m	m	m	m	m	m	m	m
Saudi Arabia	m	m	m	m	m	m	m	m	m	m	m
South Africa	m	m	m	m	m	m	m	m	m	m	m
G20 average[8]	6	811	m	m	4 488	m	m	3	939	m	m

Note: Columns showing instruction time in compulsory upper secondary education (i.e. columns 19-25) are available for consultation on line (see *StatLink* below).

1. Refers to full-time compulsory education and excludes pre-primary education, even if compulsory.
2. It is compulsory for students to attend full-time education up to the age of 15 or 16. However, those in general education must continue until they are 18.
3. Estimated number of hours by level of education, as the allocation of instruction time across multiple grades is flexible.
4. Year of reference 2013.
5. Excludes the last year of compulsory education, which can be classified either at the lower secondary level or at the upper secondary level.
6. Actual instruction time for lower and upper secondary education.
7. The number of grades in lower secondary education is 3 or 4 years depending on the track. The 4th year of pre-vocational secondary education (VMBO) was excluded from the calculation.
8. Brazil and Scotland are not included in the averages.
9. Year of reference 2012.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurydice. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933119549

Table D1.1. [2/2] Instruction time in compulsory general education[1] (2014)

By level of education, in public institutions

		Lower secondary education			Primary and lower secondary education			
		Total number of hours				Total number of hours		
		Compulsory instruction time	Non-compulsory instruction time	Intended instruction time	Theoretical duration in years	Compulsory instruction time	Non-compulsory instruction time	Intended instruction time
		(12)	(13)	(14)=(12)+(13)	(15)	(16)	(17)	(18)
OECD	Australia	4 060	m	m	10	10 120	m	m
	Austria	3 600	m	m	8	6 420	m	m
	Belgium (Fl.)[2]	1 856	n	1 856	8	6 784	n	6 784
	Belgium (Fr.)[2]	1 941	m	m	8	7 037	m	m
	Canada	2 764	8	2 772	9	8 279	8	8 287
	Chile	2 123	a	2 123	8	8 416	a	8 416
	Czech Republic	3 495	m	m	9	6 876	m	m
	Denmark	2 790	a	2 790	10	8 070	a	8 070
	England	2 736	n	2 736	9	7 904	m	m
	Estonia	2 468	a	2 468	9	6 431	a	6 431
	Finland[3]	2 533	171	2 704	9	6 327	342	6 669
	France	3 964	396	4 360	9	8 284	396	8 680
	Germany[4, 5]	4 331	a	4 331	9	7 063	a	7 063
	Greece	2 356	n	2 356	9	7 055	1 690	8 746
	Hungary	2 840	a	2 840	8	5 304	a	5 304
	Iceland	2 516	a	2 516	10	7 616	a	7 616
	Ireland[6]	2 806	a	2 806	9	8 296	a	8 296
	Israel	3 011	n	3 011	9	8 752	n	8 752
	Italy	2 970	a	2 970	8	7 425	a	7 425
	Japan[4]	2 686	m	m	9	7 259	m	m
	Korea[4]	2 525	a	2 525	9	6 410	a	6 410
	Luxembourg	2 535	a	2 535	9	8 079	a	8 079
	Mexico	3 500	a	3 500	9	8 300	a	8 300
	Netherlands[7]	3 000	m	m	9	8 640	m	m
	New Zealand	m	m	m	m	m	m	m
	Norway	2 604	a	2 604	10	7 838	a	7 838
	Poland	2 430	193	2 623	9	6 237	541	6 778
	Portugal	2 630	80	2 710	9	7 467	1 214	8 681
	Scotland[8]	a	a	a	10	a	a	a
	Slovak Republic	4 139	a	4 139	9	6 861	a	6 861
	Slovenia	2 302	306	2 608	9	6 288	779	7 067
	Spain	4 245	a	4 245	10	8 969	a	8 969
	Sweden[3]	2 262	m	m	9	6 785	m	m
	Switzerland	m	m	m	m	m	m	m
	Turkey	3 360	a	3 360	8	6 240	a	6 240
	United States[9]	3 033	m	m	9	8 835	m	m
	OECD average[8]	2 922	46	~	9	7 475	207	~
	EU21 average[8]	2 919	67	~	9	7 209	310	~
Partners	Argentina	m	m	m	m	m	m	m
	Brazil[8]	m	m	m	m	m	m	m
	China[9]	2 448	m	m	9	6 117	m	m
	Colombia[9]	4 800	m	m	9	9 800	m	m
	India	m	m	m	m	m	m	m
	Indonesia	m	m	m	m	m	m	m
	Latvia	2 381	m	m	9	5 933	m	m
	Russian Federation	m	m	m	m	m	m	m
	Saudi Arabia	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m
	G20 average[8]	3 198	m	m	m	7 686	m	m

Note: Columns showing instruction time in compulsory upper secondary education (i.e. columns 19-25) are available for consultation on line (see *StatLink* below).

1. Refers to full-time compulsory education and excludes pre-primary education, even if compulsory.
2. It is compulsory for students to attend full-time education up to the age of 15 or 16. However, those in general education must continue until they are 18.
3. Estimated number of hours by level of education, as the allocation of instruction time across multiple grades is flexible.
4. Year of reference 2013.
5. Excludes the last year of compulsory education, which can be classified either at the lower secondary level or at the upper secondary level.
6. Actual instruction time for lower and upper secondary education.
7. The number of grades in lower secondary education is 3 or 4 years depending on the track. The 4th year of pre-vocational secondary education (VMBO) was excluded from the calculation.
8. Brazil and Scotland are not included in the averages.
9. Year of reference 2012.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurydice. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933119549

D1

Table D1.2. Organisation of compulsory general education[1] (2014)

By level of education, in public institutions

	Primary education					Lower secondary education				
	Number of grades that are part of compulsory education	Theoretical starting age	Average number of instruction days per year	Average number of instruction days per school week	Flexible allocation of instruction time across multiple grades	Number of grades that are part of compulsory education	Theoretical starting age	Average number of instruction days per year	Average number of instruction days per school week	Flexible allocation of instruction time across multiple grades
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
OECD										
Australia	6	5	197	5	No	4	11	197	5	No
Austria	4	6	180	5	No	4	10	180	5	No
Belgium (Fl.)[2]	6	6	176	5	No	2	12	174	5	No
Belgium (Fr.)[2]	6	6	182	5	No	2	12	182	5	No
Canada	6	6	183	5	No	3	12	183	5	No
Chile	6	6	190	5	No	2	12	190	5	No
Czech Republic	5	6	191	5	Yes	4	11	191	5	Yes
Denmark	7	6	a	5	No	3	13	a	5	No
England	6	5	190	5	No	3	11	190	5	No
Estonia	6	7	175	5	Yes	3	13	175	5	Yes
Finland	6	7	187	5	Yes	3	13	187	5	Yes
France	5	6	162	4.5	No	4	11	180	5	No
Germany[3, 4]	4	6	180	5	No	5	10	180	5	No
Greece	6	6	171	5	No	3	12	152	5	No
Hungary	4	6	180	5	No	4	10	180	5	No
Iceland	7	6	170	5	Yes	3	13	170	5	Yes
Ireland	6	6	183	5	No	3	12	167	5	No
Israel	6	6	219	6	No	3	12	210	6	Yes
Italy	5	6	200	5	No	3	11	200	6	No
Japan[3]	6	6	200	5	No	3	12	200	5	No
Korea[3]	6	6	190	5	Yes	3	12	190	5	Yes
Luxembourg	6	6	180	5	Yes	3	12	169	5	No
Mexico	6	6	200	5	No	3	12	200	5	No
Netherlands[5]	6	6	m	5	Yes	3	12	m	5	Yes
New Zealand	m	m	m	m	m	m	m	m	m	m
Norway	7	6	190	5	Yes	3	13	190	5	Yes
Poland	6	7	181	5	Yes	3	13	179	5	Yes
Portugal	6	6	179	5	No	3	12	178	5	No
Scotland	7	5	190	5	Yes	3	12	190	5	Yes
Slovak Republic	4	6	189	5	Yes	5	10	189	5	Yes
Slovenia	6	6	190	5	No	3	12	185	5	No
Spain	6	6	175	5	No	4	12	175	5	No
Sweden	6	7	178	5	Yes	3	13	178	5	Yes
Switzerland	m	m	m	m	m	m	m	m	m	m
Turkey	4	6	180	5	No	4	10	180	5	No
United States	6	6	180	5	m	3	12	180	5	m
OECD average	6	6	185	5	-	3	12	183	5	-
EU21 average	6	6	182	5	-	3	12	180	5	-
Partners										
Argentina	m	m	m	m	m	m	m	m	m	m
Brazil	5	6	200	5	m	4	11	200	5	m
China[6]	6	6	160	5	m	3	12	160	5	m
Colombia[6]	5	6	200	5	m	4	11	200	5	m
India	m	m	m	m	m	m	m	m	m	m
Indonesia	m	m	m	m	m	m	m	m	m	m
Latvia	6	7	169	5	No	3	13	173	5	No
Russian Federation	m	m	m	m	m	m	m	m	m	m
Saudi Arabia	m	m	m	m	m	m	m	m	m	m
South Africa	m	m	m	m	m	m	m	m	m	m
G20 average	6	6	187	5	-	3	11	188	5	-

Note: Columns showing the organisation of compulsory upper secondary education (i.e. columns 11-15) are available for consultation on line (see *StatLink* below).

1. Refers to full-time compulsory education and excludes pre-primary education, even if compulsory.
2. It is compulsory for students to attend full-time education up to the age of 15 or 16. However, those in general education must continue until they are 18.
3. Year of reference 2013.
4. Excludes the last year of compulsory education, which can be classified either at the lower secondary level or at the upper secondary level.
5. The number of grades in lower secondary education is 3 or 4 years depending on the track. The 4th year of pre-vocational secondary education (VMBO) was excluded from the calculation.
6. Year of reference 2012.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurydice. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table D1.3a. Instruction time per subject in primary education (2014)

As a percentage of total compulsory instruction time

		Reading, writing and literature	Mathematics	Natural sciences	Social studies	First foreign language	Other foreign languages	Physical education and health	Arts	Religion/ Ethics/ Moral education	Information and Communication Technologies (ICT)	Technology	Practical and vocational skills	Other subjects	Compulsory subjects with flexible timetable	Compulsory options chosen by the students	Compulsory flexible subjects chosen by schools	Total compulsory curriculum	Non-compulsory curriculum
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
OECD	Australia	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	100	x(14)	x(14)	**100**	m
	Austria	30	17	13	x(3)	2	n	11	9	9	n	x(3)	6	4	a	n	a	**100**	m
	Belgium (Fl.)[1]	23	20	18	x(3)	4	n	7	10	7	n	n	n	n	n	n	12	**100**	n
	Belgium (Fr.)[1]	x(14)	x(14)	x(14)	x(14)	2	n	7	x(14)	7	n	x(14)	a	n	83	n	n	**100**	m
	Canada	27	18	8	7	2	n	10	7	n	n	n	n	1	16	n	3	**100**	n
	Chile	20	16	9	9	3	x(16)	9	10	5	x(16)	3	x(16)	2	a	n	15	**100**	a
	Czech Republic	30	17	10	x(3)	8	n	8	10	x(13)	1	4	x(11)	x(16)	a	x(16)	12	**100**	m
	Denmark	27	15	6	4	6	n	8	10	5	n	n	6	3	11	n	n	**100**	a
	England	x(14)	x(14)	x(14)	x(14)	n	a	x(14)	x(14)	x(14)	x(14)	x(14)	n	n	100	n	a	**100**	m
	Estonia	23	15	7	5	8	2	11	15	x(16)	x(16)	3	a	a	a	a	12	**100**	a
	Finland	24	16	11	2	6	n	10	13	5	a	a	a	n	6	a	7	**100**	5
	France	37	21	9	5	6	n	13	9	x(17)	x(3)	x(3)	n	n	n	n	n	**100**	n
	Germany[2]	20	16	3	4	6	n	12	15	8	x(11)	1	n	16	a	n	a	**100**	a
	Greece	25	13	10	7	8	2	8	10	4	3	n	n	a	a	a	8	**100**	36
	Hungary	33	16	6	n	3	n	18	14	1	1	4	a	n	a	a	3	**100**	a
	Iceland	20	16	8	13	6	x(5)	9	19	x(4)	3	a	x(8)	x(15)	n	5	a	**100**	a
	Ireland[3]	20	17	4	8	n	a	4	12	10	x(17)	x(3)	n	25	a	a	m	**100**	a
	Israel	23	18	9	8	6	n	6	5	11	n	x(3)	4	2	n	n	7	**100**	n
	Italy	x(14)	x(14)	x(14)	x(14)	9	n	x(14)	x(14)	7	n	x(14)	a	n	84	a	a	**100**	a
	Japan[2]	24	17	8	8	1	a	10	12	3	a	n	a	10	7	n	m	**100**	m
	Korea[2]	22	14	9	9	6	n	7	9	x(4)	x(13)	x(12)	x(3)	24	n	n	n	**100**	a
	Luxembourg	26	19	7	2	x(1)	18	10	11	7	a	a	a	a	a	a	a	**100**	a
	Mexico	35	27	13	10	m	a	5	5	5	n	n	n	n	a	a	a	**100**	a
	Netherlands	x(14)	x(14)	x(14)	x(14)	x(14)	n	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	a	100	a	a	**100**	m
	New Zealand	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Norway	26	17	6	7	7	n	11	15	8	a	a	2	a	a	n	1	**100**	a
	Poland[4]	18	14	10	5	10	n	14	7	x(18)	3	3	a	3	n	a	13	**100**	9
	Portugal	27	27	7	8	3	n	8	9	x(18)	x(18)	2	a	4	a	n	5	**100**	23
	Scotland[5]	x(14)	x(14)	x(14)	x(14)	x(14)	n	x(14)	x(14)	x(14)	x(14)	x(14)	n	n	a	a	a	**a**	a
	Slovak Republic	27	15	3	3	6	x(16)	8	8	4	3	n	1	x(16)	a	x(16)	21	**100**	a
	Slovenia	23	17	8	7	6	n	15	16	x(4)	x(17)	6	2	1	a	n	a	**100**	12
	Spain	24	16	7	8	10	n	9	9	x(15)	n	n	a	n	a	7	9	**100**	a
	Sweden	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Switzerland	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Turkey	30	17	5	13	5	n	14	7	2	n	n	1	7	a	n	a	**100**	a
	United States	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	OECD average[5]	22	15	7	6	4	1	8	9	5	1	1	1	3	14	n	4	**100**	4
	EU21 average[5]	21	14	7	4	5	1	8	9	5	1	1	1	3	15	n	4	**100**	5
Partners	Argentina	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Brazil	m	m	m	m	m	n	m	m	m	m	a	a	m	m	m	m	**m**	m
	China	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Colombia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	India	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Indonesia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Latvia	21	17	5	6	7	1	8	12	2	1	a	4	11	a	a	6	**100**	m
	Russian Federation	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Saudi Arabia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	South Africa	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	G20 average	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m

Notes: Please refer to Tables D1.5a to D1.5l, available on line, for instruction time per subject for each age (see *StatLink* below).

The averages were adjusted to 100% and do not correspond exactly to the average of each column.

1. It is compulsory for students to attend full-time education up to the age of 15 or 16. However, those in general education must continue until they are 18.
2. Year of reference 2013.
3. The second language of the school (either Irish or English) is included in "Other".
4. Excludes the first three years of primary education for which a large proportion of the time allocated to compulsory subjects is flexible.
5. Scotland is not included in the averages.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurydice. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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D1

Table D1.3b. Instruction time per subject in lower secondary education (2014)

As a percentage of total compulsory instruction time

		Reading, writing and literature	Mathematics	Natural sciences	Social studies	First foreign language	Other foreign languages	Physical education and health	Arts	Religion/ Ethics/ Moral education	Information and Communication Technologies (ICT)	Technology	Practical and vocational skills	Other subjects	Compulsory subjects with flexible timetable	Compulsory options chosen by the students	Compulsory flexible subjects chosen by schools	Total compulsory curriculum	Non-compulsory curriculum
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
OECD	Australia	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	100	x(14)	x(14)	**100**	m
	Austria	14	14	12	11	12	n	11	12	7	n	n	7	n	a	1	a	**100**	m
	Belgium (Fl.)[1]	14	13	5	9	9	6	6	5	6	x(15)	6	x(15)	x(15)	n	9	9	**100**	n
	Belgium (Fr.)[1]	17	14	9	13	13	n	9	3	6	m	3	a	x(15)	n	13	n	**100**	m
	Canada	19	15	10	13	7	n	10	8	1	n	3	1	2	4	1	8	**100**	n
	Chile	16	16	11	11	8	x(16)	5	8	5	x(16)	3	x(16)	3	a	n	14	**100**	a
	Czech Republic	12	12	17	9	10	5	8	8	x(13)	1	2	x(11)	x(16)	a	x(16)	15	**100**	m
	Denmark	19	13	17	10	10	x(15)	6	x(15)	2	x(15)	x(15)	3	3	n	12	4	**100**	a
	England[2]	14	13	12	14	5	4	9	11	4	4	8	n	3	a	a	a	**100**	n
	Estonia	13	14	21	11	10	10	6	6	x(16)	x(16)	5	a	a	a	a	4	**100**	a
	Finland	12	12	16	8	9	7	9	9	4	a	a	a	6	4	a	5	**100**	7
	France	15	14	10	11	12	5	12	7	x(4)	x(11)	6	x(15)	3	n	4	1	**100**	10
	Germany[3]	14	13	12	11	19	x(5)	9	10	6	x(11)	3	2	1	a	n	a	**100**	a
	Greece	26	11	10	12	6	6	7	6	6	3	2	5	a	a	a	1	**100**	n
	Hungary	15	13	12	13	12	n	15	8	2	3	3	a	2	a	a	3	**100**	a
	Iceland	14	14	8	8	19	x(5)	8	8	x(4)	2	a	x(8)	x(15)	n	20	a	**100**	a
	Ireland[2]	12	12	10	17	10	m	7	m	7	5	m	m	10	m	m	12	**100**	a
	Israel	17	14	14	15	11	6	5	x(16)	9	x(3)	x(3)	1	4	3	n	2	**100**	n
	Italy	33	20	x(2)	x(1)	10	7	7	13	3	n	7	a	n	n	a	a	**100**	a
	Japan[3]	12	12	12	11	13	a	10	7	3	a	3	a	12	6	n	m	**100**	m
	Korea[3]	13	11	19	15	10	n	8	8	x(4)	x(12)	x(12)	x(3)	9	n	x(16)	6	**100**	a
	Luxembourg	15	13	8	11	17	13	8	9	7	a	a	a	a	a	a	a	**100**	a
	Mexico	14	14	17	12	9	a	6	6	8	n	9	n	6	a	a	a	**100**	a
	Netherlands	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	x(14)	a	100	a	a	**100**	m
	New Zealand	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Norway	15	12	10	11	9	9	9	9	6	a	a	7	a	a	4	n	**100**	a
	Poland	14	12	12	12	14	x(5)	12	4	x(18)	2	2	a	4	n	a	13	**100**	8
	Portugal	13	13	18	15	9	9	7	6	x(18)	2	n	a	n	a	n	7	**100**	3
	Scotland[4]	x(14)	x(14)	x(14)	x(14)	x(14)	n	x(14)	x(14)	x(14)	x(14)	x(14)	n	n	a	a	a	**a**	a
	Slovak Republic	16	13	10	10	10	3	7	5	3	1	x(16)	1	x(16)	a	x(16)	21	**100**	a
	Slovenia	13	13	17	15	11	x(15)	9	8	x(4)	x(17)	4	n	2	a	7	a	**100**	13
	Spain	16	12	8	12	11	n	7	7	1	x(11)	5	a	3	a	18	n	**100**	a
	Sweden	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Switzerland	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Turkey	16	14	11	8	10	n	6	6	6	3	3	1	n	a	17	a	**100**	a
	United States	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	OECD average[4]	14	12	11	10	10	4	7	7	4	1	3	1	3	6	4	4	**100**	2
	EU21 average[4]	14	12	11	11	10	4	8	7	4	2	3	1	2	5	3	4	**100**	2
Partners	Argentina	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Brazil	m	m	m	m	m	n	m	m	m	m	a	m	m	m	m	m	**m**	m
	China	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Colombia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	India	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Indonesia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Latvia	15	16	10	14	8	6	6	6	n	1	a	4	8	a	a	9	**100**	m
	Russian Federation	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	Saudi Arabia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	South Africa	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m
	G20 average	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	**m**	m

Notes: Please refer to Tables D1.5a to D1.5l, available on line, for instruction time per subject for each age (see *StatLink* below).
The averages were adjusted to 100% and do not correspond exactly to the average of each column.
1. It is compulsory for students to attend full-time education up to the age of 15 or 16. However, those in general education must continue until they are 18.
2. Actual instruction time.
3. Year of reference 2013.
4. Scotland is not included in the averages.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurydice. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933119606

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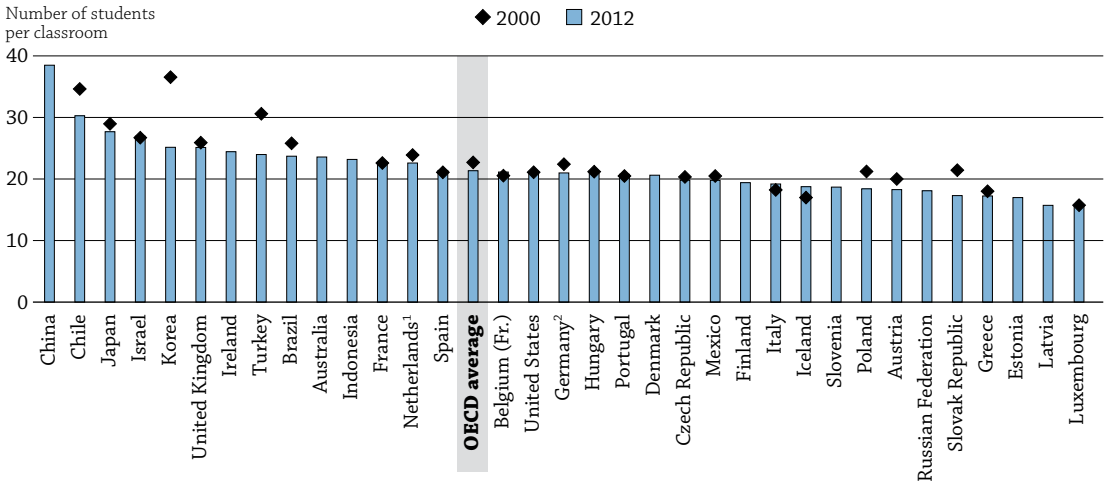
WHAT IS THE STUDENT-TEACHER RATIO AND HOW BIG ARE CLASSES?

- The average primary school class in OECD countries has more than 21 students, but classes are usually larger in partner countries.
- Primary school classes tended to become smaller between 2000 and 2012, especially in countries that had relatively large classes, such as Korea and Turkey.
- On average across OECD countries, the number of students per class grows by two students between primary and lower secondary education.
- Although teachers' job satisfaction is only weakly related to class size, it does diminish when the proportion of students with behavioural problems in a class exceeds 30%, according to TALIS (Teaching and Learning International Survey) 2013 results.

Chart D2.1. Average class size in primary education (2000, 2012)



1. Public institutions only.
2. Year of reference 2001 instead of 2000.
Countries are ranked in descending order of average class size in primary education in 2012.
Source: OECD. 2012 data: Table D2.1. 2000 data: Table D2.4, available on line. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933119758

Context

Class size and student-teacher ratios are much-discussed aspects of education and, along with students' instruction time (see Indicator D1), teachers' working time (see Indicator D4), and the division of teachers' time between teaching and other duties, are among the determinants of the size of countries' teaching force. Together with teachers' salaries (see Indicator D3) and the age distribution of teachers (see Indicator D5), class size and student-teacher ratios also have a considerable impact on the level of current expenditure on education (see Indicators B6 and B7).

Smaller classes are often seen as beneficial because they allow teachers to focus more on the needs of individual students and reduce the amount of class time needed to deal with disruptions. Yet, while there is some evidence that smaller classes may benefit specific groups of students, such as those from disadvantaged backgrounds (Finn, 1998; Krueger, 2002 and Piketty and Valdenaire, 2006), overall, evidence of the effect of differences in class size on student performance is weak. According to recent findings from the 2013 OECD Teaching and Learning International Survey (TALIS), smaller classes are not necessarily related to greater job satisfaction, except in some cases (Box D2.1). However, there is also evidence that suggests a positive relationship between smaller classes and more innovative teaching practices (Hattie, 2009; OECD, 2014).

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The ratio of students to teaching staff indicates how resources for education are allocated. Smaller student-teacher ratios often have to be weighed against higher salaries for teachers, investing in their professional development, greater investment in teaching technology, or more widespread use of assistant teachers and other paraprofessionals whose salaries are often considerably lower than those of qualified teachers. As larger numbers of children with special needs are integrated into mainstream classes, more use of specialised personnel and support services may limit the resources available for reducing student-teacher ratios.

Other findings

- With the exceptions of Chile, Iceland, Mexico and Norway, **the student-teacher ratio decreases in all countries with available data between the primary and lower secondary levels, despite a general increase in class size between these levels**.
- On average across OECD countries, **the student-teacher ratio in secondary education is slightly more favourable in private than in public institutions**. This is most striking in Mexico where, at the secondary level, there are at least 15 students per teacher more in public than in private institutions.
- Class size varies significantly within countries. **The biggest classes in primary education are in Chile and China, with 30 or more students per classroom**, whereas **in Estonia, Latvia and Luxembourg classes have less than 17 students** on average.

Trends

From 2000 to 2012, the average class size in countries with available data for both years decreased by at both the primary and lower secondary levels, and the range of class size among OECD countries narrowed. At the lower secondary level, for example, class size ranged from 17 students (Iceland) to 38 (Korea) in 2000 and from 16 students (Estonia) to 33 (Korea) in 2012. However, class size has grown in some countries that had relatively small classes in 2000, most notably Denmark and Iceland.

D2

Analysis

Average class size in primary and lower secondary education

The average primary class in OECD countries had more than 21 pupils in 2012. When considering all countries with available data, that number varies widely and ranges from fewer than 16 pupils in Latvia and Luxembourg to more than 30 in Chile and China. There are fewer than 20 pupils per primary classroom in nearly half of the countries with available data: Austria, the Czech Republic, Estonia, Finland, Greece, Iceland, Italy, Mexico, Poland, the Russian Federation, the Slovak Republic and Slovenia.

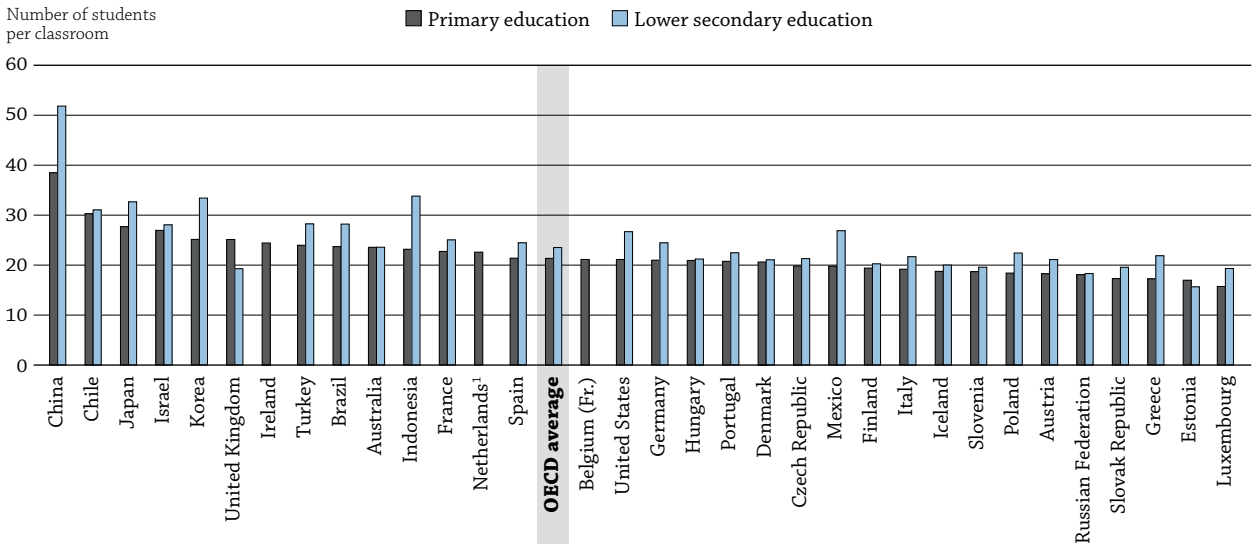
At the lower secondary level, in general programmes, the average class in OECD countries has nearly 24 students. Among all countries with available data on this level of education, that number varies from 20 students or less in Estonia, Finland, Iceland, Latvia, Luxembourg, the Russian Federation, the Slovak Republic, Slovenia, and the United Kingdom to around 33 students per class in Japan, Korea and Indonesia and almost 52 students in China (Table D2.1).

The number of students per class tends to increase between primary and lower secondary education. In Korea, Mexico, China and Indonesia, the increase in average class size exceeds seven students. Meanwhile, the United Kingdom and, to a lesser extent, Estonia and Latvia show a drop in the number of students per class between these two levels of education (Chart D2.2).

The size of the average primary school class decreased slightly between 2000 and 2012 in countries with available data for both years (21 students per class in 2012 as compared to 23 in 2000). Class size is more likely to have declined in countries in which enrolment numbers also declined. However, this is also partly the result of reforms on class size that some countries implemented during the period (see Indicator B7). Among countries with comparable data, class size decreased markedly – by more than four students – in countries that had the largest classes in 2000, such as Korea and Turkey. Class size increased or was unchanged in countries that had the smallest classes in 2000, such as Denmark, Iceland, Italy and Luxembourg (Chart D2.1). In lower secondary school, the gap between the smallest and largest classes narrowed between 2000 and 2012: among OECD countries with comparable data for both years, class size varied from 17 students (Iceland) to 38 (Korea) in 2000 and from 16 students (Estonia) to 33 (Korea) in 2012 (Table D2.1 and Table D2.4, available on line).

The indicator on class size is limited to primary and lower secondary education because class size is difficult to define and compare at higher levels, where students often attend several different classes, depending on the subject area.

Chart D2.2. Average class size in educational institutions, by level of education (2012)



1. Public institutions only.

Countries are ranked in descending order of average class size in lower secondary education in 2012.

Source: OECD. Table D2.1. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933119777

Box D2.1. What is the impact of class size on teachers' job satisfaction?

There is discussion in many countries about the optimal class size for effective teaching and learning. Class sizes tend to vary across countries; and class size seems to have only a minimal impact on teachers' job satisfaction. The 2013 OECD Teaching and Learning International Survey (TALIS) data indicate that it is not so much the number of students but rather the type of students in a teacher's class that has the strongest association with teachers' self-efficacy and job satisfaction. An example of this is provided in Chart D2.a, where the minimal effect of class size on teachers' job satisfaction is contrasted with the stronger influence of teaching students with behavioural problems.

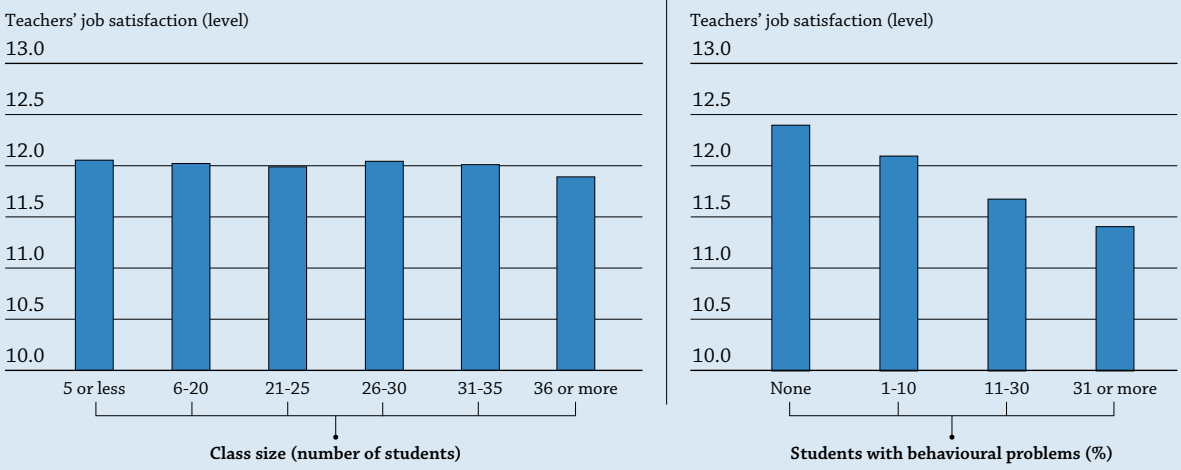
These two graphs demonstrate that lower secondary education teachers reported a decreasing level of job satisfaction when the proportion of students with behavioural problems increases. Teachers reported being most satisfied with their job when they have no students with behavioural problems in their classroom and they are least satisfied with their job when the proportion of students with behavioural problems in their classroom reaches more than 30%. Evidence from TALIS shows that in all participating countries except Iceland, the Netherlands and Norway, this negative relationship is statistically significant and particularly strong in Croatia, Denmark, France, Romania, Spain, Abu Dhabi (United Arab Emirates) and England (United Kingdom).

A similar decrease in job satisfaction is not seen when classes are larger. As shown in Chart D2.a, the average level of job satisfaction remains relatively constant as class size varies. The only countries where class size shows a significant negative association with job satisfaction are Estonia, Malaysia and England. For all other countries, the relationship is not significant except in Latvia, where results show a positive relationship.

These findings from TALIS 2013 suggest that priority should be given to ensuring that teachers are well-equipped to teach diverse and challenging classrooms. This is especially important when considering that more than one in five lower secondary teachers, on average, reported that they need professional development in order to teach students with special needs and another 13% reported a need for professional development in the area of student behaviour and classroom management.

Chart D2.a. Teachers' job satisfaction and class composition (2013)

Teachers' job satisfaction level in lower secondary education according to the number of students in the classroom and according to the percentage of students with behavioural problems[1]



1. Data on class size and students with behavioural problems are reported by teachers and refer to a randomly chosen class they currently teach from their weekly timetable.

Source: OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, TALIS, OECD Publishing.

StatLink http://dx.doi.org/10.1787/888933042276

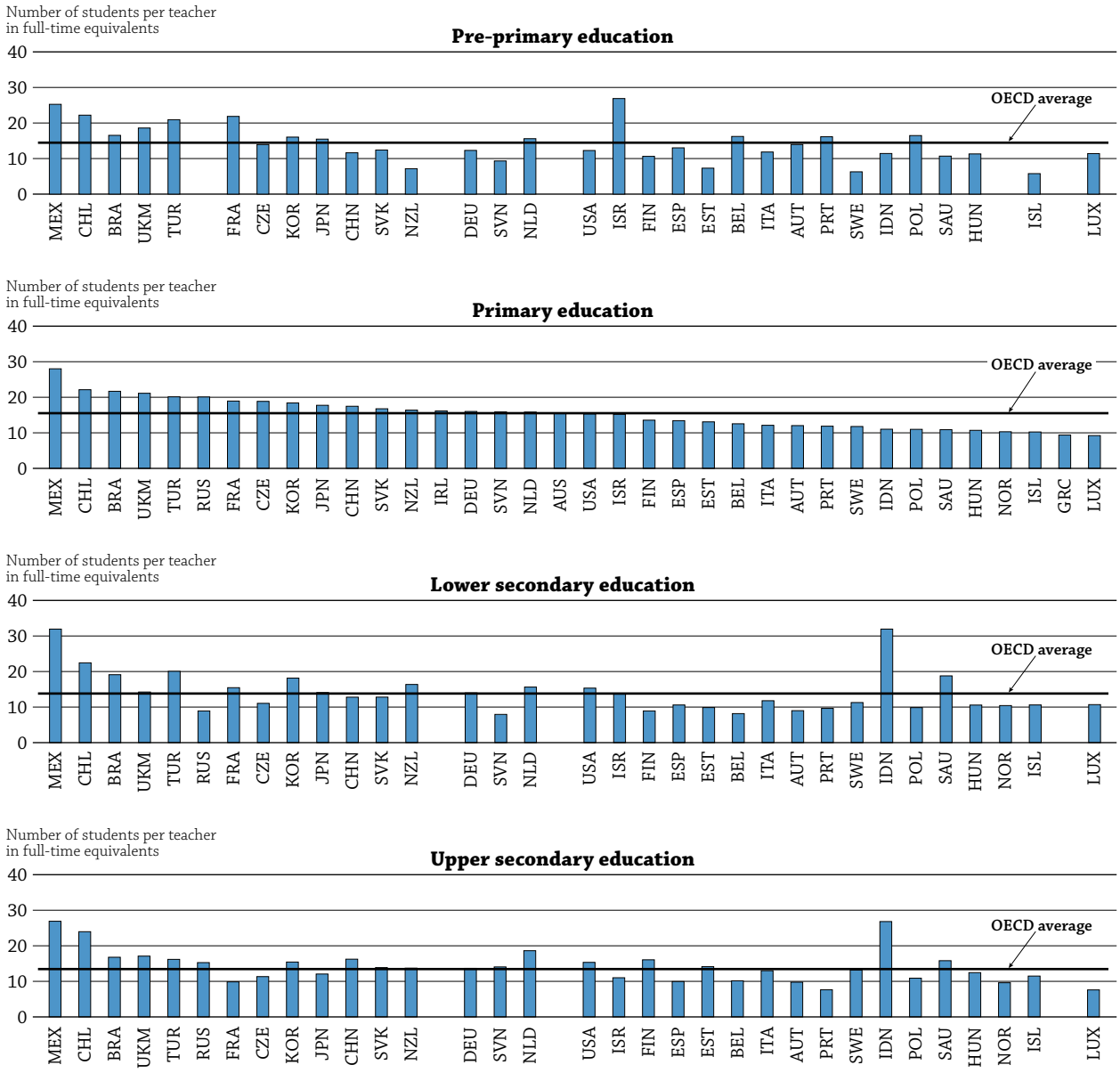
D2

Student-teacher ratios

The ratio of students to teaching staff compares the number of students (full-time equivalent) to the number of teachers (full-time equivalent) at a given level of education and in similar types of institutions. However, this ratio does not take into account the amount of instruction time for students compared to the length of a teacher's working day, nor how much time teachers spend teaching. Therefore, it cannot be interpreted in terms of class size (Box D2.2).

At the primary level, there are fewer than 16 students for every teacher, on average across OECD countries. The student-teacher ratio ranges from more than 28 students per teacher in Mexico and more than 22 students per teacher in Chile to 11 or fewer in Hungary, Iceland, Indonesia, Luxembourg, Norway, Poland and Saudi Arabia (Chart D2.3).

Chart D2.3. Ratio of students to teaching staff in educational institutions, by level of education (2012)



Countries are ranked in descending order of students to teaching staff ratios in primary education.
Source: OECD. Table D2.2. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
Please refer to the Reader's Guide for list of country codes for country names used in this chart.
StatLink http://dx.doi.org/10.1787/888933119796

Student-teacher ratios also vary, and to a larger extent, at the secondary school level, ranging from 30 students per full-time equivalent teacher in Mexico to fewer than 10 in Austria, Belgium, Indonesia, Luxembourg, and Portugal. On average across OECD countries, there are about 13 students per teacher at the secondary level (Table D2.2).

As the differences in student-teacher ratios indicate, there are fewer full-time equivalent students per full-time equivalent teacher at the secondary level than at the primary level of education. In most countries, the student-teacher ratio decreases between primary and lower secondary school, despite an increase in class size. This is true in all but four OECD countries: Chile, Iceland, Luxembourg and Mexico.

This reduction in the student-teacher ratio reflects differences in annual instruction time, which tends to increase with the level of education (see Indicator D1). It may also result from delays in matching the teaching force to demographic changes, or from differences in teaching hours for teachers at different levels of education (the number of teaching hours tends to decrease with the level of education, as teacher specialisation increases). The general trend is consistent among countries, but evidence is mixed as to whether smaller student-teacher ratios are more desirable, from an education perspective, at higher levels of education.

For the pre-primary level (see also Indicator C2), Table D2.2 shows the ratio of student to teaching staff and also the ratio of students to contact staff (teachers and teachers' aides). Some countries make extensive use of teachers' aides at the pre-primary level. Twelve OECD countries (and three partner countries) reported smaller ratios of students to contact staff than of students to teaching staff. However, few countries have large numbers of teachers' aides. As a result, the ratios of students to contact staff are substantially lower than the ratios of students to teaching staff (at least two fewer pupils) in Austria, Brazil, France, Germany, Indonesia, the Netherlands, the United Kingdom and the United States. The difference is particularly large in Chile and Israel, where there are at least 10 fewer pupils per contact staff than per teaching staff.

At the tertiary level, the student-teacher ratio ranges from 20 or more students per teacher in Belgium, Brazil, the Czech Republic, Turkey, the Russian Federation, Saudi Arabia and the United Kingdom to fewer than 10 in Norway (Table D2.2). However, comparisons at this level should be made with caution since it is difficult to calculate full-time equivalent students and teachers on a comparable basis. In 8 of the 14 countries with comparable data at the tertiary level, the ratio of students to teaching staff is lower in more vocationally oriented programmes (tertiary-type B) than in academic (tertiary-type A) and advanced research programmes. Turkey is the only country with a significantly higher student-teacher ratio in vocational programmes at the tertiary level (53 to 1) than in academic (tertiary-type A) and advanced research programmes (16 to 1) (Table D2.2).

Box D2.2. **What is the relationship between class size and the student-teacher ratio?**

The number of students per class is calculated using a number of different elements: the ratio of students to teaching staff, the number of classes or students for which a teacher is responsible, the amount of instruction time compared to the length of teachers' working days, the proportion of time teachers spend teaching, how students are grouped within classes, and team-teaching arrangements.

For example, in a school of 48 full-time students and 8 full-time teachers, the student-teacher ratio is 6 to 1. If teachers' work week is estimated to be 35 hours, including 10 hours teaching, and if instruction time for each student is 40 hours per week, then regardless of how students are grouped in the school, average class size can be estimated as follows:

Estimated class size = 6 students per teacher * (40 hours of instruction time per student/10 hours of teaching per teacher) = 24 students.

Using a different approach, the class size presented in Table D2.1 is defined as the number of students who are following a common course of study, based on the highest number of common courses (usually compulsory studies), and excluding teaching in subgroups. Thus, the estimated class size will be close to the average class size in Table D2.1 where teaching in subgroups is less frequent, such as in primary and lower secondary education.

Because of these definitions, similar student-teacher ratios between countries can result in different class sizes. For example, at the primary level, Israel and the United States have similar ratios of student to teaching staff (15 students per teacher – Table D2.2), but the average class size differs substantially (21 students in the United States and 27 in Israel – Table D2.1).

Class size in public and private institutions

Class size is one factor that parents may consider when deciding on a school for their children; and the difference in average class size between public and private schools (and between different types of private institutions) could influence enrolment.

Among OECD and partner countries for which data are available, average class size generally does not differ between public and private institutions by more than two students per class in both primary and lower secondary education (Table D2.1). However, there are marked differences among countries. For example, in Brazil, the Czech Republic, Iceland, Israel, Latvia, Poland, the Russian Federation, Turkey, the United Kingdom and the United States, the average primary school class in public institutions is larger by four or more students per class than the average class in a private school. However, with the exception of Brazil and Israel, the private sector is relatively small in all of these countries, representing at most 5% of students at the primary level (see Table C1.5, available on line). In contrast, in Spain (where more than 30% of pupils are enrolled in private institutions), the average class in private institutions is larger than that in public institutions by four or more students.

The comparison of class size between public and private institutions shows a mixed picture at the lower secondary level, where private institutions are more prevalent. The average class size in lower secondary schools is larger in private institutions than in public institutions in 12 countries, although the differences tend to be smaller than in primary education.

In countries where private (including both government-dependent and independent) institutions are more prevalent at the primary and lower secondary levels (i.e. countries where more than 10% of students at these levels are enrolled in these institutions), such as Argentina, Australia, Belgium (French Community), Brazil, Chile, Denmark, France, Indonesia, Portugal and Spain, there may be large differences in class size between public and private institutions. However, in Spain, one of the two countries where differences are large (a difference of four students or more at the primary level, and at both levels in Brazil), private institutions tend to have more students per class than public schools (Table D2.1 and see Table C1.4). This suggests that in countries in which a substantial proportion of students and families choose private schools, class size is not a determining factor in their decision.

Comparing the number of student to teaching staff shows a similar picture. On average across countries for which data are available, ratios of students to teaching staff are slightly lower in private institutions than in public institutions at the lower secondary and upper secondary levels (Table D2.3). The largest differences between public and private institutions are in Brazil, Mexico and Turkey where, at the lower secondary level, there are at least seven more students per teacher in public institutions than in private institutions. At the upper secondary level in Mexico, the difference in student-teacher ratios between public and private institutions (a difference of more than 17 students per teacher) is even larger than that at the lower secondary level (15 students per teacher).

However, in some countries, the student-teacher ratio is lower in public institutions than in private institutions. This is most pronounced at the lower secondary level in the United Kingdom, which has some 22 students per teacher in private institutions, compared to fewer than 11 students per teacher in public institutions.

Definitions

Instructional personnel (teaching staff) includes two categories:

- **Teachers' aides and teaching/research assistants** include non-professional personnel or students who support teachers in providing instruction to students.
- **Teaching staff** refers to professional personnel directly involved in teaching students. The classification includes classroom teachers, special-education teachers and other teachers who work with a whole class of students in a classroom, in small groups in a resource room, or in one-to-one teaching situations inside or outside a regular class. Teaching staff also includes department chairpersons whose duties include some teaching, but excludes non-professional personnel who support teachers in providing instruction to students, such as teachers' aides and other paraprofessional personnel.

Methodology

Data refer to the academic year 2011-12 and are based on the UOE data collection on education statistics administered by the OECD in 2012 (for details see Annex 3 at *www.oecd.org/edu/eag.htm*).

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Class size is calculated by dividing the number of students enrolled by the number of classes. In order to ensure comparability among countries, special-needs programmes are excluded. Data include only regular programmes at primary and lower secondary levels of education, and exclude teaching in sub-groups outside the regular classroom setting.

The ratio of students to teaching staff is obtained by dividing the number of full-time equivalent students at a given level of education by the number of full-time equivalent teachers at that level and in similar types of institutions.

Notes on definitions and methodologies for each country are provided in Annex 3, available at *www.oecd.org/edu/eag.htm*.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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Tables of Indicator D2

StatLink http://dx.doi.org/10.1787/888933119682

	Table D2.1	Average class size, by type of institution and level of education (2012)
	Table D2.2	Ratio of students to teaching staff in educational institutions (2012)
	Table D2.3	Ratio of students to teaching staff by type of institution (2012)
WEB	Table D2.4	Average class size, by type of institution and level of education (2000)

D2

Table D2.1. Average class size, by type of institution and level of education (2012)

Calculations based on number of students and number of classes

		Primary education					Lower secondary education (general programmes)				
		Public institutions	Private institutions			Total Public and private institutions	Public institutions	Private institutions			Total Public and private institutions
			Total private institutions	Government-dependent private institutions	Independent private institutions			Total private institutions	Government-dependent private institutions	Independent private institutions	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
OECD	Australia	23	25	25	a	**24**	23	25	25	a	**24**
	Austria	18	19	19	x(3)	**18**	21	22	22	x(7)	**21**
	Belgium	m	m	m	m	**m**	m	m	m	m	**m**
	Belgium (Fr.)	21	22	22	a	**21**	m	m	m	a	**m**
	Canada	m	m	m	m	**m**	m	m	m	m	**m**
	Chile	29	31	32	24	**30**	31	31	33	25	**31**
	Czech Republic	20	15	15	a	**20**	21	19	19	a	**21**
	Denmark	21	18	18	x(3)	**21**	21	20	20	x(8)	**21**
	Estonia	17	15	a	15	**17**	16	12	a	12	**16**
	Finland	19	18	18	a	**19**	20	22	22	a	**20**
	France	23	23	x(2)	x(2)	**23**	25	26	26	14	**25**
	Germany	21	21	21	x(3)	**21**	25	24	24	x(8)	**24**
	Greece	17	20	a	20	**17**	22	24	a	24	**22**
	Hungary	21	20	20	a	**21**	21	20	20	a	**21**
	Iceland	19	15	15	a	**19**	20	13	13	a	**20**
	Ireland	24	m	a	m	**24**	m	m	m	m	**m**
	Israel	28	24	24	a	**27**	29	23	23	a	**28**
	Italy	19	20	a	20	**19**	22	22	a	22	**22**
	Japan	28	30	a	30	**28**	33	34	a	34	**33**
	Korea	25	29	a	29	**25**	34	33	33	a	**33**
	Luxembourg	15	20	17	20	**16**	19	20	20	20	**19**
	Mexico	20	19	a	19	**20**	27	24	a	24	**27**
	Netherlands[1]	x(5)	x(5)	x(5)	x(5)	**23**	m	m	m	m	**m**
	New Zealand	m	m	m	m	**m**	m	m	m	m	**m**
	Norway	a	a	a	a	**a**	a	a	a	a	**a**
	Poland	19	12	11	12	**18**	23	18	23	16	**22**
	Portugal	21	21	23	20	**21**	22	25	24	26	**22**
	Slovak Republic	17	16	16	a	**17**	20	18	18	a	**20**
	Slovenia	19	22	22	a	**19**	20	18	18	a	**20**
	Spain	20	24	24	22	**21**	24	25	26	22	**24**
	Sweden	m	m	m	m	**m**	m	m	m	m	**m**
	Switzerland	m	m	m	m	**m**	m	m	m	m	**m**
	Turkey	24	20	a	20	**24**	29	20	a	20	**28**
	United Kingdom	26	17	26	15	**25**	20	18	20	11	**19**
	United States	22	18	a	18	**21**	28	20	a	20	**27**
	OECD average	21	21	21	20	**21**	24	22	22	21	**24**
	EU21 average	20	19	19	18	**20**	21	21	21	18	**21**
Partners	Argentina	m	m	m	m	**m**	m	m	m	m	**m**
	Brazil	25	18	a	18	**24**	29	25	a	25	**28**
	China	38	44	x(2)	x(2)	**38**	52	52	x(7)	x(7)	**52**
	Colombia	m	m	m	m	**m**	m	m	m	m	**m**
	India	m	m	m	m	**m**	m	m	m	m	**m**
	Indonesia	24	21	a	21	**23**	36	31	a	31	**34**
	Latvia	16	9	a	9	**16**	15	8	a	8	**15**
	Russian Federation	18	12	a	12	**18**	18	11	a	11	**18**
	Saudi Arabia	m	m	m	m	**m**	m	m	m	m	**m**
	South Africa	m	m	m	m	**m**	m	m	m	m	**m**
	G20 average	24	23	~	~	**24**	28	26	~	~	**28**

1. Excluding special needs programmes and partially including ISCED 0.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933119701

Table D2.2. Ratio of students to teaching staff in educational institutions (2012)

By level of education, calculations based on full-time equivalents

		Pre-primary education		Primary education	Secondary education			Post-secondary non-tertiary education	Tertiary education		
		Students to contact staff (teachers and teachers' aides)	Students to teaching staff		Lower secondary education	Upper secondary education	All secondary education		Tertiary-type B	Tertiary-type A and advanced research programmes	All tertiary education
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
OECD	Australia[1, 2]	m	m	16	x(6)	x(6)	12	m	m	14	m
	Austria	10	14	12	9	10	9	10	n	17	17
	Belgium[3]	16	16	13	8	10	9	x(5)	x(10)	x(10)	21
	Canada[2, 4]	m	x(4)	x(4)	16	14	14	m	m	14	m
	Chile	11	22	22	22	24	23	a	m	m	m
	Czech Republic	14	14	19	11	11	11	18	17	22	21
	Denmark	m	m	x(4)	12	m	m	m	m	m	m
	Estonia	m	7	13	10	14	12	x(5)	m	m	m
	Finland	m	11	14	9	16	13	x(5)	n	14	14
	France[3]	14	22	19	15	10	13	x(8)	17	15	16
	Germany	10	12	16	14	14	14	13	14	11	12
	Greece	m	m	9	m	m	m	m	m	m	m
	Hungary	m	11	11	11	12	12	14	21	15	15
	Iceland	6	6	10	11	11	11	x(5, 10)	x(10)	x(10)	11
	Ireland[2]	m	m	16	x(6)	x(6)	15	x(6)	x(10)	x(10)	19
	Israel	13	27	15	14	11	12	m	m	m	m
	Italy[2]	m	12	12	12	13	12	m	10	19	19
	Japan	15	15	18	14	12	13	x(5, 10)	m	m	m
	Korea	16	16	18	18	15	17	a	m	m	m
	Luxembourg	m	11	9	11	8	9	m	m	m	m
	Mexico	25	25	28	32	27	30	a	16	15	15
	Netherlands	14	16	16	16	19	17	21	15	15	15
	New Zealand	m	7	16	16	14	15	22	17	18	18
	Norway	m	m	10	10	10	10	x(5)	x(10)	x(10)	9
	Poland	m	16	11	10	11	10	16	8	15	15
	Portugal	m	16	12	10	8	9	x(5, 10)	x(10)	x(10)	15
	Slovak Republic	12	12	17	13	14	13	11	9	14	14
	Slovenia	9	9	16	8	14	11	x(5)	x(10)	16	18
	Spain	m	13	13	11	10	10	a	10	12	12
	Sweden	6	6	12	11	13	12	30	x(10)	11	11
	Switzerland	m	m	m	m	m	m	m	m	m	m
	Turkey	m	21	20	20	16	18	a	53	16	20
	United Kingdom	12	19	21	14	17	16	a	x(10)	x(10)	20
	United States	10	12	15	15	15	15	16	x(10)	x(10)	16
	OECD average	13	14	15	14	14	13	17	15	15	14
	EU21 average	11	13	14	11	13	12	17	13	15	16
Partners	Argentina	m	m	m	m	m	m	a	m	m	m
	Brazil	12	17	22	19	17	18	a	x(10)	x(10)	27
	China	m	m	17	13	16	14	m	m	m	m
	Colombia	m	m	m	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m	m	m	m
	Indonesia	m	11	11	8	11	9	17	20	20	20
	Latvia	23	26	25	22	23	22	a	x(10)	x(10)	31
	Russian Federation[2]	m	m	20	9	15	10	x(6)	11	13	12
	Saudi Arabia	m	11	11	10	11	10	a	x(10)	x(10)	21
	South Africa	m	m	m	m	m	m	a	m	m	m
	G20 average	15	17	19	16	16	15	~	~	~	~

1. Includes only general programmes in upper secondary education.
2. Public institutions only (for Australia, at tertiary-type A and advanced research programmes only; for Canada, at tertiary level only; for Ireland, at tertiary level only; for Italy, from pre-primary to secondary level; for the Russian Federation, at primary and secondary levels only).
3. Excludes independent private institutions.
4. Year of reference 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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D2

Table D2.3. Ratio of students to teaching staff by type of institution (2012)

By level of education, calculations based on full-time equivalents

	Lower secondary education				Upper secondary education				All secondary education			
		Private				Private				Private		
	Public	Total private institutions	Government-dependent private institutions	Independent private institutions	Public	Total private institutions	Government-dependent private institutions	Independent private institutions	Public	Total private institutions	Government-dependent private institutions	Independent private institutions
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD												
Australia[1]	x(9)	x(10)	x(11)	a	x(9)	x(10)	x(11)	a	12	12	12	a
Austria	9	10	10	x(2)	10	8	8	x(6)	9	9	9	x(9)
Belgium[2]	8	9	9	m	11	10	10	m	10	9	9	m
Canada[3, 4, 5]	m	m	m	m	14	12	x(6)	x(6)	14	12	x(10)	x(10)
Chile	21	24	25	17	23	24	26	15	22	24	26	16
Czech Republic	11	9	9	a	11	13	13	a	11	12	12	a
Denmark[4]	12	12	12	m	m	m	m	m	m	m	m	m
Estonia	10	9	a	9	14	13	a	13	12	11	a	11
Finland[6]	9	9	9	a	16	18	18	a	12	17	17	a
France	15	17	17	m	9	12	12	m	12	14	14	m
Germany	14	13	13	x(3)	14	13	13	x(7)	14	13	13	x(11)
Greece	m	m	m	m	m	m	m	m	m	m	m	m
Hungary	11	10	10	a	12	13	13	a	12	12	12	a
Iceland[6]	11	4	4	n	11	12	12	n	11	11	11	n
Ireland[2]	x(9)	m	a	m	x(9)	m	a	m	15	m	a	m
Israel	14	7	7	a	11	a	a	a	12	7	7	a
Italy	12	m	a	m	13	m	a	m	12	m	a	m
Japan[6]	14	12	a	12	11	14	a	14	13	14	a	14
Korea	18	19	19	a	15	16	16	a	16	17	17	a
Luxembourg	10	18	10	x(12)	9	4	7	3	9	7	8	6
Mexico	35	19	a	19	32	15	a	15	34	17	a	17
Netherlands	16	15	a	15	19	19	a	19	17	18	a	18
New Zealand	17	13	a	13	14	12	16	10	15	12	16	11
Norway	10	m	m	m	10	m	m	m	10	m	m	m
Poland	10	9	11	8	11	11	12	11	10	10	12	10
Portugal[7]	9	13	13	13	8	7	11	6	9	9	12	7
Slovak Republic	13	12	12	n	14	12	12	n	13	12	12	n
Slovenia[2]	8	4	4	n	14	14	11	28	11	13	10	28
Spain	9	15	15	16	9	14	15	13	9	15	15	14
Sweden	11	12	12	n	13	15	15	n	12	14	14	n
Switzerland	m	m	m	m	m	m	m	m	m	m	m	m
Turkey	21	9	a	9	17	7	a	7	19	8	a	8
United Kingdom	11	22	47	5	10	28	38	7	11	26	40	6
United States	16	11	a	11	16	11	a	11	16	11	a	11
OECD average	13	13	14	9	13	13	15	10	13	13	14	10
EU21 average	11	12	14	11	12	13	14	12	12	13	14	12
Partners												
Argentina	m	m	m	m	m	m	m	m	m	m	m	m
Brazil	21	13	a	13	18	12	a	12	19	12	a	12
China	m	13	x(2)	x(2)	m	15	x(6)	x(6)	m	14	x(10)	x(10)
Colombia	m	m	m	m	m	m	m	m	m	m	m	m
India	m	m	m	m	m	m	m	m	m	m	m	m
Indonesia	21	23	a	23	19	28	a	28	20	25	a	25
Latvia	m	m	m	m	m	m	m	m	m	m	m	m
Russian Federation	9	4	a	4	15	20	a	20	10	6	a	6
Saudi Arabia	10	11	x(2)	x(2)	10	15	x(6)	x(6)	10	13	x(10)	x(10)
South Africa	m	m	m	m	m	m	m	m	m	m	m	m
G20 average	13	15	~	~	13	15	~	~	13	15	~	~

1. Includes only general programmes in lower and upper secondary education.
2. Upper secondary includes post-secondary non-tertiary education.
3. Year of reference 2011.
4. Lower secondary includes primary education.
5. Lower secondary includes pre-primary education.
6. Upper secondary education includes programmes from post-secondary education.
7. Data refer to teachers (head count) in primary, secondary and post-secondary non-tertiary education.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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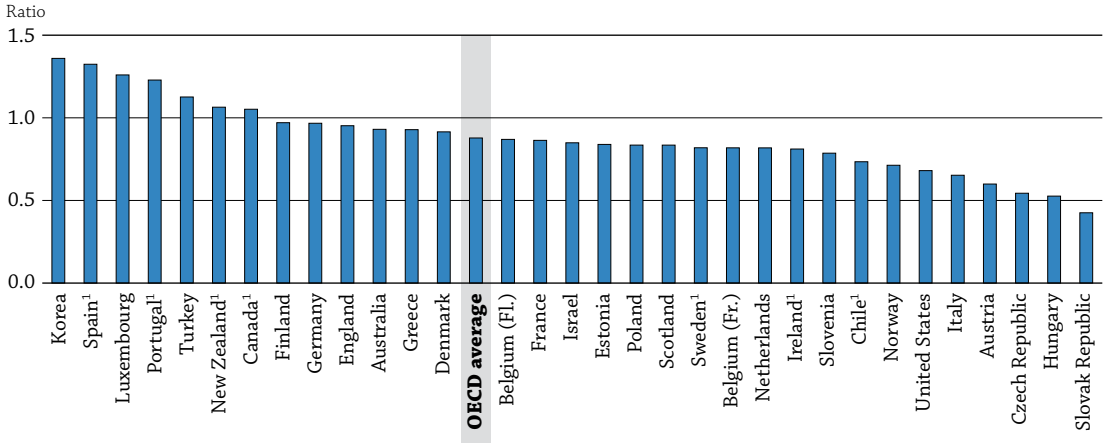
HOW MUCH ARE TEACHERS PAID?

- On average across OECD countries, pre-primary teachers earn 80% of the salary of a tertiary-educated, 25-64 year-old full-time, full-year worker, primary-school teachers earn 85% of that benchmark, lower secondary teachers are paid 88%, and upper secondary teachers are paid 92% of that benchmark salary.
- The statutory salaries of teachers with 15 years of experience average USD 37 350 at the pre-primary level, USD 39 024 at the primary level, USD 40 570 at the lower secondary level, and USD 42 861 at the upper secondary level.

Chart D3.1. Teachers' salaries relative to earnings for tertiary-educated workers aged 25-64 (2012)

Lower secondary teachers' salaries, in public institutions



Notes: Teachers' salaries either refer to actual salary, including bonuses and allowances, for teachers aged 25-64 or to statutory salary after 15 years of experience and minimum training. Please refer to Table D3.2 for details on the methodology.
1. Year of reference 2011.
Countries are ranked in descending order of the ratio of teachers' salaries to earnings for full-time, full-year workers with tertiary education aged 25-64.
Source: OECD. Table D3.2. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
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Context

Teachers' salaries represent the largest single cost in formal education and have a direct impact on the attractiveness of the teaching profession. They influence decisions to enrol in teacher education, become a teacher after graduation (as graduates' career choices are associated with relative earnings in teaching and non-teaching occupations, and their likely growth over time), return to the teaching profession after a career interruption, and/or remain a teacher (as, in general, the higher the salaries, the fewer the people who choose to leave the profession) (OECD, 2005). Burgeoning national debt, spurred by governments' responses to the financial crisis of late 2008, have put pressure on policy makers to reduce government expenditure – particularly on public payrolls. Since compensation and working conditions are important for attracting, developing and retaining skilled and high-quality teachers, policy makers should carefully consider teachers' salaries as they try to ensure both quality teaching and sustainable education budgets (see Indicators B6 and B7).

Other findings

- In most OECD countries, **teachers' salaries increase with the level of education they teach**. For example, the salary of an upper secondary school teacher with 15 years of experience in Belgium, Denmark, Finland, Indonesia, Poland and Switzerland (for 11 years of experience) is at least 25% higher than that of a pre-primary school teacher with the same experience.

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- **Salaries at the top of the scale with minimum qualifications are, on average, 58%, 61%, 61% and 62% higher, respectively, than starting salaries in pre-primary, primary, lower secondary and upper secondary education**, and the difference tends to be greatest when it takes many years to progress through the scale. In countries where it takes 30 years or more to reach the top of the salary scale, salaries at that level are an average of 80% higher than starting salaries.
- Teachers with maximum qualifications at the top of their salary scales are paid, on average, USD 48 937 at the pre-primary level, USD 50 984 at the primary level, USD 53 686 at the lower secondary level, and USD 55 119 at the upper secondary level. However, **the salary premium for higher qualifications varies.** In Israel, Mexico, Poland and Slovenia, for example, primary teachers who hold the maximum qualification earn at least 30% more than primary teachers with similar experience, but who hold the minimum qualification. However, in around one-third of countries with available data there is no difference.
- In 10 out of 24 countries with available data, the **average annual salaries of upper secondary teachers**, including bonuses and allowances, are at least 10% higher than statutory salaries for upper secondary teachers with 15 years of experience and minimum qualification.

Trends

Between 2000 and 2012, teachers' salaries rose, in real terms, in all countries with available data, with the exception of France, Greece and Japan. However, in most countries, salaries increased less since 2005 than between 2000 and 2005 and the economic downturn in 2008 also had a direct impact on teachers' salaries, which were either frozen or cut in some countries. As a consequence, the number of countries showing an increase in salaries, in real terms, between 2008 and 2012 shrinks to fewer than half of OECD countries.

Analysis

Statutory teachers' salaries

Teachers' salaries are one component of teachers' total compensation. Other benefits, such as regional allowances for teaching in remote areas, family allowances, reduced rates on public transport and tax allowances on the purchase of cultural materials, may also form part of teachers' total remuneration. There are also large differences in taxation and social-benefits systems in OECD countries. All this should be borne in mind when comparing statutory salaries across countries.

Teachers' salaries vary widely across countries. The salaries of lower secondary school teachers with 15 years of experience range from less than USD 15 000 in Estonia, Hungary, Indonesia and the Slovak Republic, to more than USD 60 000 in Germany, the Netherlands and Switzerland (for teachers with at least 11 years of experience) and exceed USD 100 000 in Luxembourg (Table D3.1 and Chart D3.2).

In most countries, teachers' salaries increase with the level of education taught. In Belgium, Denmark, Hungary, Indonesia, the Netherlands, Poland and the Slovak Republic, upper secondary teachers with 15 years of experience earn between 20% and 30% more than pre-primary teachers with the same experience; they earn around 50% more in Finland and in Switzerland (for teachers with 11 years of experience). In Finland and the Slovak Republic, the difference is mainly explained by the gap between pre-primary and primary teachers' salaries. In the Netherlands, the main difference is found between the primary and lower secondary level, whereas in Belgium, teachers' salaries at the upper secondary level are significantly higher than at the other levels of education. In Denmark and Hungary, the main differences are found between upper secondary and lower secondary teachers' salaries, while there is no difference between the salaries of lower secondary and primary teachers. In contrast, in Switzerland, teachers' salaries increase consistently from pre-primary to upper secondary level. The differences between salaries at each level of education should be interpreted in light of the requirements to enter the teaching profession (see Indicator D6).

In Australia, Canada, Korea and Turkey, there is less than a 5% difference between salaries for upper secondary and pre-primary school teachers with 15 years of experience; in England, Greece, Portugal, Scotland and Slovenia, teachers receive the same salary irrespective of the level of education taught. This is also true in Estonia, Ireland and Japan at the primary, lower secondary and upper secondary levels. In Israel, there is a 13% difference between the salaries of an upper secondary teacher and a pre-primary teacher in favour of the latter. This difference is the result of the "New Horizon" reform, gradually implemented since 2008, that increased salaries for pre-primary, primary and lower secondary teachers. Another reform, launched in 2012, aims to raise salaries for upper secondary teachers. In Luxembourg, primary school teachers with 15 years of experience earned around 50% less than secondary teachers with the same amount of experience prior to a reform in 2009. Now, however, the difference between primary and secondary school teachers' salaries is less than 10%.

Differences in teachers' salaries at different education levels may influence how schools and school systems attract and retain teachers and may also influence the extent to which teachers move among education levels.

Minimum and maximum teachers' salaries

Education systems face a challenge in recruiting high-quality graduates as teachers. Research evidence indicates that salaries and alternative employment opportunities are important influences on the attractiveness of teaching (Santiago, 2004). The starting salaries of teachers relative to other non-teaching occupations and the likely growth in earnings have a huge influence over a graduate's decision to become a teacher. Countries that are looking to increase the supply of teachers, especially those with an ageing teacher workforce and/or a growing school-age population, might consider offering more attractive starting wages and career prospects. However, to ensure a well-qualified teaching workforce, efforts must be made not only to recruit and select only the most competent and qualified teachers, but also to retain effective teachers.

At the lower secondary level, new teachers entering the profession with the minimum qualification earn, on average, USD 30 735. This minimum salary ranges from below USD 15 000 in Brazil, Estonia, Hungary, Indonesia, Poland and the Slovak Republic, to more than USD 40 000 in Denmark, Germany, Luxembourg and Switzerland. For teachers at the top of the salary scale and with the maximum qualifications, salaries average USD 53 686. This maximum salary ranges from less than USD 20 000 in Estonia, Indonesia and the Slovak Republic, to USD 75 000 or more in Austria, Korea and Switzerland and more than USD 130 000 in Luxembourg.

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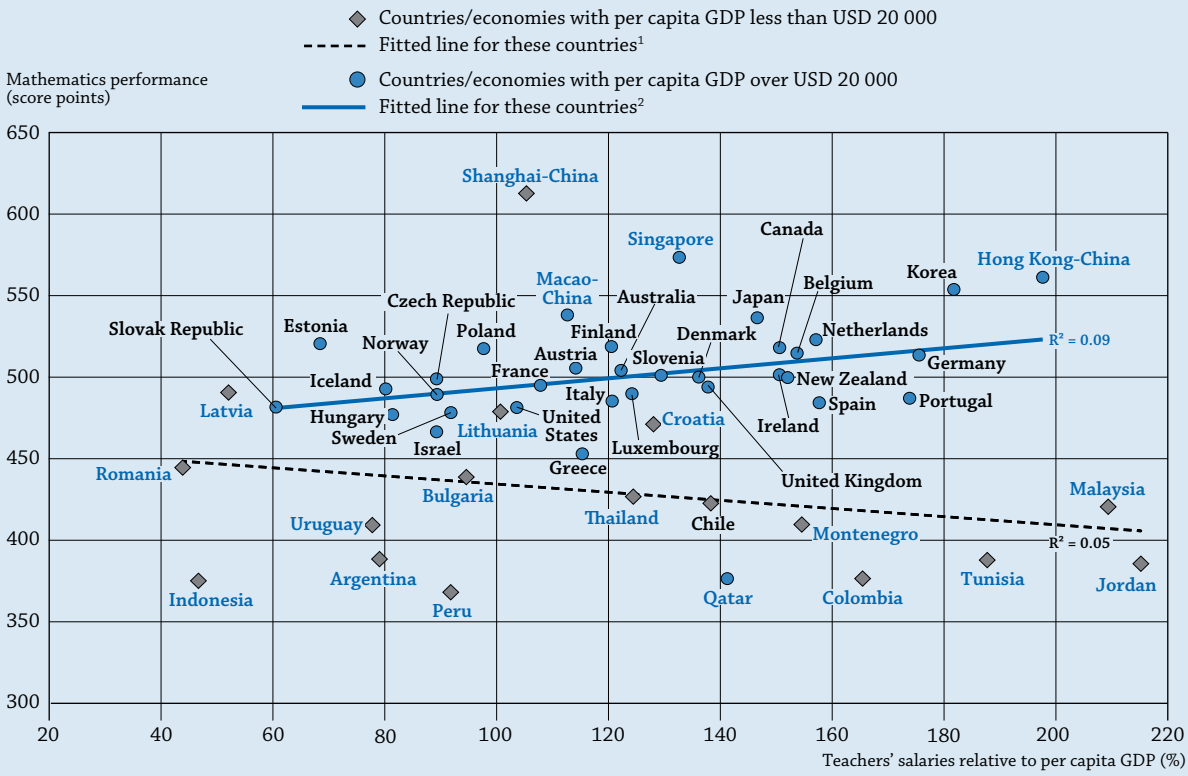
Box D3.1. **How teachers' salaries are related to student performance**

Findings from the 2012 OECD Programme for International Students Assessment (PISA) suggest that high-performing systems tend to prioritise higher salaries for teachers, especially in high-income countries. Among countries and economies whose per capita GDP is more that USD 20 000, including most OECD countries, systems that pay teachers more (i.e. higher teachers' salaries relative to national income per capita) tend to perform better in mathematics. The correlation between these two factors across 33 high-income countries and economies is 0.30, and the correlation is 0.40 across 32 high-income countries and economies, excluding Qatar. In contrast, across countries and economies and economies whose GDP is less than USD 20 000, a system's overall academic performance is unrelated to its teachers' salaries, possibly signalling that a host of resources (material infrastructure, instructional materials, transportation, etc.) also need to be improved until they reach a certain level, after which improvements in material resources no longer benefit student performance, but improvements in human resources (through higher teachers' salaries, for example) do.

Chart D3.a. **Teachers' salaries and mathematics performance**



Notes: Teachers' salaries relative to per capita GDP refers to the weighted average of upper and lower secondary school teachers. The average is computed by weighting teachers' salaries for upper and lower secondary school according to the respective 15-year-old students' enrolment (for countries and economies with available information on both the upper and lower secondary levels).

Only countries and economies with available data are shown.

1. A non-significant relationship ($p > 0.10$) is shown by the dotted line.
2. A significant relationship ($p < 0.10$) is shown by the solid line.

Source: OECD (2013), *PISA 2012 Results: What Makes Schools Successful? (Volume IV): Resources, Policies and Practices*, PISA , OECD Publishing.

StatLink http://dx.doi.org/10.1787/888932957403

Most countries with starting salaries below the OECD average also show lower maximum salaries. At the lower secondary level, the exceptions are France, Japan, Korea and Mexico, where starting salaries are at least 5% lower than the OECD average, but maximum salaries are significantly higher. In Scotland, although starting salaries are almost 10% below the OECD average, maximum salaries are within the OECD average. The opposite is true for Denmark and Finland, where starting salaries are at least 10% higher than the OECD average while maximum salaries are around 5% or more lower than the OECD average. In Australia and Norway, starting salaries are at least

10% above the OECD average but maximum salaries are within the OECD average. In Sweden, the starting salaries are within the OECD average, but the maximum salaries are around 25% lower than the OECD average. (Chart D3.2 and Table D3.6, available on line).

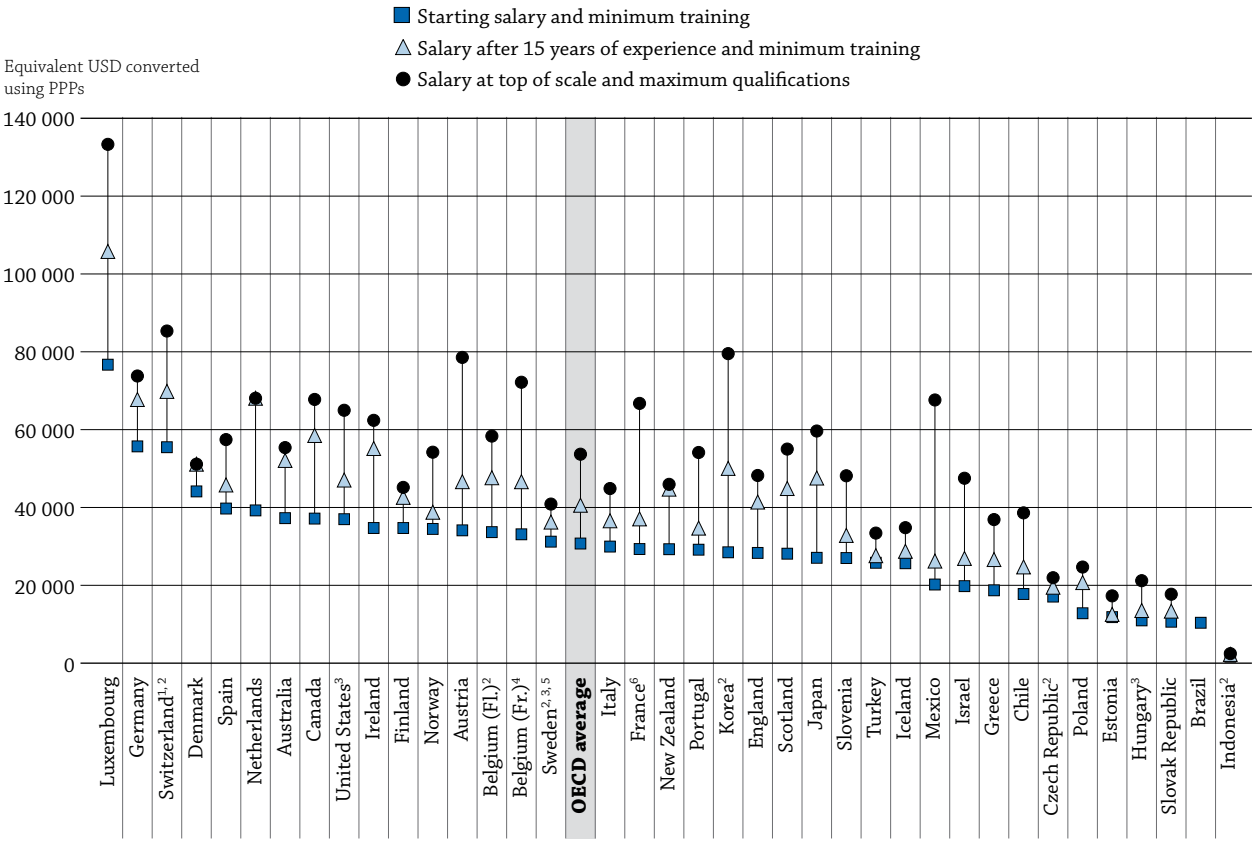
A number of countries have relatively flat salary scales. For example, the difference between minimum and maximum salaries is less than 30% in the Czech Republic, in Denmark at the pre-primary, primary and lower secondary levels, in Turkey at the lower and upper secondary levels, and in Finland, Norway and Sweden at the pre-primary level.

Weak financial incentives may make it more difficult to retain teachers as teachers approach the peak of their earnings. However, there may be some benefits to compressed pay scales. It is often argued, for example, that organisations in which there are smaller differences in salaries among employees enjoy more trust, freer flows of information and more collegiality among co-workers.

In contrast, maximum salaries are at least double the starting salaries in Austria, Chile, Israel and Korea at all levels of education, in the French community of Belgium at pre-primary, primary and lower secondary levels, in France at lower and upper secondary levels, in Hungary at upper secondary level, in Japan at primary and secondary levels, and in Poland at pre-primary and primary levels. Maximum salaries are more than three times higher than starting salaries in Mexico at pre-primary, primary and lower secondary levels (Chart D3.2 and Table D3.6, available on line).

Chart D3.2. Lower secondary teachers' salaries at different points in their careers (2012)

Annual statutory teachers' salaries, in public institutions, in equivalent USD converted using PPPs



1. Salaries after 11 years of experience, instead of 15 years.
2. Salaries at top of scale and minimum training, instead of maximum qualifications.
3. Actual base salaries.
4. Salaries of teachers with typical qualification instead of minimum.
5. Year of reference 2011.
6. Includes average bonuses for overtime hours.

Countries are ranked in descending order of starting salaries for lower secondary teachers with minimum training.

Source: OECD. Table D3.1, and Table D3.6, available on line. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933119948

The salary premium for a higher level of qualification, at the top of the salary scale, also varies across countries. At the lower secondary level, while there is no difference between salaries at the top of the scale for teachers with minimum and maximum qualifications in 10 of 32 countries with data for both, teachers at the top of the scale holding the maximum qualifications in the French community of Belgium, France, Israel, Norway and Slovenia earn at least 25% more than teachers with the same experience, but with minimum training. This salary gap is as wide as 57% in Mexico. A similar picture is seen at the upper secondary level (Table D3.1 and Table D3.6, available on line).

When considering the salary structure for teachers, it is important to remember that not all teachers reach the top of the salary scale, and that only few of them hold the maximum qualification. For example, in Greece and Italy, less than 5% of all teachers were at the top of the salary scale in 2012 and in France the proportion of teachers holding the maximum qualifications at the lower secondary level accounts for only 5% of all teachers.

Teaching experience and salary scales

Salary structures define the salaries paid to teachers at different points in their careers. Deferred compensation, which rewards employees for staying in organisations or professions and for meeting established performance criteria, is also used in teachers' salary structures. OECD data on teachers' salaries are limited to information on statutory salaries at four points of the salary scale: starting salaries, salaries after 10 years of service, salaries after 15 years of experience, and salaries at the top of the scale. The salaries discussed here are those of teachers who have the minimum required training. As mentioned above, further qualifications can lead to wage increases in some countries.

In OECD countries, teachers' salaries rise during the course of a career, although the rate of change differs across countries. Statutory salaries for lower secondary school teachers with 10 and 15 years of experience are, respectively, 24% and 35% higher, on average, than starting salaries. Furthermore, salaries at the top of the scale, which is reached after an average of 24 years of experience, are 61% higher, on average, than starting salaries. In Hungary, Israel, Italy, Korea and Spain, lower secondary school teachers reach the top of the salary scale only after 35 or more years of service; in Greece, the top of the scale is reached after 45 years of service. In contrast, lower secondary school teachers in Australia, Denmark, Estonia, New Zealand and Scotland reach the highest step on the salary scale within six to nine years (Tables D3.1 and D3.3).

While salary increases are gradual in around half of the 31 OECD countries with relevant data, in the remaining countries, salary scales include steps of uneven size.

Statutory salaries per hour of net teaching time

The average statutory salary per teaching hour after 15 years of experience is USD 50 for primary school teachers, USD 59 for lower secondary teachers, and USD 68 for upper secondary teachers in general education. Chile, the Czech Republic (primary level), Estonia, Hungary, Indonesia, Mexico (primary and lower secondary levels), Poland (primary level) and the Slovak Republic show the lowest salaries per teaching hour: less than USD 30. In contrast, salaries per teaching hour are USD 90 or more in Belgium, Denmark, Japan, and Korea at the upper secondary level and in Germany and the Netherlands at the lower and upper secondary levels. They exceed USD 120 in Luxembourg at all education levels (Table D3.3).

As secondary school teachers are required to teach fewer hours than primary school teachers, their salaries per teaching hour are usually higher than those of teachers at lower levels of education, even in countries where statutory salaries are similar (see Indicator D4). On average across OECD countries, upper secondary teachers' salaries per teaching hour exceed those of primary teachers by 32%. In Scotland, there is no difference, while in Denmark, upper secondary teachers earn double the salary of primary teachers per teaching hour (Table D3.3).

However, the difference in salaries between primary and secondary teachers may disappear when comparing salaries per hour of working time. In Portugal, for example, there is a 23% difference in salaries per teaching hour between primary and upper secondary teachers, even though statutory salaries and total working time are actually the same at these levels. The difference is explained by the fact that primary teachers spend more time in teaching activities than upper secondary teachers do (see Table D4.1).

Trends since 2000

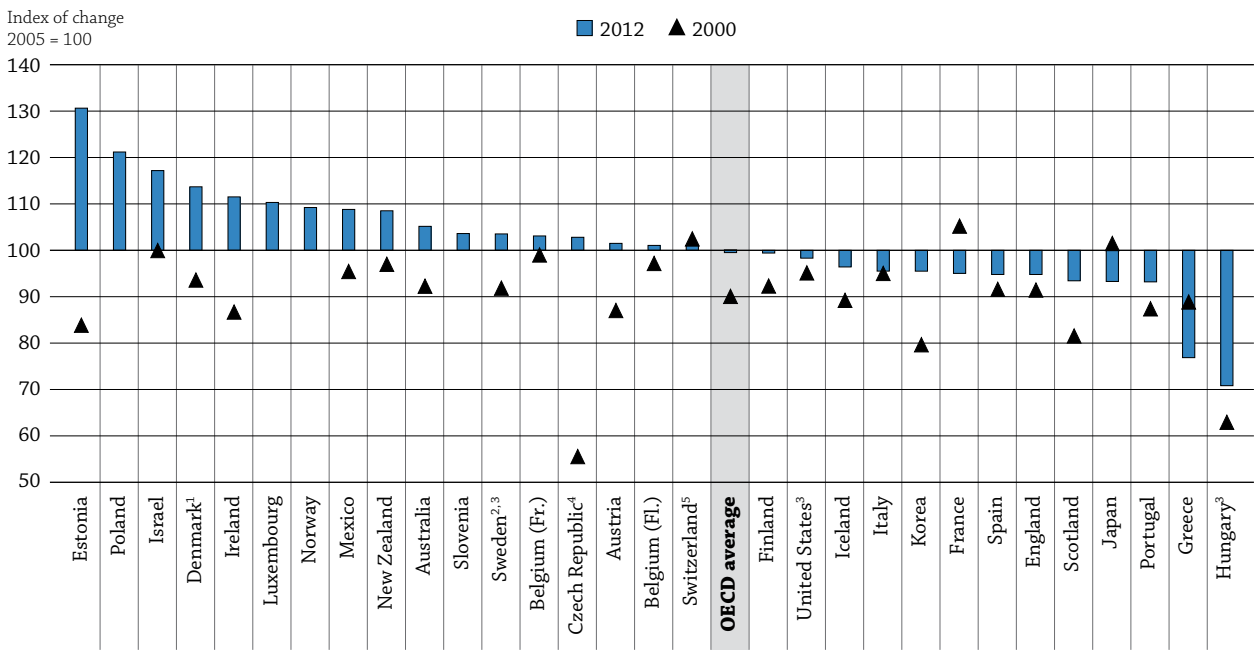
Comparing salaries in 2000 and 2012, teachers' salaries increased overall in real terms in most countries with available data. Notable exceptions are France, Greece and Japan, where there was a decline of around 10% in teachers' salaries in real terms during that period. In the Czech Republic, Estonia and Turkey (primary and upper secondary), salaries increased by at least 50% over this period (Table D3.5).

However, between 2005 and 2012, only slightly more than half of OECD countries with available data show an increase in their salaries in real terms and in most countries, salaries increased less since 2005 than between 2000 and 2005. The exceptions to this pattern are the French community of Belgium (secondary levels), Denmark (primary and lower secondary levels), Estonia, Israel and Mexico (primary and lower secondary levels) and New Zealand, where most of the increase in teachers' salaries occurred after 2005. In Poland, salaries also increased since 2005 by at least 20% at all levels of education. This is the result of a government programme from 2007 that aimed to increase teachers' salaries successively between 2008 and 2012. The government reform was implemented to improve the quality of education by providing financial incentives to attract high-quality teachers.

In contrast, in Greece and Hungary, salaries decreased by at least 20% since 2005 (Chart D3.3). However, these decreases occurred largely between 2008 and 2012. This reflects the impact of the economic downturn in 2008 on teachers' salaries, which were either frozen or cut in these countries between 2008 and 2012 (Box D3.2). The number of countries showing an increase in salaries, in real terms, between 2008 and 2012 shrinks to fewer than half of OECD countries. In England, Estonia, Scotland and Spain, salaries fell by at least 5% between 2008 and 2012 and by at least 10% in the Czech Republic over this period.

Chart D3.3. Change in lower secondary teachers' salaries (2000, 2005, 2012)

Index of change between 2000 and 2012 (2005 = 100, constant prices), for teachers with 15 years of experience and minimum training



1. Break in time series following methodological changes in 2009.
2. Year of reference 2011 instead of 2012.
3. Actual base salaries.
4. Break in time series following methodological changes in 2012.
5. Salaries after 11 years of experience.

Countries are ranked in descending order of the index of change, between 2005 and 2012, in the salaries of lower secondary teachers with 15 years of experience.

Source: OECD. Table D3.5. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933119967

The above analysis on trends in salaries is based on teachers with 15 years of experience (a proxy for mid-career teachers); however, teachers at certain stages of their career may experience more rapid pay increases than teachers at another stage of their career. For example, some countries that have been experiencing teachers' shortages may implement targeted policies to improve the attractiveness of the profession by increasing the salaries of beginning teachers (OECD, 2005). In France, for example, starting teachers received an increase in pay in 2010 and 2011.

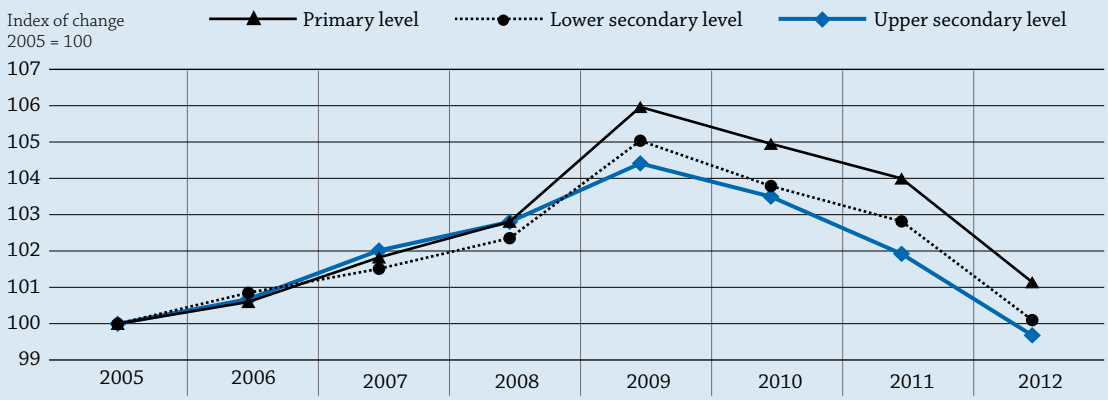
Box D3.2. **Effect of the economic crisis**

The financial and economic crisis that hit the world economy in the last months of 2008 significantly affected the salaries for civil servants and public sector workers in general. The pressure to trim government spending in order to reduce national debt has resulted in cuts in teachers' and other civil-servants' salaries in a growing number of countries. On average across OECD countries with available data, teachers' salaries decreased, for the first time since 2000, by around 5% at all levels of education between 2009 and 2012.

Teachers' salaries were, for example, significantly affected by the crisis in England, Estonia, Greece, Hungary, Ireland, Italy, Portugal, Scotland and Spain. In Estonia, minimum teachers' salaries were cut back to their 2008 levels in 2010 and were frozen at that level. In Greece, various reductions in teachers' benefits and allowances affected teachers' salaries in 2010, 2011 and 2012. As a result, gross salaries fell by around 25%, in real terms, between 2009 and 2012. In addition, Greek teachers also saw their net salaries shrink as a tax for solidarity was created. This tax increased the level of taxation on teachers' already reduced gross salary; and the insurance coverage paid by teachers is still calculated based on their earlier, higher salaries. In Hungary, the 13th month of salary (a supplemental bonus that was paid to all employees) was suspended in 2009. Although a compensatory bonus was paid to all public-sector employees whose wages where under a certain threshold, the base salary of teachers was still considerably affected. In 2012, the continued decrease in teachers' salaries is due to a reduction in additional payments, such as for extra teaching lessons. These additional payments were a significant component of teachers' total compensation, paid above base salaries. In 2012 these payments decreased to a lesser extent at the lower secondary level and to a greater extent at the upper secondary level.

Chart D3.b. Change in teachers' salaries in OECD countries (2005-12)

OECD average, for countries with data for all reference years, of the index of change for teachers with 15 years of experience and minimum training (2005 = 100, constant prices)



Source: OECD. Table D3.5. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933119986

In Spain, all civil servants saw their salaries reduced in July 2010. The extent of the decrease depended on the annual amount earned but it affected both the base salary and bonuses. In Ireland, teachers' salaries were reduced as of 1 January 2010 as part of a public service-wide reduction in pay. In addition, teachers who entered the profession after 1 January 2011 are paid according to a new salary scale that is 10% lower than the salary scale that applied to those previously recruited. In Portugal in 2011, using a method defined in a new law and as part of a reform package, salaries higher than EUR 1 500 were reduced. They fell again in 2012 as civil servants were paid salaries covering 12 months, not 14 months, as had previously been the case. In England, teachers' salaries were frozen between 2011 and 2012 at all levels of education, followed by a below-inflation increase of 1% in the following year for the public sector as a whole, all due to the financial crisis.

...

As teachers were in a three-year pay settlement, the pay freeze was applied later for teachers than for other public-sector workers. Similarly, the Scottish Negotiating Committee for Teachers (SNCT) agreed to freeze teachers' pay from April 2011 until March 2013. While teachers in Scotland are not classified as civil servants, this agreement mirrored the freezes applied to the pay of civil servants in Scotland. In Italy, teachers' salaries were frozen from 2011. This salary freeze affected all civil servants, including teachers, and was introduced in response to the international economic situation and in order to meet the public finance targets set by the EU.

The economic downturn may also have an influence on the supply of teachers. In general, when the general economy is weak, and there is high unemployment among graduates and low graduate earnings, teaching might seem to be a more attractive job choice than other occupations (OECD, 2005).

In most countries, similar increases and decreases in teachers' salaries were seen at the primary, lower secondary and upper secondary levels. However, in Israel and Luxembourg, they increased significantly more at the primary than at the secondary level between 2005 and 2012. In both Israel and Luxembourg, the difference in the index of change between primary and secondary school teachers' salaries is due to reforms that aimed to increase primary teachers' salaries. In Israel, this is largely the result of the gradual implementation of the "New Horizon" reform in primary and lower secondary schools, begun in 2008, following an agreement between the education authorities and the Israeli Teachers Union (for primary and lower secondary education). This reform includes higher teacher pay in exchange for more working hours (see Indicator D4). In 2012, 88% of full-time equivalent teachers in primary education, 33% in lower secondary education and 71% in pre-primary education were included in the reform. The same year, the Israeli government negotiated a similar programme for upper secondary schools with the union of secondary school teachers. As the implementation of these reforms continues, salaries at the lower and upper secondary levels are also expected to increase significantly.

Box D3.3. **Additional payments: Incentives and allowances**

In addition to basic pay scales, school systems increasingly use schemes that offer additional payments or other rewards for teachers. Together with the starting salary, these payments may influence a person's decision to enter or remain in the teaching profession. While data on the amount of payment were not yet collected, there is information on the additional payments available and on the level at which the decision to award such payments is taken (Tables D3.7a, b, c and d, available on line; as well as Annex 3, available at *www.oecd.org/edu/eag.htm*).

Additional payments are most often awarded for particular responsibilities or working conditions, such as teaching in more disadvantaged schools, particularly those located in very poor neighbourhoods or those with a large proportion of students whose language is not the language of instruction. These schools often have difficulties attracting teachers and are more likely to have less-experienced teachers (OECD, 2005). Most countries provide additional payments for handling management responsibilities in addition to teaching duties and around two-third of OECD countries offer these supplemental payments that are paid every year. Around two-third of the countries provide additional payments for teaching in more disadvantaged areas. Half of the OECD countries provide additional payments for special activities, e.g. sports and drama clubs, and teaching students with special education needs in regular schools.

Additional payments based on teachers' qualifications, training and performance are also common in OECD countries. The most common types of payments reward an initial education qualification and/or a level of teacher certification and training that is higher than the minimum requirement. Around 80% of the countries make these payments available, with about two-third of them offering both types of payments. Moreover, among the OECD countries with available data, 21 countries offer an additional payment to teachers for outstanding performance. In 17 of these countries, the decision to award the additional payments is made by the school principal.

Half of all OECD countries offer additional payments based on teachers' demographic characteristics (family status or age), and most of these are annual payments.

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Actual average salaries

Statutory salaries as reported by most of the countries in this indicator must be distinguished from actual expenditures on wages by governments and from teachers' actual average salaries, which are influenced by factors such as the levels of experience of the teaching force and the prevalence of bonuses and allowances in the compensation system.

Bonuses and allowances can represent a significant addition to basic salaries. In the Slovak Republic, for example, most teachers receive bonuses, such as personal valuations/appraisals, on a monthly basis. Depending on the financial resources of the school and the evaluation of individual teachers, teachers' average salaries in that country, including these bonuses, can be double the base statutory salary.

The comparison of actual annual salaries of all teachers aged 25-64 with statutory salaries for teachers with 15 years of experience shows that in Chile, Estonia (primary and secondary levels), France (upper secondary level), Hungary (primary and secondary levels), Iceland (upper secondary level), Israel (secondary levels), Norway (primary and lower secondary levels) and Poland (pre-primary, primary and lower secondary levels), average actual salaries, including bonuses and allowances, are at least 20% higher than statutory salaries for teachers with 15 years of experience. In contrast, in the French Community of Belgium (upper secondary level), Greece, Luxembourg (pre-primary and primary levels), the Netherlands and Scotland, average actual salaries of teachers aged 25-64 are at least 5% lower than statutory salaries for teachers with 15 years of experience (Tables D3.1 and D3.4).

In some countries, average actual teachers' salaries vary more across education levels than statutory salaries for teachers with 15 years of experience. In the Czech Republic, England, Finland and Norway, the gap between average actual salaries of upper secondary teachers and average actual salaries of pre-primary teachers is at least 10 percentage points greater than the difference in their statutory salaries. In France, there is an almost 30% gap in actual salaries between pre-primary and upper secondary teachers' salaries, but only a 10% gap in statutory salaries between these two groups of teachers. In Israel, statutory salaries of upper secondary teachers are more than 10% lower than statutory salaries of pre-primary teachers, but the opposite is true when looking at actual average salaries: upper secondary teachers earn, on average, almost 10% more than pre-primary teachers. In Poland and Norway, there is a difference of around 15% between average actual salaries at the pre-primary and primary levels, despite similar statutory salaries at these levels. The opposite is true for teachers' salaries at primary and upper secondary levels in Poland, with similar actual salaries but a difference of almost 15% in statutory salaries. The variety of bonuses available for different levels of education partly explains these differences (see Annex 3, available at *www.oecd.org/edu/eag.htm*).

Box D3.4. Actual average salaries, by age group and gender

In general, the actual salaries of teachers aged 25-64 average USD 38 253 at pre-primary level, USD 41 300 at primary level, USD 43 374 at lower secondary level, and USD 47 165 at upper secondary level. The pattern of salary increases within the level of education is similar for different age groups within the age range of 25-64 year-olds and for both men and women.

The actual salaries of older teachers (those aged 55-64) are, on average, 31% (pre-primary), 33% (primary), 35% (lower secondary) and 38% (upper secondary) higher than actual salaries of younger teachers (those aged 25-34).

When teachers' salaries compared to tertiary-educated, full-time, full-year 25-64 year-old workers are disaggregated by age, the ratio differs among age groups. Relative teachers' salaries are higher among the youngest adults (25-34 year-olds) than for the older age groups. The ratio among teachers aged 25-34 is at least 4 percentage points (upper secondary) and up to 8 percentage points (pre-primary) greater than the ratio among teachers aged 55-64. The higher ratio among the youngest adults compared to other age groups indicates the attractiveness of entering the teaching profession. However, this ratio shrinks as teachers age, indicating that teachers' salaries may evolve at a slower rate than for other workers and that the salaries of other similarly educated professionals are more attractive as the work force ages.

A comparison of the actual salaries of male and female teachers shows that female teachers earn on average slightly more than male teachers at the pre-primary level and slightly less at the primary, lower secondary and upper secondary levels. The difference in actual salaries between the genders, however, is less than 3%.

...

Larger gender differences are shown in the ratio of teachers' salaries to earnings for tertiary-educated workers aged 25-64. On average across all levels of education, male teachers aged 25-64 earn less than 85% of the salary of a tertiary-educated, 25-64 year-old full time, full-year male worker. Female teachers aged 25-64 are paid more than 85% (pre-primary level) to up to 103% (upper secondary level) of that benchmark salary. This higher ratio among female teachers reflects the persisting gender gap in earnings in the labour market, but not for the teaching profession, making the teaching profession particularly attractive to women, compared to other professions (Tables D3.2 and D3.4).

Teachers' salaries relative to earnings for tertiary-educated workers

The propensity of young people to undertake teacher training, as well as of graduates from teacher-training programmes to enter or stay in the profession, will be influenced by the salaries of teachers relative to those of other occupations requiring similar levels of qualifications and by likely salary increases. In all OECD countries, a tertiary qualification is required to become a teacher (see Indicator D6), so the likely alternative to teacher education is another tertiary education programme. Thus, to interpret salary levels in different countries and reflect comparative labour-market conditions, teachers' salaries are compared to those of other similarly-educated professionals: 25-64 year-old full-time, full-year workers with a tertiary education.

Pre-primary teachers' salaries amount to 80% of full-time, full-year earnings, on average, for 25-64 year-olds with tertiary education, primary teachers earn 85% of that benchmark salary, lower secondary teachers are paid 88%, and upper secondary teachers earn 92% of that benchmark salary. At this latter level, teachers in 12 of the 32 countries with available data earn as much or more than workers with tertiary education. Relative salaries for teachers are highest in Korea, Luxembourg (lower and upper secondary levels), Portugal and Spain, where teachers' salaries are at least 20% higher than those of comparably educated workers. The lowest relative teachers' salaries, compared to the salaries of other professionals with comparable education, are found in the Czech Republic and Hungary for pre-primary school teachers and in the Slovak Republic at all levels of education, where teachers' salaries are, on average, less than 50% of what a full-time, full-year worker with a tertiary education earns (Table D3.2 and Chart D3.1).

Definitions

Actual salaries for teachers aged 25-64 refer to the annual average earnings received by full-time teachers aged 25-64, before taxes. It includes work-related payments such as annual bonuses, result-related bonuses, extra pay for holidays and sick-leave pay. Income from other sources, such as government social transfers, investment income, and any other income that is not directly related to their profession, are not included.

An **adjustment to base salary** is defined as any difference in salary between what a particular teacher actually receives for work performed at school and the amount that he or she would expect to receive on the basis of experience (i.e. number of years in the teaching profession). Adjustments may be temporary or permanent, and they can effectively move a teacher off the scale and to a different salary scale or to a higher step on the same salary scale.

Earnings for workers with tertiary education are average earnings for full-time, full-year workers aged 25-64 with an education at ISCED 5A/5B/6 level. The relative salary indicator is calculated for the latest year with available earnings data. For countries in which teachers' salaries and workers' earnings information are not available for the same year (e.g. Belgium, the Czech Republic, France, Italy, the Netherlands, Norway and Sweden), the indicator is adjusted for inflation using the deflators for private consumption. Reference statistics for earnings for workers with tertiary education are provided in Annex 3.

Salaries after 15 years of experience refer to the scheduled annual salary of a full-time classroom teacher with the minimum training necessary to be fully qualified plus 15 years of experience.

Starting salaries refer to the average scheduled gross salary per year for a full-time teacher with the minimum training necessary to be fully qualified at the beginning of the teaching career; **maximum salaries** refers to the maximum annual salary (top of the salary scale) for a full-time classroom teacher with the maximum qualifications recognised for compensation.

Statutory salaries refer to scheduled salaries according to official pay scales. The salaries reported are gross (total sum paid by the employer) less the employer's contribution to social security and pension, according to existing salary scales. Salaries are "before tax", i.e. before deductions for income tax. In Table D3.3, salary per hour of net contact time divides a teacher's annual statutory salary by the annual net teaching time in hours (see Table D4.1).

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Methodology

Data on statutory teachers' salaries and bonuses are derived from the 2013 OECD-INES Survey on Teachers and the Curriculum. Data refer to the school year 2011-12 and are reported in accordance with formal policies for public institutions.

Data on teachers' salary at upper secondary level refer only to general programmes.

Measuring the statutory salary of a full-time teacher relative to the number of hours per year that a teacher is required to spend teaching does not adjust salaries for the amount of time that teachers spend in various other teaching-related activities. Since the proportion of teachers' working time spent teaching varies across OECD countries, statutory salaries per hour of net teaching time must be interpreted with caution (see Indicator D4). However, it can provide an estimate of the cost of the actual time teachers spend in the classroom.

Gross teachers' salaries were converted using PPPs for private consumption from the OECD National Accounts database. Prior to the 2012 edition of *Education at a Glance*, salaries used to be converted using PPPs for GDP. As a consequence, teachers' salaries in USD (Table D3.1) are not directly comparable with the figures published prior to the 2012 edition of *Education at a Glance*. Information on trends in teachers' salaries can be found in Table D3.5. As a complement to Table D3.1, which presents teachers' salaries in equivalent USD, converted using PPPs, a table with teachers' salaries in national currency is included in Annex 2. The period of reference for teachers' salaries is from 1 July 2011 to 30 June 2012. The reference date for PPPs is 2011-12.

For calculation of changes in teachers' salaries (Table D3.5), the deflator for private consumption is used to convert salaries to 2005 prices.

The ratio of teachers' salaries to earnings for full-time, full-year workers with tertiary education aged 25-64 is calculated using the annual average salaries (including bonuses and allowances) for teachers aged 25-64, for countries with available data (Table D3.4). For other countries, the ratio is calculated using the statutory salaries of teachers with 15 years of experience and the minimum required training. The methodology used for each country is provided in Table D3.2.

Notes on definitions and methodologies for each country are provided in Annex 3, available at *www.oecd.org/edu/eag.htm*.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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Tables of Indicator D3

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Table D3.1	**Teachers' statutory salaries at different points in their careers (2012)**
Table D3.2	**Teachers' salaries relative to earnings for full-time, full-year workers with tertiary education (2012)**
Table D3.3	**Comparison of teachers' statutory salaries (2012)**
Table D3.4	**Average actual teachers' salaries (2012)**
Table D3.5	**Trends in teachers' salaries between 2000 and 2012**

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WEB Table D3.6 Minimum and maximum teachers' statutory salaries (2012)

WEB Table D3.7a Decisions on payments for teachers in public institutions (2012)

WEB Table D3.7b Decisions made by school principal on payments for teachers in public institutions (2012)

WEB Table D3.7c Decisions made by local or regional authority on payments for teachers in public institutions (2012)

WEB Table D3.7d Decisions made by the national authority on payments for teachers in public institutions (2012)

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Table D3.1. [1/2] **Teachers' statutory salaries at different points in their careers (2012)**

Annual salaries in public institutions, in equivalent USD converted using PPPs for private consumption

		Pre-primary education				Primary education			
		Starting salary, minimum training	Salary after 10 years of experience, minimum training	Salary after 15 years of experience, minimum training	Salary at top of scale, minimum training	Starting salary, minimum training	Salary after 10 years of experience, minimum training	Salary after 15 years of experience, minimum training	Salary at top of scale, minimum training
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
OECD	Australia	36 768	51 163	50 947	51 320	37 221	51 504	51 289	51 662
	Austria	32 587	38 353	42 994	64 057	32 587	38 353	42 994	64 057
	Belgium (Fl.)	33 667	42 283	47 635	58 340	33 667	42 283	47 635	58 340
	Belgium (Fr.)[1]	33 109	41 403	46 616	57 042	33 109	41 403	46 616	57 042
	Canada	37 145	55 765	58 495	58 495	37 145	55 765	58 495	58 495
	Chile	17 770	22 742	24 725	32 656	17 770	22 742	24 725	32 656
	Czech Republic	15 807	16 669	17 224	18 728	16 986	18 508	19 363	21 835
	Denmark	42 230	44 797	46 037	46 037	44 131	49 353	51 122	51 122
	England	28 321	41 393	41 393	41 393	28 321	41 393	41 393	41 393
	Estonia	m	m	m	m	11 828	12 525	12 525	17 288
	Finland[2]	27 443	29 638	29 638	29 638	32 148	37 212	39 445	41 811
	France[3]	26 247	31 689	33 994	50 127	26 247	31 689	33 994	50 127
	Germany	m	m	m	m	50 007	59 795	62 195	66 396
	Greece	18 718	23 320	26 617	35 503	18 718	23 320	26 617	35 503
	Hungary[4]	10 627	11 969	12 717	16 771	10 992	12 562	13 520	18 020
	Iceland	23 763	26 429	26 429	30 240	25 672	28 046	28 742	29 938
	Ireland	m	m	m	m	33 602	49 233	55 148	62 386
	Israel	22 215	26 780	29 628	46 539	19 680	26 181	29 413	41 318
	Italy	27 786	30 567	33 570	40 851	27 786	30 567	33 570	40 851
	Japan	m	m	m	m	27 067	40 204	47 561	59 643
	Korea	28 012	41 700	48 738	79 631	28 591	42 972	50 145	79 631
	Luxembourg	66 085	87 511	98 788	118 412	66 085	87 511	98 788	118 412
	Mexico	15 556	15 648	20 296	33 319	15 556	15 648	20 296	33 319
	Netherlands	37 104	45 950	54 865	54 865	37 104	45 950	54 865	54 865
	New Zealand	m	m	m	m	28 961	43 050	43 050	43 050
	Norway	33 816	39 235	39 235	39 235	34 484	38 773	38 773	43 318
	Poland	11 388	14 966	18 160	18 925	11 388	14 966	18 160	18 925
	Portugal	29 151	31 928	34 694	48 321	29 151	31 928	34 694	48 321
	Scotland	28 124	44 867	44 867	44 867	28 124	44 867	44 867	44 867
	Slovak Republic	9 513	10 468	10 946	11 806	10 644	12 778	13 365	14 411
	Slovenia	27 006	29 958	32 819	33 819	27 006	29 958	32 819	34 476
	Spain	36 268	39 437	41 862	51 341	36 268	39 437	41 862	51 341
	Sweden[4, 5]	30 695	32 785	34 614	36 443	30 695	34 070	35 115	40 709
	Switzerland[6]	43 758	54 812	m	67 289	48 904	61 279	m	75 575
	Turkey	24 834	25 632	26 653	28 818	24 834	25 632	26 678	28 818
	United States[4]	35 952	46 116	45 300	60 984	36 333	44 995	45 998	58 793
	OECD average	28 757	35 354	37 350	45 349	29 411	36 846	39 024	46 909
	EU21 average	28 594	34 498	37 502	43 864	29 417	36 072	39 160	45 761
Partners	Argentina	m	m	m	m	m	m	m	m
	Brazil	10 375	m	m	m	10 375	m	m	m
	China	m	m	m	m	m	m	m	m
	Colombia	m	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m	m
	Indonesia	1 560	m	1 974	2 249	1 560	m	1 974	2 249
	Latvia	m	m	m	m	m	m	m	m
	Russian Federation	m	m	m	m	m	m	m	m
	Saudi Arabia	m	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m	m
	G20 average	m	m	m	m	m	m	m	m

1. Salaries of teachers with typical qualification instead of minimum. Please refer to Annex 3 for salaries of teachers with minimum qualification.
2. Includes kindergarten teachers only for pre-primary education.
3. Includes average bonuses for overtime hours for lower and upper secondary teachers.
4. Actual base salaries.
5. Year of reference 2011.
6. Salaries after 11 years of experience for columns 2, 6, 10 and 14.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Table D3.1. [2/2] **Teachers' statutory salaries at different points in their careers (2012)**

Annual salaries in public institutions, in equivalent USD converted using PPPs for private consumption

		Lower secondary education				Upper secondary education			
		Starting salary, minimum training	Salary after 10 years of experience, minimum training	Salary after 15 years of experience, minimum training	Salary at top of scale, minimum training	Starting salary, minimum training	Salary after 10 years of experience, minimum training	Salary after 15 years of experience, minimum training	Salary at top of scale, minimum training
		(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
OECD	Australia	37 259	52 082	52 082	52 214	37 259	52 082	52 082	52 214
	Austria	34 126	41 499	46 625	66 465	34 551	37 199	47 841	69 414
	Belgium (Fl.)	33 667	42 283	47 635	58 340	42 065	53 684	61 256	73 875
	Belgium (Fr.)[1]	33 109	41 403	46 616	57 042	41 191	52 507	59 882	72 172
	Canada	37 145	55 765	58 495	58 495	37 294	56 021	58 728	58 728
	Chile	17 770	22 742	24 725	32 656	18 876	24 108	26 195	34 541
	Czech Republic	17 104	18 683	19 515	21 951	17 541	19 236	20 063	22 748
	Denmark	44 131	49 353	51 122	51 122	45 504	59 368	59 368	59 368
	England	28 321	41 393	41 393	41 393	28 321	41 393	41 393	41 393
	Estonia	11 828	12 525	12 525	17 288	11 828	12 525	12 525	17 288
	Finland[2]	34 720	40 189	42 601	45 157	36 817	44 217	45 986	48 745
	France[3]	29 320	34 761	37 065	53 368	29 320	35 051	37 355	53 688
	Germany	55 700	64 964	67 736	73 778	60 528	69 512	72 633	82 911
	Greece	18 718	23 320	26 617	35 503	18 718	23 320	26 617	35 503
	Hungary[4]	10 992	12 562	13 520	18 020	11 736	14 118	15 626	22 098
	Iceland	25 672	28 046	28 742	29 938	25 035	28 127	30 501	31 899
	Ireland	34 726	50 658	55 148	62 386	34 726	50 658	55 148	62 386
	Israel	19 790	24 136	26 912	37 676	18 973	22 995	25 634	37 266
	Italy	29 954	33 182	36 577	44 862	29 954	33 989	37 602	46 900
	Japan	27 067	40 204	47 561	59 643	27 067	40 204	47 561	61 274
	Korea	28 485	42 867	50 040	79 526	28 485	42 867	50 040	79 526
	Luxembourg	76 685	95 856	105 780	133 297	76 685	95 856	105 780	133 297
	Mexico	20 206	20 759	26 229	43 003	m	m	m	m
	Netherlands	39 249	55 522	68 064	68 064	39 249	55 522	68 064	68 064
	New Zealand	29 279	44 710	44 710	44 710	29 160	45 469	45 469	45 469
	Norway	34 484	38 773	38 773	43 318	37 888	41 652	41 652	45 931
	Poland	12 824	16 975	20 700	21 576	14 497	19 397	23 688	24 693
	Portugal	29 151	31 928	34 694	48 321	29 151	31 928	34 694	48 321
	Scotland	28 124	44 867	44 867	44 867	28 124	44 867	44 867	44 867
	Slovak Republic	10 644	12 778	13 365	14 411	10 644	12 778	13 365	14 411
	Slovenia	27 006	29 958	32 819	34 476	27 006	29 958	32 819	34 476
	Spain	39 726	43 173	45 783	55 989	40 767	44 334	47 026	57 580
	Sweden[4, 5]	31 218	35 006	36 247	40 873	32 655	36 704	38 380	43 681
	Switzerland[6]	55 485	69 816	m	85 336	63 086	80 956	m	96 593
	Turkey	25 790	26 588	27 607	29 773	25 790	26 588	27 607	29 773
	United States[4]	36 993	43 762	47 046	56 938	38 433	44 819	49 822	56 937
	OECD average	30 735	38 419	40 570	48 938	32 255	40 686	42 861	51 658
	EU21 average	30 915	37 949	41 174	48 198	32 243	39 918	43 564	51 212
Partners	Argentina	m	m	m	m	m	m	m	m
	Brazil	10 375	m	m	m	10 375	m	m	m
	China	m	m	m	m	m	m	m	m
	Colombia	m	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m	m
	Indonesia	1 663	m	2 249	2 443	1 925	m	2 491	2 714
	Latvia	m	m	m	m	m	m	m	m
	Russian Federation	m	m	m	m	m	m	m	m
	Saudi Arabia	m	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m	m
	G20 average	m	m	m	m	m	m	m	m

1. Salaries of teachers with typical qualification instead of minimum. Please refer to Annex 3 for salaries of teachers with minimum qualification.
2. Includes kindergarten teachers only for pre-primary education.
3. Includes average bonuses for overtime hours for lower and upper secondary teachers.
4. Actual base salaries.
5. Year of reference 2011.
6. Salaries after 11 years of experience for columns 2, 6, 10 and 14.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Table D3.2. Teachers' salaries relative to earnings for full-time, full-year workers with tertiary education (2012)

Ratio of salary, by age group and gender

		Method[1]	Year of reference	25-64 year-olds			
				Pre-primary education	Primary education	Lower secondary education	Upper secondary education
		(1)	(2)	(3)	(4)	(5)	(6)
OECD	Australia	Actual	2012	0.89	0.93	0.93	0.93
	Austria	Statutory	2012	0.55	0.55	0.60	0.61
	Belgium (Fl.)[2]	Actual	2012	0.88	0.89	0.87	1.13
	Belgium (Fr.)[2]	Actual	2012	0.82	0.82	0.82	1.01
	Canada	Statutory	2011	1.05	1.05	1.05	1.06
	Chile	Actual	2011	0.73	0.73	0.73	0.77
	Czech Republic	Actual	2012	0.46	0.54	0.54	0.58
	Denmark	Actual	2012	0.83	0.92	0.92	1.06
	England[3]	Actual	2012	0.86	0.86	0.95	0.95
	Estonia	Actual	2012	0.61	0.84	0.84	0.84
	Finland[4]	Actual	2012	0.65	0.89	0.97	1.09
	France	Actual	2012	0.73	0.72	0.86	0.95
	Germany	Actual	2012	m	0.88	0.97	1.05
	Greece	Actual	2012	0.89	0.89	0.93	0.93
	Hungary	Actual	2012	0.47	0.53	0.53	0.59
	Iceland	m	m	m	m	m	m
	Ireland	Statutory	2011	m	0.81	0.81	0.81
	Israel	Actual	2012	0.80	0.87	0.85	0.88
	Italy	Actual	2012	0.60	0.60	0.65	0.69
	Japan	m	m	m	m	m	m
	Korea	Statutory	2012	1.32	1.36	1.36	1.36
	Luxembourg	Actual	2012	1.11	1.11	1.26	1.26
	Mexico	m	m	m	m	m	m
	Netherlands	Actual	2012	0.69	0.69	0.82	0.82
	New Zealand	Actual	2011	m	1.04	1.06	1.09
	Norway	Actual	2012	0.63	0.71	0.71	0.76
	Poland	Actual	2012	0.71	0.82	0.83	0.82
	Portugal	Statutory	2011	1.23	1.23	1.23	1.23
	Scotland[3, 5]	Actual	2012	0.83	0.83	0.83	0.83
	Slovak Republic	Statutory	2012	0.35	0.43	0.43	0.43
	Slovenia	Statutory	2012	0.79	0.79	0.79	0.79
	Spain	Statutory	2011	1.20	1.20	1.32	1.35
	Sweden[6]	Actual	2011	0.75	0.82	0.82	0.87
	Switzerland	m	m	m	m	m	m
	Turkey	Statutory	2012	1.09	1.09	1.13	1.13
	United States	Actual	2012	0.65	0.67	0.68	0.70
	OECD average			0.80	0.85	0.88	0.92
	EU21 average			0.76	0.81	0.85	0.90
Partners	Argentina	m	m	m	m	m	m
	Brazil	m	m	m	m	m	m
	China	m	m	m	m	m	m
	Colombia	m	m	m	m	m	m
	India	m	m	m	m	m	m
	Indonesia	m	m	m	m	m	m
	Latvia	m	m	m	m	m	m
	Russian Federation	m	m	m	m	m	m
	Saudi Arabia	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m
	G20 average			m	m	m	m

Note: Columns showing teachers' salaries relative to earnings for full-time, full-year workers with tertiary education, broken down by age groups and gender (i.e. columns 7-30) are available for consultation on line (see *StatLink* below).

1. The "Actual" method refers to the ratio of average actual salary, including bonuses and allowances, for teachers aged 25-64 to earnings for full-time, full-year workers with tertiary education aged 25-64. The "Statutory" method refers to the ratio of teachers' statutory salary after 15 years of experience and minimum training (regardless of age) to earnings for full-time, full-year workers with tertiary education aged 25-64.
2. Data on earnings for full-time, full-year workers with tertiary education refer to Belgium.
3. Data on earnings for full-time, full-year workers with tertiary education refer to the United Kingdom.
4. Includes kindergarten teachers only for pre-primary education.
5. Includes all teachers, irrespective of their age.
6. Average actual teachers' salaries, not including bonuses and allowances.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Table D3.3. Comparison of teachers' statutory salaries (2012)

Ratio of salaries at different points of teaching experience, with minimum training and salary per hour in USD converted using PPPs for private consumption

		Ratio of salary at top of scale to starting salary				Years from starting to top salary (lower secondary education)	Salary per hour of net contact (teaching) time after 15 years of experience			Ratio of salary per teaching hour of upper secondary teachers to primary teachers (after 15 years of experience)
		Pre-primary education	Primary education	Lower secondary education	Upper secondary education		Primary education	Lower secondary education	Upper secondary education	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
OECD	Australia	1.40	1.39	1.40	1.40	9	59	64	65	1.10
	Austria	1.97	1.97	1.95	2.01	34	55	77	81	1.47
	Belgium (Fl.)	1.73	1.73	1.73	1.76	27	64	73	101	1.58
	Belgium (Fr.)	1.72	1.72	1.72	1.75	27	65	71	100	1.54
	Canada	1.57	1.57	1.57	1.57	11	73	78	78	1.07
	Chile	1.84	1.84	1.84	1.83	30	22	22	24	1.06
	Czech Republic	1.18	1.29	1.28	1.30	27	23	31	34	1.45
	Denmark	1.09	1.16	1.16	1.30	8	78	78	161	2.07
	England	1.46	1.46	1.46	1.46	12	61	60	60	0.98
	Estonia	m	1.46	1.46	1.46	7	20	20	22	1.09
	Finland[1]	1.08	1.30	1.30	1.32	20	59	72	84	1.43
	France	1.91	1.91	1.82	1.83	29	37	57	58	1.57
	Germany	m	1.33	1.32	1.37	28	77	90	101	1.31
	Greece	1.90	1.90	1.90	1.90	45	47	64	64	1.37
	Hungary[2]	1.58	1.64	1.64	1.88	40	22	22	26	1.16
	Iceland	1.27	1.17	1.17	1.27	18	46	46	56	1.22
	Ireland	m	1.86	1.80	1.80	22	60	75	75	1.25
	Israel	2.09	2.10	1.90	1.96	36	35	43	46	1.31
	Italy	1.47	1.47	1.50	1.57	35	45	59	61	1.37
	Japan	m	2.20	2.20	2.26	34	65	79	93	1.43
	Korea	2.84	2.79	2.79	2.79	37	72	88	91	1.26
	Luxembourg	1.79	1.79	1.74	1.74	30	122	143	143	1.17
	Mexico	2.14	2.14	2.13	m	14	25	25	m	m
	Netherlands	1.48	1.48	1.73	1.73	14	59	91	91	1.54
	New Zealand	m	1.49	1.53	1.56	8	46	53	60	1.30
	Norway	1.16	1.26	1.26	1.21	16	52	58	80	1.52
	Poland	1.66	1.66	1.68	1.70	20	29	37	42	1.48
	Portugal	1.66	1.66	1.66	1.66	34	46	56	56	1.23
	Scotland	1.60	1.60	1.60	1.60	6	52	52	52	1.00
	Slovak Republic	1.24	1.35	1.35	1.35	32	16	21	22	1.35
	Slovenia	1.25	1.28	1.28	1.28	13	52	52	58	1.10
	Spain	1.42	1.42	1.41	1.41	38	48	64	68	1.43
	Sweden[2, 3]	1.19	1.33	1.31	1.34	a	m	m	m	m
	Switzerland	1.54	1.55	1.54	1.53	27	m	m	m	m
	Turkey	1.16	1.16	1.15	1.15	27	37	55	49	1.31
	United States[2]	1.70	1.62	1.54	1.48	m	41	43	46	1.14
	OECD average	1.58	1.61	1.61	1.62	24	50	59	68	1.32
	EU21 average	1.52	1.55	1.56	1.59	25	52	62	71	1.36
Partners	Argentina[3]	m	m	m	m	25	m	m	m	m
	Brazil	m	m	m	m	m	m	m	m	m
	China	m	m	m	m	m	m	m	m	m
	Colombia	m	m	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m	m	m
	Indonesia	1.44	1.44	1.47	1.41	32	2	3	3	2.16
	Latvia	m	m	m	m	m	m	m	m	m
	Russian Federation	m	m	m	m	m	m	m	m	m
	Saudi Arabia	m	m	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m	m	m
	G20 average	m	m	m	m	m	m	m	m	m

1. Includes kindergarten teachers only for pre-primary education.
2. Actual base salaries.
3. Year of reference 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table D3.4. Average actual teachers' salaries (2012)

Annual average salaries (including bonuses and allowances) of teachers in public institutions, in equivalent USD converted using PPPs for private consumption, by age group and gender

		25-64 year-olds			
		Pre-primary education	Primary education	Lower secondary education	Upper secondary education
		(1)	(2)	(3)	(4)
OECD	Australia	50 767	52 659	52 928	52 961
	Austria	m	m	m	m
	Belgium (Fl.)	48 998	49 439	48 255	62 528
	Belgium (Fr.)	45 608	45 513	45 418	56 270
	Canada	m	m	m	m
	Chile	32 728	32 728	32 728	34 480
	Czech Republic	17 411	20 743	20 724	21 985
	Denmark	50 477	55 330	55 330	64 384
	England	43 949	43 949	48 409	48 409
	Estonia	11 456	15 803	15 803	15 803
	Finland[1]	31 531	42 910	46 968	52 606
	France	35 716	35 432	42 217	46 247
	Germany	m	59 598	65 545	71 396
	Greece	22 992	22 992	23 941	23 941
	Hungary	15 031	16 731	16 731	18 716
	Iceland	m	m	m	38 751
	Ireland	m	m	m	m
	Israel	30 544	33 181	32 228	33 386
	Italy	34 162	34 162	36 947	39 233
	Japan	m	m	m	m
	Korea	m	m	m	m
	Luxembourg	92 248	92 248	104 991	104 991
	Mexico	m	m	m	m
	Netherlands	49 924	49 924	59 469	59 469
	New Zealand[2]	m	43 102	43 999	44 897
	Norway	40 988	46 722	46 722	49 665
	Poland	24 317	27 986	28 409	27 769
	Portugal	m	m	m	m
	Scotland[3]	42 444	42 444	42 444	42 444
	Slovak Republic	m	m	m	m
	Slovenia	m	m	m	m
	Spain	m	m	m	m
	Sweden[2, 4]	33 036	35 822	35 909	38 347
	Switzerland[2]	m	m	m	77 250
	Turkey	m	m	m	m
	United States	48 985	50 494	51 487	53 198
	Average	38 253	41 300	43 374	47 165
Partners	Argentina	m	m	m	m
	Brazil	m	m	m	m
	China	m	m	m	m
	Colombia	m	m	m	m
	India	m	m	m	m
	Indonesia	m	m	m	m
	Latvia	m	m	m	m
	Russian Federation[2, 5]	18 445	18 445	18 445	18 445
	Saudi Arabia	m	m	m	m
	South Africa	m	m	m	m

Note: Columns showing average actual teachers' salaries, broken down by age groups and gender (i.e. columns 5-28), are available for consultation on line (see *StatLink* below).

1. Includes kindergarten teachers only for pre-primary education.
2. Year of reference 2011.
3. Includes all teachers, irrespective of their age.
4. Average actual teachers' salaries, not including bonuses and allowances.
5. Average actual teachers' salaries for all teachers, irrespective of the level of education they teach.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table D3.5. Trends in teachers' salaries between 2000 and 2012

Index of change between 2000 and 2012 in statutory teachers' salaries after 15 years of experience and minimum training (2005 = 100), by level of education, converted to constant prices using deflators for private consumption

	Primary education					Lower secondary education					Upper secondary education				
	2000	2005	2010	2011	2012	2000	2005	2010	2011	2012	2000	2005	2010	2011	2012
	(1)	(2)	(7)	(8)	(9)	(10)	(11)	(16)	(17)	(18)	(19)	(20)	(25)	(26)	(27)
OECD															
Australia	92	100	102	104	104	92	100	102	105	105	92	100	102	105	105
Austria	90	100	104	102	101	87	100	104	102	102	94	100	105	103	102
Belgium (Fl.)	92	100	102	102	101	97	100	102	102	101	97	100	102	102	102
Belgium (Fr.)	94	100	104	105	104	99	100	103	104	103	99	100	103	104	103
Canada	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Chile	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Czech Republic[1]	56	100	112	112	102	56	100	114	113	103	66	100	118	119	104
Denmark[2]	94	100	119	116	114	94	100	119	116	114	90	100	114	111	108
England	91	100	100	98	95	91	100	100	98	95	91	100	100	98	95
Estonia	84	100	141	136	131	84	100	141	136	131	84	100	141	136	131
Finland	86	100	103	102	100	92	100	102	101	100	91	100	102	101	101
France	105	100	97	96	94	105	100	97	97	95	104	100	97	97	95
Germany	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Greece	89	100	92	86	77	89	100	92	86	77	89	100	92	86	77
Hungary[3]	63	100	78	75	71	63	100	78	75	71	63	100	74	71	65
Iceland	89	100	103	100	96	89	100	103	100	96	90	100	89	86	87
Ireland	86	100	115	113	112	87	100	115	113	112	87	100	115	113	112
Israel	100	100	135	142	143	100	100	110	117	117	101	100	103	102	114
Italy	94	100	100	98	95	95	100	100	98	96	95	100	100	98	96
Japan	101	100	93	93	93	101	100	93	93	93	101	100	93	93	93
Korea	80	100	93	95	95	80	100	93	95	96	80	100	93	95	96
Luxembourg	m	100	134	131	135	m	100	110	108	110	m	100	110	108	110
Mexico	96	100	103	107	107	95	100	104	107	109	m	m	m	m	m
Netherlands	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
New Zealand	97	100	105	106	104	97	100	108	107	109	97	100	111	108	110
Norway	m	100	104	108	109	m	100	104	108	109	m	100	106	110	110
Poland	m	100	116	120	123	m	100	115	118	121	m	100	113	117	120
Portugal	87	100	109	111	93	87	100	109	111	93	87	100	109	111	93
Scotland	82	100	99	97	93	82	100	99	97	93	82	100	99	97	93
Slovak Republic	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Slovenia	m	100	108	107	104	m	100	108	107	104	m	100	108	107	104
Spain	95	100	107	101	97	92	100	106	99	95	96	100	106	99	95
Sweden[3]	94	100	m	103	m	92	100	m	104	m	91	100	m	102	m
Switzerland[4]	97	100	100	100	101	102	100	100	101	101	104	100	100	100	100
Turkey	55	100	111	108	107	m	m	m	m	m	50	100	113	109	110
United States[3]	96	100	99	99	97	95	100	98	98	98	102	100	106	106	104
OECD average	88	100	106	106	103	90	100	105	104	102	89	100	104	103	101
OECD average for countries with data available for all reference years	88	100	105	104	101	90	100	104	103	100	89	100	103	102	100
EU21 average for countries with data available for all reference years	87	100	105	103	99	87	100	105	103	99	89	100	105	103	98
Partners															
Argentina	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Brazil	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
China	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Colombia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
India	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Indonesia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Latvia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Russian Federation	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Saudi Arabia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
South Africa	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
G20 average	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m

Note: Years 2006, 2007, 2008, 2009 (i.e. columns 3-6, 12-15, 21-24) are available for consultation on line (see *StatLink* below).

1. Break in time series following methodological changes in 2012.
2. Break in time series following methodological changes in 2009.
3. Actual base salaries.
4. Salaries after 11 years of experience.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933119910

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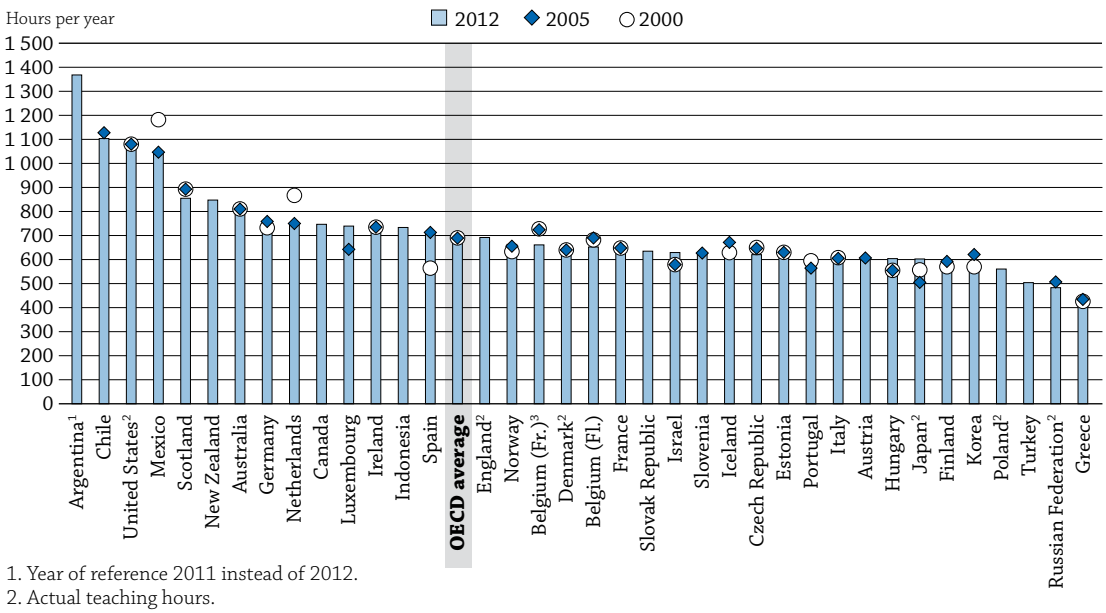
HOW MUCH TIME DO TEACHERS SPEND TEACHING?

- Public-school teachers teach an average of 1 001 hours per year at the pre-primary level, 782 hours at the primary level, 694 hours at the lower secondary level, and 655 hours at the upper secondary level of education.
- In about one third of the countries with available data, the amount of teaching time increased or decreased by at least 10% between 2000 and 2012 in primary, lower secondary and/or upper secondary education.

Chart D4.1. Number of teaching hours per year in lower secondary education in 2000, 2005 and 2012

Net statutory contact time in public institutions



1. Year of reference 2011 instead of 2012.
2. Actual teaching hours.
3. Break in time series following methodological changes in 2006.

Countries are ranked in descending order of the number of teaching hours per year in lower secondary education in 2012.

Source: OECD. Table D4.2. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933120062

Context

Although statutory working hours and teaching hours only partly determine teachers' actual workload, they do offer valuable insight into the demands placed on teachers in different countries. Teaching hours and the extent of non-teaching duties may also affect the attractiveness of the teaching profession. Together with teachers' salaries (see Indicator D3) and average class size (see Indicator D2), this indicator presents some key measures regarding the working lives of teachers.

The proportion of statutory working time spent teaching provides information on the amount of time available for non-teaching activities such as lesson preparation, correction, in-service training and staff meetings. A large proportion of statutory working time spent teaching may indicate that less time is devoted to tasks such as assessing students and preparing lessons.

In addition to class size and the ratio of students to teaching staff (see Indicator D2), students' hours of instruction (see Indicator D1) and teachers' salaries (see Indicator D3), the amount of time teachers spend teaching also affects the financial resources countries need to allocate to education (see Indicator B7).

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Other findings

- **The average number of teaching hours in public pre-primary schools is 1 001 hours per year**, but ranges from 532 hours in Mexico to over 1 500 hours in Iceland, Norway and Sweden.
- **Public primary school teachers teach an average of 782 hours per year**, but teaching time ranges from less than 570 hours in Greece and the Russian Federation to over 1 000 hours in Chile, Indonesia and the United States.
- **The number of teaching hours in public lower secondary schools averages 694 hours per year**, but ranges from 415 hours in Greece to over 1 000 hours in Argentina, Chile, Mexico and the United States.
- **Teachers in public upper secondary schools teach an average of 655 hours per year**, but ranges from 369 hours in Denmark to over 1 000 hours in Argentina, Chile and the United States.
- On average, **pre-primary teachers are required to teach around 25% more hours than primary school teachers**, but the time during which teachers are required to be working at school, or their total working time, is often equivalent for these two levels of education.
- **Regulations concerning teachers' required working time vary significantly**. In most countries, teachers are formally required to work a specific number of hours per year. In some, teaching time is only specified by the number of lessons per week and assumptions may be made about the amount of non-teaching time required per lesson at school or elsewhere.

Trends

About one third of the countries with available data reported an increase or decrease of 10% or more in teaching time between 2000 and 2012 in primary, lower secondary and/or upper secondary education. The number of teaching hours changed dramatically in a few countries: it increased by 26% in Spain at the secondary level, and decreased by almost 20% in Korea at the primary level.

D4

Analysis

Teaching time

At all levels of education, countries vary in the number of teaching hours per year required of the average public school teacher.

At the pre-primary level, the teaching time required in public school varies more across countries than it does for any other level. The number of teaching days ranges from 144 days in France to 251 in Indonesia; annual teaching hours range from less than 700 hours in Argentina, England, Greece, Indonesia, Korea and Mexico to more than 1 500 in Iceland, Norway and Sweden. On average across OECD countries, teachers at this level of education are required to teach 1 001 hours per year spread over 40 weeks or 191 days of teaching.

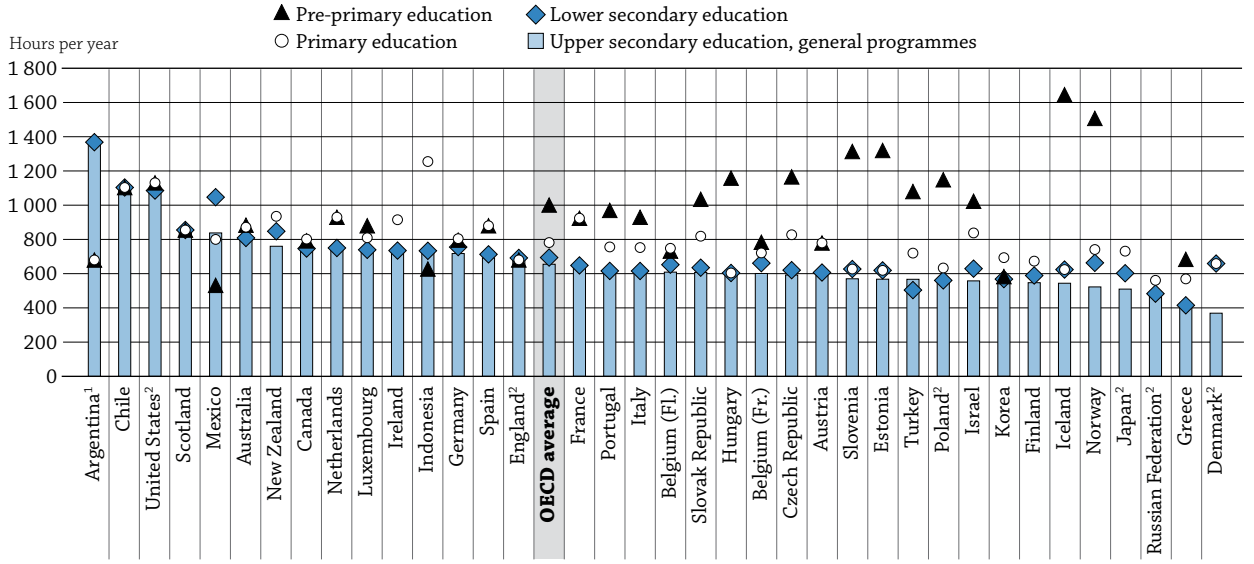
Primary school teachers are required to teach an average of 782 hours per year. In most countries with available data, teachers are required to teach between 3 and 6 hours a day. The exceptions are Chile, France and the United States, where teachers teach slightly more than 6 hours per day. There is no set rule on how teaching time is distributed throughout the year. In Spain, for example, primary school teachers must teach 880 hours per year, about 100 hours more than the OECD average. However, those teaching hours are spread over fewer days of instruction than the OECD average because primary school teachers in Spain teach an average of five hours per day compared to the OECD average of 4.3 hours.

Lower secondary school teachers teach an average of 694 hours per year. The teaching time at the lower secondary level ranges from less than 600 hours in Finland, Greece, Korea, Poland, the Russian Federation and Turkey to more than 1 000 hours in Argentina, Chile, Mexico and the United States.

A teacher of general subjects in upper secondary education has an average teaching load of 655 hours per year. Teaching time exceeds 800 hours in only six countries: Argentina, Australia, Chile, Mexico, Scotland and the United States. However, in Chile and Scotland, the reported hours refer to the maximum time teachers can be required to teach and not to their typical teaching load. In contrast, teachers are required to teach less than 500 hours per year in Denmark, Greece and the Russian Federation. Teachers in Finland, Greece, Japan, Korea, Norway, the Russian Federation and Slovenia teach for three hours or less per day, on average, compared to more than five hours in Chile and the United States and up to eight hours in Argentina. Including breaks between classes in teaching time in some countries, but not in others, may explain some of these differences (Table D4.1 and Chart D4.2).

Chart D4.2. Number of teaching hours per year, by level of education (2012)

Net statutory contact time in public institutions



1. Year of reference 2011.
2. Actual teaching hours.

Countries are ranked in descending order of the number of teaching hours per year in upper secondary education.

Source: OECD. Table D4.1. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933120081

Differences in teaching time between levels of education

In most countries, teaching time at the upper secondary level is less than at the pre-primary level. The exceptions are Chile and Scotland, where teachers are required to teach the same number of hours irrespective of the level of education taught, and Argentina, England, Indonesia and Mexico, where secondary school teachers are required to teach more hours than pre-primary school teachers (Table D4.1 and Chart D4.2).

Teaching time requirements vary the most between the pre-primary and primary levels of education. On average, pre-primary school teachers are required to spend almost 25% more time in the classroom than primary school teachers. In Estonia, Iceland, Norway and Slovenia, pre-primary school teachers are required to teach at least twice the amount of time than primary school teachers. Even though the duties of teachers are likely to be different between these two levels of education, considerable differences in working conditions between pre-primary and other levels of education might affect the attractiveness of the teaching profession at the pre-primary level of education.

In the Czech Republic, France, Greece, Indonesia, Israel and Turkey, primary school teachers have at least 30% more annual teaching time than lower secondary school teachers. In contrast, the difference does not exceed 5% in the United States, and there is no difference in Chile, Denmark, Estonia, Hungary, Iceland, Scotland and Slovenia. Argentina, England and Mexico are the only countries in which the teaching load for primary school teachers is lighter than for lower secondary school teachers.

Teaching time at the lower and upper secondary levels is similar across most countries. However, in Mexico and Norway, the annual required teaching time at the lower secondary level is at least 20% more than at the upper secondary level. This difference amounts to almost 80% in Denmark.

Actual teaching time

Statutory teaching time, as reported by most of the countries in this indicator, must be distinguished from actual teaching time. Actual teaching time is the annual average number of hours that full-time teachers teach a group or a class of students, including overtime, and is based on administrative registers, statistical databases, representative sample surveys or other representative sources.

Only few countries could report both statutory and actual teaching time but these data suggest that actual teaching time can sometimes differ from statutory requirements. In Australia, for example, lower secondary school teachers work around 5% more than the statutory benchmark time, while in Poland, actual teaching time is up to 14% more than statutory requirements. In contrast, in Estonia, actual teaching time is 5% less than statutory teaching time at the lower secondary level (Table D4.3 and Chart D4.4, available on line).

Trends in teaching time

In about one third of the countries with available data, teaching time varied by at least 10% at one or various levels of education between 2000 and 2012 (Table D4.2 and Chart D4.1).

In Israel and Japan, there was a 15% increase in teaching time at the primary level between 2000 and 2012 and teaching time also increased by 13% in Turkey at this level of education. In Israel, this increase in teaching and working time is part of the "New Horizon" reform that has been gradually implemented since 2008. One of the key measures of this reform was to lengthen teachers' workweek to accommodate small-group teaching in exchange for more generous compensation. Teachers' working time has been increased from 30 to 36 hours per week and now includes five hours of small-group teaching in primary schools. To compensate, salaries have been raised substantially (see Indicator D3).

Secondary school teachers in Spain were required to teach 26% more in 2012 than in 2000; in Luxembourg, secondary school teachers were required to teach 15% more hours in 2012 than in 2005. Teaching time also increased by around 20% in Portugal, 17% in Iceland and by 13% in Turkey at the upper secondary level between 2000 and 2012.

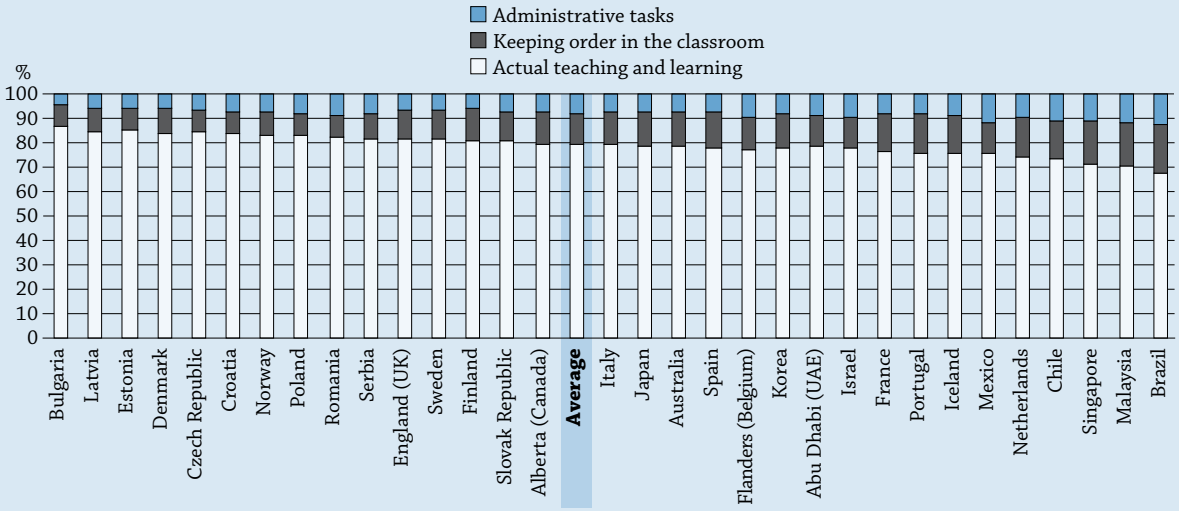
In contrast, net teaching time dropped by around 20% between 2000 and 2012 in Korea at primary level and by around 10% in Mexico (lower secondary level), in the Netherlands (lower and upper secondary levels) and in Scotland (primary level). In Scotland, the decrease was part of the Teachers' Agreement, "A teaching profession for the 21st century", which introduced a 35-hour workweek for all teachers and a phased reduction of maximum teaching time to 22.5 hours per week for primary, secondary and special school teachers in 2001. However, even with this decrease of net contact time, teachers at these levels in Scotland are still required to teach more hours than on average across OECD countries.

Box D4.1. How do lower secondary teachers spend their class time?

According to the 2013 OECD Teaching and Learning International Survey (TALIS) , among the three types of activities – teaching and learning activities, administrative tasks, and keeping order (or behaviour management of individual students or the entire class) – lower secondary teachers in participating countries and economies reported spending most of their class time (79%) on teaching and learning activities. However, this proportion varies across countries, from 87% in Bulgaria to 67% in Brazil. Keeping order in the classroom, often a major concern for new teachers, reportedly occupied an average of 13% of teachers' time across countries, although this proportion also varied among countries, from 8% in Poland to 20% in Brazil. Administrative tasks reportedly require the least amount of time from teachers (8%) compared to the other two broad categories. Teachers in Bulgaria and Estonia reported spending 5% of their class time on administrative tasks, while teachers in Brazil reported that 12% of their class time was devoted to such tasks. There is no doubt that teaching and learning should comprise the largest share of teachers' class time each day. Time spent on administrative tasks and keeping order reduces the amount of time available for instruction. However, it is unclear whether the other two tasks interfere with high-quality instruction or if teachers, and ultimately students, would benefit from reductions in class time spent on administrative tasks and keeping order so that teachers and students could devote more time to teaching and learning.

Chart D4.a. Distribution of class time during an average lesson (2013)

Average proportion of time lower secondary education teachers report spending on each of these activities in an average lesson[1]



1. These data are reported by teachers and refer to a randomly chosen class they currently teach from their weekly timetable.

Countries are ranked in descending order, based on the average proportion of time teachers in lower secondary education report spending on actual teaching and learning.

Source: OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, TALIS, OECD Publishing.

StatLink http://dx.doi.org/10.1787/888933042124

Teachers' working time

In most countries, teachers are formally required to work a specified number of hours per week, including teaching and non-teaching time, to earn their full-time salary. Some countries also regulate the time a teacher has to be present in the school. Within this framework, however, countries differ in how they allocate time for each activity (Chart D4.3).

More than half of OECD countries specify the time during which teachers are required to be available at school, for both teaching and non-teaching activities, at one or various levels of education. In slightly more than half of these countries, the difference between the time upper secondary school teachers and pre-primary school teachers are required to be available at school is less than 10%. In Israel, Norway and Sweden, pre-primary teachers are required to be available at school at least 30% more hours than upper secondary school teachers (Table D4.1).

In Austria (pre-primary, primary and lower secondary education), the Czech Republic, Denmark, France (lower and upper secondary education), Germany, Japan (primary, lower and upper secondary education) and the Netherlands, teachers' total annual statutory working time, at school or elsewhere, is specified, but the allocation of time spent at school and time spent elsewhere is not.

In Sweden, although the total working time per year is decided through collective agreements, the school leader decides on the number of working hours per week and on the use of teachers' time (teaching or non-teaching activities).

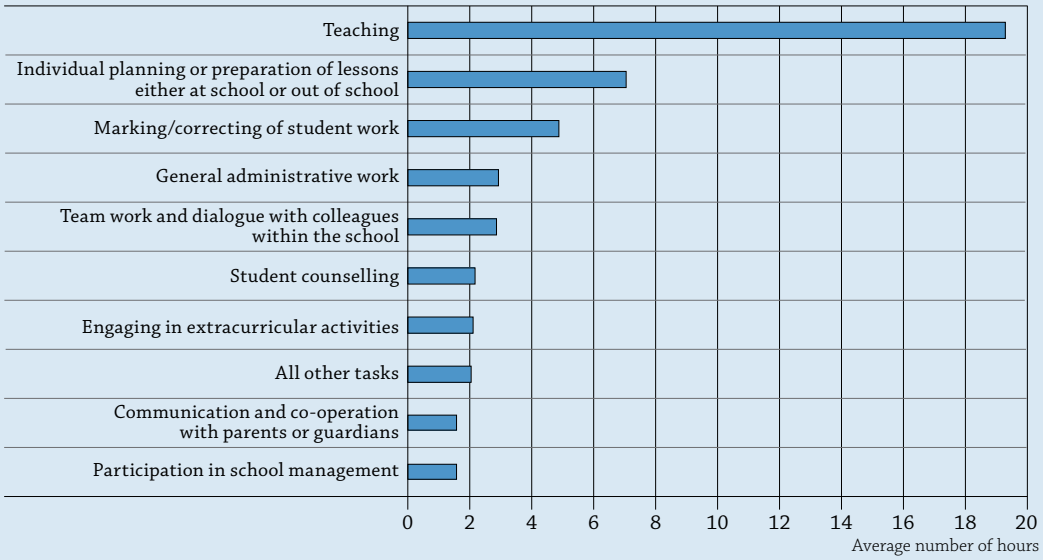
In addition, workload and teaching load requirements may evolve throughout the career. While some beginning teachers might have a reduced teaching load as part of their induction programmes, some countries also encourage older teachers to stay in the teaching profession by diversifying their duties and reducing their teaching hours.

Box D4.2. **What amount of time do teachers spend on various work-related tasks during a typical week?**

Findings from the 2013 TALIS survey suggest that lower secondary teachers' work consists of a multitude of often competing responsibilities. As expected, both full-time and part-time teachers reported spending more time teaching than on any other single task. The overall average is 19 hours per week, ranging from 15 hours in Norway to 27 hours in Chile. Japanese teachers reported spending only 18 hours teaching out of an average reported 54 total working hours, meaning they spend substantially more time on other tasks related to their job than they actually do on teaching. The average time reported to be spent on planning or preparing lessons is 7 hours, ranging from 5 hours in Finland, Israel, Italy, the Netherlands, and Poland, to 10 hours in Croatia. Time reported to be spent marking student work averages 5 hours, but is around double that in Portugal (10 hours) and Singapore (9 hours).

Chart D4.b. Teachers' working hours (2013)

Average number of 60-minute hours lower secondary education teachers report having spent on the following activities during the most recent complete calendar week[1]



1. A "complete" calendar week is one that was not shortened by breaks, public holidays, sick leave, etc. Also includes tasks that took place during weekends, evenings or other off-classroom hours.

Items are ranked in descending order, based on the average number of 60-minute hours spent on the following activities during the most recent complete calendar week.

Source: OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, TALIS, OECD Publishing.

StatLink http://dx.doi.org/10.1787/888933042029

...

Other tasks, such as school management, working with parents, and extracurricular activities, fill an average of only 2 hours per week for each activity. Teachers in Korea and Malaysia reported spending twice as much time (six hours) as the TALIS average on general administrative work. Extracurricular activities are an important part of teachers' work in Japan, where teachers reported spending 8 hours on extracurricular activities, far above the TALIS average of 2 hours.

These findings are meant to paint a picture of the typical workweek among lower secondary teachers in each country and therefore include responses from both full-time and part-time teachers. Because there may be overlap in some of the activities, they should not be added to a total number of work hours.

For example, Greece reduces teaching hours according to how many years a teacher has served. At the secondary level, teachers are required to teach 21 class sessions per week. After six years, this drops to 19 sessions, and after 12 years to 18 sessions. After 20 years of service, teachers are required to teach 16 class sessions a week – more than 25% less than teachers who have just started their careers. However, the remaining hours of teachers' working time must be spent at school.

Non-teaching time

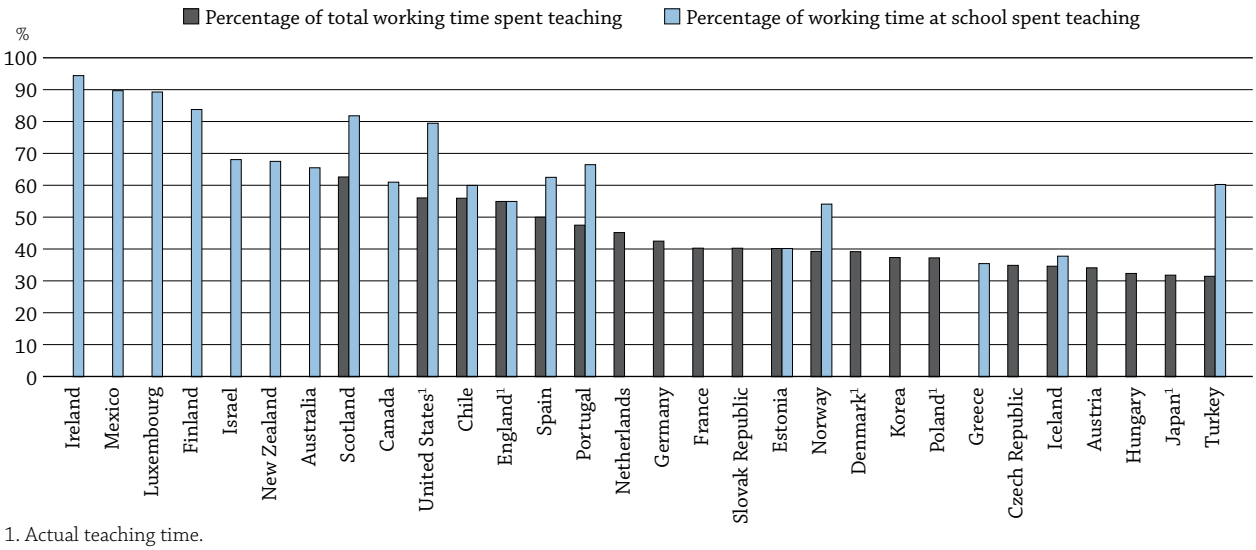
Although teaching time is a substantial component of teachers' workloads, assessing students, preparing lessons, correcting students' work, in-service training and staff meetings should also be taken into account when analysing the demands placed on teachers in different countries. The amount of time available for these non-teaching activities varies across countries, and a large proportion of statutory working time spent teaching may indicate that less time is devoted to activities such as assessing students and preparing lessons.

In the 21 countries with both teaching and total working time data for lower secondary teachers, the percentage of teachers' working time spent teaching ranges from less than 35% in Austria, the Czech Republic, Hungary, Iceland, Japan and Turkey, to 63% in Scotland (Chart D4.3).

In the 19 countries that specify both teaching time and the amount of time that lower secondary teachers are required to be available at school, the percentage of teachers' working time at school spent teaching ranges from less than 40% in Greece and Iceland to more than 90% in Ireland.

Chart D4.3. Percentage of lower secondary teachers' working time spent teaching (2012)

Net teaching time as a percentage of total statutory working time and working time required at school



1. Actual teaching time.

Countries are ranked in descending order of the percentage of lower secondary teachers' total working time spent teaching.

Source: OECD. Table D4.1. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933120100

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Box D4.3. Non-teaching tasks required of teachers in lower secondary education (2012)

Tasks required according to regulations or agreements within statutory working time at school and/or statutory total working time

Teachers' tasks	Task required	At the discretion of individual schools
Individual planning or preparing lessons	AUS, BFL, BFR, CHL, DNK, ENG, ESP, EST, GRC, ISL, ISR, ITA, NOR, POL, PRT, SCO, SVK[1], SWE, TUR, USA	BRA, CZE, HUN, KOR, NLD, NZL, SVK[2], SVN, USA
Teamwork and dialogue with colleagues	AUS, BFR, CHL, DNK, ENG, ESP, EST, FIN, FRA, GRC, ISR, ITA, LUX, NOR, POL, PRT, SCO, SVK, SWE, TUR	BFL, BRA, CZE, HUN, ISL, KOR, NLD, NZL, SVN, USA
Marking/correcting student work	AUS, CHL, DNK, ENG, ESP, EST, FRA, GRC, ISL, ISR, NOR, POL, PRT, SCO, SVK[1], SWE, TUR, USA	BFL, BRA, CZE, HUN, KOR, NLD, NZL, SVK[2], SVN, USA
Supervising students during breaks	AUS, CHL, DNK, EST, GRC, ISR, LUX, POL, SVK, TUR	BFL, BRA, CZE, ENG, HUN, IRL, KOR, NLD, NZL, SCO, SVN, SWE, USA
Providing counselling and guidance to students	CHL, DNK, ESP, EST, FRA, GRC, ISR, LUX, PRT, SVK, SWE, TUR	AUS, BFL, BRA, CZE, HUN, ISL, KOR, NLD, NZL, SCO, SVN, USA
Participating in school management	CHL, DNK, ESP, EST, FRA, GRC, ISL, ISR, PRT, SVK, TUR	AUS, BFL, BRA, CZE, HUN, KOR, NLD, NZL, SCO, SVN, SWE, USA
General administrative communication and paperwork	AUS, BFR, CHL, DNK, ENG, EST, FRA, GRC, ISL, ISR, NOR, POL, PRT, SVK[1], SWE, TUR	BFL, BRA, CZE, HUN, KOR, NLD, SCO, SVN, SVK[2], USA
Communicating and co-operating with parents or guardians	AUS, BFR, CHL, DNK, ENG, ESP, EST, FIN, FRA, GRC, ISL, ISR, ITA, LUX, NOR, POL, PRT, SVK , SWE, TUR	BFL, BRA, CZE, HUN, KOR, NLD, NZL, SCO, SVN, USA
Engaging in extracurricular activities after school	CHL, DNK, ESP, EST, ISR, POL, PRT, TUR	AUS, BFL, BRA, CZE, ENG, GRC, HUN, KOR, NLD, NZL, SVN, USA
Professional development activities	BFR, DNK, ENG, EST, FIN, GRC, HUN, ISR, NOR, POL, PRT, SCO[1], SVK[1], SWE, TUR	AUS, BFL, BRA, CHL, CZE, ISL, KOR, NLD, NZL, SCO[2], SVK[2], SVN, USA
Other	CHL, DNK, FIN, FRA, GRC, IRL, PRT, SWE	BFL, BFR, CZE, EST, HUN, KOR, NLD, NZL, SCO, SVN, POL, USA

1. Defined within total working time.
2. Defined within working time at school.

Source: OECD. Table D4.4c, available on line. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide *for list of country codes for country names used in this box.*

StatLink http://dx.doi.org/10.1787/888933120119

Non-teaching tasks are a part of teachers' workload and working conditions. The non-teaching activities required by legislation, regulations or agreements between stakeholders (e.g. teachers' unions, local authorities, school boards, etc.) do not necessarily reflect the actual participation of teachers in non-teaching activities, but provide an insight on the breadth and complexity of teachers' roles.

Individual planning or preparing lessons, teamwork and dialogue with colleagues and communicating and co-operating with parents are the most common non-teaching tasks required of lower secondary teachers during their statutory working time at school or statutory total working time. These tasks are required in at least 20 of the 34 countries with available data. Marking/correcting student work, general administrative communication and paperwork and professional development activities are also required in around half of the countries with available data. Lower secondary teachers are required to supervise students during breaks, provide counselling and guidance to students, or and/or participate in school management in around one-third of the countries, and only 8 countries require that lower secondary teachers engage in extracurricular activities after school. In most countries that record the non-teaching tasks required of teachers, the specific number of hours allocated for each task is, however, not specified. In Brazil, the Czech Republic, Hungary, Korea, the Netherlands, New Zealand and Slovenia, any of these non-teaching tasks may be required of teachers, but the decision is taken at the school level.

In Austria (upper secondary level), Belgium (Flemish Community, secondary level), Belgium (French Community), Italy and Japan (pre-primary level), there are no formal requirements regarding time spent on non-teaching activities. However, this does not mean that teachers are given total freedom to carry out other tasks. In the Flemish Community of Belgium, although there are no regulations regarding the time devoted to preparing lessons, correcting tests, marking students' papers, etc., additional non-teaching hours at school are set at the school level. In Italy, there is a requirement of up to 80 hours of scheduled non-teaching collegial work at school per year. Of these 80 hours, up to 40 hours of compulsory working time per year are dedicated to meetings of the teachers' assembly, staff planning meetings and meetings with parents; the remaining compulsory 40 hours are dedicated to class councils.

Definitions

Actual teaching time is the annual average number of hours that full-time teachers teach a group or class of students including all extra hours such as overtime. The data can be from administrative registers, statistical databases, representative sample surveys or other representative sources.

The **number of teaching days** is the number of teaching weeks multiplied by the number of days per week a teacher teaches, less the number of days on which the school is closed for holidays.

The **number of teaching weeks** refers to the number of weeks of instruction excluding holiday weeks.

Statutory teaching time is defined as the scheduled number of 60-minute hours per year that a full-time teacher teaches a group or class of students as set by policy. It is normally calculated as the number of teaching days per year multiplied by the number of hours a teacher teaches per day (excluding periods of time formally allowed for breaks between lessons or groups of lessons). Some countries provide estimates of teaching time based on survey data. At the primary school level, short breaks between lessons are included if the classroom teacher is responsible for the class during these breaks.

Working time refers to the number of hours that a full-time teacher is expected to work as set by policy. It does not include paid overtime. According to a country's formal policy, working time can refer to:

- the time directly associated with teaching and other curricular activities for students, such as assignments and tests; and
- the time directly associated with teaching and hours devoted to other activities related to teaching, such as preparing lessons, counselling students, correcting assignments and tests, professional development, meetings with parents, staff meetings, and general school tasks.

Working time required at school refers to the time teachers are required to spend working at school, including teaching and non-teaching time.

Methodology

Data are from the 2013 OECD-INES Survey on Teachers and the Curriculum and refer to the school year 2011/12.

In interpreting differences in teaching hours among countries, net contact time, as used here, does not necessarily correspond to the teaching load. Although contact time is a substantial component of teachers' workloads, preparing for classes and necessary follow-up, including correcting students' work, also need to be included when making comparisons. Other relevant elements, such as the number of subjects taught, the number of students taught, and the number of years a teacher teaches the same students, should also be taken into account.

Notes on definitions and methodologies for each country are provided in Annex 3, available at *www.oecd.org/edu/eag.htm*.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Reference

OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, TALIS, OECD Publishing, Paris, *http://dx.doi.org/10.1787/9789264196261-en.*

Tables of Indicator D4

StatLink http://dx.doi.org/10.1787/888933120005

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D4

Table D4.1. Organisation of teachers' working time (2012)

Number of teaching weeks, teaching days, net teaching hours, and teachers' working time in public institutions over the school year

	Number of weeks of teaching				Number of days of teaching				Net teaching time, in hours				Working time required at school, in hours				Total statutory working time, in hours			
	Pre-primary education	Primary education	Lower secondary education	Upper secondary education, general programmes	Pre-primary education	Primary education	Lower secondary education	Upper secondary education, general programmes	Pre-primary education	Primary education	Lower secondary education	Upper secondary education, general programmes	Pre-primary education	Primary education	Lower secondary education	Upper secondary education, general programmes	Pre-primary education	Primary education	Lower secondary education	Upper secondary education, general programmes
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)	(19)	(20)
OECD																				
Australia[1]	40	40	40	40	197	197	197	195	884	871	809	801	1 172	1 211	1 234	1 234	a	a	a	a
Austria[1]	38	38	38	38	180	180	180	180	779	779	607	589	a	a	a	a	1 776	1 776	1 776	a
Belgium (Fl.)[1]	37	37	37	37	176	176	174	174	732	748	652	609	915	915	a	a	a	a	a	a
Belgium (Fr.)[1]	37	37	37	37	181	181	181	181	784	721	661	601	a	a	a	a	a	a	a	a
Canada[1]	37	37	37	37	183	183	183	183	792	802	747	751	1 213	1 223	1 224	1 229	a	a	a	a
Chile[2]	38	38	38	38	179	179	179	179	1 103	1 103	1 103	1 103	1 839	1 839	1 839	1 839	1 971	1 971	1 971	1 971
Czech Republic[1]	39	39	39	39	188	188	188	188	1 166	827	620	592	a	a	a	a	1 776	1 776	1 776	1 776
Denmark[3]	a	a	a	a	a	a	a	a	a	659	659	369	a	a	a	a	1 680	1 680	1 680	1 680
England[3]	38	38	38	38	189	189	189	189	680	680	692	692	1 259	1 259	1 259	1 259	1 259	1 259	1 259	1 259
Estonia[2]	46	35	35	35	220	172	172	172	1 320	619	619	568	1 610	1 540	1 540	1 540	1 610	1 540	1 540	1 540
Finland[4]	m	38	38	38	m	187	187	187	m	673	589	547	m	787	703	642	a	a	a	a
France[1]	36	36	36	36	144	144	a	a	924	924	648	648	972	972	a	a	1 607	1 607	1 607	1 607
Germany[1]	40	40	40	40	193	193	193	193	796	804	755	718	a	a	a	a	1 776	1 776	1 776	1 776
Greece[1]	35	35	31	31	171	171	152	152	684	569	415	415	1 140	1 140	1 170	1 170	a	a	a	a
Hungary[4]	37	37	37	37	181	183	183	183	1 158	604	604	604	m	m	m	m	1 864	1 864	1 864	1 864
Iceland[1]	48	37	37	35	227	180	180	170	1 646	624	624	544	1 800	1 650	1 650	1 720	1 800	1 800	1 800	1 800
Ireland[1]	m	37	33	33	m	183	167	167	m	915	735	735	m	1 079	778	778	a	a	a	a
Israel[1]	38	38	37	37	182	182	175	175	1 023	838	629	558	1 023	1 219	924	781	a	a	a	a
Italy[1]	42	39	39	39	186	171	171	171	930	752	616	616	a	a	a	a	a	a	a	a
Japan[3]	39	40	40	39	m	200	200	196	m	731	602	510	a	a	a	a	a	1 891	1 891	1 891
Korea[4]	36	38	38	38	180	190	190	190	583	694	568	549	a	a	a	a	1 520	1 520	1 520	1 520
Luxembourg[1]	36	36	36	36	176	176	176	176	880	810	739	739	1 060	990	828	828	a	a	a	a
Mexico[1]	42	42	42	36	200	200	200	171	532	800	1 047	838	772	800	1 167	971	a	a	a	a
Netherlands[2]	40	40	m	m	195	195	m	m	930	930	750	750	a	a	a	a	1 659	1 659	1 659	1 659
New Zealand[1]	m	39	39	38	m	195	193	190	m	935	848	760	m	1 560	1 255	950	a	a	a	a
Norway[1]	45	38	38	38	225	190	190	190	1 508	741	663	523	1 508	1 300	1 225	1 150	1 688	1 688	1 688	1 688
Poland[3]	45	38	38	37	218	184	182	180	1 149	633	561	558	m	m	m	m	1 816	1 520	1 504	1 488
Portugal[2]	42	37	37	37	194	168	168	168	970	756	616	616	1 116	1 027	926	926	1 426	1 296	1 296	1 296
Scotland[2]	38	38	38	38	190	190	190	190	855	855	855	855	1 045	1 045	1 045	1 045	1 365	1 365	1 365	1 365
Slovak Republic[1]	42	38	38	38	199	184	184	184	1 035	819	635	607	m	m	m	m	1 575	1 575	1 575	1 575
Slovenia[1]	46	40	40	40	219	190	190	190	1 314	627	627	570	a	a	a	a	m	m	m	m
Spain[1]	37	37	37	36	176	176	176	171	880	880	713	693	1 140	1 140	1 140	1 140	1 425	1 425	1 425	1 425
Sweden[1]	47	a	a	a	224	a	a	a	1 792	m	m	m	1 792	1 360	1 360	1 360	a	1 767	1 767	1 767
Switzerland	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Turkey[1]	38	38	38	38	180	180	180	180	1 080	720	504	567	1 160	980	836	921	1 600	1 600	1 600	1 600
United States[3]	36	36	36	36	180	180	180	180	1 131	1 131	1 085	1 076	1 365	1 362	1 366	1 365	1 890	1 922	1 936	1 960
OECD average	40	38	38	37	191	183	182	180	1 001	782	694	655	1 258	1 200	1 173	1 142	1 654	1 649	1 649	1 643
EU21 average	40	38	37	37	190	180	179	179	988	754	653	622	1 205	1 104	1 075	1 069	1 615	1 592	1 591	1 577
Partners																				
Argentina[5]	36	36	36	36	170	170	171	171	680	680	1 368	1 368	m	m	m	m	m	m	m	m
Brazil	42	42	42	42	203	203	203	203	m	m	m	m	a	a	a	a	a	a	a	a
China	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Colombia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
India	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Indonesia	44	44	44	44	251	251	163	163	628	1 255	734	734	m	m	m	m	m	m	m	m
Latvia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Russian Federation[3]	m	34	35	35	m	170	210	210	m	561	483	483	a	a	a	a	a	a	a	a
Saudi Arabia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
South Africa	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
G20 average	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m

1. Typical teaching time.
2. Maximum teaching time.
3. Actual teaching time.
4. Minimum teaching time.
5. Year of reference 2011.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933120024

Table D4.2. Number of teaching hours per year (2000, 2005, 2010 and 2012)

Net statutory contact time in public institutions, by level of education

		Primary education				Lower secondary education				Upper secondary education			
		2000	2005	2010	2012	2000	2005	2010	2012	2000	2005	2010	2012
		(1)	(2)	(7)	(9)	(10)	(11)	(16)	(18)	(19)	(20)	(25)	(27)
OECD	Australia	882	888	868	871	811	810	819	809	803	810	803	801
	Austria	m	774	779	779	m	607	607	607	m	589	589	589
	Belgium (Fl.)	767	761	761	748	682	690	675	652	638	645	630	609
	Belgium (Fr.)[1]	804	722	732	721	728	724	671	661	668	664	610	601
	Canada	m	m	799	802	m	m	740	747	m	m	744	751
	Chile	m	1 128	1 105	1 103	m	1 128	1 105	1 103	m	1 128	1 105	1 103
	Czech Republic	m	813	862	827	650	647	647	620	621	617	617	592
	Denmark[2]	640	640	650	659	640	640	650	659	m	m	377	369
	England[2]	m	m	684	680	m	m	703	692	m	m	703	692
	Estonia	630	630	630	619	630	630	630	619	578	578	578	568
	Finland	656	677	680	673	570	592	595	589	527	550	553	547
	France	936	936	936	924	648	648	648	648	648	648	648	648
	Germany	783	808	805	804	732	758	756	755	690	714	713	718
	Greece	609	604	589	569	426	434	415	415	429	430	415	415
	Hungary	583	583	604	604	555	555	604	604	555	555	604	604
	Iceland	629	671	624	624	629	671	624	624	464	560	544	544
	Ireland	915	915	915	915	735	735	735	735	735	735	735	735
	Israel	731	731	820	838	579	579	598	629	524	524	521	558
	Italy	744	739	770	752	608	605	630	616	608	605	630	616
	Japan[2]	635	578	707	731	557	505	602	602	478	429	500	510
	Korea	865	883	807	694	570	621	627	568	530	605	616	549
	Luxembourg	m	774	739	810	m	642	634	739	m	642	634	739
	Mexico	800	800	800	800	1 182	1 047	1 047	1 047	m	848	843	838
	Netherlands	930	930	930	930	867	750	750	750	867	750	750	750
	New Zealand	m	m	930	935	m	m	845	848	m	m	760	760
	Norway	713	741	741	741	633	656	654	663	505	524	523	523
	Poland[2]	m	m	644	633	m	m	572	561	m	m	571	558
	Portugal	815	855	779	756	595	564	634	616	515	513	634	616
	Scotland	950	893	855	855	893	893	855	855	893	893	855	855
	Slovak Republic	m	m	841	819	m	m	652	635	m	m	624	607
	Slovenia	m	627	627	627	m	627	627	627	m	570	570	570
	Spain	880	880	880	880	564	713	713	713	548	693	693	693
	Sweden	m	m	m	m	m	m	m	m	m	m	m	m
	Switzerland	884	m	m	m	859	m	m	m	674	m	m	m
	Turkey	639	639	621	720	a	a	a	504	504	567	551	567
	United States[2]	1 080	1 080	1 097	1 131	1 080	1 080	1 068	1 085	1 080	1 080	1 051	1 076
	OECD average	780	783	783	782	697	698	701	694	628	659	656	655
	OECD average for countries with 2000, 2005 and 2010 and 2012 data	776	774	775	773	690	689	694	689	626	639	642	639
	EU21 average for countries with 2000, 2005 and 2010 and 2012 data	776	771	768	761	658	661	663	657	635	639	644	638
Partners	Argentina[3]	m	m	720	680	m	m	1 448	1 368	m	m	1 448	1 368
	Brazil	m	m	m	m	m	m	m	m	m	m	m	m
	China	m	m	m	m	m	m	m	m	m	m	m	m
	Colombia	m	m	m	m	m	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m	m	m	m	m	m
	Indonesia	m	m	m	1 255	m	m	m	734	m	m	m	734
	Latvia	m	m	m	m	m	m	m	m	m	m	m	m
	Russian Federation[2]	m	615	615	561	m	507	507	483	m	507	507	483
	Saudi Arabia	m	m	m	m	m	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m	m	m	m	m	m
	G20 average	m	m	m	m	m	m	m	m	m	m	m	m

Note: Years 2006, 2007, 2008, 2009 and 2011 (i.e. columns 3-6, 8, 12-15, 17, 21-24, 26) are available for consultation on line (see *StatLink* below).

1. Break in time series following methodological changes in 2006.
2. Actual teaching time.
3. Year of reference 2011 instead of 2012.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

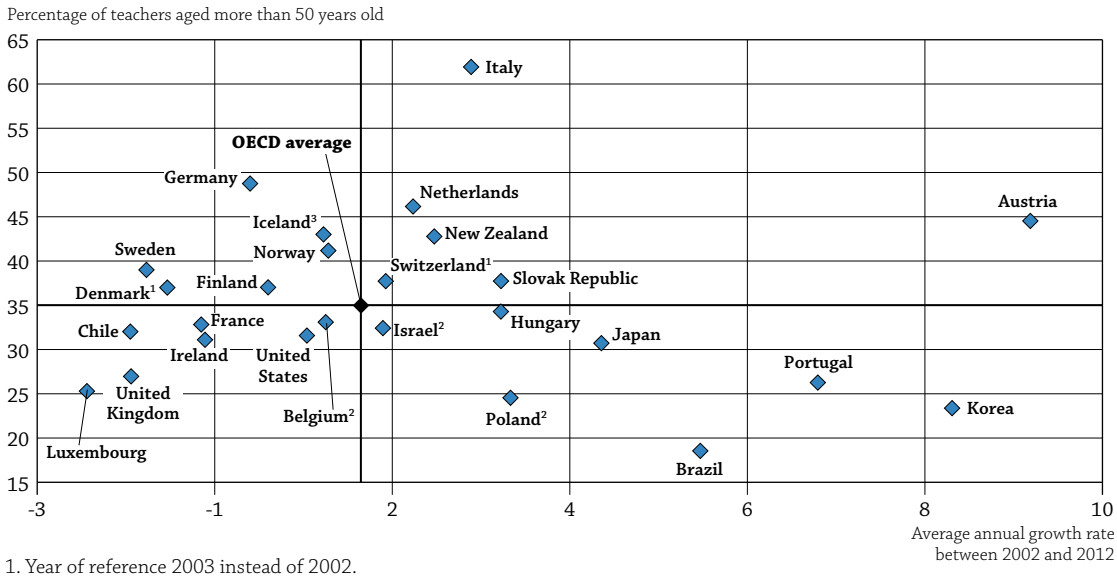
Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933120043

WHO ARE THE TEACHERS?

- On average across OECD countries, 36% of secondary school teachers were at least 50 years old in 2012; from 25% or less in Brazil, Indonesia, Korea, Luxembourg and Poland to more than 60% in Italy.
- Between 2002 and 2012, the proportion of secondary teachers aged 50 years or older increased by an annual growth rate of 1.3% on average across countries with comparable data.
- On average across OECD countries, two-thirds of teachers and academic staff are women; but the proportion of female teachers decreases as the level of education increases: 97% at the pre-primary level, 82% at the primary level, 67% at the lower secondary level, 57% at the upper secondary level, and 42% at the tertiary level.

Chart D5.1. Percentage of secondary school teachers aged 50 years or older and its average annual growth rate (2002-2012)



1. Year of reference 2003 instead of 2002.
2. Year of reference 2004 instead of 2002.
3. Year of reference 2011 instead of 2012.

Source: OECD. Table D5.2. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933120214

Context

The demand for teachers depends on a range of factors including the age structure of the school-age population, average class size, the teaching load of teachers, required instruction time for students, use of teaching assistants and other "non-classroom" staff in schools, enrolment rates at the different levels of education, in-grade retention rates, and starting and ending age of compulsory education. With large proportions of teachers in several OECD countries set to reach retirement age in the next decade, and/or the projected increase in the size of the school-age population, governments will be under pressure to recruit and train new teachers. Given compelling evidence that the calibre of teachers is the most significant in-school determinant of student achievement, concerted efforts must be made to attract top academic talent to the teaching profession and provide high-quality training (Hiebert and Stigler, 1999; OECD, 2005).

Teacher policy needs to ensure that teachers work in an environment that encourages effective teachers to continue in teaching. In addition, as teaching at the pre-primary, primary and lower secondary levels remains largely dominated by women, this gender imbalance in the teaching profession and its impact on student learning warrant detailed study.

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Other findings

- **Most teachers at the tertiary level are men in nearly all countries** except Finland and the Russian Federation.
- On average across OECD countries, **31% of primary teachers are at least 50 years old.** However, in seven OECD and partner countries – Belgium, Brazil, Ireland, Israel, Korea, Luxembourg and the United Kingdom – more than one in two primary teachers are under the age of 40.
- **Lower secondary teachers have an average of 16 years of teaching experience** (which includes almost 10 years in their actual school), 3 years of experience in other educational roles, and 4 years of experience in other types of jobs.

Trends

Between 2002 and 2012, the proportion of secondary teachers aged 50 or older climbed by 4 percentages points on average across countries with comparable data. The increase is 10 percentage points or more in Italy, Japan, Korea and Portugal, and critically so in Austria, which saw a 26 percentage-point increase in this proportion during the period. In countries that stand to lose a significant number of teachers through retirement and whose school-age population remains the same or increases, governments will have to boost the appeal of teaching to upper secondary and tertiary students, expand teacher-training programmes, and, if necessary, provide alternate routes to certification for mid-career professionals intent on changing careers. Fiscal constraints – particularly those driven by pension obligations and health-care costs for retirees – are likely to result in greater pressure on governments to reduce academic offerings, increase class size, integrate more self-paced, online learning, or implement some combination of these measures (Abrams, 2011; Peterson, 2010).

D5

Analysis

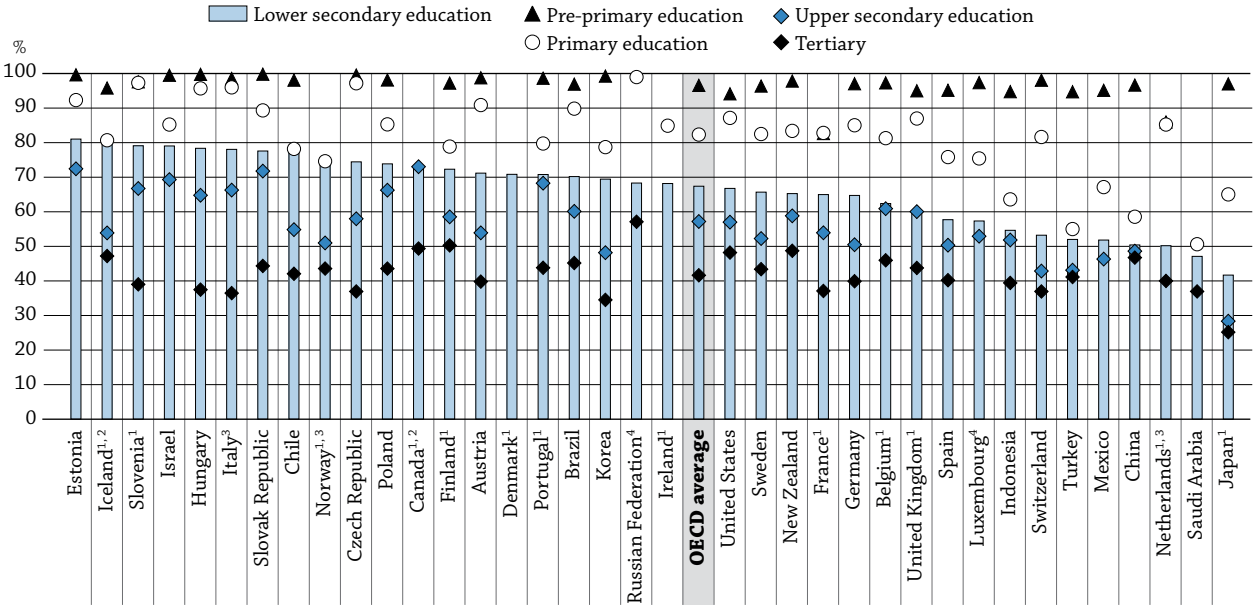
Gender profile of teachers

On average across OECD countries, two-thirds of the teachers and academic staff from all levels of education (i.e. from pre-primary through tertiary education) are women. From pre-primary through upper secondary levels of schooling, most teachers in OECD countries are women, though the proportion of women shrinks at each successive level of education. At the tertiary level, most teachers and academic staff in OECD countries are men. Women represent only 42% of the teaching staff at this level, on average across OECD countries. Despite this general pattern, there are large differences between countries at each level of education.

On average, women occupy 97% of pre-primary and 82% of primary teaching positions in OECD countries. In all countries with available data but France and the Netherlands, at least 93% of pre-primary teachers are women; in France, 83% are and 86% in the Netherlands. In 37 countries with staffing data, except Canada, China, Indonesia, Japan, Saudi Arabia and Turkey, at least three out of 4 primary teachers are women (Chart D5.2).

Chart D5.2. Gender distribution of teachers (2012)

Percentage of women among teaching staff in public and private institutions, by level of education



1. Some levels of education are included with others. Refer to "x" code in Table D5.3 for details.
2. Year of reference 2011.
3. Public institutions only (for Italy, from pre-primary to secondary levels).
4. Lower secondary private institutions included with upper secondary institutions.

Countries are ranked in descending order of the percentage of female teachers at the lower secondary level.

Source: OECD. Table D5.3. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933120233

While most lower secondary teachers (67%) in OECD countries are women, the proportion of male teachers at that level is larger than at the primary level. Among OECD countries, the proportion of female teachers varies considerably, from fewer than half the teachers in Japan to more than 80% in Estonia, Iceland and the Russian Federation. At the upper secondary level, the average percentage of female teachers in OECD countries drops to 57% and varies from 28% in Japan to 73% in Canada.

While most tertiary teachers are men, on average across OECD countries, the share of female teachers varies considerably among countries, from about one in 4 in Japan to one in 2 or more in Finland and the Russian Federation.

Age distribution of teachers

Variations in the size and age distribution of the population, duration of tertiary education, teachers' salaries and working conditions affect the age distribution of teachers. Declining birth rates drive down demand for new teachers;

tertiary education is completed later in some countries than in others. While competitive salaries and good working conditions in some countries attract young people to teaching, they also keep teachers from leaving the profession and thus limit the number of openings (see Box D.5.2. for more information on teacher's employment status).

Some 31% of primary school teachers are at least 50 years old, on average across OECD countries. The proportion exceeds 40% in Germany, Italy and Sweden. Only in Belgium, Chile, Ireland, Korea, Luxembourg and the United Kingdom does the proportion of teachers under the age of 30 equal or exceed 20% (Chart D5.3, available on line).

There is a similar age distribution of teachers at the secondary level. On average across OECD countries, 36% of teachers are at least 50 years old. In Austria, Estonia, Germany, Iceland, Italy, the Netherlands, New Zealand and Norway 40% or more of secondary teachers are at least 50 years old. Only in Brazil and Indonesia are most secondary teachers (51% and 62%, respectively) below the age of 40. The proportion of teachers aged 50 or older is at least 10 percentage points larger in upper secondary than in primary education in Estonia, France, Israel, Italy and the Slovak Republic (Tables D5.1 and D5.2).

In addition to prompting recruitment and training efforts to replace retiring teachers, the ageing of the teacher workforce also has budgetary implications. In most school systems, there is a link between teachers' salaries and years of teaching experience. The ageing of teachers increases school costs, which, in turn, limits the resources available to implement other initiatives at the school level (see Indicator D3).

Despite the larger proportions of teachers aged 50 or over at the secondary level compared to the primary level, young teachers still represent a significant part of the staff (at the primary and secondary levels, 13% and 10% of teachers, respectively, are aged 30 or younger, on average across OECD countries). Only in the Czech Republic, Estonia, Finland, Germany, Hungary, Iceland, Italy, Portugal, Slovenia and Sweden 10% of primary and secondary teachers or fewer are younger than 30. This can be partly explained by the relatively late age at which students complete tertiary education in these countries (see Annex 1).

Change in the age distribution of teachers between 2002 and 2012

Among countries with comparable trend data for both 2002 and 2012, the average proportion of secondary school teachers aged 50 years or older increased by an annual growth rate of 1.3% between 2002 and 2012. Yet the range among countries is wide. In Brazil, Japan, Korea and Portugal, the average annual growth rate increased by more than 4%. The proportion of secondary teachers aged 50 or older increased the most in Austria, by 9% by year. In Chile, Denmark, Luxembourg, Sweden and the United Kingdom, the average annual growth rate decreased by 1% or more (Table D5.2).

In all countries, the changes in the number of teachers should be balanced against changes in the school-age population. In countries with an increase in the school-age population over the period (see Indicator C1), new teachers will be needed to compensate for the significant number of staff hired during the 1960s and 1970s and who will reach retirement age in the next decade. Teacher-training programmes will likely have to grow, and incentives for students to enter the teaching profession may have to increase (see Indicator D6). In contrast, as there can be high individual and social costs when substantial resources are invested in teacher education, countries with a shrinking school-age population, such as Austria, Chile, Germany, Japan, Korea and Poland, need to ensure that the quality of teacher preparation is not undermined by large number of candidates and/or graduates from teacher-training programmes who are not able to find work as teachers (OECD, 2005).

Box D5.1. Teachers' work experience

The OECD Teaching and Learning International Survey (TALIS) 2013 results provide a profile of teachers' work experience. Teachers were asked about their work experience as a teacher in their school, as a teacher throughout their careers, in other education roles (excluding teacher) and in other jobs. As shown in the figure below, lower secondary teachers have, on average, 16 years of teaching experience (which includes almost 10 years in their actual school), 3 years of experience in other educational roles and 4 years of experience in other types of jobs. Teachers in Bulgaria, Estonia and Latvia report the most years of experience in their profession, with more than 20 years of working experience as a teacher and around 15 years in their current school.

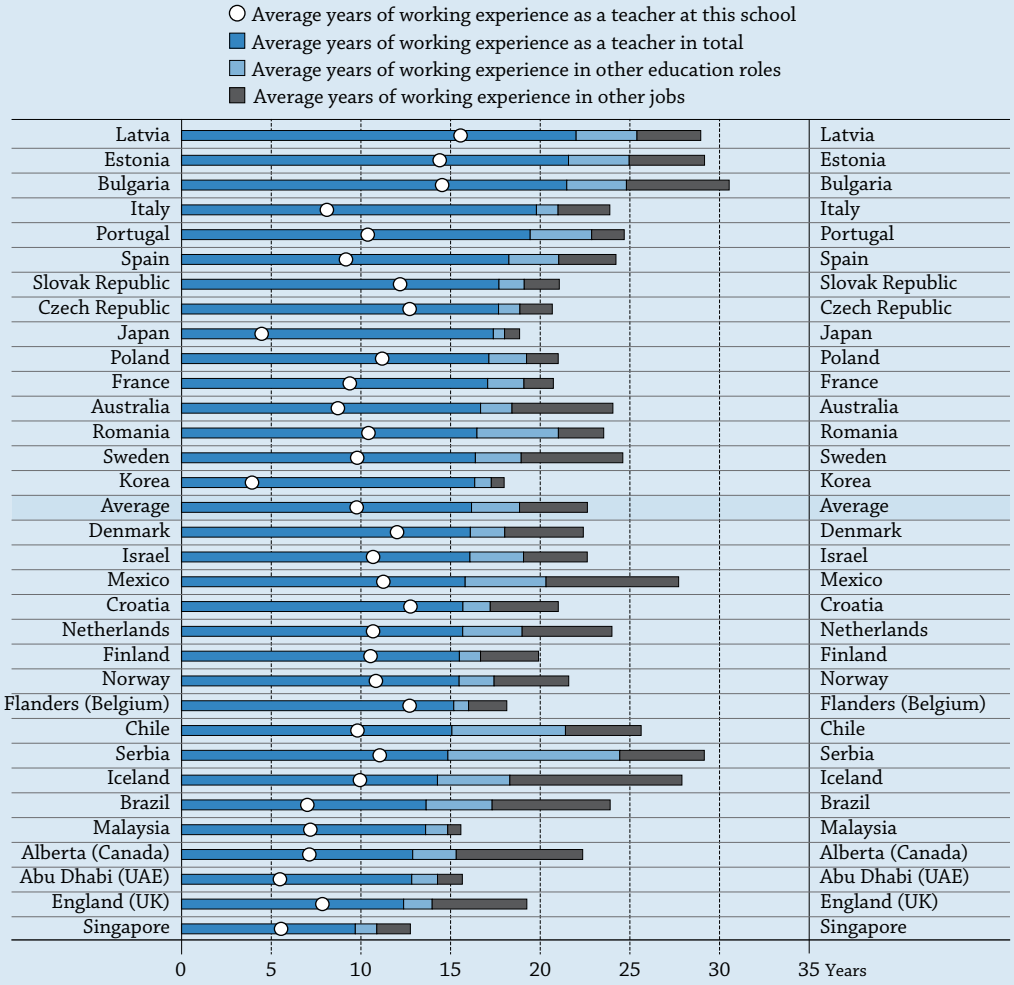
…

At the other end of the spectrum, teachers in Singapore report having a little less than 10 years of experience as a teacher, on average. Interestingly, the large proportion of experienced teachers does not appear to be associated with greater participation in mentoring programmes. In fact, the percentage of teachers who report having a mentor or serving as a mentor does not exceed 10% in Bulgaria, Estonia and Latvia, while in Singapore almost 40% of teachers report participating in these programmes.

The figure below also shows that teachers in Korea and Japan have less experience in their current school compared with the other TALIS countries, revealing a higher mobility among schools in these two countries. If teachers in Korea and Japan are above the TALIS average in terms of total teaching experience, they are well below average when it comes to their experience in their current school. In fact, they report that not even a third of their teaching experience was gained in their current school. The professional experience of these teachers also differs from that of their peers elsewhere in the number of years they spent in other education roles or in other jobs. Teachers in Korea and Japan report that their professional experience consists almost uniquely in working as a teacher, whereas, on average across TALIS-participating countries, teachers report more than 5 years of experience working in other education roles or in other jobs.

Chart D5.a. Work experience of teachers (2013)

Lower secondary education teachers' average years of work experience



Countries are ranked in descending order, based on the average years of working experience as a teacher in total.

Source: OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, TALIS, OECD Publishing.

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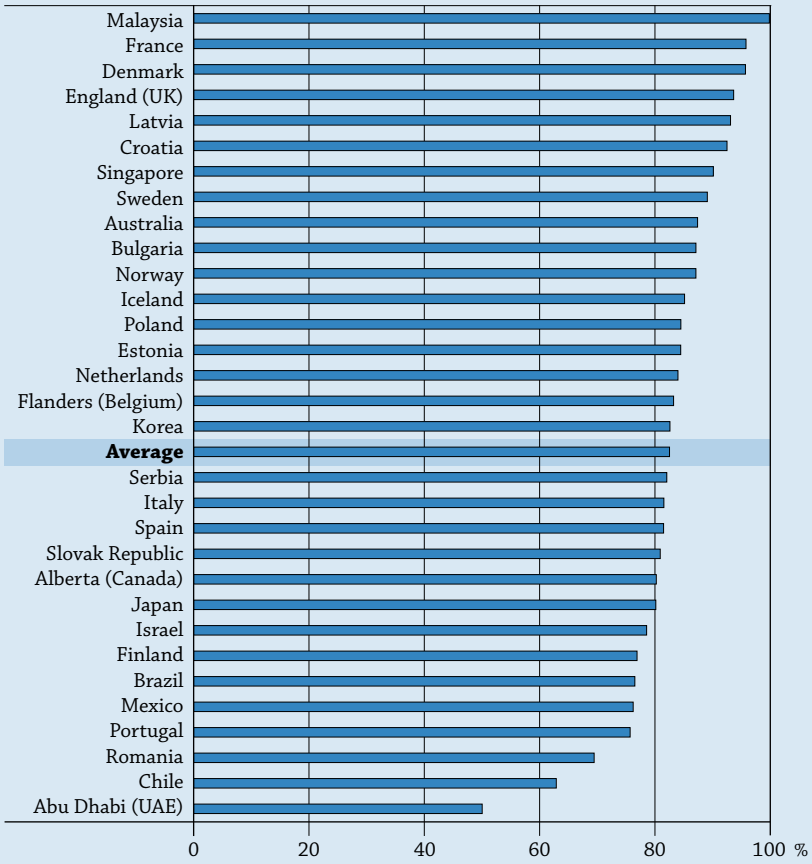
These results are significant considering that teachers' work experience helps shape their skills. A teacher's tenure may also affect his or her willingness to implement innovative practices or reforms (Goodson, Moore and Hargreaves, 2006). Years of experience may especially matter early in a teacher's career. Some research shows that each additional year of experience is related to higher student achievement, especially during a teacher's first five years in the profession (Rockoff, 2004; Rivkin, Hanushek and Kain, 2005; Harris and Sass, 2011).

Box D5.2. **Teachers' employment status**

The Teaching and Learning International Survey (TALIS) results show that, when substitute teachers are excluded, 83% of lower secondary teachers, on average across countries, are employed permanently and 82% are employed full time. As shown in the figure below, Malaysian teachers report the highest level of job security. Nearly all of them report being permanent teachers and almost all of them report that they work full time.

As employment status can be an important factor in attracting teachers to the profession and retaining them, efforts should be made to offer greater job security (through long-term or permanent contracts) and more flexibility (by offering the possibility of working part time) (OECD, 2005).

Chart D5.b. Employment contract status of teachers in lower secondary education (2013)
Percentage of permanent teachers at lower secondary education



Source: OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, TALIS, OECD Publishing.
StatLink http://dx.doi.org/10.1787/888933120841

Definitions

ISCED type of final qualification refers to the type of educational qualification (e.g. ISCED 3, 5B, 5A) that a new teacher would be required to have to teach primary, lower secondary, and upper secondary school (general programmes) in the public sector.

Methodology

Data refer to the academic year 2011/12 and are based on the UOE data collection on education statistics administered by the OECD in 2012 (for details, see Annex 3 at *www.oecd.org/edu/eag.htm*). Data on teachers by age for 2002 may have been revised in 2013 to ensure consistency with 2011 data.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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Tables of Indicator D5

StatLink http://dx.doi.org/10.1787/888933120138

Table D5.1 Age distribution of teachers (2012)

Table D5.2 Age distribution of teachers (2002, 2012)

Table D5.3 Gender distribution of teachers (2012)

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Table D5.1. Age distribution of teachers (2012)

Percentage of teachers in public and private institutions, by level of education and age group, based on head counts

	Primary education					Lower secondary education					Upper secondary education				
	< 30 years	30-39 years	40-49 years	50-59 years	>= 60 years	< 30 years	30-39 years	40-49 years	50-59 years	>= 60 years	< 30 years	30-39 years	40-49 years	50-59 years	>= 60 years
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
OECD															
Australia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Austria	11	21	31	34	2	7	17	29	44	3	6	20	34	36	5
Belgium[1]	21	31	25	22	1	17	27	24	28	4	14	27	26	30	4
Canada[2, 3]	14	32	29	21	4	x(1)	x(2)	x(3)	x(4)	x(5)	14	32	29	21	4
Chile	20	28	20	22	9	20	27	20	22	10	18	28	21	23	9
Czech Republic	9	22	38	27	4	12	27	28	27	6	7	20	28	33	11
Denmark	x(6)	x(7)	x(8)	x(9)	x(10)	6	31	26	27	10	m	m	m	m	m
Estonia	9	21	33	26	10	8	16	27	31	17	8	17	25	31	19
Finland[1]	9	30	33	26	3	10	30	30	26	5	5	21	31	31	12
France	13	37	30	20	1	10	34	27	25	4	4	24	35	29	8
Germany	7	22	25	33	13	6	20	24	36	14	4	21	29	33	12
Greece	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Hungary	7	23	37	32	1	6	23	33	35	2	8	31	29	28	4
Iceland[1, 3]	8	29	29	24	10	8	29	29	24	10	5	19	27	32	17
Ireland[1]	21	34	18	22	4	x(11)	x(12)	x(13)	x(14)	x(15)	9	36	27	24	4
Israel	16	36	26	18	3	11	31	30	23	5	10	28	26	24	12
Italy[4]	n	12	36	41	11	n	13	29	43	15	n	8	27	52	13
Japan	15	23	30	30	1	13	25	34	26	1	9	24	33	30	4
Korea	22	38	24	14	2	13	32	34	20	1	13	31	30	25	1
Luxembourg[5]	24	32	23	20	2	22	36	24	17	2	12	28	31	25	4
Mexico	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Netherlands[4]	19	25	20	29	7	14	22	21	31	11	9	18	22	38	13
New Zealand	12	23	26	27	13	11	23	24	28	14	10	22	25	29	15
Norway[1, 4]	13	28	25	22	12	13	28	25	22	12	5	20	27	29	18
Poland	12	26	42	19	1	12	36	32	18	2	10	33	29	22	6
Portugal[1]	4	35	30	28	2	3	31	37	25	3	6	34	35	22	3
Slovak Republic	11	32	31	23	3	15	26	22	31	6	12	24	25	31	8
Slovenia[1]	7	32	36	24	1	7	33	28	29	3	5	27	36	27	5
Spain	13	31	24	27	4	8	29	31	28	4	4	28	36	28	4
Sweden	5	23	27	27	17	7	31	29	21	12	6	23	27	27	17
Switzerland	17	25	24	29	6	12	28	25	28	7	6	23	31	31	9
Turkey	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
United Kingdom	31	29	20	19	2	23	31	22	22	3	20	28	24	24	5
United States	15	29	25	24	8	17	29	25	22	8	14	27	26	23	10
OECD average	13	28	28	25	5	11	27	28	27	7	9	25	29	29	9
EU21 average	12	27	29	26	5	10	27	28	29	7	8	25	29	30	8
Partners															
Argentina	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Brazil	16	36	33	13	2	17	35	30	15	3	16	34	30	16	3
China	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Colombia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
India	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Indonesia	19	22	41	16	1	34	30	27	8	1	21	37	31	9	1
Latvia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Russian Federation	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
Saudi Arabia	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
South Africa	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m
G20 average	m	m	m	m	m	m	m	m	m	m	m	m	m	m	m

1. Upper secondary education includes post-secondary non-tertiary education (or part of post-secondary non-tertiary for Iceland and Portugal and lower secondary and post-secondary non-tertiary for Ireland).
2. Primary education includes pre-primary education.
3. Year of reference 2011.
4. Public institutions only.
5. Lower secondary private institutions included with upper secondary institutions.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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D5

Table D5.2. Age distribution of teachers (2002, 2012)

Percentage of teachers in public and private secondary education institutions, based on head counts

	Secondary education (2012)					Secondary education (2002)					Percentage of teachers aged 50 years or older		
	< 30 years	30-39 years	40-49 years	50-59 years	>= 60 years	< 30 years	30-39 years	40-49 years	50-59 years	>= 60 years	2012	2002	Average annual growth rate (2002 - 2012)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
OECD													
Australia	m	m	m	m	m	m	m	m	m	m	m	m	m
Austria	7	18	31	41	4	10	29	43	18	1	45	19	9.2
Belgium[1, 2]	15	27	25	29	4	14	23	33	28	3	33	30	0.9
Canada[3]	14	32	29	21	4	m	m	m	m	m	26	m	m
Chile	19	28	21	23	9	7	23	33	27	10	32	37	-1.4
Czech Republic	9	23	28	30	9	m	m	m	m	m	39	m	m
Denmark[4]	6	31	26	27	10	12	24	24	35	6	37	41	-1.0
Estonia	8	17	26	31	18	m	m	m	m	m	49	m	m
Finland[1]	7	25	30	28	9	8	26	30	32	4	37	36	0.2
France	7	29	31	27	6	13	27	25	34	1	33	35	-0.6
Germany	5	21	26	35	13	4	15	33	42	7	49	49	0.0
Greece	m	m	m	m	m	m	m	m	m	m	m	m	m
Hungary	7	28	31	31	3	15	26	33	22	3	34	26	2.9
Iceland[1, 3]	6	23	28	29	14	7	21	32	28	12	43	39	0.9
Ireland[1]	9	33	26	26	6	11	26	30	27	6	31	33	-0.5
Israel[2]	10	30	28	23	9	12	30	31	24	4	32	28	1.6
Italy[5]	n	10	28	48	14	1	11	40	44	4	62	48	2.6
Japan	11	24	34	28	3	11	32	36	19	2	31	21	4.1
Korea	13	32	32	22	1	17	37	35	10	1	23	11	8.2
Luxembourg	15	31	28	22	3	8	27	29	29	2	25	31	-1.9
Mexico	m	m	m	m	m	m	m	m	m	m	m	m	m
Netherlands[5]	12	20	22	34	12	9	17	36	35	3	46	38	1.9
New Zealand	10	22	25	28	15	14	20	32	28	7	43	35	2.2
Norway[1, 5]	9	24	26	26	15	12	23	27	30	7	41	38	0.9
Poland[2]	11	35	30	20	4	22	31	28	16	3	25	18	3.1
Portugal[1]	5	33	36	24	3	22	37	27	12	2	26	14	6.7
Slovak Republic	14	25	23	31	7	19	24	29	23	6	38	28	2.9
Slovenia[1]	6	30	32	28	4	m	m	m	m	m	32	m	m
Spain	6	29	33	28	4	m	m	m	m	m	32	m	m
Sweden	7	27	28	24	15	11	20	24	35	9	39	44	-1.2
Switzerland[4, 5]	9	26	28	30	8	13	24	31	28	5	38	32	1.6
Turkey	m	m	m	m	m	m	m	m	m	m	m	m	m
United Kingdom	21	29	23	23	4	13	22	33	30	1	27	31	-1.4
United States	16	28	25	23	9	17	22	32	26	3	32	30	0.7
OECD average	10	26	28	28	8	12	25	31	27	4	36	32	~
Average for countries with available data for both reference years	10	27	28	27	8	13	25	31	26	4	35	31	1.3
EU21 average	9	26	28	29	8	12	24	31	29	4	37	33	~
Partners													
Argentina	m	m	m	m	m	m	m	m	m	m	m	m	m
Brazil	17	35	30	16	3	26	35	26	11	2	19	13	5.3
China	m	m	m	m	m	m	m	m	m	m	m	m	m
Colombia	m	m	m	m	m	m	m	m	m	m	m	m	m
India	m	m	m	m	m	m	m	m	m	m	m	m	m
Indonesia	29	33	29	8	1	m	m	m	m	m	10	m	m
Latvia	m	m	m	m	m	m	m	m	m	m	m	m	m
Russian Federation	m	m	m	m	m	m	m	m	m	m	m	m	m
Saudi Arabia	m	m	m	m	m	m	m	m	m	m	m	m	m
South Africa	m	m	m	m	m	m	m	m	m	m	m	m	m
G20 average	m	m	m	m	m	m	m	m	m	m	m	m	m

1. Including post-secondary non-tertiary education (part of post-secondary non-tertiary education for Iceland and Portugal).
2. Year of reference 2003 instead of 2002.
3. Year of reference 2011 instead of 2012.
4. Year of reference 2004 instead of 2002.
5. Public institutions only (for Switzerland for the year 2002 only).

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Table D5.3. Gender distribution of teachers (2012)

Percentage of women among teaching staff in public and private institutions by level of education, based on head counts

		Pre-primary education	Primary education	Lower secondary education	Upper secondary education			Post-secondary non-tertiary education	Tertiary education			All levels of education
					General programmes	Pre-vocational/ vocational programmes	All programmes		Type B	Type A and advanced research programmes	Total tertiary education	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
OECD	Australia	m	m	m	m	m	m	m	m	44	m	m
	Austria	99	91	71	63	50	54	53	x(10)	x(10)	40	65
	Belgium	97	81	62	61	x(6)	61	x(6)	x(10)	x(10)	46	70
	Canada[1]	x(2)	73	x(2)	x(6)	x(6)	73	m	54	43	49	m
	Chile	98	78	77	57	49	55	a	43	42	42	64
	Czech Republic	100	97	74	x(6)	x(6)	58	56	61	34	37	m
	Denmark	x(3)	x(3)	71	m	m	m	m	m	m	m	m
	Estonia	100	92	81	78	64	72	x(5)	m	m	m	88
	Finland	97	79	72	70	54	59	x(6)	n	50	50	71
	France	83	83	65	55	51	54	x(8)	38	37	37	66
	Germany	97	85	65	54	43	50	53	55	37	40	65
	Greece	m	m	m	m	m	m	m	m	m	m	m
	Hungary	100	96	78	68	54	65	52	48	36	37	76
	Iceland[1]	96	81	81	x(6)	x(6)	54	x(6, 10)	x(10)	x(10)	47	73
	Ireland	m	85	x(6)	69	53	68	x(6)	m	m	m	m
	Israel	99	85	79	x(6)	x(6)	69	m	m	m	m	m
	Italy[2]	99	96	78	75	61	66	m	33	36	36	77
	Japan	97	65	42	28	63	28	x(6, 10)	47	19	25	48
	Korea	99	79	69	50	43	48	a	43	32	35	60
	Luxembourg[3]	97	75	57	62	43	53	m	m	45	45	m
	Mexico	95	67	52	46	48	46	a	m	m	m	m
	Netherlands[2]	86	85	50	50	50	50	51	41	40	40	64
	New Zealand	98	83	65	60	54	59	55	49	49	49	70
	Norway[2]	m	75	75	x(6)	x(6)	51	x(6)	x(10)	x(10)	44	63
	Poland	98	85	74	71	62	66	65	69	43	44	74
	Portugal	99	80	71	x(6)	x(6)	68	x(6, 10)	x(10)	x(10)	44	70
	Slovak Republic	100	89	78	74	71	72	55	62	44	44	76
	Slovenia	98	97	79	71	64	67	x(4, 5)	x(10)	39	39	75
	Spain	95	76	58	x(6)	x(6)	50	a	45	39	40	65
	Sweden	96	82	66	50	54	52	51	n	43	43	74
	Switzerland	98	82	53	45	42	43	m	33	37	37	58
	Turkey	95	55	52	44	42	43	a	33	42	41	52
	United Kingdom	95	87	60	60	60	60	a	x(10)	x(10)	44	68
	United States	94	87	67	x(6)	x(6)	57	63	x(10)	x(10)	48	70
	OECD average	97	82	67	59	53	57	55	47	40	42	68
	EU21 average	96	86	69	64	56	60	54	50	40	42	71
Partners	Argentina	m	m	m	m	m	m	m	m	m	m	m
	Brazil	97	90	70	62	52	60	a	x(10)	x(10)	45	74
	China	97	59	50	48	49	49	m	49	28	47	57
	Colombia	93	77	54	x(6)	x(6)	46	a	m	m	m	68
	India	m	m	m	m	m	m	m	m	m	m	m
	Indonesia	95	64	55	53	49	52	m	39	x(10)	39	61
	Latvia	m	m	m	m	m	m	m	m	m	m	m
	Russian Federation	100	99	84	x(6)	68	68	x(8)	75	53	57	83
	Saudi Arabia	m	51	52	x(6)	x(6)	56	a	x(10)	x(10)	37	51
	South Africa	m	m	m	m	m	m	m	m	m	m	m
	G20 average	m	m	m	m	m	m	m	m	m	m	m

1. Year of reference 2011.
2. Public institutions only (for Italy, from pre-primary to secondary levels).
3. Lower secondary private institutions included with upper secondary institutions.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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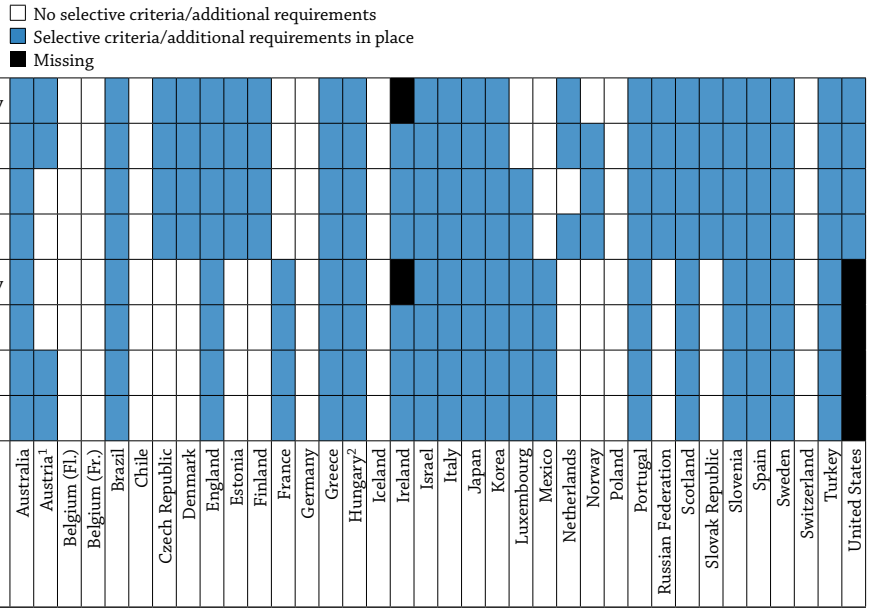
WHAT DOES IT TAKE TO BECOME A TEACHER?

- A master's degree is required of pre-primary school teachers in only four of the 35 countries with available data, while it is required of upper secondary teachers, who teach general subjects, in 22 of the 36 countries with available data.
- In 27 of 36 OECD and partner countries, there are selective criteria to enter and/or progress in initial teacher education for at least one level of education, and in 20 countries there are other requirements, in addition to initial teacher education, before one can start teaching and/or become a fully qualified teacher.

Chart D6.1. Teacher selection (2013)

For teachers teaching general subjects in public institutions



1. Refers to teachers in academic secondary school only, for lower secondary education.
2. Year of reference 2014.

Source: OECD. Tables D6.1a, b, c and d. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933120404

Context

The far-reaching economic and social changes in recent years have made high-quality schooling more important than ever before. Countries are no longer interested in merely getting an adequate supply of teachers, but also in raising the quality of learning for all. The latter can only be achieved if all students receive high-quality instruction. Teachers are central to school-improvement efforts: increasing the efficiency of schools depends to a large extent on ensuring that competent and motivated people want to work as teachers, and that they are effective in their jobs (OECD, 2005).

In order to attract the best candidates to the teaching profession, countries need to not only offer adequate pay, which, in turn, is evidence that teachers are valued by society, but also provide an environment in which teachers are given the autonomy to work as professionals and are given a direct role in school improvement.

In addition, prospective teachers should be provided with high-quality initial training. The types of qualifications, the duration of training and the programme content provided can influence the extent to which initial teacher education prepares teachers for their role. No matter how high the quality of pre-service training, initial training cannot be expected to prepare staff for all the challenges they will face throughout their careers. Given the changes in student demographics, the length of the careers that many teachers have, and the need to update knowledge and competencies, initial teacher education must be viewed as only the starting point for teachers' ongoing development.

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As many skills and pedagogies are best developed on the job, support should also be provided to teachers during the early stages of their careers, through induction and mentoring programmes, and later on, by offering incentives and resources to participate in ongoing professional development activities (see Indicator D7).

Other findings

- **Places in teacher education programmes**, independent of the level of education, **are limited by *numerus clausus* policies in approximately half of the countries with available data**.
- **The duration of teacher training for pre-primary education varies more than for any other level of education**: from two years for basic certification in Japan, to five years in Austria, Chile, France, Iceland and Italy.
- **Education programmes for pre-primary and primary teachers are typically organised according to the concurrent model**, in which pedagogical and practical training are provided at the same time as courses in specific subject matter, **while the consecutive model**, in which pedagogical and practical training follow the courses in subject matter, **is more widespread for lower and upper secondary teachers**.
- **In around 80% of countries with available data, prospective secondary teachers of general subjects must participate in a teaching practicum and attend courses in pedagogical studies/didactics, academic subjects and educational science studies**. Child/adolescent development studies are also mandatory in around two-thirds of the countries, and development of research skills is required in half of the countries.
- **Graduates from initial teacher education programmes, for all levels of education, can start teaching directly in around 70% of countries with available data.** In 20 countries, new teachers at all levels of education are fully qualified without further requirement.
- **Formal induction programmes are mandatory in about half of the countries with available data**; in most countries, staff from within the school are responsible for supporting beginning teachers.
- **There are alternative pathways into the teaching profession in around half of the countries with available data**. These are most often offered as specific training programmes in traditional teacher education institutions.

Analysis

Initial teacher education

Initial teacher training, together with other factors, such as the image and status of teaching in society, working conditions in the school, and the requirements for entry into pre-service training, influence the supply of prospective teachers, both in quantity and quality. In addition, the nature of entry requirements determines whether or not the teaching profession is open to attracting qualified candidates from diverse backgrounds.

Selection into and during initial teacher education

The educational requirements for entry into initial teacher training differ little across OECD and partner countries. The minimum requirement is typically an upper secondary diploma. Only in Austria and the Slovak Republic can lower secondary graduates enter a teacher-training programme but only for teaching at the pre-primary level (Table D6.2c and Tables D6.2a, b and d, available on line).

In contrast, countries differ significantly in the additional criteria they apply for entry into initial teacher training. In approximately half of the countries with available data, places in teacher education programmes are limited by *numerus clausus* policies. In most countries these policies apply to programmes preparing teachers to teach at all levels of education (either to enter the first stage or at a later stage of initial teacher education). However, they only apply to one or some levels of education in Austria (pre-primary level only), Denmark (all levels except upper secondary teacher education), Germany and Ireland (primary and secondary teacher education), Luxembourg (for entry into a later stage of initial teacher education in secondary education only) and Spain (pre-primary and primary levels only).

Selective criteria to enter initial teacher training, in addition to diploma requirements, are used in around two-thirds of countries with available data, for all levels of education. Most commonly, candidates are selected based on their secondary grade-point average. This is the case for prospective lower secondary teachers in 19 of the 32 countries with available data. In nine countries, selection for programmes for this level of education is based on an interview, and in another nine countries it is based on a competitive examination. In five countries, candidates must take a standardised test to check that they meet certain minimum requirements. In the vast majority of countries that use selective criteria, candidates are selected using a combination of criteria. Eighteen of the 23 countries that reported that selective criteria are used to grant access to lower secondary teacher programmes reported that more than one means of selection is used.

Selection into initial teacher education is similar for prospective teachers independent of the level of education they are going to teach. However, selective criteria used at a later stage to progress in initial teacher education are slightly more common for prospective teachers at the upper secondary level: for prospective pre-primary teachers, 9 of 35 countries with available data use such criteria; for general upper secondary teachers, 12 of 36 countries do.

Duration of initial teacher education

The duration of initial teacher training for pre-primary teachers ranges widely among the 35 countries with relevant data: from two years for basic certification in Japan, to five years in Austria, Chile, France, Iceland and Italy. In countries with data for both pre-primary and primary initial teacher education, the duration is similar in 22 countries, while it increases from the pre-primary to the primary level by half a year or one year in five countries and by two years in another four countries. In Germany, the duration of initial teacher training increases by 3.5 years between the two levels; only in Austria is initial teacher training shorter for primary teachers (3 years) than for pre-primary teachers (5 years) (Tables D6.1a, b, c and d).

For general lower secondary teachers, the duration of initial teacher education ranges from 3 years in Austria (for new secondary school and lower secondary school) and Belgium, to between 6 years and 6.5 years in Germany, Italy and Luxembourg. In the 36 countries with data for both lower secondary and upper secondary initial teacher training, the duration of these programmes is similar in 25 countries, while there are some variations in the remaining countries. In Chile, Hungary, Sweden, Switzerland and Turkey, upper secondary programmes are half a year or one year longer than lower secondary programmes; in Belgium, Denmark and the Netherlands they are one-and-a-half to two years longer. Initial teacher training for general upper secondary teachers ranges from 4 years in 10 countries to 6.5 years in Germany and Luxembourg (Chart D6.2).

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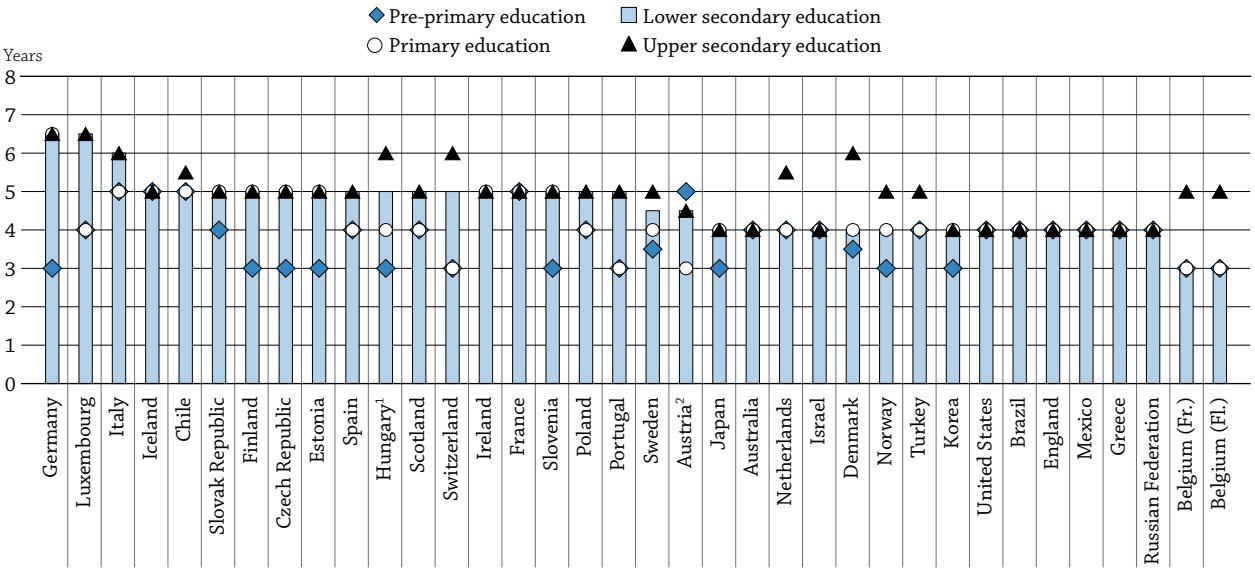
Chart D6.2. Duration of initial teacher education (2013)

For teachers teaching general subjects in public institutions



1. Year of reference 2014.
2. Refers to teachers in academic secondary school only, for lower secondary education.
Countries are ranked in descending order of the duration of initial teacher education for lower secondary teachers.
Source: OECD. Tables D6.1a, b, c and d. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
StatLink http://dx.doi.org/10.1787/888933120423

Organisation of initial teacher education

Broadly speaking, there are two models of teacher education: concurrent and consecutive. Education programmes for prospective pre-primary and primary teachers in OECD and partner countries are typically organised according to the concurrent model, in which pedagogical and practical training are provided at the same time as courses in subject matter. This is the case in 23 of the 35 countries with available data for prospective pre-primary teachers and 22 of 36 countries for prospective primary teachers. Only in Brazil, England and France is initial teacher education for both pre-primary and primary teachers mainly organised according to the consecutive model, i.e. pedagogical and practical training follow courses in subject matter. The pattern is different in education programmes for general lower and upper secondary teachers. In lower secondary teacher education (general subjects), in 13 of the 36 countries with available data, programmes are concurrent, but another 13 countries have both concurrent and consecutive programmes. For upper secondary teacher education (general subjects), only Finland, Greece, Japan, Poland, the Russian Federation and the Slovak Republic offer mainly concurrent programmes. In 16 of the 36 countries with available data, both concurrent and consecutive programmes are available, while in 13 countries, students first obtain a tertiary degree in one or more subjects before studying the theory and practice of education (the consecutive model) (Tables D6.1a, b, c and d).

Among the 12 OECD countries with available data on the requirements for vocational and general upper secondary teachers, half organise initial teacher education for secondary vocational teachers differently than they do for teachers of general subjects. In Austria, Belgium (French Community) and the Netherlands, pedagogical and practical training are provided at the same time as courses in subject matter for teachers of vocational subjects (i.e. concurrent model), while both the concurrent and the consecutive models of initial teacher education are available for prospective teachers of general subjects (Table D6.1d).

Deciding the content of initial teacher education programmes

Higher education institutions are almost always responsible for designing the curriculum of initial teacher education. In Australia, Chile, the Czech Republic, Greece, Iceland, Mexico, Scotland and Turkey, they also play a role in setting a framework for content. In around two-thirds of the countries with available data, the central or state education authority sets a framework for the content of initial teacher education programmes; in around one-third of the countries, this authority is also responsible for accrediting initial teacher education programmes.

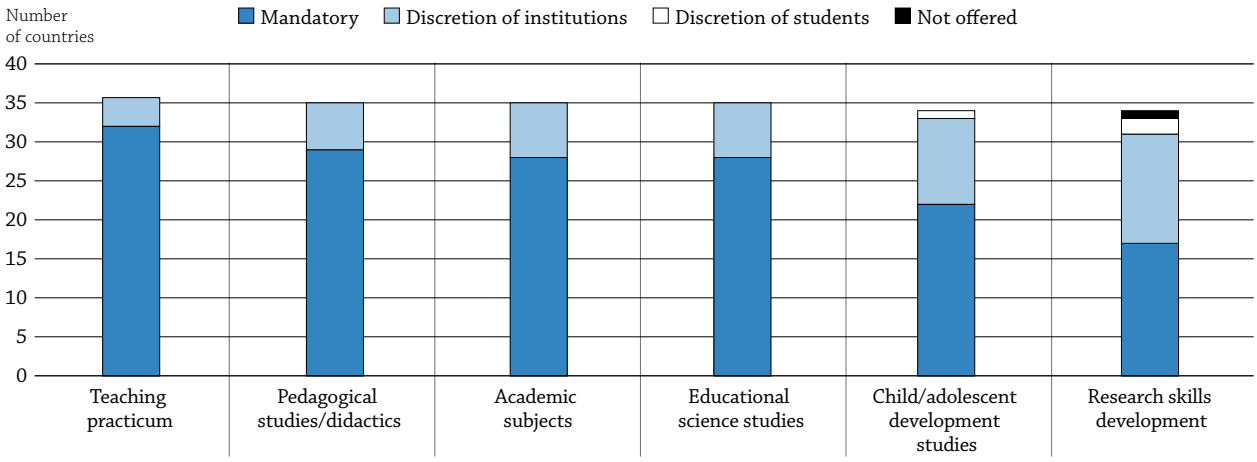
An independent body working on behalf of public authorities is also commonly involved in deciding the content of initial teacher education, most commonly to evaluate and/or accredit teacher education programmes (in around half of the countries). Teachers' professional organisations or teachers' unions provide advice and recommendations on the content of initial teacher education programmes in around half of the countries. In fewer than a third of the countries, schools and the inspectorate have a role in deciding the content of initial teacher education. Only in Brazil, Denmark, Finland (for the organisation of the teaching practicum), Korea, Norway and the Russian Federation are local, municipal, sub-regional and/or regional education authorities involved in deciding the content of initial teacher education (Tables D6.4a, b, c and d, available on line).

Content of initial teacher education

In the vast majority of OECD and partner countries, prospective lower secondary teachers of general subjects must receive courses in pedagogical studies/didactics, academic subjects, educational science studies and participate in a teaching practicum. These are compulsory elements in around 80% of countries with available data. Child/adolescent development studies are also mandatory in around two-thirds of the countries with available data, while elements to develop research skills are required in half of the countries with available data. In 14 of 32 countries, teacher training institutions decide whether they include development of research skills in teacher education or not (Chart D6.3 and Table D6.3c). The situation is similar for prospective upper secondary teachers of general programmes (Table D6.3d, available on line).

Chart D6.3. Content required for initial teacher training (2013)

For teachers teaching general subjects in public institutions, lower secondary education



Content areas are ranked in descending order of the number of countries reporting these areas as mandatory.

Source: OECD. Table D6.3c. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933120442

The content areas of initial teacher education differ little between those programmes aimed at teachers teaching general or vocational subjects, and between the different levels of education, except regarding academic subjects. For pre-primary school teachers, academic subjects are mandatory in 20 of the 33 countries with available data; however, as expected, mandatory academic subjects are more common for prospective teachers of general subjects at the upper secondary level (in 28 of 34 countries). In addition, courses in academic subjects are specific to prospective teachers at the pre-primary level in around two-thirds of countries and in around three-quarters of countries at the primary level; but only in one-third of countries at the upper secondary level. In around two out of three countries, there are common courses for all prospective teachers, regardless of the level of education they will teach. This may make it easier for teachers to move among the different levels of education (Table D6.3c and Tables D6.3a, b and d, available on line).

In Chile, France and the United States, the curriculum of teacher education is entirely at the discretion of teacher training institutions. However, from the academic year 2013/14, France has implemented a reform establishing the compulsory elements of initial teacher education.

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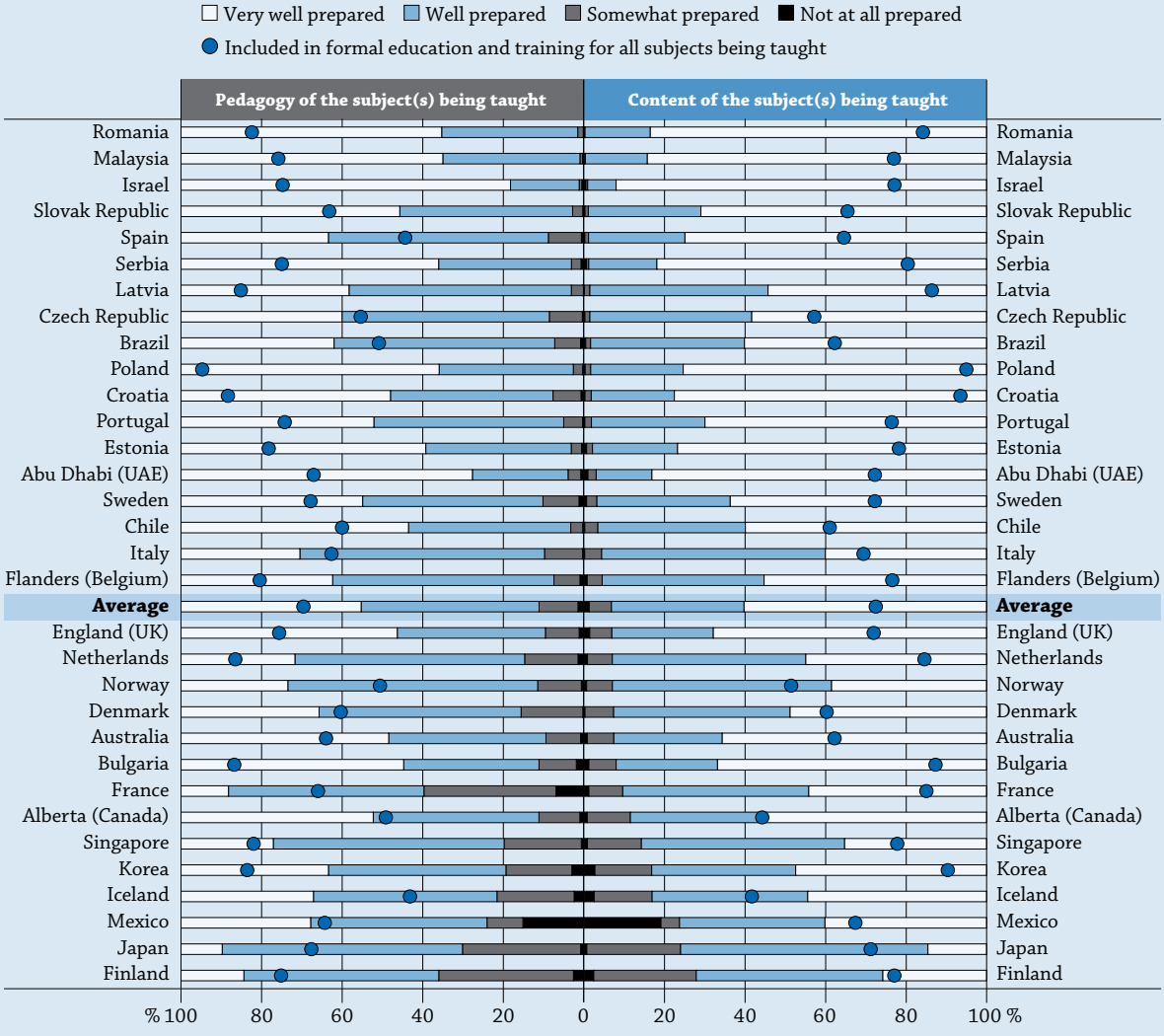
Box D6.1. Do teachers receive formal content and pedagogical training and a practical component for some or all of the subjects they teach? Do they feel well-prepared for their work?

The structure, content and emphasis of initial teacher education all vary greatly across countries. Nevertheless, teacher education programmes usually include opportunities to develop practical experience alongside subject-matter and pedagogical training. According to the 2013 OECD Teaching and Learning International Survey (TALIS), most lower secondary teachers have received formal content and pedagogical training and a practical component for some or all of the subjects they teach. On average, 72% of teachers reported having received formal education that included content for all the subjects they teach. A further 23% of teachers reported having received prior content training for at least some of the subjects they teach.

Chart D6.a. Teachers' feelings of preparedness for teaching (2013)

Percentage of lower secondary education teachers who feel "very well prepared", "well prepared", "somewhat prepared" or "not at all prepared" for the content and the pedagogy of the subject(s) they teach and whether these were included in their formal education and training



Countries are ranked in ascending order, based on the percentage of teachers who feel "not at all prepared" or "somewhat prepared" for the content of the subject(s) being taught.

Source: OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, TALIS, OECD Publishing.

StatLink http://dx.doi.org/10.1787/888933041136

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In Iceland and Alberta (Canada), fewer than half of the teachers (42% and 44%, respectively) reported that their formal education included content for all the subjects they teach, which indicates that a large proportion of teachers are teaching subjects in which they may not have been specifically prepared as part of their formal education. Some 70% of lower secondary teachers reported that their formal education included pedagogy for all the subjects they teach, and 23% reported receiving pedagogical training for some of the subjects they teach. Proportions are similar for practical components: on average, 67% of teachers reported that their formal education included classroom practice in all of the subjects they teach, while 22% reported it included practice in some of the subjects they teach.

In general, teachers find that their formal education prepared them well for their work as teachers. On average, 93% of teachers reported being well-prepared or very well-prepared to teach the content of the subjects they teach, and 89% feel well-prepared or very well-prepared in the pedagogy and the practical components of the subjects they teach. However, it is striking that around one in four teachers in Finland, Japan and Mexico does not feel prepared or feel only somewhat prepared to teach the content, pedagogy and practical components of the subjects they teach.

A teaching practicum is mandatory to teach at all levels of education in the vast majority of OECD and partner countries with available data. However, the required duration and the organisation of the practicum vary significantly. For prospective lower secondary teachers (general subjects), the teaching practicum is mandatory in 32 of the 36 countries with available data. In around half of the 22 countries with available data, the practicum typically lasts between 70 and 120 days. However, the teaching practicum is 40 days or fewer in Japan, Korea, the Russian Federation, Spain and Turkey, and at least 282 days in Germany. When a teaching practicum is a compulsory element of teacher education, mentor teachers from within the school are always responsible for supporting student teachers. In 27 of the 35 countries with available data, staff from the teacher education institution are also involved, and school management is involved in 20 countries. In contrast, only in Mexico and the United states is the local education authority also responsible for supporting student teachers; only in Mexico is the inspectorate also responsible (Table D6.3c).

Teachers' educational attainment

The qualification awarded after successfully completing teacher training not only signals the level of knowledge and skills that the new teacher has acquired, but it may also indicate the social status of teachers (OECD, 2005).

The qualification awarded at the completion of a teacher training programme for almost all reporting countries is a tertiary qualification. However, there is more variation in the qualification awarded to prospective pre-primary teachers. In the Slovak Republic, pre-primary teachers can start teaching with an upper secondary diploma; in Austria, they can begin teaching after a post-secondary non-tertiary (ISCED 4) education. In 25 of the 35 countries with available data, an individual can teach at this level of education after earning a tertiary-type A qualification at the end of initial teacher education; in 6 countries, prospective teachers earn a tertiary-type B qualification. In contrast, in 35 of the 36 countries with available data, a tertiary-type A qualification is required to teach general subjects at the upper secondary level (Tables D6.1a, b, c and d).

Only in England, France, Iceland and Italy is a master's degree required of pre-primary school teachers; in 11 of the 35 countries with available data a master's degree is required to teach at the primary level, and in 17 and 22 countries, respectively, it is required to teach general subjects at the lower secondary and upper secondary levels.

When requirements to teach vocational subjects differ from those to teach general subjects, it is most commonly because initial teacher education is shorter and a lower qualification is awarded. In eight countries, initial teacher education at the upper secondary level is shorter for vocational subjects; in six countries, prospective teachers are required to hold a bachelor's degree rather than a master's degree for general subjects (Table D6.1d).

Requirements to enter the teaching profession

Requirements for entry into the teaching profession are nearly identical for all levels of education, and between vocational and general subjects. In 25 of the 35 countries with available data, graduates from initial teacher education programmes can start teaching directly at the primary, lower secondary and upper secondary level, and in 24 of 34 countries at the pre-primary level. In 20 countries, new teachers at all levels of education are fully qualified without further requirement (Table D6.5c and Tables D6.5a, b and d, available on line).

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In contrast, teacher candidates in Brazil, France, Korea, Mexico, Spain and Turkey must pass a competitive examination to start teaching. In Japan, candidates are required to both pass a competitive examination and acquire a licence, which is also true in Greece, where candidates must also pass a standardised test. In Luxembourg (pre-primary and primary levels), candidates must pass a competitive examination and a standardised language test in the three national languages. In Australia and Austria (academic secondary school, lower level and upper secondary level), candidates must acquire a licence to start teaching.

In 14 of the 35 countries with available data, passing a probation period is a requirement to become a fully qualified lower secondary teacher (general subjects). In England, Greece, Israel, Scotland and Sweden, new teachers must both acquire a licence and pass a probation period in order to become fully qualified.

Formal induction programmes

The quality of the professional experience in the early years of teaching is now seen as a crucial influence on whether or not a teacher remains in the profession. Well-designed induction and support programmes for beginning teachers can improve teacher retention rates and, more generally, enhance the effectiveness and job satisfaction of new teachers (OECD, 2005).

Formal induction programmes are mandatory in about half of the countries with available data and are similar for all levels of education. For teachers at the lower secondary level, for example, formal induction programmes are mandatory in 18 of the 33 countries with available data, and are at the discretion of schools in another eight countries. In most countries where these programmes are mandatory (13 of 18 countries), successful completion of the induction programme is required to obtain a full certification as a teacher. Only in Estonia, Japan, Korea and Mexico is induction mandatory without being linked to full certification of lower secondary teachers. The duration of induction programmes in the 20 countries with available data ranges from one month or less in Greece, Korea and Mexico, to 24 months in Hungary (the average is 10.6 months) (Table D6.5c and Tables D6.5a, b and d, available on line).

In most countries (23 of 25 countries with available data and induction programmes for lower secondary teachers), other teachers in the school serve as mentors; and in 21 of 25 countries, school management is also responsible for supporting beginning teachers. Persons from outside the school are less commonly involved in supporting new teachers: for example, staff from teacher education institutions are involved only in around one-third of the countries; and the inspectorate and the local education authority in only 4 countries. However, in around half of the countries with induction programmes and available data, induction is organised in collaboration between the school and the teacher education institution or the ministry.

In two out of three countries, there is no training requirement for people who provide support to new lower secondary teachers, but in some countries, these people are offered some sort of compensation. In 8 of the 21 countries with induction programmes and available data, they receive a salary allowance; in 3 countries they receive a time allowance.

Box D6.2. Do less-experienced teachers have access to and participate in formal induction programmes?

In order to accurately examine the association between the availability of and participation in induction programmes, what is needed is the participation rate of teachers who have access to induction programmes when they are eligible for such programmes (i.e. at the beginning of their career or when they join a new school). Unfortunately, TALIS did not gather such data. Thus, the analysis below focuses on teachers who have less than three years of experience as a teacher and who have been working in their current school for less than three years. Restricting the sample to these less-experienced teachers reduces the time that may have elapsed since they were first eligible for induction programmes and increases the chances that these teachers are still working in their first school (and for which principals' reports on the availability of induction programmes are available).

According to the 2013 TALIS survey, some 70% of less-experienced lower secondary teachers work in schools in which the principal reported that induction programmes are available, but only slightly more than half of these teachers reported having taken part in such programmes. This means that some teachers who have

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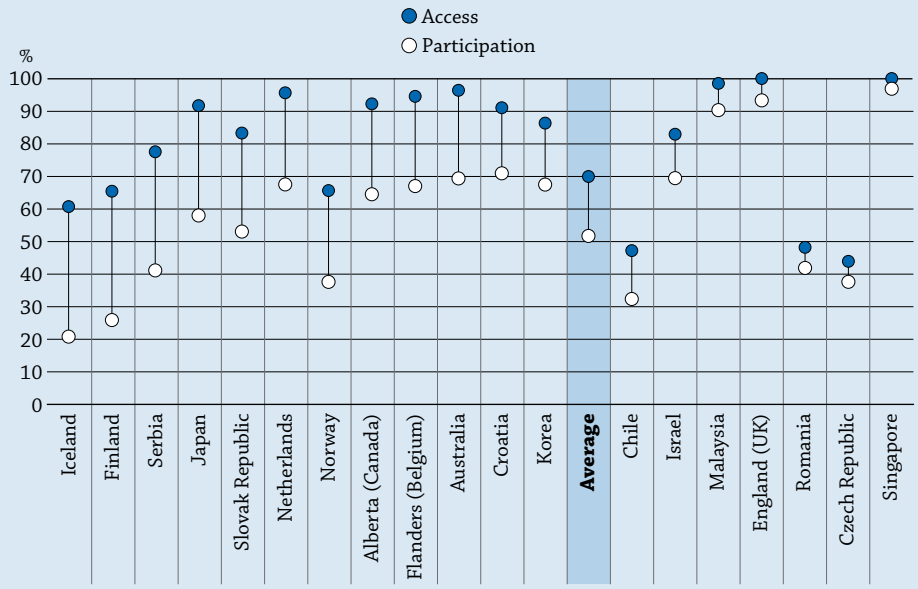
access to induction programmes may not be taking advantage of them. In the Czech Republic, Malaysia, Romania, Singapore and England (United Kingdom), teachers' self-reported participation in induction programmes appears to match school principals' reports on the availability of these programmes, suggesting that most teachers take advantage of the induction programmes available to them.

Chart D6.b. New teachers' access to and participation in formal induction programmes (2013)

Percentage of lower secondary education teachers who have less than three years of experience at their school and less than three years of experience as a teacher who are working in schools where the principal reports the following access to formal induction programmes and the percentage of teachers with the same characteristics who report having participated in formal induction programmes[1, 2]



1. Data on access to induction programmes are derived from the principal questionnaire, while data on participation are derived from the teacher questionnaire. Teachers were asked about their participation in an induction programme in their first regular employment as a teacher.
2. Data presented in this graph are for formal induction programmes only, meaning they do not consider participation in or access to informal induction activities not part of an induction programme or a general and/or administrative introduction to the school.

Countries are ranked in descending order, based on the gap between access to and participation in induction programmes. Countries are not presented in this graph if the percentage of teachers with less than three years of experience at their school and less than three years of experience as a teacher is below 5%.

Source: OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, TALIS, OECD Publishing.

StatLink http://dx.doi.org/10.1787/888933041459

Alternative pathways into the teaching profession

Many countries offer pathways into the teaching profession for individuals with professional experience outside teaching and without teaching qualifications. These options may be developed as a response to teacher shortages or with the aim of broadening the recruitment base.

Alternative pathways exist in around half of countries with available data. Only a few countries were able to report the proportion of new teachers entering the profession through alternative pathways, but in Israel (at the pre-primary and upper secondary levels) and in England (at the primary and secondary levels) at least 10% of new teachers were side-entrants. In Belgium (French Community), side-entrants represented 12% and 20%, respectively, of all current teachers at the lower and upper secondary levels (Tables D6.6a, b, c and d, available on line).

Most countries with alternative pathways reported that some training in traditional teacher education institutions was required of alternative entrants, although it is also often possible to enter the teaching profession without specific training under certain conditions. Other alternative pathways include school-based or distance-learning training programmes. In the Netherlands, side-entrants can start teaching immediately after passing an aptitude test and, within two years, they receive tailored training and support to earn the full teaching qualification.

Definitions

Alternative pathways are mechanisms that grant entry into teaching for individuals with professional experience gained outside education and who do not hold full teaching qualifications. Individuals entering the teaching profession by alternative pathways are referred to as side-entrants.

Competitive examination refers to an examination organised by local, regional or national authorities in order to select applicants with the best results for a limited and fixed number of places for student teachers and/or for teachers for the public education system.

Concurrent model is an organisation of initial teacher education in which pedagogical and practical training are provided at the same time as courses in subject matter.

Consecutive model is an organisation of initial teacher education in which pedagogical and practical training follow courses in subject matter. Under this model students usually first obtain a tertiary degree (tertiary-type A or B) in one or more subjects before they study the theory and practice of education.

Credential or licence refers to a certification, licence, or similar document granted by a government agency or institution that attests that a teacher is qualified and meets standards to teach in the public education system. The requirements for a credential/licence exceed the education diploma.

Induction programme is defined as a range of structured and repeated activities to support the introduction into the teaching profession by, for example, mentoring by experienced teachers, peer work with other new teachers, etc. Induction programmes should be distinguished from a teaching practicum, which is part of initial teacher education.

Initial teacher education refers to the formal education and practical training that individuals must complete to obtain the diploma/degree required to become a public school teacher (excluding alternative pathways). Initial teacher education refers to both the study in particular field(s) of study and pedagogical and practical training, even when they are organised in consecutive stages.

Numerus clausus refers to the limited number of student positions for entry into initial teacher education.

Probation period refers to the employment status of starting teachers who get tenure on condition of satisfactory performance during a certain period. This mandatory work experience is required to be a licensed teacher in some countries.

Teaching practicum provides student teachers during their initial teacher education with a supervised/guided teaching experience where they can benefit from the instructional expertise of an experienced teacher.

Methodology

Data are from the 2013 OECD-INES Survey on Developing Teachers' Knowledge and Skills and refer to the school year 2012/13.

Notes on definitions and methodologies for each country are provided in Annex 3, available at *www.oecd.org/edu/eag.htm*.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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D6

Tables of Indicator D6

StatLink http://dx.doi.org/10.1787/888933120252

Table D6.1a Initial teacher education and entry into the profession, pre-primary education (2013)
Table D6.1b Initial teacher education and entry into the profession, primary education (2013)
Table D6.1c Initial teacher education and entry into the profession, lower secondary education (2013)
Table D6.1d Initial teacher education and entry into the profession, upper secondary education (2013)

WEB Table D6.2a Requirements to enter and progress in initial teacher education, pre-primary education (2013)
WEB Table D6.2b Requirements to enter and progress in initial teacher education, primary education (2013)
Table D6.2c Requirements to enter and progress in initial teacher education, lower secondary education (2013)
WEB Table D6.2d Requirements to enter and progress in initial teacher education, upper secondary education (2013)

WEB Table D6.3a Content of initial teacher education, pre-primary education (2013)
WEB Table D6.3b Content of initial teacher education, primary education (2013)
Table D6.3c Content of initial teacher education, for lower secondary education (2013)
WEB Table D6.3d Content of initial teacher education, for upper secondary education (2013)

WEB Table D6.4a Role of entities and levels of government in deciding content of initial teacher education programmes, pre-primary education (2013)
WEB Table D6.4b Role of entities and levels of government in deciding content of initial teacher education programmes, primary education (2013)
WEB Table D6.4c Role of entities and levels of government in deciding content of initial teacher education programmes, lower secondary education (2013)
WEB Table D6.4d Role of entities and levels of government in deciding content of initial teacher education programmes, upper secondary education (2013)

WEB Table D6.5a Entry into the teaching profession, pre-primary education (2013)
WEB Table D6.5b Entry into the teaching profession, primary education (2013)
Table D6.5c Entry into the teaching profession, lower secondary education (2013)
WEB Table D6.5d Entry into the teaching profession, upper secondary education (2013)

WEB Table D6.6a Alternative pathways into the teaching profession, pre-primary education (2013)
WEB Table D6.6b Alternative pathways into the teaching profession, primary education (2013)
WEB Table D6.6c Alternative pathways into the teaching profession, lower secondary education (2013)
WEB Table D6.6d Alternative pathways into the teaching profession, upper secondary education (2013)

Table D6.1a. Initial teacher education and entry into the profession, pre-primary education (2013)

In public institutions

		Total duration of initial teacher education, in years	Predominant organisation of initial teacher education	ISCED type of qualification awarded at the end of initial teacher education	For ISCED 5A qualification, level of the degree awarded	Existence of selective criteria for entry into initial teacher education	Existence of selective criteria to progress in initial teacher education	Graduates from initial teacher education can start teaching directly	New teachers become fully qualified/civil servants directly	Existence of formal induction programme	Existence of alternative pathways
		(1)	(2)	(4)	(5)	(8)	(9)	(10)	(11)	(12)	(13)
OECD	Australia	4	Concurrent	5A	Bachelor	Yes	No	No	Yes	Discretion of schools	Yes
	Austria	5	Concurrent	4	a	Yes	a	Yes	Yes	Not offered	No
	Belgium (Fl.)	3	Concurrent	5B	a	No	a	Yes	Yes	Discretion of schools	Yes
	Belgium (Fr.)	3	Concurrent	5B	a	No	a	Yes	Yes	Discretion of schools	Yes
	Canada	m	m	m	m	m	m	m	m	m	m
	Chile	5	Concurrent & consecutive	5A	Bachelor	No	No	Yes	Yes	Not offered	No
	Czech Republic	3	Concurrent	5A	Bachelor	Yes	Yes	Yes	Yes	Discretion of schools	No
	Denmark	3.5	Concurrent	5B	a	Yes	No	Yes	Yes	Discretion of schools	Yes
	England	4	Consecutive	5A	Master	Yes	No	Yes	No	Mandatory	Yes
	Estonia	3	Concurrent	5A	Bachelor	Yes	Yes	Yes	Yes	Mandatory	No
	Finland	3	Concurrent	5A	Bachelor	Yes	a	Yes	Yes	Not offered	Yes
	France	5	Consecutive	5A	Master	No	No	No	No	Mandatory	Yes
	Germany	3	Concurrent & consecutive	5B	a	m	a	Yes	Yes	a	Yes
	Greece	4	Concurrent	5A	Bachelor	Yes	a	No	No	Mandatory	No
	Hungary[1]	3	Concurrent	5A	Bachelor	Yes	a	Yes	No	Mandatory	m
	Iceland	5	Concurrent	5A	Master	No	No	Yes	Yes	Not offered	No
	Ireland	m	m	m	m	m	m	m	m	m	m
	Israel	4	Concurrent & consecutive	5A	Bachelor	Yes	Yes	Yes	No	Mandatory	Yes
	Italy	5	Concurrent	5A	Master	Yes	a	Yes	No	Mandatory	No
	Japan	2, 4	Concurrent	5B, 5A	a	Yes	a	No	Yes	Mandatory	Yes
	Korea	2-4	Concurrent & consecutive	5B, 5A	a	Yes	a	No	Yes	Mandatory	No
	Luxembourg	4	Concurrent	5A	Bachelor	No	a	No	No	Not offered	No
	Mexico	4	Concurrent	5A	Bachelor	No	No	No	Yes	Mandatory	Yes
	Netherlands	4	Concurrent	5A	Bachelor	No	Yes	Yes	Yes	Not offered	Yes
	New Zealand	m	m	m	m	m	m	m	m	m	m
	Norway	3	Concurrent	5A	Bachelor	No	a	Yes	Yes	Discretion of schools	Yes
	Poland	5, 3	Concurrent	5A	Master, Bachelor	No	No	Yes	Yes	Not offered	Yes
	Portugal	3	Concurrent & consecutive	5A	Bachelor	Yes	No	Yes	No	Not offered	No
	Scotland	4	Concurrent & consecutive	5A	Bachelor	Yes	Yes	Yes	No	Mandatory	No
	Slovak Republic	4	Concurrent	3	a	Yes	No	Yes	Yes	Mandatory	No
	Slovenia	3	Concurrent & consecutive	5A	Bachelor	Yes	Yes	Yes	No	Discretion of schools	Yes
	Spain	4	Concurrent	5A	Bachelor	Yes	a	No	No	Not offered	No
	Sweden	3.5	Concurrent & consecutive	5A	Bachelor	Yes	a	Yes	No	Mandatory	Yes
	Switzerland	3	Concurrent	5A	Bachelor	No	No	Yes	Yes	m	m
	Turkey	4	Concurrent	5A	Bachelor	Yes	a	No	No	Mandatory	No
	United States	4	Concurrent & consecutive	5A	Bachelor	Yes	Yes	m	m	Discretion of schools	Yes
Partners	Brazil	4	Consecutive	5B	a	Yes	a	No	No	m	No
	Russian Federation	4	Concurrent	5B	a	Yes	Yes	Yes	Yes	Not offered	Yes

Notes: Columns showing the duration of training for consecutive models (i.e. column 3), as well as percentages of new and current teachers who completed the initial teacher education (i.e. columns 6-7) are available for consultation on line (see *StatLink* below).

Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions. Please refer to Annex 3 for additional information.

1. Year of reference 2014.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933120271

D6

Table D6.1b. Initial teacher education and entry into the profession, primary education (2013)

In public institutions

		Total duration of initial teacher education, in years	Predominant organisation of initial teacher education	ISCED type of qualification awarded at the end of initial teacher education	For ISCED 5A qualification, level of the degree awarded	Existence of selective criteria for entry into initial teacher education	Existence of selective criteria to progress in initial teacher education	Graduates from initial teacher education can start teaching directly	New teachers become fully qualified/civil servants directly	Existence of formal induction programme	Existence of alternative pathways
		(1)	(2)	(4)	(5)	(8)	(9)	(10)	(11)	(12)	(13)
OECD	Australia	4	Concurrent & consecutive	5A	Bachelor, Other	Yes	No	No	Yes	Discretion of schools	m
	Austria	3	Concurrent	5A	Bachelor	Yes	a	Yes	Yes	Not offered	No
	Belgium (Fl.)	3	Concurrent	5B	a	No	a	Yes	Yes	Discretion of schools	Yes
	Belgium (Fr.)	3	Concurrent	5B	a	No	a	Yes	Yes	Discretion of schools	Yes
	Canada	m	m	m	m	m	m	m	m	m	m
	Chile	5	Concurrent & consecutive	5A	Bachelor	No	No	Yes	Yes	Not offered	No
	Czech Republic	5	Concurrent	5A	Master	Yes	Yes	Yes	Yes	Discretion of schools	Yes
	Denmark	4	Concurrent	5B	a	Yes	No	Yes	Yes	Discretion of schools	Yes
	England	4	Consecutive	5A	Master	Yes	No	Yes	No	Mandatory	Yes
	Estonia	5	Concurrent & consecutive	5A	Master	Yes	Yes	Yes	Yes	Mandatory	No
	Finland	5	Concurrent	5A	Master	Yes	a	Yes	Yes	Not offered	Yes
	France	5	Consecutive	5A	Master	No	No	No	No	Mandatory	Yes
	Germany	6.5	Consecutive	5A	Master	No	No	Yes	Yes	m	Yes
	Greece	4	Concurrent	5A	Bachelor	Yes	a	No	No	Mandatory	No
	Hungary[1]	4	Concurrent	5A	Bachelor	Yes	a	Yes	No	Mandatory	m
	Iceland	5	Concurrent	5A	Master	No	No	Yes	Yes	Not offered	No
	Ireland	4, 6	Concurrent & consecutive	5A	Bachelor	Yes	Yes	Yes	No	Mandatory	No
	Israel	4	Concurrent & consecutive	5A	Bachelor	Yes	Yes	Yes	No	Mandatory	Yes
	Italy	5	Concurrent	5A	Master	Yes	a	Yes	No	Mandatory	No
	Japan	4	Concurrent	5A	Bachelor	Yes	a	No	Yes	Mandatory	Yes
	Korea	4	Concurrent	5A	Bachelor	Yes	a	No	Yes	Mandatory	No
	Luxembourg	4	Concurrent	5A	Bachelor	No	a	No	No	Not offered	No
	Mexico	4	Concurrent	5A	Bachelor	No	No	No	Yes	Mandatory	Yes
	Netherlands	4	Concurrent	5A	Bachelor	No	Yes	Yes	Yes	Not offered	Yes
	New Zealand	m	m	m	m	m	m	m	m	m	m
	Norway	4	Concurrent	5A	Bachelor	Yes	a	Yes	Yes	Discretion of schools	m
	Poland	5, 3	Concurrent	5A	Master, Bachelor	No	No	Yes	Yes	Not offered	Yes
	Portugal	3	Concurrent & consecutive	5A	Bachelor	Yes	No	Yes	No	Not offered	No
	Scotland	4	Concurrent & consecutive	5A	Bachelor	Yes	Yes	Yes	No	Mandatory	No
	Slovak Republic	5	Concurrent	5A	Master	Yes	No	Yes	Yes	Mandatory	No
	Slovenia	5	Concurrent & consecutive	5A	Master	Yes	Yes	Yes	No	Discretion of schools	Yes
	Spain	4	Concurrent	5A	Bachelor	Yes	a	No	No	Not offered	No
	Sweden	4	Concurrent & consecutive	5A	Master	Yes	a	Yes	No	Mandatory	Yes
	Switzerland	3	Concurrent	5A	Bachelor	No	No	Yes	Yes	m	m
	Turkey	4	Concurrent	5A	Bachelor	Yes	a	No	No	Mandatory	No
	United States	4	Concurrent & consecutive	5A	Bachelor	Yes	Yes	m	m	Discretion of schools	Yes
Partners	Brazil	4	Consecutive	5B	a	Yes	a	No	No	m	No
	Russian Federation	4	Concurrent	5A	Bachelor	Yes	Yes	Yes	Yes	Not offered	Yes

Notes: Columns showing duration of training for consecutive models (i.e. column 3), as well as percentages of new and current teachers who completed the initial teacher education (i.e. columns 6-7) are available for consultation on line (see *StatLink* below).

Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions. Please refer to Annex 3 for additional information.

1. Year of reference 2014.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933120290

Table D6.1c. Initial teacher education and entry into the profession, lower secondary education (2013)

In public institutions

		Type of subjects	Total duration of initial teacher education, in years	Predominant organisation of initial teacher education	ISCED type of qualification awarded at the end of initial teacher education	For ISCED 5A qualification, level of the degree awarded	Existence of selective criteria for entry into initial teacher education	Existence of selective criteria to progress in initial teacher education	Graduates from initial teacher education can start teaching directly	New teachers become fully qualified/civil servants directly	Existence of formal induction programme	Existence of alternative pathways
			(1)	(2)	(4)	(5)	(8)	(9)	(10)	(11)	(12)	(13)
OECD	Australia	General	4	Concurrent & consecutive	5A	Bachelor, Other	Yes	No	No	Yes	Discretion of schools	m
		Vocational	m	m	m	m	m	m	m	m	m	m
	Austria	All (Academic)[1]	4.5	Concurrent & consecutive	5A	Master	No	No	No	Yes	Mandatory	No
		All (New and Lower)[2]	3	Concurrent	5A	Bachelor	Yes	a	Yes	Yes	Not offered	No
	Belgium (Fl.)	General	3	Concurrent	5B	a	No	a	Yes	Yes	Discretion of schools	Yes
		Vocational	m	Concurrent & consecutive	m	a	No	No	Yes	Yes	Discretion of schools	Yes
	Belgium (Fr.)	All	3	Concurrent	5B	a	No	a	Yes	Yes	Discretion of schools	Yes
	Canada	m	m	m	m	m	m	m	m	m	m	m
	Chile	All	5	Concurrent & consecutive	5A	Bachelor	No	No	Yes	Yes	Not offered	No
	Czech Republic	All	5	Concurrent & consecutive	5A	Master	Yes	Yes	Yes	Yes	Discretion of schools	Yes
	Denmark	All	4	Concurrent	5B	a	Yes	No	Yes	Yes	Discretion of schools	Yes
	England	All	4	Consecutive	5A	Master	Yes	No	Yes	No	Mandatory	Yes
	Estonia	All	5	Consecutive	5A	Master	Yes	Yes	Yes	Yes	Mandatory	No
	Finland	All	5	Concurrent	5A	Master	Yes	a	Yes	Yes	Not offered	Yes
	France	All	5	Consecutive	5A	Master	No	No	No	No	Mandatory	Yes
	Germany	All	6.5	Consecutive	5A	Master	No	No	Yes	Yes	m	Yes
	Greece	All	4	Concurrent	5A	Bachelor	Yes	a	No	No	Mandatory	No
	Hungary[3]	All	5	Concurrent & consecutive	5A	Master	Yes	Yes	Yes	No	Mandatory	m
	Iceland	All	5	Concurrent	5A	Master	No	No	Yes	Yes	Not offered	No
	Ireland	All	5	Consecutive	5A	Bachelor	Yes	No	Yes	No	Mandatory	No
	Israel	All	4	Concurrent & consecutive	5A	Bachelor	Yes	Yes	Yes	No	Mandatory	Yes
	Italy	All	6	Consecutive	5A	Master	m	Yes	Yes	No	Mandatory	No
	Japan	All	4	Concurrent	5A	Bachelor	Yes	a	No	Yes	Mandatory	Yes
	Korea	All	4	Concurrent & consecutive	5A	Bachelor	Yes	a	No	Yes	Mandatory	No
	Luxembourg	General	6.5	Consecutive	5A	Master	No	Yes	Yes	No	Mandatory	No
		Vocational	6.5	Consecutive	5A	Master	No	Yes	Yes	No	Mandatory	Yes
	Mexico	General	4	Concurrent	5A	Bachelor	No	No	No	Yes	Mandatory	No
		Vocational	m	m	m	m	m	m	m	m	m	m
	Netherlands	All	4	Concurrent	5A	Bachelor	No	No	Yes	Yes	Not offered	Yes
	New Zealand	m	m	m	m	m	m	m	m	m	m	m
	Norway	All	4	Concurrent & consecutive	5A	Bachelor	Yes	a	Yes	Yes	Discretion of schools	m
	Poland	All	5	Concurrent	5A	Master, Bachelor	No	No	Yes	Yes	Not offered	Yes
	Portugal	All	5	Concurrent & consecutive	5A	Master	Yes	No	Yes	No	Not offered	No
	Scotland	All	5	Concurrent & consecutive	5A	Bachelor	Yes	Yes	Yes	No	Mandatory	No
	Slovak Republic	All	5	Concurrent	5A	Master	Yes	No	Yes	Yes	Mandatory	Yes
	Slovenia	All	5	Concurrent & consecutive	5A	Master	Yes	Yes	Yes	No	Discretion of schools	Yes
	Spain	All	5	Consecutive	5A	Master	Yes	No	No	No	Not offered	No
	Sweden	All	4.5	Concurrent & consecutive	5A	Master	Yes	a	Yes	No	Mandatory	Yes
	Switzerland	All	5	Concurrent & consecutive	5A	Master	No	No	Yes	Yes	m	m
	Turkey	All	4	Concurrent	5A	Bachelor	Yes	a	No	No	Mandatory	No
	United States	All	4	Concurrent & consecutive	5A	Bachelor	Yes	Yes	m	m	Discretion of schools	Yes
Partners	Brazil	All	4	Consecutive	5B	a	Yes	a	No	No	m	No
	Russian Federation	All	4	Concurrent	5A	Bachelor	Yes	Yes	Yes	Yes	Not offered	Yes

Notes: Columns showing the duration of training for consecutive models (i.e. column 3), as well as percentages of new and current teachers who completed the initial teacher education (i.e. columns 6-7) are available for consultation on line (see *StatLink* below).

Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions. Please refer to Annex 3 for additional information.

1. "All (Academic)" refers to "Academic secondary school, lower level".
2. "All (New and Lower)" refers to "New secondary school and lower secondary school".
3. Year of reference 2014.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933120309

D6

Table D6.1d. Initial teacher education and entry into the profession, upper secondary education (2013)

In public institutions

		Type of subjects	Total duration of initial teacher education, in years	Predominant organisation of initial teacher education	ISCED type of qualification awarded at the end of initial teacher education	For ISCED 5A qualification, level of the degree awarded	Existence of selective criteria for entry into initial teacher education	Existence of selective criteria to progress in initial teacher education	Graduates from initial teacher education can start teaching directly	New teachers become fully qualified/civil servants directly	Existence of formal induction programme	Existence of alternative pathways
			(1)	(2)	(4)	(5)	(8)	(9)	(10)	(11)	(12)	(13)
OECD	Australia	General	4	Concurrent & consecutive	5A	Bachelor, Other	Yes	No	No	Yes	Discretion of schools	m
		Vocational	m	m	m	m	m	m	m	m	m	m
	Austria	General	4.5	Concurrent & consecutive	5A	Master	No	No	No	Yes	Mandatory	No
		Vocational	4	Concurrent	5A	Bachelor	Yes	a	Yes	Yes	Not offered	No
	Belgium (Fl.)	General	5	Consecutive	5A	Other	No	No	Yes	Yes	Discretion of schools	Yes
		Vocational	m	Concurrent & consecutive	m	a	No	No	Yes	Yes	Discretion of schools	Yes
	Belgium (Fr.)	General	5	Concurrent & consecutive	5A	Master	No	No	Yes	Yes	Discretion of schools	Yes
		Vocational	3	Concurrent	5B	a	No	No	Yes	Yes	Discretion of schools	Yes
	Canada	m	m	m	m	m	m	m	m	m	m	m
	Chile	All	5.5	Concurrent & consecutive	5A	Bachelor	No	No	Yes	Yes	Not offered	Yes
	Czech Republic	General	5	Concurrent & consecutive	5A	Master	Yes	Yes	Yes	Yes	Discretion of schools	Yes
		Vocational	m	Consecutive	5A	Bachelor	Yes	a	Yes	Yes	Discretion of schools	Yes
	Denmark	General	6	Consecutive	5A	Master	Yes	No	Yes	Yes	Discretion of schools	No
		Vocational	m	Consecutive	5B	a	No	No	Yes	Yes	Discretion of schools	No
	England	All	4	Consecutive	5A	Master	Yes	No	Yes	No	Mandatory	Yes
	Estonia	General	5	Consecutive	5A	Master	Yes	Yes	Yes	Yes	Mandatory	No
		Vocational	3	Consecutive	5A	Bachelor	Yes	Yes	Yes	Yes	Mandatory	No
	Finland	General	5	Concurrent	5A	Master	Yes	a	Yes	Yes	Not offered	Yes
		Vocational	4	Consecutive	5A	Bachelor	Yes	a	Yes	Yes	Not offered	m
	France	All	5	Consecutive	5A	Master	No	No	No	No	Mandatory	Yes
	Germany	All	6.5	Consecutive	5A	Master	No	No	Yes	Yes	m	Yes
	Greece	All	4	Concurrent	5A	Bachelor	Yes	a	No	No	Mandatory	Yes
	Hungary[1]	All	6	Concurrent & consecutive	5A	Master	Yes	Yes	Yes	No	Mandatory	m
	Iceland	General	5	Consecutive	5A	Master	No	No	Yes	Yes	Not offered	No
		Vocational	4	Consecutive	5A	Master	No	No	Yes	Yes	Not offered	No
	Ireland	All	5	Consecutive	5A	Bachelor	Yes	No	Yes	No	Mandatory	No
	Israel	All	4	Concurrent & consecutive	5A	Bachelor	Yes	Yes	Yes	No	Mandatory	Yes
	Italy	All	6	Consecutive	5A	Master	m	Yes	Yes	No	Mandatory	No
	Japan	All	4	Concurrent	5A	Bachelor	Yes	a	No	Yes	Mandatory	Yes
	Korea	All	4	Concurrent & consecutive	5A	Bachelor	Yes	a	No	Yes	Mandatory	No
	Luxembourg	General	6.5	Consecutive	5A	Master	No	Yes	Yes	No	Mandatory	No
		Vocational	6.5	Consecutive	5A	Master	No	Yes	Yes	No	Mandatory	Yes
	Mexico	All	4	a	5A	Bachelor	No	No	No	Yes	Not offered	No
	Netherlands	General	5.5	Concurrent & consecutive	5A	Master	No	Yes	Yes	Yes	Not offered	Yes
		Vocational	4	Concurrent	5A	Bachelor	No	No	Yes	Yes	Not offered	Yes
	New Zealand	m	m	m	m	m	m	m	m	m	m	m
	Norway	General	4-6	Consecutive	5A	Master	Yes	No	Yes	Yes	Discretion of schools	m
		Vocational	3	Consecutive	5A	Bachelor	Yes	No	Yes	Yes	Discretion of schools	m
	Poland	All	5	Concurrent	5A	Master	No	No	Yes	Yes	Not offered	Yes
	Portugal	All	5	Concurrent & consecutive	5A	Master	Yes	No	Yes	No	Not offered	No
	Scotland	All	5	Concurrent & consecutive	5A	Bachelor	Yes	Yes	Yes	No	Mandatory	No
	Slovak Republic	All	5	Concurrent	5A	Master	Yes	No	Yes	Yes	Mandatory	Yes
	Slovenia	All	5	Concurrent & consecutive	5A	Master	Yes	Yes	Yes	No	Discretion of schools	Yes
	Spain	All	5	Consecutive	5A	Master	Yes	No	No	No	Not offered	No
	Sweden	General	5	Concurrent & consecutive	5A	Master	Yes	a	Yes	No	Mandatory	Yes
		Vocational	1.5	Concurrent & consecutive	5B	a	Yes	a	Yes	No	Mandatory	Yes
	Switzerland	General	6	Concurrent & consecutive	5A	Master	No	No	Yes	Yes	m	m
		Vocational	m	m	5A	Master	No	No	m	Yes	m	m
	Turkey	All	5	Concurrent & consecutive	5A	Bachelor	Yes	a	No	No	Mandatory	No
	United States	All	4	Concurrent & consecutive	5A	Bachelor	Yes	Yes	m	m	Discretion of schools	Yes
Partners	Brazil	All	4	Consecutive	5B	a	Yes	a	No	No	m	No
	Russian Federation	All	4	Concurrent	5A	Bachelor	Yes	Yes	Yes	Yes	Not offered	Yes

Notes: Columns showing duration of training for consecutive models (i.e. column 3), as well as percentages of new and current teachers who completed the initial teacher education (i.e. columns 6-7) are available for consultation on line (see *StatLink* below).

Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions. Please refer to Annex 3 for additional information.

1. Year of reference 2014.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933120328

Table D6.2c. Requirements to enter and progress in initial teacher education, lower secondary education (2013)

In public institutions

		Type of subjects	Cumulative years of education for entry into initial teacher education	Limited number of student positions for entry into initial teacher education (numerus clausus)	Selective criteria for entry into initial teacher education: Existence of selective criteria	Selective criteria for entry into initial teacher education: Competitive examination	Selective criteria for entry into initial teacher education: Standardised test	Selective criteria for entry into initial teacher education: Grade point average from secondary schools	Selective criteria for entry into initial teacher education: Interview	Selective criteria for entry into initial teacher education: Other	Limited number of student positions for entry into a later stage of initial teacher education (numerus clausus)	Selective criteria at a later stage (to progress in initial teacher education): Existence of selective criteria	Selective criteria at a later stage (to progress in initial teacher education): Selection based on Competitive examination (E) or Standardised test (T) or Grade point average (G) or Interview (I) or Other (O)
			(1)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
OECD	Australia	General	13	No	Yes	No	No	Yes	No	Yes	No	No	a
		Vocational	m	m	m	m	m	m	m	m	m	m	m
	Austria	All (Academic)[1]	12	No	No	a	a	a	a	a	No	No	a
		All (New and Lower)[2]	12	No	Yes	No	Yes	No	Yes	No	a	a	a
	Belgium (Fl.)	General	12	No	No	a	a	a	a	a	a	a	a
		Vocational	12	No	No	a	a	a	a	a	No	No	a
	Belgium (Fr.)	All	12	No	No	a	a	a	a	a	a	a	a
	Canada	m	m	m	m	m	m	m	m	m	m	m	m
	Chile	All	12	No	No	a	a	a	a	a	No	No	a
	Czech Republic	All	13	No	Yes	Yes	No	Yes	Yes	No	No	Yes	E, G, I
	Denmark	All	13	Yes	Yes	No	No	Yes	Yes	No	No	No	a
	England	All	13	Yes	Yes	No	No	Yes	No	Yes	No	No	a
	Estonia	All	12	No	Yes	No	No	No	Yes	No	No	Yes	I
	Finland	All	12	Yes	Yes	Yes	No	Yes	m	Yes	a	a	a
	France	All	12	No	No	a	a	a	a	a	No	No	a
	Germany	All	12	m	No	a	a	a	a	a	Yes	No	a
	Greece	All	12	Yes	Yes	Yes	No	Yes	No	No	a	a	a
	Hungary[3]	All	12	Yes	Yes	No	No	Yes	Yes	No	No	Yes	G, I
	Iceland	All	14	No	No	a	a	a	a	a	No	No	a
	Ireland	All	13	Yes	Yes	No	No	Yes	Yes	Yes	Yes	No	a
	Israel	All	12	Yes	Yes	Yes	Yes	Yes	Yes	No	No	Yes	G, I
	Italy	All	13	m	m	m	m	m	m	m	Yes	Yes	m
	Japan	All	12	Yes	Yes	m	m	m	m	m	a	a	a
	Korea	All	12	Yes	Yes	Yes	Yes	Yes	Yes	No	a	a	a
	Luxembourg	All	13	No	No	a	a	a	a	a	Yes	Yes	E, T
	Mexico	General	12	No	No	a	a	a	a	a	No	No	a
		Vocational	m	m	m	m	m	m	m	m	m	m	m
	Netherlands	All	11	No	No	a	a	a	a	a	a	No	a
	New Zealand	m	m	m	m	m	m	m	m	m	m	m	m
	Norway	All	13	Yes	Yes	No	No	Yes	No	Yes	a	a	a
	Poland	All	12	No	No	a	a	a	a	a	No	No	a
	Portugal	All	12	Yes	Yes	Yes	Yes	Yes	No	No	Yes	Yes	G, I, O
	Scotland	All	13	No	Yes	m	No	Yes	Yes	No	Yes	Yes	I
	Slovak Republic	All	13	No	Yes	No	Yes	Yes	Yes	No	No	No	a
	Slovenia	All	13	Yes	Yes	No	No	Yes	No	No	Yes	Yes	G
	Spain	All	12	No	Yes	No	Yes	Yes	No	No	No	No	a
	Sweden	All	12	Yes	Yes	No	No	Yes	No	Yes	a	a	a
	Switzerland	All	13	No	No	a	a	a	a	a	No	No	a
	Turkey	All	12	Yes	Yes	Yes	No	Yes	No	No	a	a	a
	United States	All	12	No	Yes	m	m	m	m	m	No	Yes	m
Partners	Brazil	All	12	No	Yes	Yes	m	m	m	m	No	a	a
	Russian Federation	All	11	Yes	Yes	Yes	No	Yes	No	No	Yes	Yes	E

Notes: Columns showing the minimum ISCED type of qualification for entry into initial teacher education (i.e. column 2), and individual columns for selective criteria to progress in initial teacher education (i.e. columns 13-17) are available for consultation on line (see *StatLink* below).

Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions. Please refer to Annex 3 for additional information.

1. "All (Academic)" refers to "Academic secondary school, lower level".
2. "All (New and Lower)" refers to "New secondary school and lower secondary school".
3. Year of reference 2014.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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D6

Table D6.3c. [1/2] Content of initial teacher education, for lower secondary education (2013)

In public institutions

		Type of subjects	Academic subjects: Part of initial teacher education	Academic subjects: Courses specific to prospective teachers	Pedagogical studies/ didactics: Part of initial teacher education	Educational science studies: Part of initial teacher education	Child/adolescent development studies: Part of initial teacher education	Research skills development: Part of initial teacher education
			(1)	(3)	(4)	(5)	(6)	(7)
OECD	Australia	General	Mandatory	No	Mandatory	Mandatory	Mandatory	Discretion of institutions
		Vocational	m	m	m	m	m	m
	Austria	All (Academic)[1, 2]	Mandatory	No	Mandatory	Mandatory	Mandatory	Mandatory
		All (New and Lower)[1, 3]	Mandatory	Yes	Mandatory	Mandatory	Mandatory	Mandatory
	Belgium (Fl.)	General	Mandatory	Yes	Discretion of institutions	Discretion of institutions	Discretion of institutions	Discretion of institutions
		Vocational	m	m	Discretion of institutions	Discretion of institutions	Discretion of institutions	Discretion of institutions
	Belgium (Fr.)[1]	All	Mandatory	Yes	Mandatory	Mandatory	Mandatory	Mandatory
	Canada	m	m	m	m	m	m	m
	Chile	All	Discretion of institutions	No	Discretion of institutions	Discretion of institutions	Discretion of institutions	Discretion of institutions
	Czech Republic	All	Discretion of institutions	m	Mandatory	Mandatory	Mandatory	Discretion of institutions
	Denmark[1]	All	Mandatory	Yes	Mandatory	Mandatory	Mandatory	Not offered
	England	All	Mandatory	Yes	Mandatory	Discretion of institutions	Discretion of institutions	Discretion of institutions
	Estonia	All	Discretion of institutions	No	Mandatory	Mandatory	Discretion of institutions	Mandatory
	Finland	All	Mandatory	No	Mandatory	Mandatory	Discretion of institutions	Mandatory
	France	All	Discretion of institutions	No	Discretion of institutions	Discretion of institutions	Discretion of institutions	Discretion of institutions
	Germany[1]	All	Mandatory	No	Mandatory	Mandatory	Mandatory	Discretion of institutions
	Greece	All	Mandatory	Yes	Mandatory	Mandatory	Discretion of institutions	Discretion of institutions
	Hungary[1, 4]	All	Mandatory	Yes	Mandatory	Mandatory	Mandatory	Mandatory
	Iceland	All	Discretion of institutions	m	Discretion of institutions	Discretion of institutions	Discretion of institutions	Discretion of institutions
	Ireland[1]	All	Mandatory	No	Mandatory	Mandatory	Mandatory	Mandatory
	Israel[1]	All	Mandatory	Yes	Mandatory	Mandatory	Mandatory	Mandatory
	Italy	All	Mandatory	m	m	m	m	m
	Japan[1]	All	Mandatory	Yes	Mandatory	Mandatory	Mandatory	Discretion of students
	Korea	All	Mandatory	Yes	Mandatory	Mandatory	Discretion of institutions	Discretion of institutions
	Luxembourg	All	Mandatory	No	Mandatory	Mandatory	Mandatory	Mandatory
	Mexico[1]	General	Mandatory	Yes	Mandatory	Mandatory	Mandatory	Discretion of students
		Vocational	Not offered	a	Not offered	Not offered	Not offered	Not offered
	Netherlands	All	Discretion of institutions	Yes	Discretion of institutions	Discretion of institutions	Discretion of institutions	Discretion of institutions
	New Zealand	m	m	m	m	m	m	m
	Norway	All	Mandatory	Yes	Mandatory	Mandatory	Mandatory	Mandatory
	Poland	All	Mandatory	No	Mandatory	Mandatory	Mandatory	Mandatory
	Portugal	All	Mandatory	Yes	Mandatory	Mandatory	Mandatory	Mandatory
	Scotland	All	m	m	Mandatory	Mandatory	Mandatory	m
	Slovak Republic	All	Mandatory	Yes	Mandatory	Mandatory	Mandatory	Discretion of institutions
	Slovenia[1]	All	Mandatory	Yes	Mandatory	Mandatory	Mandatory	Mandatory
	Spain[1]	All	Mandatory	No	Mandatory	Mandatory	Mandatory	Mandatory
	Sweden[1]	All	Mandatory	No	Mandatory	Mandatory	Mandatory	Mandatory
	Switzerland	All	Mandatory	No	Mandatory	Mandatory	m	Mandatory
	Turkey	All	Mandatory	Yes	Mandatory	Mandatory	Mandatory	Mandatory
	United States	All	Discretion of institutions	m	Discretion of institutions	Discretion of institutions	Discretion of institutions	Discretion of institutions
Partners	Brazil[1]	All	Mandatory	No	Mandatory	Mandatory	Discretion of students	Discretion of institutions
	Russian Federation	All	Mandatory	Yes	Mandatory	Mandatory	Mandatory	Mandatory

Notes: Columns showing minimum number of academic subjects to be studied (i.e. column 2), requirements for dissertation based on students' own research (i.e. column 8), and whether there are common courses for all prospective teachers (i.e. column 17) are available for consultation on line (see *StatLink* below).

Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions. Please refer to Annex 3 for additional information.

1. Typical total duration in days is estimated based on requirements in a different unit, i.e. number of hours, weeks, years or credits, for column 10. See Annex 3 for notes.
2. "All (Academic)" refers to "Academic secondary school, lower level".
3. "All (New and Lower)" refers to "New secondary school and lower secondary school".
4. Year of reference 2014.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933120366

Table D6.3c. [2/2] **Content of initial teacher education, for lower secondary education (2013)**

In public institutions

		Type of subjects	Teaching practicum							
			Part of initial teacher education	Typical total duration, in days	Main persons responsible for supporting student teachers					
					Mentor teachers from within the school	School management	Inspectorate	Staff from teacher education institution	Local education authority	Other
			(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
OECD	Australia	General	Mandatory	80	Yes	Yes	a	Yes	a	m
		Vocational	m	m	m	m	m	m	m	m
	Austria	All (Academic)[1, 2]	Mandatory	78	Yes	No	No	Yes	No	a
		All (New and Lower)[1, 3]	Mandatory	113	Yes	No	No	Yes	No	a
	Belgium (Fl.)	General	Mandatory	m	Yes	Yes	No	Yes	No	a
		Vocational	Mandatory	m	Yes	Yes	No	Yes	No	a
	Belgium (Fr.)[1]	All	Mandatory	120	Yes	No	No	Yes	No	a
	Canada	m	m	m	m	m	m	m	m	m
	Chile	All	Discretion of institutions	m	m	Yes	a	Yes	No	a
	Czech Republic	All	Discretion of institutions	m	Yes	No	No	No	No	No
	Denmark[1]	All	Mandatory	100	Yes	No	No	Yes	No	No
	England	All	Mandatory	120	Yes	No	No	Yes	No	a
	Estonia	All	Mandatory	50	Yes	Yes	a	Yes	No	a
	Finland	All	Mandatory	m	Yes	m	a	Yes	m	m
	France	All	Discretion of institutions	m	a	a	a	a	a	a
	Germany[1]	All	Mandatory	282-604	Yes	Yes	No	Yes	No	No
	Greece	All	Mandatory	m	Yes	No	No	Yes	No	No
	Hungary[1, 4]	All	Mandatory	120-140	Yes	Yes	a	Yes	No	a
	Iceland	All	Mandatory	105	Yes	Yes	No	No	No	a
	Ireland[1]	All	Mandatory	100	Yes	Yes	No	Yes	No	a
	Israel[1]	All	Mandatory	60	Yes	No	No	Yes	No	No
	Italy	All	Mandatory	m	Yes	Yes	No	Yes	No	Yes
	Japan[1]	All	Mandatory	20	Yes	Yes	a	No	No	a
	Korea	All	Mandatory	40	Yes	Yes	No	Yes	No	a
	Luxembourg	All	Mandatory	m	Yes	Yes	No	Yes	No	a
	Mexico[1]	General	Mandatory	m	Yes	Yes	Yes	Yes	Yes	No
		Vocational	Discretion of students	a	a	a	a	a	a	a
	Netherlands	All	Mandatory	m	Yes	m	No	Yes	No	a
	New Zealand	m	m	m	m	m	m	m	m	m
	Norway	All	Mandatory	100	Yes	No	No	Yes	No	No
	Poland	All	Mandatory	m	Yes	Yes	No	No	No	a
	Portugal	All	Mandatory	160	Yes	No	No	No	No	No
	Scotland	All	Mandatory	90	Yes	Yes	No	Yes	No	a
	Slovak Republic	All	Mandatory	m	Yes	Yes	No	No	No	a
	Slovenia[1]	All	Mandatory	50-55	Yes	Yes	No	Yes	No	No
	Spain[1]	All	Mandatory	40	Yes	No	No	No	No	No
	Sweden[1]	All	Mandatory	100	Yes	No	No	Yes	No	No
	Switzerland	All	Mandatory	m	m	m	m	m	m	m
	Turkey	All	Mandatory	30	Yes	Yes	No	Yes	No	a
	United States	All	Discretion of institutions	m	Yes	Yes	m	Yes	Yes	m
Partners	Brazil[1]	All	Mandatory	75	Yes	No	a	Yes	No	m
	Russian Federation	All	Mandatory	36	Yes	Yes	No	Yes	No	a

Notes: Columns showing minimum number of academic subjects to be studied (i.e. column 2), requirements for dissertation based on students' own research (i.e. column 8), and whether there are common courses for all prospective teachers (i.e. column 17) are available for consultation on line (see *StatLink* below).

Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions. Please refer to Annex 3 for additional information.

1. Typical total duration in days is estimated based on requirements in a different unit, i.e. number of hours, weeks, years or credits, for column 10. See Annex 3 for notes.
2. "All (Academic)" refers to "Academic secondary school, lower level".
3. "All (New and Lower)" refers to "New secondary school and lower secondary school".
4. Year of reference 2014.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933120366

D6

Table D6.5c. Entry into the teaching profession, lower secondary education (2013)

In public institutions

		Type of subjects	Graduates from initial teacher education can start teaching directly	Additional requirements to start teaching: Competitive examination (E) or Standardised test (T) or Credential or license (L) or Other (O)	New teachers become fully qualified/ civil servants directly	Additional requirements to become fully qualified: Credential or license (L) or Probation period (P[Typical duration in months]) or Other (O)	Formal induction programme			
							Existence	Typical duration in months	Completion of induction programmes required to obtain credential/license	Organised in collaboration between the school and the teacher education institution/ ministry
			(1)	(2)	(7)	(8)	(13)	(14)	(15)	(16)
OECD	Australia	General	No	L	Yes	a	Discretion of schools	m	No	m
		Vocational	m	m	m	m	m	m	m	m
	Austria	All (Academic)[1]	No	L, O	Yes	a	Mandatory	12	Yes	Yes
		All (New and Lower)[2]	Yes	a	Yes	a	Not offered	a	a	a
	Belgium (Fl.)	General	Yes	a	Yes	a	Discretion of schools	m	No	No
		Vocational	Yes	a	Yes	a	Discretion of schools	m	No	No
	Belgium (Fr.)	All	Yes	a	Yes	a	Discretion of schools	m	No	m
	Canada	m	m	m	m	m	m	m	m	m
	Chile	All	Yes	a	Yes	a	Not offered	a	a	a
	Czech Republic	All	Yes	a	Yes	a	Discretion of schools	m	No	m
	Denmark	All	Yes	a	Yes	a	Discretion of schools	m	No	No
	England	All	Yes	a	No	L, P[12]	Mandatory	12	Yes	No
	Estonia	All	Yes	a	Yes	a	Mandatory	12	No	Yes
	Finland	All	Yes	a	Yes	a	Not offered	a	a	a
	France	All	No	E	No	P[12]	Mandatory	12	Yes	Yes
	Germany	All	Yes	a	Yes	a	m	m	m	m
	Greece	All	No	E, T, L	No	L, P[24]	Mandatory	1	Yes	Yes
	Hungary[3]	All	Yes	a	No	P[24], O	Mandatory	24	Yes	No
	Iceland	All	Yes	a	Yes	a	Not offered	a	a	a
	Ireland[4]	All	Yes	a	No	P[4.8], O	Mandatory	12	Yes	No
	Israel	All	Yes	a	No	L, P[10], O	Mandatory	10	Yes	Yes
	Italy[4]	All	Yes	a	No	P[12], O	Mandatory	12	Yes	Yes
	Japan[4]	All	No	E, L	Yes	a	Mandatory	12	No	Yes
	Korea[4]	All	No	E	Yes	a	Mandatory	0.25	No	No
	Luxembourg	All	Yes	a	No	P[24], O	Mandatory	18	Yes	Yes
	Mexico[4]	General	No	E	Yes	a	Mandatory	0.5	No	Yes
		Vocational	m	m	m	m	m	m	m	m
	Netherlands	All	Yes	a	Yes	a	Not offered	a	a	a
	New Zealand	m	m	m	m	m	m	m	m	m
	Norway	All	Yes	a	Yes	a	Discretion of schools	12	No	No
	Poland	All	Yes	a	Yes	a	Mandatory	9	No	No
	Portugal	All	Yes	a	No	P[12], O	Not offered	a	a	a
	Scotland	All	Yes	a	No	L, P[10]	Mandatory	10	Yes	Yes
	Slovak Republic	All	Yes	a	Yes	a	Mandatory	10	Yes	No
	Slovenia	All	Yes	a	No	L	Discretion of schools	10	No	Yes
	Spain	All	No	E	No	P[3-12]	Not offered	a	a	a
	Sweden[4]	All	Yes	a	No	L, P[11]	Mandatory	11	Yes	No
	Switzerland	All	Yes	a	Yes	a	m	m	m	m
	Turkey	All	No	E	No	P[12]	Mandatory	12	Yes	Yes
	United States	All	m	m	m	m	Discretion of schools	m	m	m
Partners	Brazil[4]	All	No	E	No	P[36], O	m	m	m	m
	Russian Federation	All	Yes	a	Yes	a	Not offered	a	a	a

Notes: Individual columns showing the additional requirements to start teaching (i.e. columns 3-6) and to become fully qualified (i.e. columns 9-12), main persons responsible for supporting beginning teachers (i.e. columns 17-22), their required training and compensation (i.e. columns 23-24), and the percentage of teachers leaving the profession within the first 5 years (i.e. column 25) are available for consultation on line (see *StatLink* below).

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1. "All (Academic)" refers to "Academic secondary school, lower level".
2. "All (New and Lower)" refers to "New secondary school and lower secondary school".
3. Year of reference 2014.
4. Typical total duration in months is estimated based on requirements in a different unit, i.e. number of hours, weeks, years or credits, for column 8, 11 and/or 14. See Annex 3 for notes.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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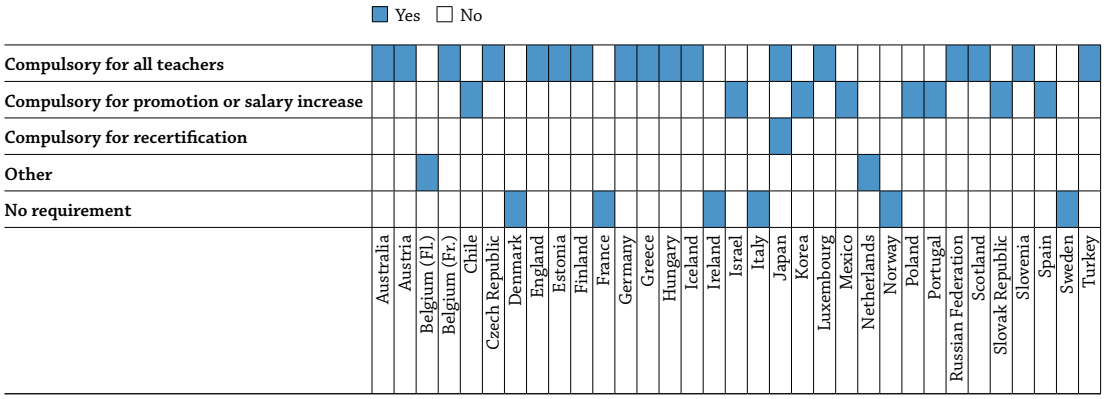
HOW EXTENSIVE ARE PROFESSIONAL DEVELOPMENT ACTIVITIES FOR TEACHERS?

- Professional development for teachers is compulsory at every level in about three-quarters of OECD and partner countries with available data. While it is required of all lower secondary teachers in 17 countries and for promotion or salary increase in 8 countries, it is not required in 6 countries.
- In most countries, decisions about the compulsory and non-compulsory professional development activities to be undertaken by individual teachers are most commonly made by teachers and school management.

Chart D7.1. Requirements for teachers' professional development (2013)

For teachers teaching general subjects in public institutions, lower secondary education



Source: OECD. Table D7.1c. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Context

Teacher training is increasingly seen as a process of lifelong learning. While initial teacher education provides the foundations, continuous professional development provides a means for improving the quality of the workforce and retaining effective staff over time. These kinds of activities allow teachers to refresh, develop and broaden their knowledge and understanding of teaching and to improve their skills and practices. They can help smooth new teachers' transition into their job and compensate for shortcomings in teachers' initial preparation. A lifelong learning approach to teacher development is essential, considering that expectations of staff may change over time. For example, the growing diversity of learners, the greater integration of children and students with special needs, and the increasing use of information and communication technologies all demand that teachers continuously upgrade their skills. In vocational education and training, teachers and trainers need to remain up-to-date with the changing requirements of the modern workplace (OECD, 2005).

Several studies correlate sustained professional development for teachers with significant learning gains for students (Yoon et al., 2007). With more teachers entering the profession through alternative pathways – as either mid-career professionals making a lateral move or university graduates taking fast-track paths to fill vacancies in high-need areas – the need for relevant and accessible professional development is increasingly imperative (Clotfelter, Ladd and Vigdor, 2007; Mueller, 2012; Headden, 2014). Research shows that, in addition to formal workshops, mentoring by veteran teachers can significantly improve the quality of instruction and is thus particularly useful for teachers entering the profession through alternative pathways (Rockoff, 2008).

High-quality professional development also has a significant impact on teacher retention (Allensworth, Ponisciak and Mazzeo, 2009). With turnover of the teaching force being a serious problem, particularly in schools serving marginalised communities (Ewing and Smith, 2003; OECD, 2005; Headden, 2014), professional development should be made a high priority.

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Other findings

- **Required professional development activities are planned in the context of individual school development priorities** in most countries. At the lower secondary level, in 20 countries, these activities are planned either exclusively or not exclusively in this context; in 4 countries, they are not planned in this context.
- **Countries have funding and support strategies in place for compulsory professional development.** At the lower secondary level, in 14 OECD and partner countries the cost is fully subsidised or shared by the government; in 8 countries, it is partially subsidised.
- In addition to compulsory professional development, all countries reported that they make **non-compulsory professional development activities available** to their teachers. However, funding for these activities is rarely fully covered by the government.
- **Professional development activities for lower secondary teachers are most commonly provided by higher education institutions** (34 countries), institutions for initial teacher education (30 countries), schools (31 countries) and private companies (30 countries). The next most common providers are public agencies for teachers' professional development and teachers' professional organisations (22 countries each), teachers' unions (20 countries), and local education authorities (18 countries). The inspectorate provides these activities in only six countries.
- **School management plays the largest role in circulating information about professional development activities.** In about two-thirds of countries, central or state education authorities are also responsible for circulating information about professional development activities.

Analysis

Requirements for compulsory teachers' professional development

A lifelong learning approach to teacher training requires opportunities and incentives for professional development throughout a teacher's career. Professional development can encompass a whole range of activities: formal courses, seminars, conferences and workshops, online training, and mentoring and supervision. The benefits of professional development, however, depend on the quality of the programmes and the feedback and follow-up support they provide.

The requirement for professional development covers all levels of teaching. Professional development is compulsory for teachers in all levels of education in 25 of the 33 countries with available data. While 16 of those 25 countries indicated that it is compulsory for all teachers, it is required for promotion or salary increases in Chile, Israel, Korea, Mexico (for pre-primary, primary and lower secondary teachers of general programmes), Poland, Portugal, the Slovak Republic and Spain. Iceland indicated that while it is compulsory for all primary and lower secondary teachers, it is required for pre-primary and upper secondary teachers as part of a contractual obligation relating to a wage agreement between teachers' unions and employers. In Japan, professional development is required for all teachers during their tenth year of experience and for recertification as well. In Belgium (Flemish Community) and the Netherlands, although professional development is common among teachers and may be imposed by the school or the organising body (depending on the school), there is no law stating that it is compulsory. In Austria (upper secondary vocational), France, Ireland (primary and secondary) and Mexico (lower secondary vocational and upper secondary), there is no requirement for professional development activities. In Denmark, Norway and Sweden, although there is no requirement, education authorities or school organisers are responsible for providing and allowing teachers to participate in professional development activities. In Italy, the National Teachers' Contract refers to providing professional development opportunities as a direct obligation for schools and education authorities, and a professional right for teachers (Table D7.1c and Tables D7.1a, b and d, available on line).

Minimum duration of required professional development

The duration of compulsory professional development varies widely across countries. While some countries (for example, England, Germany and the Russian Federation) do not set a minimum requirement for teachers to engage in professional development, other countries do. In those countries with a minimum annual requirement for all teachers, this ranges from 8 hours per year in Luxembourg, to 150 hours per year in Iceland (primary and lower secondary teachers). In Estonia, teachers are required to have a minimum of 160 hours of professional development over 5 years, while in Hungary, teachers are required to have a minimum of 120 hours over 7 years. In Japan, all teachers with ten years of experience are required to complete a professional development programme. This includes, on average, 123 hours of professional development activities for pre-primary teachers and 231 hours for primary and secondary teachers. In addition, Japanese teachers are required to complete 30 hours of professional development every 10 years for recertification (Table D7.1c and Tables D7.1a, b and d, available on line).

In Spain, teachers are required to complete 250 to 300 hours of professional development activities every 6 years for promotion or salary increases, while in Mexico, pre-primary, primary and lower secondary teachers are required to complete 78 hours per year. In Israel, pre-primary, primary and lower secondary teachers are required to complete 180 to 210 hours every three years and upper secondary teachers are required to complete 112 hours every year. In Korea, teachers must complete at least 90 hours of professional development activities to upgrade their teaching certificate (usually after 3-4 years of teaching) or to be qualified as teachers with advanced skills (*Su-seok Gyo-sa*), while in Portugal, teachers must complete 25 hours every two years. In the Slovak Republic, teachers have to complete 300 hours' worth of credits in professional development to obtain a salary increase. However, these credits are only valid for seven years from graduation from given professional development activities, and teachers much continuously engage in professional development activities and maintain the minimum amount of credit in order to retain their salary increases.

Professional development planning

Of the 23 countries that require professional development and with available data on its planning, 10 countries require teacher and school plans. Only school plans are required in the Czech Republic, Greece, Hungary, Iceland and the Russian Federation, while only teacher plans are required in Estonia (primary and secondary), Scotland and Turkey. In contrast, no plans are required in Austria, Estonia (pre-primary), Finland, Germany, Luxembourg and Spain (Table D7.2c and Tables D7.2a, b and d, available on line).

In 20 of the 24 countries with available data, compulsory professional development activities for lower secondary teachers are planned in the context of individual school development priorities. While these activities are planned

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exclusively in the context of individual school development priorities in the Czech Republic, Japan, the Russian Federation and the Slovak Republic, 16 of 20 countries reported that this is not exclusive. In contrast, compulsory professional development activities are not planned in the context of individual school development priorities in Korea, Luxembourg, Mexico and Spain.

Among the 32 OECD and partner countries with available data, in 24 countries non-compulsory professional development activities for lower secondary teachers are planned in the context of individual school development priorities; in 8 countries they are not. Twenty-two of the 24 countries reported that these activities are not exclusively planned in the context of individual school development priorities, while the Czech Republic and Japan reported that they are planned exclusively in this context. Similar professional development planning requirements are reported for pre-primary, primary and upper secondary teachers (Table D7.3c and Tables D7.3a, b and d, available on line).

Content of professional development activities

The content of compulsory professional development activities for lower secondary teachers is not mandated in 17 of the 24 OECD and partner countries with available data. However, although the content is not specified, these activities still have to be aligned with established standards in six of these 17 countries. These standards are set exclusively by the central education authorities in Belgium (French Community) and England, while they are set by both the central and regional education authorities in Korea. In Greece, the central and regional education authorities, as well as the inspectorate and the Institute of Educational Policy are involved in establishing these standards. In the Russian Federation, this is the responsibility of the central and regional education authorities together with universities and schools.

In contrast, the content of compulsory professional development activities is mandated in Israel, Mexico, Portugal, the Slovak Republic, Slovenia, Spain and Turkey. In Mexico, the Slovak Republic and Spain, the content is specified exclusively by the central education authorities. In contrast, in Slovenia, the content is specified jointly by the central education authorities, universities and schools and in Turkey it is specified by central and regional education authorities, universities and the inspectorate. In Portugal, the content is specified collectively by the central education authorities, teachers' professional organisations, teachers' unions, universities and schools and in Israel, it is specified by the central education authorities, the inspectorate, teachers' professional organisations, teachers' unions, universities, schools and other education providers. A similar picture can be seen at the pre-primary, primary and upper secondary level (Table D7.2c and Tables D7.2a, b and d, available on line).

Box D7.1. In what areas do teachers report having a high level of need for professional development?

According to the 2013 OECD Teaching and Learning International Survey (TALIS), across all participating countries, the aspect most frequently cited by teachers as an area of high development need is that of teaching students with special needs. About 22% of teachers, on average, report that they need more professional development regarding this specific aspect of teaching, reaching a high of 60% of teachers in Brazil and 47% in Mexico. On average, the second and third most important professional development needs teachers report involve teaching with information and communication technologies (19% of teachers) and using new technologies in the workplace (18% of teachers). Teachers from all TALIS countries identify these as important areas for development, particularly teachers in Brazil (27% and 37%, respectively), Italy (36% and 32%, respectively) and Malaysia (38% and 31%, respectively). This suggests that teachers feel ill-equipped to make the best use of these technologies for teaching and learning.

Other areas for improvement are identified by a large proportion of teachers in some countries. For example, in Japan and Korea, more than 40% of teachers report a need for professional development on student career guidance and counseling. Japanese teachers specify a need for training in knowledge and understanding of the subject field(s) (51%), pedagogical competencies in teaching subject field(s) (57%), student behaviour and classroom management (43%), student evaluation (40%), and how to approach individualised learning (40%). Teaching in a multicultural or multilingual setting seems not to be an important issue in most European countries but it is a large concern in Latin American countries and in Italy: 46% of Brazilian teachers, 24% of Chilean teachers, 27% of Italian teachers and 33% of Mexican teachers cite a need for professional development in this area.

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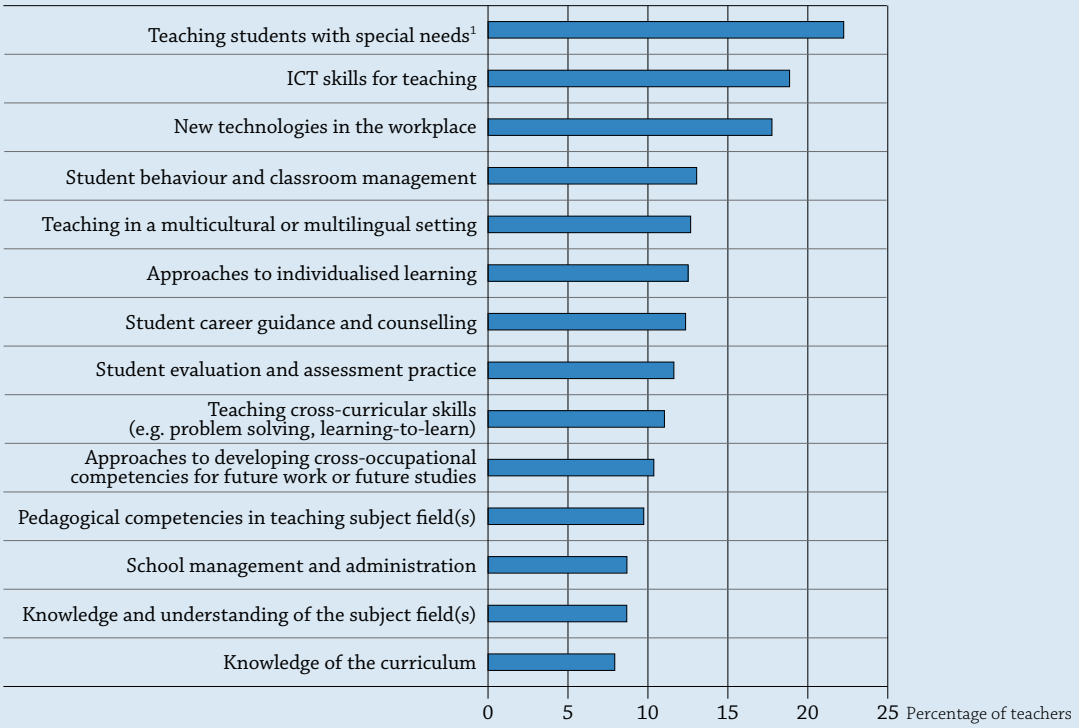
Chart D7.a. Teachers' needs for professional development (2013)
Percentage of lower secondary education teachers indicating they have a high level of need for professional development in the following areas



1. Special needs students are not well defined internationally but usually cover those for whom a special learning need has been formally identified because they are mentally, physically or emotionally disadvantaged. Often, special needs students will be those for whom additional public or private resources (personnel, material or financial) have been provided to support their education. "Gifted students" are not considered to have special needs under the definition used here and in other OECD work. Some teachers perceive all students as unique learners and thus having some special learning needs. For the purpose of this survey, it is important to ensure a more objective judgment of who is a special needs student and who is not. That is why a formal identification is stressed above.

Items are ranked in descending order, based on the percentage of teachers indicating they have a high level of need for professional development.

Source: OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, TALIS, OECD Publishing.

StatLink http://dx.doi.org/10.1787/888933041668

Deciding which professional development activities are undertaken by individual teachers

Teachers and school administrators play a major role in deciding the compulsory professional development activities undertaken by individual teachers. At the lower secondary level, two-third of countries with compulsory professional development reported that teachers propose the activities in which they want to participate, while seven countries reported that teachers decide which professional development activities they undertake. In Belgium (French Community), Estonia, Finland, Israel, Poland, Slovenia and Turkey, although teachers propose the activities, it is the school management that validates their choice of professional development activities. In around one-third of countries, the school management proposes the activities to be undertaken; only in Austria, the Czech Republic, Hungary, Portugal and the Russian Federation does school management decide on the activities to be undertaken.

In Japan, professional development activities are proposed by teachers and school management, but it is the education authorities that validate their choices. In Korea, teachers can be involved in deciding the content of their compulsory professional development by making a proposal, but education authorities ultimately make the decision about teachers' professional development. In Chile, school management and education authorities propose the activities, but the teacher decides whether to undertake them. Similarly, in Spain, it is the regional education authorities that propose the activities, and the teacher who makes the final decision. In Turkey, these activities are proposed by teachers, the inspectorate and local education authorities, validated by the school management, and the final decision is made jointly by the regional and central education authorities (Chart D7.2a and Table D7.1c).

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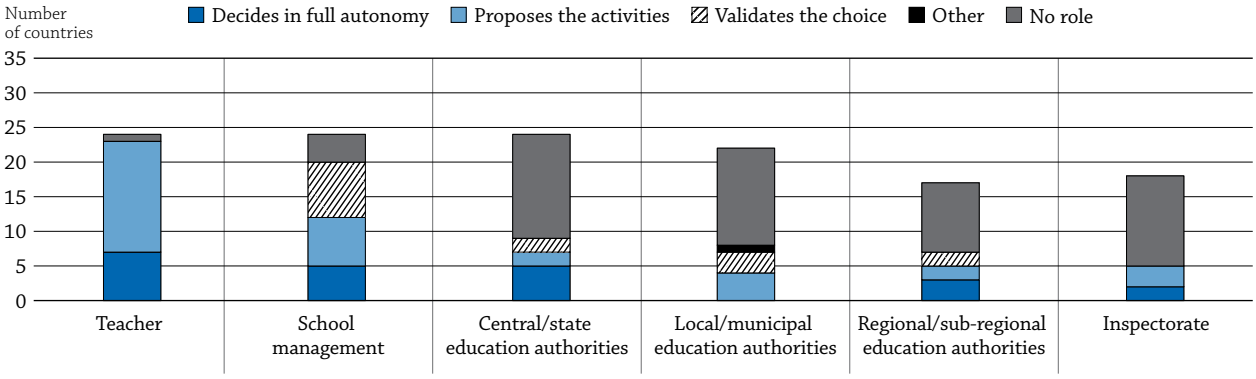
Chart D7.2a. Who decides on the compulsory professional development activities undertaken by individual teachers? (2013)

For teachers teaching general subjects in public institutions, lower secondary education



Bodies are ranked in descending order of the number of countries reporting these bodies as having a role in deciding on the compulsory professional development activities undertaken by teachers.

Source: OECD. Table D7.1c. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

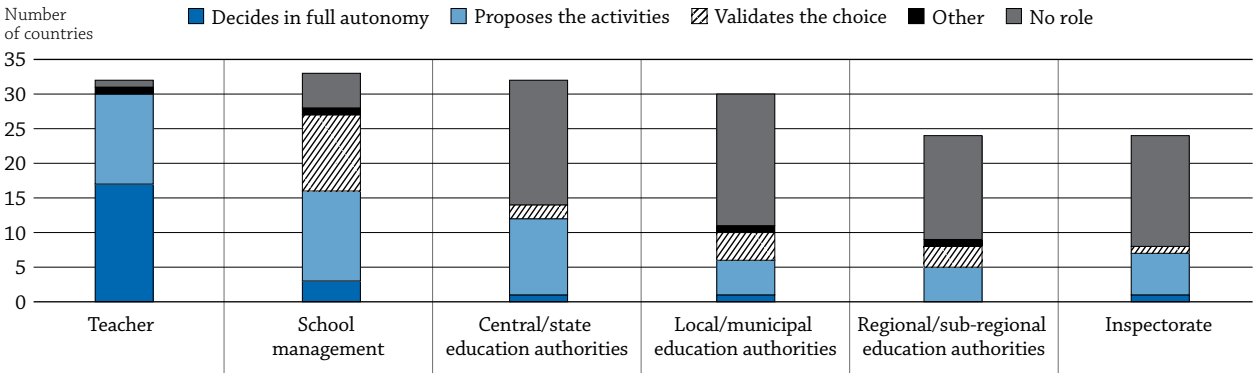
StatLink http://dx.doi.org/10.1787/888933120556

A similar picture can be seen at the pre-primary, primary and upper secondary level. However, in Austria, while school management and the inspectorate propose compulsory professional development activities for pre-primary teachers, the pre-primary teacher makes the decision to undertake these activities. The opposite is seen at the primary and secondary levels. Here, teachers propose the activities, while school management and the inspectorate decide whether the teachers should undertake these activities (Tables D7.2a, b and d, available on line).

Teachers in half the countries decide themselves on the non-compulsory professional development activities they undertake; in the other half of countries, teachers can only propose these activities. However, in a third of countries, teachers' decisions or proposals have to be validated by school management; and in half of countries, school management proposes these activities for teachers (Chart D7.2b). In Sweden, teachers and school management can informally influence their own professional development, but it is the local and regional education authorities that are responsible for providing professional development for their teachers. In Denmark, only school management determines teachers' professional development activities.

Chart D7.2b. Who decides on the non-compulsory professional development activities undertaken by individual teachers? (2013)

For teachers teaching general subjects in public institutions, lower secondary education



Bodies are ranked in descending order of the number of countries reporting these bodies as having a role in deciding on the non-compulsory professional development activities undertaken by teachers.

Source: OECD. Table D7.3c. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933120575

Only in eight countries does the inspectorate play a role in deciding on teachers' non-compulsory professional development activities. In six of these countries, the inspectorate can propose the activities; in Austria (for primary and secondary teachers) it decides on the activities; and in Israel, the inspectorate validates them. Similarly, in a third of countries with available data, the role of central, regional and local education authorities is mainly to propose or validate activities. Only in Turkey is the central education authority responsible for determining which non-compulsory professional activities are to be undertaken by teachers (Table D7.3c and Tables D7.3a, b and d, available on line).

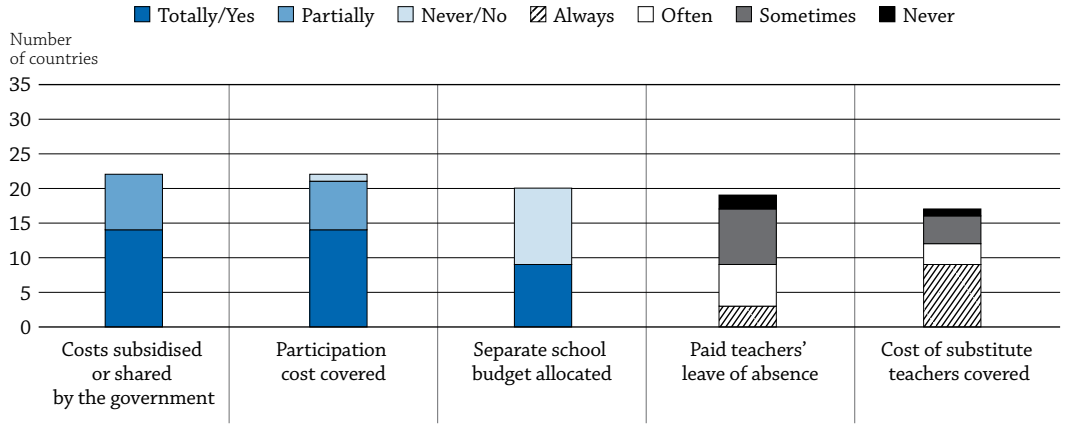
Funding and support strategies for professional development

Professional development can be financed solely by governments, employers or individuals, or in co-funding arrangements. Governments can provide certain funding and support strategies, where the costs of professional development activities are subsidised or shared by the government, to encourage staff to engage in professional development. These include providing funds to cover training costs, foregone earnings (i.e. paid leave of absence during training) and the cost of substitute teachers.

In all countries with mandatory professional development, there are funding and support strategies in place. The funding of mandated professional development is covered fully in about half of the countries with available data. In 11 countries, the cost for pre-primary teachers is fully covered; in another 10 countries, it is partially covered. In 14 countries, the cost for primary and lower-secondary teachers is fully covered; it is partially covered in 8 countries. In 12 countries, the cost for upper secondary teachers is fully covered; it is partially covered in 9 countries (Chart D7.3a and Tables D7.1a, b and d, available on line).

Chart D7.3a. Funding and support strategies for compulsory professional development (2013)

For teachers teaching general subjects in public institutions, lower secondary education



Source: OECD. Table D7.1c. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933120594

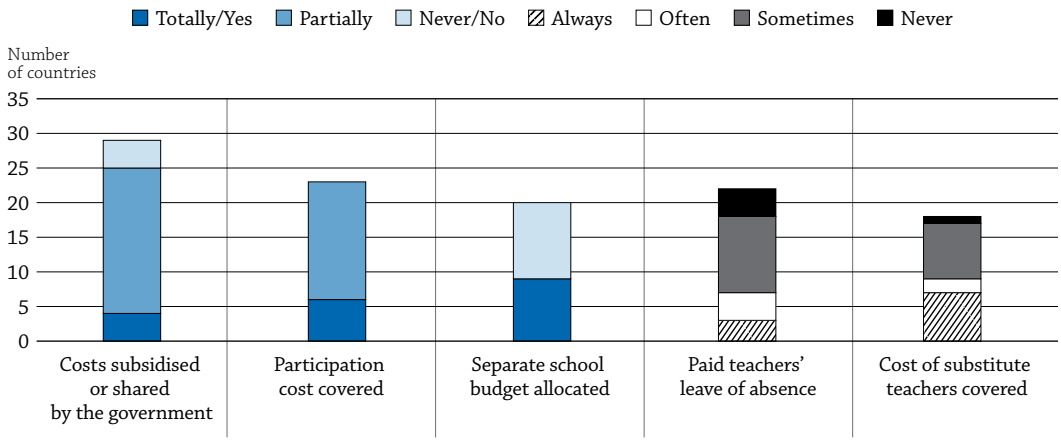
In general, the fees for participating in compulsory professional development courses are either fully or partially covered in all countries with mandatory compulsory professional development, with the exception of Chile and Japan (when it is for recertification), where participation costs are never covered. While teachers' foregone earnings (while in training) and the cost of substitute teachers are always covered in Germany, Slovenia and the Russian Federation, these are never covered in Japan (when professional development is for recertification) and in Spain. By contrast, in about half of the countries, the cost of substitute teachers is always covered. In the remaining countries, teachers' foregone earnings and the cost of substitute teachers are either often or sometimes covered. In half of the countries, schools are even allocated a separate budget for compulsory professional development activities for teachers (Table D7.1c and Tables D7.1a, b and d, available on line).

By contrast, the cost of non-compulsory professional development is rarely fully covered in OECD and partner countries with available data. For lower secondary teachers, the cost is fully covered in Germany, Greece, Israel and Mexico, partially covered in 21 countries, and never covered in the French Community of Belgium, Estonia, Portugal

and the Slovak Republic. Three-quarters of countries with available data reported that fees to participate in these activities are partially covered, while these fees are fully covered in the other countries. In addition, lower secondary teachers sometimes (11 countries), often (4 countries) or always (3 countries), get paid leave of absence while attending these courses. This never happens, however, for lower secondary teachers in Israel, Japan, Luxembourg and Spain. The cost of substitute teachers is always covered in 7 countries, and often or sometimes covered in 10 countries. However, these costs are never covered in Spain. In 9 countries, schools are also allocated a separate budget for non-compulsory professional development activities for teachers (Chart D7.3b and Table D7.3c). Similar funding and support strategies are available for pre-primary, primary and upper secondary teachers (Tables D7.3a, b and d, available on line).

Chart D7.3b. Funding and support strategies for non-compulsory professional development (2013)

For teachers teaching general subjects in public institutions, lower secondary education



Source: OECD. Table D7.3c. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933120613

Providers of professional development activities

In a number of countries, the use of public funding for professional development activities is restricted to programmes provided by a few organisations (teacher education institutions or agencies specialising in professional development). Especially in those countries where participation in professional development is mandated, this can reduce the incentives for innovation and quality improvement. It is, therefore, important to encourage a range of professional development providers, ensure that quality standards are met, and disseminate good practice (OECD, 2005).

Professional development is provided in different institutional settings and can be made available within institutions or through external providers, such as training institutes and universities. For all levels of education, higher education institutions provide professional development activities for teachers in all OECD and partner countries, with the exception of Japan. These activities are also offered by institutions for initial teacher education in all countries, with the exception of Austria (pre-primary, academic secondary school, lower level, and general upper secondary), Belgium (French Community), Iceland, Japan and Luxembourg (pre-primary and primary). Schools also play a large role in providing professional development activities in all countries, with the exception of Austria (primary, lower and general upper secondary), the Czech Republic, Iceland and the Russian Federation.

Apart from these different educational institutions, private companies are the most common provider of professional development activities: they provide these activities in four out of five countries, excluding Austria, the Czech Republic, Israel, Japan, Luxembourg (pre-primary, primary and upper secondary) and Spain.

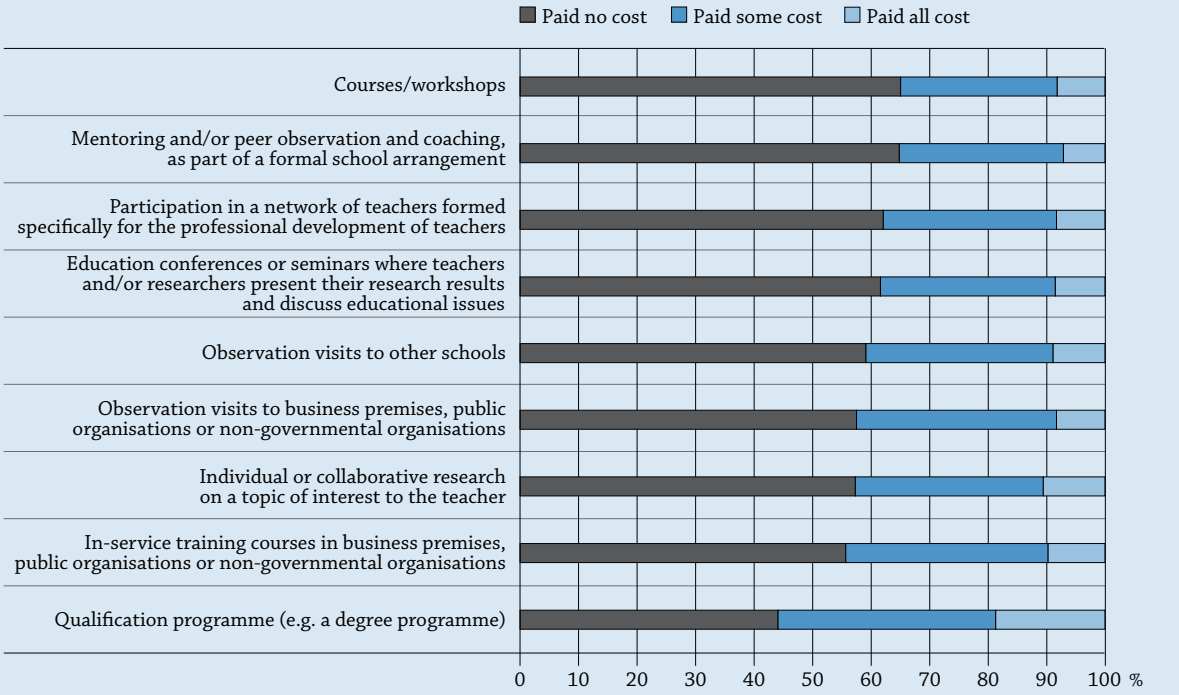
Two-thirds of countries also reported that a public agency for teachers' professional development offers these activities, and/or that teachers' professional organisations do. In around half of the countries, teachers' unions and local education authorities also offer these activities. Only in Austria (upper secondary vocational), France, Greece, Israel (pre-primary), Italy, Luxembourg (pre-primary and primary), Poland, Scotland and Turkey are these activities provided for teachers by the inspectorate (Tables D7.4a, b, c and d, available on line).

Box D7.2. Do teachers have to pay to participate in professional development activities?

Different types of professional development activities require different levels of investment. According to the 2013 TALIS survey, more than half of the teachers who participated in professional development activities said that they paid nothing, regardless of the type of programme (with the exception of qualification programmes) and 10% of teachers or fewer said that they paid the full cost. Qualification programmes tend to require more involvement (both in time and money) and tend to be organised outside the school (i.e. at a university or college). It is therefore not surprising that these programmes are also those for which teachers are more likely to pay some or all of the cost.

Chart D7.b. Level of personal payment for teachers' professional development participation (2013)

Percentage of lower secondary education teachers who report having participated in the following professional development activities and who "paid no cost", "paid some cost" or "paid all cost" for the activities they participated in[1]



1. Teachers can participate in more than one professional development activity at the same time. Teachers were not asked about the level of personal payment for each activity but rather for their general level of personal payment for all the professional development activities they participated in. Therefore, the percentages presented in this figure should be interpreted as the level of general personal payment reported by the teachers who participated in each type of professional development activity.

Professional development activities are ranked in descending order, based on the average percentage of teachers who reported paying no cost.

Source: OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, TALIS, OECD Publishing.

StatLink http://dx.doi.org/10.1787/888933041535

Dissemination of teachers' professional development activities

For all levels of education, school management plays the largest role in circulating information about professional development activities. Of the 34 OECD and partner countries, only Finland and Sweden reported that school management is not formally responsible for disseminating this type of information. In around two-thirds of countries, the central/state education authority is also responsible for circulating information about professional development activities. Slightly more than half of the countries also reported that the regional or local education authorities play a part in this dissemination process. The inspectorate also circulates this information to teachers in Austria (pre-primary and vocational upper secondary), France, Greece, Israel, Italy, Luxembourg (pre-primary, primary and lower secondary), Poland and Scotland (Tables D7.4a, b, c and d, available on line).

Participation in professional development activities

The proportion of teachers who participate in professional development activities varies widely across countries. In the 14 countries with available data, this ranges from all teachers in Austria (primary and new secondary school and lower secondary school), Belgium (French Community), Luxembourg, Scotland and Turkey (pre-primary and primary) and 90% or more in Estonia (primary and lower and general upper secondary), Israel (pre-primary, primary and lower secondary), the Netherlands and the United States (primary and secondary), to 24% of upper secondary teachers in Brazil (Tables D7.4a, b, c and d, available on line).

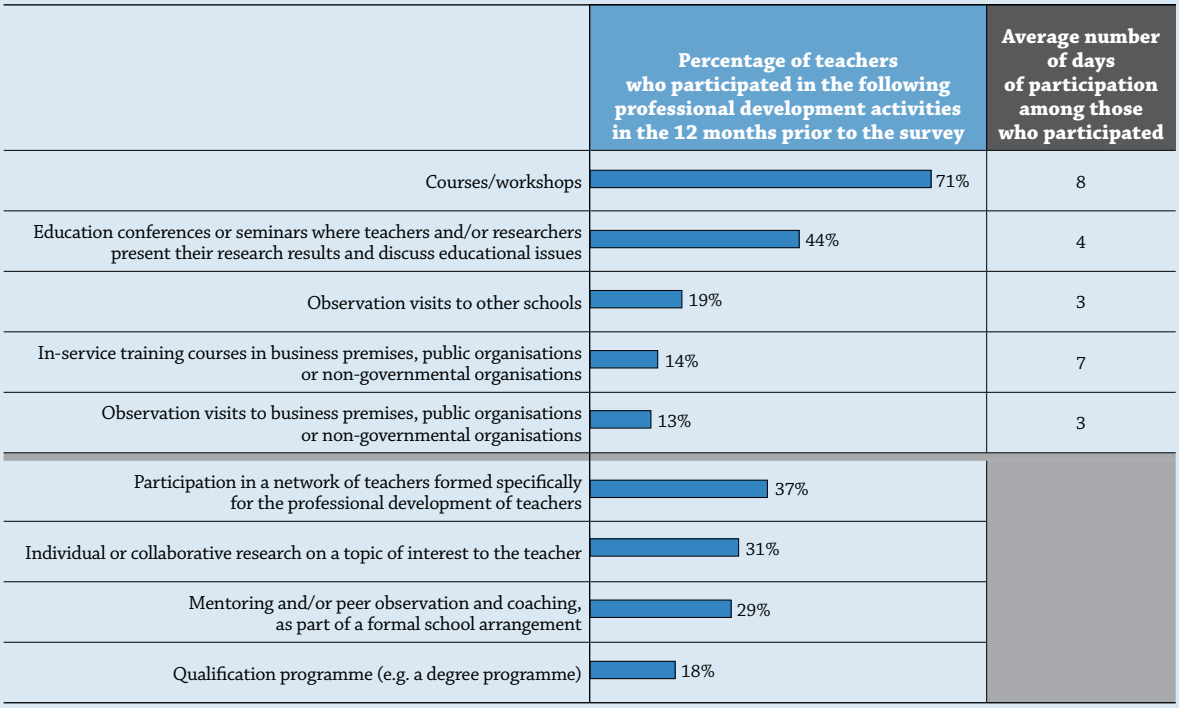
Box D7.3. In what types of professional development activities do teachers participate?

Findings from the 2013 TALIS survey suggest that the professional development activity in which teachers most often report participating are courses or workshops, with 71% of lower secondary teachers, on average, reporting that they had participated in this activity during the survey period. Indeed, in virtually all participating countries and economies, participating in courses or workshops was most frequently reported, with a participation rate of around 80% in several countries and greater than 90% in Malaysia, Mexico and Singapore.

After courses and workshops, the activities most frequently cited are attending education conferences or seminars (44%) and participating in a teacher network (37%). The least common types of professional development activities are observation visits to businesses or other organisations (13%) and in-service training courses at these organisations (14%).

Chart D7.c. Professional development recently undertaken by teachers, by type and intensity (2013)

Participation rates and average number of days for each type of professional development reported to be undertaken by lower secondary education teachers in the 12 months prior to the survey



Items are ranked in descending order for each block, based on the percentage of teachers who report having participated in professional development activities in the 12 months prior to the survey.

Source: OECD (2014), *TALIS 2013 Results: An International Perspective on Teaching and Learning*, TALIS, OECD Publishing.

StatLink http://dx.doi.org/10.1787/888933041554

D7

Definitions

Professional development activities are those that are designed to develop an individual's skills, knowledge and expertise as a teacher (or more generally, a professional). These activities are formal and could refer to different activities such as courses and workshops, but also to formalised teacher collaboration and participation in professional networks. Thus, professional development activities do not refer to teachers daily practices which also are developing them professionally.

Methodology

Data are from the 2013 OECD-INES Survey on developing teachers' knowledge and skills and refer to the school year 2012/13.

Notes on definitions and methodologies for each country are provided in Annex 3, available at *www.oecd.org/edu/eag.htm*.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

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Tables of Indicator D7

StatLink http://dx.doi.org/10.1787/888933120461

WEB Table D7.1a Requirements for teachers' professional development, pre-primary education (2013)

WEB Table D7.1b Requirements for teachers' professional development, primary education (2013)

Table D7.1c Requirements for teachers' professional development, lower secondary education (2013)

WEB Table D7.1d Requirements for teachers' professional development, upper secondary education (2013)

WEB Table D7.2a Content of compulsory teachers' professional development activities, pre-primary education (2013)

WEB Table D7.2b Content of compulsory teachers' professional development activities, primary education (2013)

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Table D7.2c Content of compulsory teachers' professional development activities, lower secondary education (2013)
WEB Table D7.2d Content of compulsory teachers' professional development activities, upper secondary education (2013)

WEB Table D7.3a Non-compulsory teachers' professional development, pre-primary education (2013)
WEB Table D7.3b Non-compulsory teachers' professional development, primary education (2013)
Table D7.3c Non-compulsory teachers' professional development, lower secondary education (2013)
WEB Table D7.3d Non-compulsory teachers' professional development, upper secondary education (2013)

WEB Table D7.4a Dissemination of teachers' professional development activities, pre-primary education (2013)
WEB Table D7.4b Dissemination of teachers' professional development activities, primary education (2013)
WEB Table D7.4c Dissemination of teachers' professional development activities, lower secondary education (2013)
WEB Table D7.4d Dissemination of teachers' professional development activities, upper secondary education (2013)

Table D7.1c. [1/2] Requirements for teachers' professional development, lower secondary education (2013)

In public institutions

		Type of subjects	Requirements for professional development	Year legislated	Breadth of policy implementation	Minimum duration of professional development required
			(1)	(2)	(3)	(4)
OECD	Australia	All	Compulsory for all teachers	m	m	m
	Austria	All (Academic)[1]	Compulsory for all teachers	2005	Country wide	a
		All (New and Lower)[2]	Compulsory for all teachers	1984	Country wide	15 hours every year
	Belgium (Fl.)	All	Other	a	a	a
	Belgium (Fr.)[3]	All	Compulsory for all teachers	2002	Country wide	18 hours every year
	Canada	m	m	m	m	m
	Chile	All	Compulsory for promotion or salary increase	m	Country wide	m
	Czech Republic	All	Compulsory for all teachers	2005	Country wide	m
	Denmark	All	No requirement	a	a	a
	England	All	Compulsory for all teachers	1998	Country wide	a
	Estonia	All	Compulsory for all teachers	2000	Country wide	160 hours every 5 years
	Finland[3]	All	Compulsory for all teachers	m	Country wide	30 hours every year
	France	All	No requirement	a	a	a
	Germany	All	Compulsory for all teachers	m	Country wide	a
	Greece	All	Compulsory for all teachers	1985	Country wide	m
	Hungary	All	Compulsory for all teachers	1997	Country wide	120 hours every 7 years
	Iceland	All	Compulsory for all teachers	2008	Country wide	150 hours every year
	Ireland	All	No requirement	a	a	a
	Israel	All	Compulsory for promotion or salary increase	2008	Country wide	180-210 hours every 3 years
	Italy	All	No requirement	a	a	a
	Japan	All	Compulsory for all teachers	2002	Country wide	231 hours
			Compulsory for recertification	2009	Country wide	30 hours every 10 years
	Korea	All	Compulsory for promotion or salary increase	1972	Country wide	90 hours
	Luxembourg	All	Compulsory for all teachers	2007	Country wide	8 hours every year
	Mexico	General	Compulsory for promotion or salary increase	1993	Country wide	78 hours every year
		Vocational	No requirement	a	a	a
	Netherlands	All	Other	a	a	a
	New Zealand	m	m	m	m	m
	Norway	All	No requirement	a	a	a
	Poland	All	Compulsory for promotion or salary increase	1999	Country wide	a
	Portugal	All	Compulsory for promotion or salary increase	2012	Country wide	25 hours every 2 years
	Scotland	All	Compulsory for all teachers	2000	Country wide	35 hours every year
	Slovak Republic[3]	All	Compulsory for promotion or salary increase	2009	Country wide	300 hours
	Slovenia	All	Compulsory for all teachers	2004	Country wide	m
	Spain[3]	All	Compulsory for promotion or salary increase	2011	Country wide	250-300 hours every 6 years
	Sweden	All	No requirement	a	a	a
	Switzerland	All	m	m	m	m
	Turkey	All	Compulsory for all teachers	1960	Country wide	30 hours every year
	United States	All	m	m	m	m
Partners	Brazil	All	m	m	m	m
	Russian Federation	All	Compulsory for all teachers	m	Country wide	a

Role in deciding professional development activities

FA: Decides in full autonomy
PA: Proposes the activities
VC: Validates the choice
OT: Other
NR: No role

Notes: Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions. Please refer to Annex 3 for additional information.

1. "All (Academic)" refers to "Academic secondary school, lower level".
2. "All (New and Lower)" refers to "New secondary school and lower secondary school".
3. Minimum duration in hours is estimated based on requirements in a different unit, i.e. number of days, weeks or credits, for column 4. See Annex 3 for notes.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table D7.1c. [2/2] Requirements for teachers' professional development, lower secondary education (2013)

In public institutions

		Type of subjects	Who decides the professional development activities undertaken by individual teachers?						Funding and support strategies for professional development				
			Teacher	School management	Inspectorate	Local/ municipal education authorities	Regional/ sub-regional education authorities	Central/state education authorities	Costs subsidised or shared by the government	Participation cost covered	Paid teachers' leave of absence	Cost of substitute teachers covered	Separate school budget allocated
			(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)
OECD	Australia	All	m	m	a	a	m	m	m	m	m	m	m
	Austria	All (Academic)[1]	PA	FA	FA	NR	a	NR	Totally	Totally	Often	Always	No
		All (New and Lower)[2]	PA	FA	FA	NR	a	NR	Totally	Totally	Often	Always	No
	Belgium (Fl.)	All	a	a	a	a	a	a	a	a	a	a	a
	Belgium (Fr.)[3]	All	PA	VC	NR	NR	NR	NR	Totally	Totally	Sometimes	a	No
	Canada	m	m	m	m	m	m	m	m	m	m	m	m
	Chile	All	FA	PA	a	PA	a	PA	Partially	Never	Sometimes	m	Yes
	Czech Republic	All	PA	FA	NR	NR	NR	NR	Totally	Partially	Sometimes	Often	Yes
	Denmark	All	a	a	a	a	a	a	a	a	a	a	a
	England	All	PA	PA	PA	NR	a	NR	a	a	a	a	a
	Estonia	All	PA	VC	a	PA	a	NR	Totally	Totally	Often	Often	Yes
	Finland[3]	All	PA	VC	a	a	NR	NR	Totally	Totally	m	m	m
	France	All	a	a	a	a	a	a	a	a	a	a	a
	Germany	All	FA	VC	NR	NR	NR	NR	Totally	Totally	Always	Always	Yes
	Greece	All	PA	PA	FA	NR	FA	FA	Totally	Totally	Often	Always	No
	Hungary	All	PA	FA	a	VC	NR	NR	Partially	Partially	Sometimes	a	m
	Iceland	All	FA	PA	a	NR	a	NR	Totally	Totally	Often	Always	Yes
	Ireland	All	a	a	a	a	a	a	a	a	a	a	a
	Israel	All	PA	VC	NR	OT	NR	NR	Totally	Totally	Sometimes	Always	No
	Italy	All	a	a	a	a	a	a	a	a	a	a	a
	Japan	All	PA	PA	a	VC	VC	VC	Partially	Partially	Never	Sometimes	Yes
			PA	PA	a	VC	VC	VC	Partially	Never	Never	Never	Yes
	Korea	All	PA	NR	NR	NR	FA	FA	Partially	Totally	Sometimes	Always	No
	Luxembourg	All	FA	NR	NR	NR	NR	VC	Totally	Totally	Often	Always	No
	Mexico	General	FA	NR	NR	NR	NR	FA	Totally	Totally	a	Often	No
		Vocational	a	a	a	a	a	a	a	a	a	a	a
	Netherlands	All	a	a	a	a	a	a	a	a	a	a	a
	New Zealand	m	m	m	m	m	m	m	m	m	m	m	m
	Norway	All	a	a	a	a	a	a	a	a	a	a	a
	Poland	All	PA	VC	PA	VC	PA	PA	Partially	Partially	Sometimes	Sometimes	No
	Portugal	All	NR	FA	NR	NR	NR	NR	Totally	Totally	a	a	No
	Scotland	All	PA	PA	NR	PA	a	NR	m	m	m	m	m
	Slovak Republic[3]	All	FA	PA	NR	NR	NR	NR	Partially	Partially	Often	Sometimes	Yes
	Slovenia	All	PA	VC	NR	a	a	FA	Partially	Partially	Always	Always	Yes
	Spain[3]	All	FA	NR	NR	NR	PA	NR	Totally	Totally	Never	Never	No
	Sweden	All	a	a	a	a	a	a	a	a	a	a	a
	Switzerland	All	m	m	m	m	m	m	m	m	m	m	m
	Turkey	All	PA	VC	PA	PA	FA	FA	Totally	Totally	a	a	No
	United States	All	m	m	m	m	m	m	m	m	Sometimes	Sometimes	m
Partners	Brazil	All	m	m	m	m	m	m	m	m	m	m	m
	Russian Federation	All	PA	FA	NR	NR	VC	NR	Partially	Partially	Always	Always	Yes

Role in deciding professional development activities

FA: Decides in full autonomy
PA: Proposes the activities
VC: Validates the choice
OT: Other
NR: No role

Notes: Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions. Please refer to Annex 3 for additional information.

1. "All (Academic)" refers to "Academic secondary school, lower level".
2. "All (New and Lower)" refers to "New secondary school and lower secondary school".
3. Minimum duration in hours is estimated based on requirements in a different unit, i.e. number of days, weeks or credits, for column 4. See Annex 3 for notes.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933120480

Table D7.2c. [1/2] Content of compulsory teachers' professional development activities, lower secondary education (2013)

In public institutions

		Type of subjects	Requirements for professional development	Requirements for professional development planning	Professional development activities planned in the context of individual school development priorities
			(1)	(2)	(3)
OECD	Australia	All	Compulsory for all teachers	m	m
	Austria	All (Academic)[1]	Compulsory for all teachers	No plan	Yes, but not exclusively
		All (New and Lower)[2]	Compulsory for all teachers	No plan	Yes, but not exclusively
	Belgium (Fl.)	All	Other	a	a
	Belgium (Fr.)	All	Compulsory for all teachers	Teacher & school plan	Yes, but not exclusively
	Canada	m	m	m	m
	Chile	All	Compulsory for promotion or salary increase	m	Yes, but not exclusively
	Czech Republic	All	Compulsory for all teachers	School plan	Yes, exclusively
	Denmark	All	No requirement	a	a
	England	All	Compulsory for all teachers	Teacher & school plan	Yes, but not exclusively
	Estonia	All	Compulsory for all teachers	Teacher plan	Yes, but not exclusively
	Finland	All	Compulsory for all teachers	No plan	m
	France	All	No requirement	a	a
	Germany	All	Compulsory for all teachers	No plan	Yes, but not exclusively
	Greece	All	Compulsory for all teachers	School plan	Yes, but not exclusively
	Hungary	All	Compulsory for all teachers	School plan	Yes, but not exclusively
	Iceland	All	Compulsory for all teachers	School plan	Yes, but not exclusively
	Ireland	All	No requirement	a	a
	Israel	All	Compulsory for promotion or salary increase	Teacher & school plan	Yes, but not exclusively
	Italy	All	No requirement	a	a
	Japan	All	Compulsory for all teachers	Teacher & school plan	Yes, exclusively
			Compulsory for recertification	Teacher & school plan	Yes, exclusively
	Korea	All	Compulsory for promotion or salary increase	Teacher & school plan	No
	Luxembourg	All	Compulsory for all teachers	No plan	No
	Mexico	General	Compulsory for promotion or salary increase	Teacher & school plan	No
		Vocational	No requirement	a	a
	Netherlands	All	Other	a	a
	New Zealand	m	m	m	m
	Norway	All	No requirement	a	a
	Poland	All	Compulsory for promotion or salary increase	Teacher & school plan	Yes, but not exclusively
	Portugal	All	Compulsory for promotion or salary increase	Teacher & school plan	Yes, but not exclusively
	Scotland	All	Compulsory for all teachers	Teacher plan	Yes, but not exclusively
	Slovak Republic	All	Compulsory for promotion or salary increase	Teacher & school plan	Yes, exclusively
	Slovenia	All	Compulsory for all teachers	Teacher & school plan	Yes, but not exclusively
	Spain	All	Compulsory for promotion or salary increase	No plan	No
	Sweden	All	No requirement	a	a
	Switzerland	All	m	m	m
	Turkey	All	Compulsory for all teachers	Teacher plan	Yes, but not exclusively
	United States	All	m	m	Yes, but not exclusively
Partners	Brazil	All	m	m	m
	Russian Federation	All	Compulsory for all teachers	School plan	Yes, exclusively

Notes: Individual columns showing who sets standards/content areas of professional development, namely, Universities, Schools, Other education providers (i.e. columns 6-8), Teachers' professional organisations, Teachers' unions (i.e. columns 10-11), Local/municipal, Regional/sub-regional or Central/state education authorities (i.e. columns 13-15), Inspectorate or Other (i.e. columns 17-18) are available for consultation on line (see *StatLink* below).

Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions. Please refer to Annex 3 for additional information.

1. "All (Academic)" refers to "Academic secondary school, lower level".
2. "All (New and Lower)" refers to "New secondary school and lower secondary school".

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933120499

Table D7.2c. [2/2] **Content of compulsory teachers' professional development activities, lower secondary education (2013)**

In public institutions

		Type of subjects	Content of professional development activities specified	Who sets the standards and/or the content areas of professional development activities? Universities (U) or Schools(S) or Other education providers (E)	Teachers' professional organisations (P) or Teachers' unions (T)	Local/municipal education authorities (L) or Regional/sub-regional education authorities (R) or Central/state education authorities (C)	Inspectorate (I) or Other (O)
			(4)	(5)	(9)	(12)	(16)
OECD	Australia	All	m	m	m	m	m
	Austria	All (Academic)[1]	Content not specified	a	a	a	a
		All (New and Lower)[2]	Content not specified	a	a	a	a
	Belgium (Fl.)	All	a	a	a	a	a
	Belgium (Fr.)	All	Alignment with established standards required but content not specified	No	No	C	No
	Canada	m	m	m	m	m	m
	Chile	All	Alignment with established standards required but content not specified	No	No	No	O
	Czech Republic	All	Content not specified	a	a	a	a
	Denmark	All	a	a	a	a	a
	England	All	Alignment with established standards required but content not specified	No	No	C	No
	Estonia	All	Content not specified	a	a	a	a
	Finland	All	Content not specified	a	a	a	a
	France	All	a	a	a	a	a
	Germany	All	Content not specified	a	a	a	a
	Greece	All	Alignment with established standards required but content not specified	E	No	R, C	I
	Hungary	All	Content not specified	a	a	a	a
	Iceland	All	Content not specified	a	a	a	a
	Ireland	All	a	a	a	a	a
	Israel	All	Professional development in specific content area(s) required	U, S, E	P, T	C	I
	Italy	All	a	a	a	a	a
	Japan	All	Content not specified	a	a	a	a
			Content not specified	a	a	a	a
	Korea	All	Alignment with established standards required but content not specified	No	No	R, C	No
	Luxembourg	All	Content not specified	a	a	a	a
	Mexico	General	Professional development in specific content area(s) required	No	No	C	No
		Vocational	a	a	a	a	a
	Netherlands	All	a	a	a	a	a
	New Zealand	m	m	m	m	m	m
	Norway	All	a	a	a	a	a
	Poland	All	Content not specified	a	a	a	a
	Portugal	All	Professional development in specific content area(s) required	U, S	P, T	C	No
	Scotland	All	Content not specified	a	a	a	a
	Slovak Republic	All	Professional development in specific content area(s) required	No	No	C	No
	Slovenia	All	Professional development in specific content area(s) required	U, S	No	C	No
	Spain	All	Professional development in specific content area(s) required	No	No	C	No
	Sweden	All	a	a	a	a	a
	Switzerland	All	m	m	m	m	m
	Turkey	All	Professional development in specific content area(s) required	U	No	R, C	I
	United States	All	m	m	m	m	m
Partners	Brazil	All	m	m	m	m	m
	Russian Federation	All	Alignment with established standards required but content not specified	U, S	No	R, C	No

Notes: Individual columns showing who sets standards/content areas of professional development, namely, Universities, Schools, Other education providers (i.e. columns 6-8), Teachers' professional organisations, Teachers' unions (i.e. columns 10-11), Local/municipal, Regional/sub-regional or Central/state education authorities (i.e. columns 13-15), Inspectorate or Other (i.e. columns 17-18) are available for consultation on line (see *StatLink* below).

Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions. Please refer to Annex 3 for additional information.

1. "All (Academic)" refers to "Academic secondary school, lower level".
2. "All (New and Lower)" refers to "New secondary school and lower secondary school".

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933120499

D7

Table D7.3c [1/2] Non-compulsory teachers' professional development, lower secondary education (2013)

In public institutions

		Type of subjects	Who decides the professional development activities undertaken by individual teachers?						
			Teacher	School management	Inspectorate	Local/municipal education authorities	Regional/ sub-regional education authorities	Central/state education authorities	Other
			(1)	(2)	(3)	(4)	(5)	(6)	(7)
OECD	Australia	All	m	m	a	a	m	m	m
	Austria	All (Academic)[1]	PA	FA	FA	NR	a	NR	a
		All (New and Lower)[2]	PA	FA	FA	NR	a	NR	a
	Belgium (Fl.)	All	PA	PA	NR	NR	NR	PA	a
	Belgium (Fr.)	All	FA	VC	NR	NR	NR	PA	a
	Canada	m	m	m	m	m	m	m	m
	Chile	All	FA	VC	a	NR	a	PA	a
	Czech Republic	All	PA	FA	NR	NR	NR	NR	a
	Denmark	All	NR	FA	a	NR	NR	NR	a
	England	All	FA	PA	NR	NR	a	NR	a
	Estonia	All	FA	PA	a	PA	a	NR	a
	Finland	All	PA	VC	a	a	NR	NR	a
	France	All	PA	VC	PA	NR	NR	VC	PA
	Germany	All	FA	VC	NR	NR	NR	NR	a
	Greece	All	FA	PA	PA	NR	PA	PA	a
	Hungary	All	PA	NR	NR	NR	NR	NR	a
	Iceland	All	PA	PA	a	NR	a	NR	a
	Ireland	All	PA	PA	NR	a	a	PA	a
	Israel	All	FA	VC	VC	OT	OT	NR	a
	Italy	All	FA	PA	PA	PA	PA	PA	a
	Japan	All	PA	PA	a	VC	VC	PA	a
	Korea	All	FA	PA	PA	PA	PA	PA	a
	Luxembourg	All	FA	PA	NR	NR	NR	NR	NR
	Mexico	General	FA	NR	NR	NR	PA	PA	a
		Vocational	a	a	a	a	a	a	a
	Netherlands	All	PA	PA	NR	NR	NR	NR	NR
	New Zealand	m	m	m	m	m	m	m	m
	Norway	All	m	VC	m	VC	m	m	a
	Poland	All	FA	PA	PA	PA	PA	PA	a
	Portugal	All	FA	NR	NR	NR	NR	NR	NR
	Scotland	All	PA	PA	NR	PA	a	NR	m
	Slovak Republic	All	FA	NR	NR	NR	NR	NR	NR
	Slovenia	All	FA	VC	a	a	a	PA	a
	Spain	All	FA	NR	NR	NR	NR	VC	a
	Sweden	All	OT	OT	NR	FA	NR	NR	a
	Switzerland	All	m	m	m	m	m	m	m
	Turkey	All	PA	VC	PA	VC	VC	FA	a
	United States	All	m	m	m	m	m	m	m
Partners	Brazil	All	FA	VC	a	VC	VC	NR	m
	Russian Federation	All	PA	VC	NR	NR	NR	NR	a

Role in deciding professional development activities
FA: Decides in full autonomy
PA: Proposes the activities
VC: Validates the choice
OT: Other
NR: No role

Notes: Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions. Please refer to Annex 3 for additional information.
1. "All (Academic)" refers to "Academic secondary school, lower level".
2. "All (New and Lower)" refers to "New secondary school and lower secondary school".
Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
Please refer to the Reader's Guide for information concerning the symbols replacing missing data.
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Table D7.3c [2/2] Non-compulsory teachers' professional development, lower secondary education (2013)

In public institutions

		Type of subjects	Professional development activities planned in the context of individual school development priorities	Funding and support strategies for professional development: Costs subsidised or shared by the government	Participation cost covered	Paid teachers' leave of absence	Cost of substitute teachers covered	Separate school budget allocated
			(8)	(9)	(10)	(11)	(12)	(13)
OECD	Australia	All	m	m	m	m	m	m
	Austria	All (Academic)[1]	Yes, but not exclusively	Partially	Partially	Often	Always	No
		All (New and Lower)[2]	Yes, but not exclusively	Partially	Partially	Often	Always	No
	Belgium (Fl.)	All	Yes, but not exclusively	Partially	Partially	Often	a	Yes
	Belgium (Fr.)	All	No	Never	a	a	a	a
	Canada	m	m	m	m	m	m	m
	Chile	All	Yes, but not exclusively	Partially	m	m	m	m
	Czech Republic	All	Yes, exclusively	Partially	Partially	Sometimes	Often	Yes
	Denmark	All	Yes, but not exclusively	Partially	m	m	m	m
	England	All	Yes, but not exclusively	Partially	Partially	Sometimes	Sometimes	No
	Estonia	All	No	Never	a	a	a	a
	Finland	All	m	m	m	m	m	m
	France	All	Yes, but not exclusively	Partially	Partially	Always	Sometimes	No
	Germany	All	Yes, but not exclusively	Totally	Totally	Always	Always	Yes
	Greece	All	Yes, but not exclusively	Totally	Totally	Sometimes	Sometimes	No
	Hungary	All	Yes, but not exclusively	m	m	m	m	m
	Iceland	All	Yes, but not exclusively	Partially	Totally	Sometimes	Always	m
	Ireland	All	Yes, but not exclusively	Partially	Partially	Often	Often	No
	Israel	All	Yes, but not exclusively	Totally	Totally	Never	Always	Yes
	Italy	All	Yes, but not exclusively	Partially	Totally	Sometimes	Sometimes	Yes
	Japan	All	Yes, exclusively	Partially	Partially	Never	m	Yes
	Korea	All	Yes, but not exclusively	Partially	Partially	Sometimes	Sometimes	Yes
	Luxembourg	All	Yes, but not exclusively	Partially	Partially	Never	Always	No
	Mexico	General	No	Totally	Totally	a	a	No
		Vocational	a	a	a	a	a	a
	Netherlands	All	m	Partially	Partially	Sometimes	Sometimes	Yes
	New Zealand	m	m	m	m	m	m	m
	Norway	All	Yes, but not exclusively	Partially	Partially	Often	Sometimes	m
	Poland	All	No	Partially	Partially	Sometimes	Sometimes	No
	Portugal	All	Yes, but not exclusively	Never	a	a	a	a
	Scotland	All	Yes, but not exclusively	m	m	m	m	m
	Slovak Republic	All	No	Never	a	a	a	a
	Slovenia	All	Yes, but not exclusively	Partially	Partially	Always	Always	Yes
	Spain	All	No	Partially	Partially	Never	Never	No
	Sweden	All	Yes, but not exclusively	Partially	Partially	Sometimes	m	No
	Switzerland	All	m	m	m	m	m	m
	Turkey	All	Yes, but not exclusively	Partially	Partially	Sometimes	a	No
	United States	All	Yes, but not exclusively	m	m	m	m	m
Partners	Brazil	All	No	Partially	Partially	Sometimes	Always	m
	Russian Federation	All	No	m	m	m	m	m

Role in deciding professional development activities
FA: Decides in full autonomy
PA: Proposes the activities
VC: Validates the choice
OT: Other
NR: No role

Notes: Federal states or countries with highly decentralised school systems may have different regulations in states, provinces or regions. Please refer to Annex 3 for additional information.
1. "All (Academic)" refers to "Academic secondary school, lower level".
2. "All (New and Lower)" refers to "New secondary school and lower secondary school".
Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).
Please refer to the Reader's Guide for information concerning the symbols replacing missing data.
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Annex

1

Characteristics of Education Systems

All tables in Annex 1 are available on line at:

StatLink *http://dx.doi.org/10.1787/888933120632*

Table X1.1a. [1/2] **Upper secondary graduation rate: Typical graduation ages and method used to calculate graduation rates (2012)**

The typical age refers to the age of the students at the beginning of the school year; students will generally be one year older than the age indicated when they graduate at the end of the school year. The typical age is used for the gross graduation rate calculation

		Typical graduation ages						
			Programme orientation		Educational/labour market destination			
		First-time	General programmes	Pre-vocational or vocational programmes	ISCED 3A programmes	ISCED 3B programmes	ISCED 3C short programmes[1]	ISCED 3C long programmes[1]
OECD	Australia	17	17	17	17	a	17	17
	Austria	17-18	17-18	17-19	17-18	17-19	14-15	16-17
	Belgium	18	18	18	18	a	18	18
	Canada	17-18	17-18	17-18	17-18	a	a	17-18
	Chile	17	17	17	17	a	a	a
	Czech Republic	18-19	18-19	17-19	18-19	18-19	a	17-18
	Denmark	18-19	18-19	20-21	18-19	a	27	20-21
	Estonia	19	19	19	19	19	a	19
	Finland	19	19	19	19	a	a	a
	France	17-19	17-18	16-19	17-18	18-20	16-18	18-20
	Germany	19-20	19-20	19-20	19-20	19-20	19-20	a
	Greece	18	18	18	18	a	18	18
	Hungary	18	18	18-19	18	a	18	18-19
	Iceland	19	19	17	19	20	19	19
	Ireland	18-19	18	19	18	a	19	18
	Israel	17	17	17	17	a	a	17
	Italy	19	19	18	19	18	17	a
	Japan	17	17	17	17	17	15	17
	Korea	18	18	18	18	a	a	18
	Luxembourg	17-20	17-18	17-20	17-19	18-20	16-18	17-19
	Mexico	17-18	17-18	17-18	17-18	a	a	17-18
	Netherlands	17-19	17	19	17	a	a	18
	New Zealand	17-18	17-18	17-18	18	17	16	17
	Norway	18-20	18	19-20	18	a	m	19-20
	Poland	18-19	19	20	19	a	a	19
	Portugal	17	17	18	m	m	m	m
	Slovak Republic	18-19	19	19	19-20	a	17	18-19
	Slovenia	18	18	16-18	18	18	16	17
	Spain	17	17	17	17	17	17	17
	Sweden	18	18	18	18	18	18	18
	Switzerland	18-20	18-20	18-20	18-20	18-20	17-19	18-20
	Turkey	17	17	17	17	a	m	a
	United Kingdom	16	16	16	18	18	16	16
	United States	17	17	m	17	m	m	m
Partners	Argentina	17	17	17	17	a	a	a
	Brazil	17-18	17-18	18-19	17-18	18-19	a	a
	China	17	17	17	17	m	17	17
	Colombia	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m
	Indonesia	17	17	17	17	17	a	a
	Latvia	19	19	19	19	a	a	19
	Russian Federation	17	17	17	17	17	16	17
	Saudi Arabia	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m

1. Duration categories for ISCED 3C: short – at least one year shorter than ISCED 3A/3B programmes; long – of similar duration to ISCED 3A or 3B programmes.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933120651

Table X1.1a. [2/2] **Upper secondary graduation rate: Typical graduation ages and method used to calculate graduation rates (2012)**

		Graduation rate calculation: Gross versus net						
			Programme orientation		Educational/labour market destination			
		First-time	General programmes	Pre-vocational or vocational programmes	ISCED 3A programmes	ISCED 3B programmes	ISCED 3C short programmes[1]	ISCED 3C long programmes[1]
OECD	Australia	net	net	net	net	a	m	net
	Austria	net	net	net	net	net	net	net
	Belgium	m	net	net	net	a	net	net
	Canada	net	net	net	net	a	a	net
	Chile	net	net	net	net	a	a	a
	Czech Republic	net	net	net	net	net	a	net
	Denmark	net	net	net	net	a	net	net
	Estonia	m	net	net	net	net	a	net
	Finland	net	net	net	net	a	a	a
	France	m	net	net	net	net	net	net
	Germany	gross	gross	gross	gross	gross	gross	a
	Greece	gross	gross	gross	gross	a	m	gross
	Hungary	net	net	net	net	a	m	net
	Iceland	net	net	net	net	net	net	net
	Ireland	net	net	net	net	a	net	net
	Israel	net	net	net	net	a	a	net
	Italy	gross	net	gross	net	gross	gross	a
	Japan	gross	gross	gross	gross	gross	m	gross
	Korea	gross	gross	gross	gross	a	a	gross
	Luxembourg	net	net	net	net	net	net	net
	Mexico	net	net	net	net	a	a	net
	Netherlands	net	net	net	net	a	a	net
	New Zealand	net	net	m	net	m	net	m
	Norway	net	net	net	net	a	m	net
	Poland	net	net	net	net	a	a	net
	Portugal	m	net	net	m	m	m	m
	Slovak Republic	net	net	net	net	a	net	net
	Slovenia	gross	net	gross	net	gross	net	gross
	Spain	gross	gross	gross	gross	gross	gross	gross
	Sweden	net	net	net	net	a	a	net
	Switzerland	m	net	net	net	net	net	net
	Turkey	net	net	net	net	a	m	a
	United Kingdom	gross	m	m	m	m	gross	gross
	United States	net	m	m	m	m	m	m
Partners	Argentina	m	net	net	net	a	a	a
	Brazil	m	net	net	net	net	a	a
	China	gross	gross	gross	gross	m	gross	gross
	Colombia	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m
	Indonesia	m	net	net	net	net	a	a
	Latvia	net	net	net	net	n	a	net
	Russian Federation	m	gross	gross	gross	gross	gross	gross
	Saudi Arabia	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m

1. Duration categories for ISCED 3C: short – at least one year shorter than ISCED 3A/3B programmes; long – of similar duration to ISCED 3A or 3B programmes.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table X1.1b. Post-secondary non-tertiary graduation rates: Typical graduation ages and method used to calculate graduation rates (2012)

The typical age refers to the age of the students at the beginning of the school year; students will generally be one year older than the age indicated when they graduate at the end of the school year. The typical age is used for the gross graduation rate calculation

	Typical graduation ages				Graduation rate calculation: Gross versus net			
		Educational/labour market destination				Educational/labour market destination		
	First-time	ISCED 4A programmes	ISCED 4B programmes	ISCED 4C programmes	First-time graduates	ISCED 4A programmes	ISCED 4B programmes	ISCED 4C programmes
OECD								
Australia	18-20	a	a	18-20	net	a	a	net
Austria	18-19	18-19	19-20	23-24	net	net	net	net
Belgium	19-21	19	19-21	19-21	m	net	net	net
Canada	m	m	m	30-34	m	m	m	m
Chile	a	a	a	a	a	a	a	a
Czech Republic	19-20	19-20	a	19-20	net	net	a	net
Denmark	21	21	a	a	net	net	a	a
Estonia	21	a	21	a	m	a	net	a
Finland	35-39	a	a	35-39	net	a	a	net
France	m	m	m	m	m	gross	a	gross
Germany	22	22	22	a	gross	gross	gross	a
Greece	20	a	a	20	m	a	a	net
Hungary	a	a	a	19-20	net	a	a	net
Iceland	a	a	a	26	net	a	a	net
Ireland	23	a	a	23	net	a	a	net
Israel	m	m	m	a	m	m	m	a
Italy	20	a	a	20	gross	a	a	gross
Japan	18	18	18	18	m	m	m	m
Korea	a	a	a	a	a	a	a	a
Luxembourg	21-25	a	a	21-25	net	a	a	net
Mexico	a	a	a	a	a	a	a	a
Netherlands	20	a	a	20	net	a	a	net
New Zealand	18	18	18	18	net	net	net	net
Norway	20-22	20-22	a	21-22	net	net	a	net
Poland	21	a	a	21	net	a	a	net
Portugal	21	a	a	a	net	a	a	a
Slovak Republic	21	21-22	a	a	net	net	a	a
Slovenia	19-20	19-20	19-20	a	net	net	net	a
Spain	a	a	a	a	a	a	a	a
Sweden	19-22	m	m	19-22	m	m	m	net
Switzerland	21-23	21-23	21-23	a	m	net	net	a
Turkey	a	a	a	a	a	a	a	a
United Kingdom	a	a	a	a	a	a	a	a
United States	m	m	m	m	m	m	m	m
Partners								
Argentina	a	a	a	a	a	a	a	a
Brazil	a	a	a	a	a	a	a	a
China	a	m	m	m	m	m	net	m
Colombia	18	18	18	18	m	gross	gross	gross
India	m	m	m	m	m	m	m	m
Indonesia	m	m	m	m	m	m	m	m
Latvia	a	a	a	a	a	a	a	a
Russian Federation	18	a	a	18	m	a	a	m
Saudi Arabia	m	m	m	m	m	m	m	m
South Africa	m	m	m	m	m	m	m	m

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table X1.1c. [1/2] Tertiary graduation rate: Typical graduation ages and method used to calculate graduation rates (2012)

The typical age refers to the age of the students at the beginning of the school year; students will generally be one year older than the age indicated when they graduate at the end of the school year. The typical age is used for the gross graduation rate calculation

		Typical graduation ages						
					Tertiary-type A (first and second degrees)			
		First-time tertiary-type B	Tertiary-type B (first degree)	First-time tertiary-type A	3 to less than 5 years	5 to 6 years	More than 6 years	Advanced research programmes
OECD	Australia	21	21	23	23	23	23	m
	Austria	21-23	21-23	23-25	22-24	24-26	a	27-29
	Belgium	21-22	21-22	21	m	m	m	27-29
	Canada	21-24	21-24	22-24	22	23-24	25	27-29
	Chile	21-25	21-25	24-26	23-26	24-26	25-26	30-34
	Czech Republic	21-22	21-22	22-24	22-24	25-26	a	30-34
	Denmark	23-25	23-25	24	24	26	25-29	30-34
	Estonia	22	22	22-24	22	24	a	30-34
	Finland	30-34	30-34	25-29	24	a	a	30-34
	France	19-23	19-23	19-24	19-22	21-24	27-29	26-28
	Germany	21-23	21-23	24-27	24-26	25-27	a	28-29
	Greece	24-25	24-25	23-24	23-24	23-24	a	30-34
	Hungary	20	20	22-24	21-23	23-24	a	30-34
	Iceland	25	25	23	23	25	a	29
	Ireland	20-21	20-21	21	21	23	25	27
	Israel	m	m	26-27	26-27	27-29	a	30-34
	Italy	22-23	22-23	23	23	25	a	30-34
	Japan	19	19	21-23	21	23	a	26
	Korea	20	20	22-24	22-26	24-25	a	30-34
	Luxembourg	20-25	20-25	21-25	21-22	23-24	24-25	26-28
	Mexico	20	20	23	23	23-26	m	24-28
	Netherlands	27	27	23	23	a	a	m
	New Zealand	19-21	19-21	21-23	21-23	23	24	27-28
	Norway	24	24	22-27	22-23	24-25	26-27	29-34
	Poland	22	22	23-25	23	25	a	25-29
	Portugal	35-39	35-39	22	22	>40	a	>40
	Slovak Republic	21-22	21-22	21-22	21-22	23	a	26-27
	Slovenia	23-25	23-25	23-26	23-24	25-26	a	28
	Spain	19	19	20-22	20	22	a	26-28
	Sweden	21-23	21-23	25	25	25	n	30-34
	Switzerland	23-29	23-29	24-26	24-26	25-27	25-27	30-34
	Turkey	21	21	22-24	23-24	25-26	a	30-34
	United Kingdom	19-24	19-24	20-25	20-22	22-24	23-25	25-29
	United States	19	19	21	21	23	24	26
Partners	Argentina	20-24	20-24	21-24	21-22	22-23	23-24	25-29
	Brazil	21-23	21-23	22-24	22-24	m	m	30-34
	China	20	20	21	21	22	22	27
	Colombia	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m
	Indonesia	24	24	22	22	24	26	27
	Latvia	21-23	21-23	23-25	22-25	a	a	30-34
	Russian Federation	20	20	22	21	22	23	m
	Saudi Arabia	20	20	21	21	21	21	27
	South Africa	20	20	21	21	22	22	25

Note: Where tertiary-type A data are available by duration of programme, the graduation rate for all programmes is the sum of the graduation rates by duration of programme.

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table X1.1c. [2/2] Tertiary graduation rate: Typical graduation ages and method used to calculate graduation rates (2012)

		Graduation rate calculation: Gross versus net											
		Tertiary-type B (ISCED 5B)				Tertiary-type A (ISCED 5A)						Advanced research programmes (ISCED 6)	
		First-time		First degree		First-time		First degree		Second degree			
		Graduation rate (all students)	Graduation rate for international/ foreign students only	Graduation rate (all students)	Graduation rate for international/ foreign students only	Graduation rate (all students)	Graduation rate for international/ foreign students only	Graduation rate (all students)	Graduation rate for international/ foreign students only	Graduation rate (all students)	Graduation rate for international/ foreign students only	Graduation rate (all students)	Graduation rate for international/ foreign students only
OECD	Australia	**net**	*net*	net	*net*	**net**	*net*	net	*net*	net	*net*	**net**	*net*
	Austria	**net**	*net*	net	*net*	**net**	*net*	net	*net*	net	*net*	**net**	*net*
	Belgium	**m**	*m*	net	*m*	**m**	*m*	net	*m*	net	*m*	**net**	*m*
	Canada	**net**	*net*	net	*net*	**net**	*net*	net	*net*	net	*net*	**net**	*net*
	Chile	**net**	*net*	net	*net*	**net**	*net*	net	*net*	net	*net*	**net**	*net*
	Czech Republic	**net**	*net*	net	*net*	**net**	*net*	net	*net*	net	*net*	**net**	*net*
	Denmark	**net**	*net*	net	*net*	**net**	*net*	net	*net*	net	*net*	**net**	*net*
	Estonia	**m**	*m*	net	*m*	**m**	*m*	net	*m*	net	*m*	**net**	*m*
	Finland	**net**	*net*	net	*net*	**net**	*m*	net	*net*	net	*net*	**net**	*net*
	France	**m**	*m*	gross	*m*	**m**	*m*	gross	*m*	gross	*m*	**gross**	*m*
	Germany	**gross**	*m*	gross	*m*	**net**	*net*	net	*net*	net	*net*	**net**	*net*
	Greece	**m**	*m*	net	*m*	**m**	*m*	net	*m*	gross	*m*	**gross**	*m*
	Hungary	**net**	*m*	net	*m*	**net**	*m*	net	*m*	net	*m*	**net**	*m*
	Iceland	**net**	*net*	net	*net*	**net**	*net*	net	*net*	net	*net*	**net**	*net*
	Ireland	**net**	*m*	net	*net*	**net**	*m*	net	*net*	net	*net*	**net**	*net*
	Israel	**m**	*m*	m	*m*	**net**	*m*	net	*m*	net	*m*	**net**	*m*
	Italy	**gross**	*m*	gross	*gross*	**net**	*m*	net	*m*	net	*m*	**net**	*m*
	Japan	**gross**	*m*	gross	*m*	**gross**	*m*	gross	*m*	gross	*m*	**gross**	*m*
	Korea	**m**	*m*	net	*m*	**m**	*m*	net	*m*	net	*m*	**net**	*m*
	Luxembourg	**net**	*m*	net	*m*	**net**	*m*	net	*m*	net	*m*	**net**	*m*
	Mexico	**net**	*m*	net	*m*	**net**	*m*	net	*m*	gross	*m*	**gross**	*m*
	Netherlands	**net**	*net*	net	*net*	**net**	*net*	net	*net*	net	*net*	**net**	*net*
	New Zealand	**net**	*net*	net	*net*	**net**	*net*	net	*net*	net	*net*	**net**	*net*
	Norway	**net**	*m*	net	*m*	**net**	*net*	net	*net*	net	*net*	**net**	*net*
	Poland	**net**	*m*	net	*m*	**net**	*net*	net	*net*	gross	*net*	**net**	*gross*
	Portugal	**net**	*net*	net	*net*	**net**	*net*	net	*net*	net	*net*	**net**	*net*
	Slovak Republic	**net**	*m*	net	*m*	**net**	*net*	net	*net*	net	*net*	**net**	*net*
	Slovenia	**net**	*net*	net	*net*	**net**	*net*	net	*net*	net	*net*	**net**	*net*
	Spain	**net**	*m*	net	*m*	**net**	*net*	net	*net*	net	*net*	**net**	*m*
	Sweden	**net**	*m*	net	*net*	**net**	*net*	net	*net*	net	*net*	**net**	*net*
	Switzerland	**gross**	*m*	net	*m*	**net**	*net*	net	*net*	net	*net*	**net**	*net*
	Turkey	**net**	*m*	net	*m*	**net**	*m*	net	*m*	net	*m*	**net**	*m*
	United Kingdom	**m**	*m*	net	*net*	**m**	*m*	net	*net*	net	*net*	**net**	*net*
	United States	**gross**	*gross*	gross	*gross*	**gross**	*gross*	gross	*gross*	gross	*gross*	**gross**	*gross*
Partners	Argentina	**m**	*m*	gross	*m*	**m**	*m*	gross	*m*	gross	*m*	**gross**	*m*
	Brazil	**m**	*m*	net	*m*	**m**	*m*	net	*m*	net	*m*	**net**	*m*
	China	**m**	*m*	gross	*m*	**m**	*m*	gross	*m*	gross	*m*	**gross**	*m*
	Colombia	**m**	*m*	gross	*m*	**m**	*m*	gross	*m*	gross	*m*	**gross**	*m*
	India	**m**	*m*	m	*m*	**m**	*m*	m	*m*	m	*m*	**m**	*m*
	Indonesia	**m**	*m*	net	*m*	**m**	*m*	net	*m*	net	*m*	**net**	*m*
	Latvia	**net**	*m*	net	*m*	**net**	*m*	net	*m*	net	*m*	**net**	*m*
	Russian Federation	**m**	*m*	gross	*m*	**m**	*m*	gross	*m*	gross	*m*	**gross**	*m*
	Saudi Arabia	**gross**	*gross*	gross	*gross*	**gross**	*gross*	gross	*gross*	gross	*gross*	**gross**	*gross*
	South Africa	**m**	*m*	gross	*m*	**m**	*m*	gross	*m*	gross	*m*	**gross**	*m*

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Table X1.1d. Tertiary entry rate: Typical age of entry and method used to calculate entry rates (2012)

		Typical age of entry			Entry rate calculation: Gross versus net			Entry rate calculation: Gross versus net		
					All students			International students		
		ISCED 5A	ISCED 5B	ISCED 6	ISCED 5A	ISCED 5B	ISCED 6	ISCED 5A	ISCED 5B	ISCED 6
OECD	Australia	18	18	22-23	net	m	net	net	m	net
	Austria	19-20	20-21	25-26	net	net	net	net	net	net
	Belgium	18-19	18-19	m	net	net	m	m	m	m
	Canada	m	m	m	m	m	m	m	m	m
	Chile	18	18-19	26-27	net	net	net	net	net	net
	Czech Republic	19-20	19-20	24-25	net	net	net	net	net	net
	Denmark	20-21	20-21	25-27	net	net	net	net	net	net
	Estonia	19	19	24	net	net	net	m	m	m
	Finland	19	a	26-28	net	a	net	m	a	m
	France	18	19	23-25	net	m	net	m	m	m
	Germany	19-21	19-21	26-27	net	net	net	net	m	net
	Greece	18	18	24	net	net	m	m	m	m
	Hungary	19	19	25	net	net	net	m	m	m
	Iceland	20	20	25	net	net	net	net	m	net
	Ireland	18	18	m	net	net	m	net	net	m
	Israel	22-24	18	27-29	net	net	net	m	m	m
	Italy	19	18	25-26	net	net	net	m	m	m
	Japan	18	18	24	net	net	net	m	m	m
	Korea	18	18	24-29	net	net	net	m	m	m
	Luxembourg	m	m	m	net	net	net	m	m	m
	Mexico	18	18	24	net	net	net	m	m	m
	Netherlands	18-19	17-18	22-23	net	net	net	net	net	net
	New Zealand	18	18	23-24	net	net	net	net	net	net
	Norway	19-20	19	26-27	net	net	net	net	net	net
	Poland	19-20	19-20	m	net	net	m	net	m	m
	Portugal	18	18	22-24	net	net	net	net	net	net
	Slovak Republic	19	20	24	net	net	net	net	m	net
	Slovenia	19	19	24-26	net	net	net	net	net	net
	Spain	18	19-20	25	net	net	m	net	m	m
	Sweden	19	19	25-27	net	net	net	net	net	net
	Switzerland	21	26	27	net	net	net	net	m	net
	Turkey	18-19	18-19	26-27	net	net	net	m	m	m
	United Kingdom	18	18	22-24	net	net	net	net	net	net
	United States	18	18	24	net	m	m	gross	m	m
Partners	Argentina	18	18	25	net	net	net	m	m	m
	Brazil	m	m	m	m	m	m	m	m	m
	China	17	17	21	gross	gross	gross	m	m	m
	Colombia	m	m	m	m	m	m	net	net	m
	India	m	m	m	m	m	m	m	m	m
	Indonesia	18	18	25-26	net	net	net	m	m	m
	Latvia	18	18	22	net	net	m	net	net	m
	Russian Federation	18	18	23-24	gross	gross	gross	m	m	m
	Saudi Arabia	18-22	18	24	gross	gross	gross	gross	gross	gross
	South Africa	m	m	m	m	m	m	m	m	m

Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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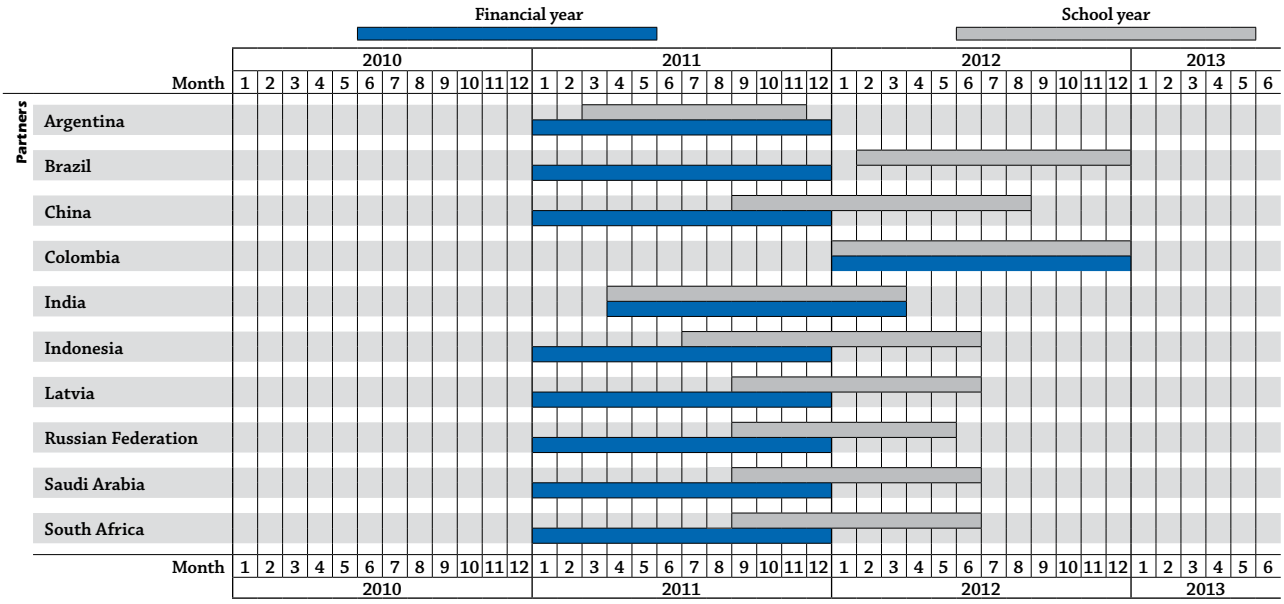
Table X1.2a. School year and financial year used for the calculation of indicators, OECD countries

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

StatLink http://dx.doi.org/10.1787/888933120727

Table X1.2b. **School year and financial year used for the calculation of indicators, partner countries**



Sources: OECD. Argentina, China, Colombia, India, Indonesia, Saudi Arabia, South Africa: UNESCO Institute for Statistics. Latvia: Eurostat. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

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Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Annex

2

Reference Statistics

All tables in Annex 2 are available on line at:

StatLink *http://dx.doi.org/10.1787/888933120765*

Table X2.1. Overview of the economic context using basic variables (reference period: calendar year 2011, 2011 current prices)

		Total public expenditure as a percentage of GDP	GDP per capita (in equivalent USD converted using PPPs)	GDP deflator (2005 = 100)	GDP deflator (2000 = 100)
		(1)	(2)	(3)	(4)
OECD	Australia	33.5	43 208	125.9	150.3
	Austria	50.8	42 978	111.2	120.3
	Belgium	53.5	40 093	112.7	125.1
	Canada[1]	41.8	37 480	115.0	129.4
	Chile[2]	m	21 486	125.3	177.3
	Czech Republic	43.2	27 046	105.6	118.6
	Denmark	57.7	41 843	115.1	129.1
	Estonia	37.7	23 088	132.5	170.2
	Finland	55.3	38 611	111.9	117.0
	France	55.9	36 391	110.7	122.0
	Germany	45.2	40 990	106.3	112.1
	Greece	m	26 622	115.9	135.9
	Hungary	50.1	22 413	125.0	171.5
	Iceland	47.4	38 224	153.7	187.0
	Ireland	47.1	42 943	97.4	118.3
	Israel	39.6	30 168	112.2	119.4
	Italy	49.9	33 870	110.9	126.6
	Japan	42.2	34 967	92.4	86.0
	Korea	30.2	29 035	114.2	131.4
	Luxembourg	42.9	88 668	125.1	144.5
	Mexico	25.5	17 125	137.6	192.0
	Netherlands	49.9	43 150	108.0	124.3
	New Zealand	34.2	31 487	119.0	133.8
	Norway[3]	58.2	46 696	123.2	141.7
	Poland	43.4	21 753	118.1	134.0
	Portugal	49.3	25 672	109.3	127.1
	Slovak Republic	38.2	25 130	108.1	134.5
	Slovenia	50.8	28 156	114.5	148.3
	Spain	45.9	32 157	110.3	135.6
	Sweden	51.5	41 761	112.7	120.6
	Switzerland	33.7	51 582	108.0	112.1
	Turkey	37.4	17 781	157.1	489.7
	United Kingdom	49.6	33 886	117.1	130.9
	United States	37.4	49 321	112.2	126.0
Partners	Argentina	m	10 805	m	m
	Brazil	31.6	11 735	151.1	239.7
	China	m	8 397	m	m
	Colombia	m	10 303	m	m
	India	m	m	m	m
	Indonesia	m	m	m	m
	Latvia	m	19 984	m	m
	Russian Federation	m	22 502	208.0	457.4
	Saudi Arabia	m	m	m	m
	South Africa	m	10 052	m	m

1. Year of reference 2010.
2. Year of reference 2012 instead of 2011. GDP deftators refer to 2001-2012 instead of 2000-2011, and to 2006-2012 instead of 2005-2011.
3. The GDP Mainland market value is used for Norway.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933120784

Table X2.2. Basic reference statistics (reference period: calendar year 2011, 2011 current prices)[1]

		Gross domestic product (in millions of local currency)[2]	Gross domestic product (adjusted to financial year)[3]	Total public expenditure (in millions of local currency)	Total population in thousand (mid-year estimates)	Purchasing power parity for GDP (PPP) (USD = 1)	Purchasing power parity for GDP (PPP) (Euro Zone = 1)	Purchasing power parity for private consumption (PPP) (USD = 1)
		(1)	(2)	(3)	(4)	(5)	(6)	(7)
OECD	Australia	1 486 071		498 406	22 761	1.5111	1.9372	1.5805
	Austria	299 240		151 994	8 389	0.8300	1.0641	0.8574
	Belgium	369 259		197 422	10 978	0.8390	1.0756	0.9056
	Canada[4]	1 719 631	1 576 759	658 901	34 483	1.2200	1.5641	1.2999
	Chile[5]	130 526 894		m	17 450	348.1310	446.3218	370.1642
	Czech Republic	3 823 401		1 653 244	10 497	13.4680	17.2667	15.565
	Denmark	1 791 773		1 034 208	5 569	7.6893	9.8581	8.5705
	Estonia	16 216		6 109	1 340	0.5241	0.6719	0.6214
	Finland	188 679		104 259	5 387	0.9071	1.1629	1.0019
	France	2 001 398		1 118 728	65 115	0.8446	1.0828	0.9019
	Germany	2 609 900		1 178 650	81 779	0.7786	0.9982	0.8503
	Greece	208 532		108 003	11 300	0.6932	0.8887	0.7793
	Hungary	27 635 435		13 834 811	9 972	123.6501	158.5258	145.0074
	Iceland	1 628 677		771 800	319	133.5633	171.2350	145.9209
	Ireland	162 600		76 536	4 577	0.8273	1.0606	0.9621
	Israel	923 900		365 561	7 763	3.9450	5.0577	4.47
	Italy	1 580 410		788 137	60 724	0.7684	0.9852	0.8385
	Japan[6]	478 985 700	477 208 400	199 103 100	127 831	106.7619	136.8742	121.3658
	Korea	1 235 160 500		373 227 400	49 779	854.5857	1095.6227	910.4712
	Luxembourg	41 730		17 882	519	0.9061	1.1617	0.9938
	Mexico	14 351 494		3 655 757	109 220	7.6730	9.8372	8.9529
	Netherlands	599 047		298 715	16 693	0.8317	1.0663	0.8822
	New Zealand	206 546		70 669	4 415	1.4859	1.9050	1.6071
	Norway[7]	2 075 197		1 207 768	4 953	8.9725	11.5032	9.8063
	Poland	1 528 127		663 757	38 526	1.8234	2.3377	1.9923
	Portugal	171 126		84 423	10 622	0.6276	0.8046	0.7147
	Slovak Republic	68 974		26 381	5 398	0.5085	0.6519	0.58
	Slovenia	36 150		18 350	2 053	0.6254	0.8018	0.7078
	Spain	1 046 327		480 111	46 125	0.7054	0.9044	0.7898
	Sweden	3 480 543		1 792 006	9 450	8.8199	11.3075	9.4636
	Switzerland	585 102		196 889	7 869	1.4414	1.8480	1.6538
	Turkey	1 297 713		485 001	73 950	0.9869	1.2653	1.1474
	United Kingdom	1 536 937	1 484 161	736 445	62 735	0.6982	0.8951	0.7046
	United States	15 533 800	15 389 925	5 754 000	312 036	1	1.2821	1
	Euro Zone					0.7800		
Partners	Argentina	1 842 022		m	41 282	4.1297	5.2945	m
	Brazil	4 143 013		1 308 035	195 243	1.8083	2.3183	m
	China	47 310 405		m	1 347 350	4.1819	5.3614	m
	Colombia	621 615 000		m	46 045	1310.3673	1679.9581	m
	India	m		m	1 221 156	19.7865	25.3673	m
	Indonesia[5]	m		1 435 406 700	m	6737.7456	8638.1354	m
	Latvia	14 275		m	2 058	0.3471	0.4450	m
	Russian Federation	55 799 573		m	142 961	17.3456	22.2379	17.4149
	Saudi Arabia	m		m	m	m	m	m
	South Africa	2 659 366		m	50 587	5.2297	6.7047	m

1. Data on GDP, PPPs and total public expenditure in countries in the Euro zone are provided in Euros.
2. GDP calculated for the fiscal year in Australia and GDP and total public expenditure calculated for the fiscal year in New Zealand.
3. For countries where GDP is not reported for the same reference period as data on educational finance, GDP is estimated as: wt-1 (GDPt - 1) + wt (GDPt), where wt and wt-1 are the weights for the respective portions of the two reference periods for GDP which fall within the educational financial year. Adjustments were made in Chapter B for Canada, Japan, the United Kingdom and the United States.
4. Year of reference 2010.
5. Year of reference 2012.
6. Total public expenditure adjusted to financial year.
7. The GDP Mainland market value is used for Norway.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933120803

Table X2.3. [1/3] Basic reference statistics (reference period: calendar year 1995, 2000, 2005, 2008, 2009 and 2010)[1]

		Gross domestic product (in millions of local currency, current prices)					
		1995	2000	2005	2008	2009	2010
		(1)	(2)	(3)	(4)	(5)	(6)
OECD	Australia	529 282	705 562	998 312	1 258 654	1 296 324	1 406 671
	Austria	174 794	208 474	245 243	282 744	276 228	285 165
	Belgium	207 927	252 543	303 435	346 375	340 669	355 740
	Canada	810 426	1 076 577	1 373 845	1 603 418	1 528 985	1 624 608
	Chile[2]	29 336 967	42 094 989	82 018 171	96 443 761	111 007 886	121 492 697
	Czech Republic	1 533 676	2 269 695	3 116 056	3 848 411	3 758 979	3 790 880
	Denmark	1 019 545	1 293 963	1 545 257	1 753 152	1 664 790	1 760 051
	Estonia	2 767	6 160	11 182	16 235	13 970	14 371
	Finland	96 064	132 195	157 429	185 670	172 318	178 724
	France	1 196 181	1 439 603	1 718 047	1 933 195	1 885 763	1 936 720
	Germany	1 848 500	2 047 500	2 224 400	2 473 800	2 374 200	2 495 000
	Greece	88 742	135 043	193 050	233 198	231 081	222 152
	Hungary	5 727 829	13 089 047	22 018 283	26 543 305	25 626 480	26 513 032
	Iceland	454 013	683 747	1 025 740	1 480 346	1 497 934	1 535 932
	Ireland	53 775	105 644	162 897	180 249	162 284	158 097
	Israel	289 555	506 173	600 011	764 697	809 230	866 231
	Italy	952 158	1 198 292	1 436 379	1 575 144	1 519 695	1 551 886
	Japan	501 706 900	509 860 000	503 903 000	501 209 300	471 138 700	482 384 400
	Korea	409 653 600	603 236 000	865 240 900	1 026 451 800	1 065 036 800	1 173 274 900
	Luxembourg	15 108	21 998	30 270	37 372	35 575	39 303
	Mexico	2 013 954	6 020 649	9 220 649	12 153 436	11 893 247	13 029 103
	Netherlands	305 261	417 960	513 407	594 481	573 235	586 789
	New Zealand	95 368	118 377	161 645	185 555	189 718	199 113
	Norway[3]	806 858	1 113 894	1 464 974	1 862 873	1 875 850	1 987 362
	Poland	337 222	744 378	983 302	1 275 508	1 344 505	1 416 585
	Portugal	87 841	127 317	154 269	171 983	168 529	172 860
	Slovak Republic	19 319	31 177	49 314	66 842	62 794	65 897
	Slovenia	10 357	18 566	28 722	37 244	35 420	35 485
	Spain	446 795	629 907	909 298	1 087 788	1 046 894	1 045 620
	Sweden	1 809 575	2 265 447	2 769 375	3 204 320	3 105 790	3 337 531
	Switzerland	383 096	432 405	479 088	567 852	554 372	574 314
	Turkey	10 435	166 658	648 932	950 534	952 559	1 098 799
	United Kingdom	748 200	987 139	1 276 743	1 462 070	1 417 359	1 485 615
	United States[4]	7 664 000	10 289 700	13 095 400	14 720 300	14 417 900	14 958 300
Partners	Brazil	705 641	1 179 482	2 147 240	3 032 204	3 239 404	3 770 085
	Russian Federation	1 427 029	7 298 009	21 609 766	41 276 849	38 807 219	46 308 541

1. Data on GDP and total public expenditure in countries in the Euro zone are provided in Euros.
2. Years of reference 1996, 2001, 2006, 2009, 2010 and 2011 instead of 1995, 2000, 2005, 2008, 2009 and 2010.
3. The GDP Mainland market value is used for Norway.
4. The United States revised its entire GDP series in the past six months. Data presented in current dollars do not match those in X2.2b from *Education at a Glance 2013*.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933120822

Table X2.3. [2/3] Basic reference statistics (reference period: calendar year 1995, 2000, 2005, 2008, 2009 and 2010)[1]

		Total public expenditure (in millions of local currency, current prices)					
		1995	2000	2005	2008	2009	2010
		(7)	(8)	(9)	(10)	(11)	(12)
OECD	Australia	184 270	225 913	309 431	405 784	450 682	473 579
	Austria	98 428	108 287	122 585	139 494	145 333	150 593
	Belgium	108 336	123 943	157 399	172 484	183 071	187 026
	Canada	392 886	442 560	539 234	612 322	619 880	638 212
	Chile[2]	6 705 897	10 559 689	15 327 440	23 797 395	24 273 284	27 847 954
	Czech Republic	813 015	945 255	1 340 123	1 583 527	1 679 551	1 661 774
	Denmark	604 404	694 479	815 717	903 263	967 096	1 016 158
	Estonia	1 142	2 225	3 757	6 441	6 259	5 828
	Finland	59 103	63 903	79 262	91 372	96 708	99 707
	France	650 606	744 119	920 351	1 030 025	1 070 585	1 095 602
	Germany	1 014 050	923 360	1 043 450	1 090 460	1 146 270	1 194 130
	Greece	40 783	63 693	86 097	117 992	124 669	114 302
	Hungary	3 197 916	6 251 647	11 032 047	13 070 489	13 179 236	13 252 926
	Iceland	m	286 259	433 346	853 725	763 327	791 880
	Ireland	22 093	33 010	55 177	77 009	78 500	103 427
	Israel	152 248	261 087	296 289	332 256	350 569	367 301
	Italy	497 257	549 577	688 251	765 537	788 361	782 101
	Japan	181 284 700	193 917 400	183 640 900	188 561 300	197 216 300	195 879 800
	Korea	83 399 300	135 324 800	230 062 600	312 548 300	352 323 300	353 006 600
	Luxembourg	5 996	8 270	12 573	14 624	16 084	17 098
	Mexico	384 960	1 139 998	1 979 808	2 894 807	3 114 065	3 355 288
	Netherlands	172 305	184 612	229 965	274 781	294 782	301 284
	New Zealand	31 743	m	62 645	64 002	64 013	70 450
	Norway[3]	480 575	626 569	818 805	1 018 107	1 101 034	1 149 163
	Poland	147 561	294 012	427 147	551 403	599 837	643 465
	Portugal	36 787	52 983	71 830	77 055	83 842	88 987
	Slovak Republic	9 392	16 255	18 730	23 340	26 079	26 329
	Slovenia	m	8 636	13 011	16 511	17 456	17 894
	Spain	198 730	246 890	349 501	450 948	484 759	485 467
	Sweden	1 175 297	1 248 029	1 491 382	1 657 889	1 706 362	1 746 603
	Switzerland	139 873	151 837	176 236	187 914	185 629	189 561
	Turkey	m	m	m	345 392	410 658	442 178
	United Kingdom	322 956	358 902	553 033	686 738	719 127	738 598
	United States[4]	2 732 629	3 353 547	4 563 353	5 567 081	5 913 918	6 153 839
Partners	Brazil	224 283	394 349	670 514	939 831	1 082 430	1 211 373
	Russian Federation	m	2 016 630	7 380 575	m	m	m

1. Data on GDP and total public expenditure in countries in the Euro zone are provided in Euros.
2. Years of reference 1996, 2001, 2006, 2009, 2010 and 2011 instead of 1995, 2000, 2005, 2008, 2009 and 2010.
3. The GDP Mainland market value is used for Norway.
4. The United States revised its entire GDP series in the past six months. Data presented in current dollars do not match those in X2.2b from *Education at a Glance 2013*.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table X2.3. [3/3] Basic reference statistics (reference period: calendar year 1995, 2000, 2005, 2008, 2009 and 2010)[1]

		Gross domestic product (in millions of local currency, 2011 constant prices)			Total public expenditure (in millions of local currency, 2011 constant prices)		
		2008	2009	2010	2008	2009	2010
		(13)	(14)	(15)	(16)	(17)	(18)
OECD	Australia	1 375 819	1 402 865	1 434 244	443 558	487 722	482 862
	Austria	297 293	285 925	291 003	146 672	150 435	153 676
	Belgium	364 791	354 574	362 822	181 655	190 543	190 749
	Canada	1 671 305	1 624 953	1 677 274	638 247	658 787	658 901
	Chile[2]	110 452 877	116 818 603	123 656 889	27 254 129	25 543 871	28 344 020
	Czech Republic	3 837 505	3 664 553	3 754 953	1 579 039	1 637 361	1 646 025
	Denmark	1 853 636	1 748 645	1 772 834	955 034	1 015 808	1 023 538
	Estonia	16 799	14 432	14 801	6 665	6 466	6 002
	Finland	194 283	177 686	183 665	95 611	99 721	102 464
	France	1 990 948	1 928 281	1 961 536	1 060 796	1 094 723	1 109 640
	Germany	2 560 001	2 428 276	2 525 710	1 128 458	1 170 839	1 205 713
	Greece	243 803	236 157	224 476	123 358	127 407	115 498
	Hungary	28 879 245	26 925 469	27 209 655	14 220 756	13 847 282	13 601 143
	Iceland	1 770 149	1 653 991	1 586 198	1 020 856	842 852	817 795
	Ireland	171 830	160 862	159 143	73 412	77 813	104 111
	Israel	825 824	836 130	883 492	360 815	363 329	376 084
	Italy	1 636 078	1 546 188	1 572 878	795 152	802 104	792 681
	Japan	478 719 139	452 242 239	473 315 676	180 100 216	189 306 336	192 197 301
	Korea	1 116 963 517	1 120 497 242	1 191 330 100	340 108 565	370 670 089	358 438 920
	Luxembourg	42 053	39 717	40 949	16 456	17 957	17 814
	Mexico	13 948 277	13 111 724	13 809 745	3 322 317	3 433 105	3 556 321
	Netherlands	606 723	584 488	593 435	280 440	300 569	304 625
	New Zealand	198 840	201 811	202 120	68 584	68 093	71 514
	Norway[3]	2 022 838	1 989 836	2 023 518	1 105 532	1 167 938	1 170 070
	Poland	1 384 908	1 407 547	1 462 014	598 697	627 963	664 100
	Portugal	175 091	169 991	173 288	78 447	84 569	89 207
	Slovak Republic	67 467	64 142	66 975	23 558	26 639	26 760
	Slovenia	38 509	35 448	35 895	17 071	17 470	18 101
	Spain	1 089 665	1 047 939	1 045 810	451 726	485 243	485 555
	Sweden	3 341 343	3 173 393	3 381 351	1 728 784	1 743 504	1 769 535
	Switzerland	569 329	558 302	576 450	188 403	186 945	190 266
	Turkey	1 148 373	1 092 921	1 193 023	417 280	471 170	480 096
	United Kingdom	1 576 650	1 495 115	1 520 013	740 556	758 578	755 700
	United States[4]	15 307 038	14 878 116	15 251 973	5 788 980	6 102 689	6 274 656
Partners	Brazil	3 762 637	3 750 286	4 121 383	1 166 228	1 253 138	1 324 250
	Russian Federation	55 541 270	51 198 261	53 504 548	m	m	m

1. Data on GDP and total public expenditure in countries in the Euro zone are provided in Euros.
2. Years of reference 1996, 2001, 2006, 2009, 2010 and 2011 instead of 1995, 2000, 2005, 2008, 2009 and 2010.
3. The GDP Mainland market value is used for Norway.
4. The United States revised its entire GDP series in the past six months. Data presented in current dollars do not match those in X2.2b from *Education at a Glance 2013*.

Source: OECD. See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table X2.4a. [1/2] Teachers' statutory salaries at different points in their careers (2012)

Annual salaries in public institutions, in national currency

		Pre-primary education				Primary education			
		Starting salary, minimum training	Salary after 10 years of experience, minimum training	Salary after 15 years of experience, minimum training	Salary at top of scale, minimum training	Starting salary, minimum training	Salary after 10 years of experience, minimum training	Salary after 15 years of experience, minimum training	Salary at top of scale, minimum training
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
OECD	Australia	56 360	78 425	78 095	78 667	57 054	78 949	78 619	79 190
	Austria	27 781	32 696	36 653	54 609	27 781	32 696	36 653	54 609
	Belgium (Fl.)	29 662	37 252	41 968	51 399	29 662	37 252	41 968	51 399
	Belgium (Fr.)[1]	29 170	36 477	41 070	50 255	29 170	36 477	41 070	50 255
	Canada	47 614	71 482	74 981	74 981	47 614	71 482	74 981	74 981
	Chile	6 629 499	8 484 483	9 224 259	12 183 363	6 629 499	8 484 483	9 224 259	12 183 363
	Czech Republic	234 503	247 292	255 519	277 830	251 986	274 569	287 251	323 924
	Denmark	359 560	381 418	391 970	391 970	375 746	420 205	435 268	435 268
	England	21 588	31 552	31 552	31 552	21 588	31 552	31 552	31 552
	Estonia	m	m	m	m	7 298	7 728	7 728	10 667
	Finland[2]	27 029	29 191	29 191	29 191	31 663	36 651	38 850	41 181
	France[3]	23 077	27 861	29 888	44 072	23 077	27 861	29 888	44 072
	Germany	m	m	m	m	40 999	49 024	50 991	54 436
	Greece	14 104	17 572	20 056	26 752	14 104	17 572	20 056	26 752
	Hungary[4]	1 485 876	1 673 520	1 778 004	2 344 896	1 536 852	1 756 320	1 890 288	2 519 484
	Iceland	3 346 126	3 721 409	3 721 409	4 258 019	3 614 842	3 949 167	4 047 201	4 215 533
	Ireland	m	m	m	m	31 972	46 844	52 472	59 359
	Israel	94 868	114 362	126 521	198 740	84 042	111 804	125 606	176 445
	Italy	23 048	25 355	27 845	33 885	23 048	25 355	27 845	33 885
	Japan	m	m	m	m	3 105 000	4 612 000	5 456 000	6 842 000
	Korea	25 585 200	38 086 800	44 515 200	72 730 800	26 113 200	39 248 400	45 800 400	72 730 800
	Luxembourg	65 492	86 726	97 902	117 349	65 492	86 726	97 902	117 349
	Mexico	141 014	141 848	183 981	302 034	141 014	141 848	183 981	302 034
	Netherlands	32 357	40 071	47 845	47 845	32 357	40 071	47 845	47 845
	New Zealand	m	m	m	m	45 796	68 074	68 074	68 074
	Norway	328 800	381 500	381 500	381 500	335 300	377 000	377 000	421 200
	Poland	22 010	28 926	35 101	36 579	22 010	28 926	35 101	36 579
	Portugal	20 439	22 386	24 326	33 881	20 439	22 386	24 326	33 881
	Scotland	21 438	34 200	34 200	34 200	21 438	34 200	34 200	34 200
	Slovak Republic	5 420	5 964	6 236	6 726	6 064	7 280	7 614	8 210
	Slovenia	18 306	20 307	22 246	22 924	18 306	20 307	22 246	23 369
	Spain	28 089	30 543	32 421	39 763	28 089	30 543	32 421	39 763
	Sweden[4, 5]	282 000	301 200	318 000	334 800	282 000	313 000	322 600	374 000
	Switzerland[6]	69 578	87 155	m	106 996	77 762	97 438	m	120 170
	Turkey	29 862	30 822	32 049	34 653	29 862	30 822	32 079	34 653
	United States[4]	35 952	46 116	45 300	60 984	36 333	44 995	45 998	58 793
Partners	Argentina[5]	38 756	m	49 025	59 234	38 469	m	47 523	58 901
	Brazil	19 298	m	m	m	19 298	m	m	m
	China	m	m	m	m	m	m	m	m
	Colombia	m	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m	m
	Indonesia	8 804 400	m	11 142 000	12 693 600	8 804 400	m	11 142 000	12 693 600
	Latvia	m	m	m	m	m	m	m	m
	Russian Federation	m	m	m	m	m	m	m	m
	Saudi Arabia	m	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m	m

1. Salaries of teachers with typical qualification instead of minimum. Please refer to Annex 3 for salaries of teachers with minimum qualification.
2. Includes kindergarten teachers only for pre-primary education.
3. Includes average bonuses for overtime hours for lower and upper secondary teachers.
4. Actual base salaries.
5. Year of reference 2011.
6. Salaries after 11 years of experience for columns 2, 6, 10 and 14.

Source: OECD. Argentina: UNESCO Institute for Statistics (World Education Indicators Programme). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933120860

Table X2.4a. [2/2] Teachers' statutory salaries at different points in their careers (2012)

Annual salaries in public institutions, in national currency

	Lower secondary education				Upper secondary education			
	Starting salary, minimum training	Salary after 10 years of experience, minimum training	Salary after 15 years of experience, minimum training	Salary at top of scale, minimum training	Starting salary, minimum training	Salary after 10 years of experience, minimum training	Salary after 15 years of experience, minimum training	Salary at top of scale, minimum training
	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)
OECD								
Australia	57 113	79 834	79 834	80 037	57 113	79 834	79 834	80 037
Austria	29 093	35 378	39 748	56 662	29 455	31 713	40 785	59 176
Belgium (Fl.)	29 662	37 252	41 968	51 399	37 061	47 297	53 968	65 086
Belgium (Fr.)[1]	29 170	36 477	41 070	50 255	36 291	46 260	52 757	63 586
Canada	47 614	71 482	74 981	74 981	47 805	71 810	75 281	75 281
Chile	6 629 499	8 484 483	9 224 259	12 183 363	7 042 057	8 994 097	9 772 573	12 886 489
Czech Republic	253 743	277 164	289 504	325 645	260 229	285 374	297 639	337 465
Denmark	375 746	420 205	435 268	435 268	387 439	505 477	505 477	505 477
England	21 588	31 552	31 552	31 552	21 588	31 552	31 552	31 552
Estonia	7 298	7 728	7 728	10 667	7 298	7 728	7 728	10 667
Finland[2]	34 196	39 583	41 958	44 476	36 262	43 550	45 292	48 010
France[3]	25 778	30 562	32 588	46 922	25 778	30 817	32 843	47 203
Germany	45 666	53 261	55 534	60 488	49 625	56 990	59 549	67 975
Greece	14 104	17 572	20 056	26 752	14 104	17 572	20 056	26 752
Hungary[4]	1 536 852	1 756 320	1 890 288	2 519 484	1 640 820	1 973 904	2 184 756	3 089 664
Iceland	3 614 842	3 949 167	4 047 201	4 215 533	3 525 189	3 960 588	4 294 829	4 491 651
Ireland	33 041	48 200	52 472	59 359	33 041	48 200	52 472	59 359
Israel	84 509	103 069	114 923	160 890	81 021	98 196	109 467	159 139
Italy	24 846	27 524	30 340	37 212	24 846	28 193	31 190	38 902
Japan	3 105 000	4 612 000	5 456 000	6 842 000	3 105 000	4 612 000	5 456 000	7 029 000
Korea	26 017 200	39 152 400	45 704 400	72 634 800	26 017 200	39 152 400	45 704 400	72 634 800
Luxembourg	75 997	94 996	104 831	132 101	75 997	94 996	104 831	132 101
Mexico	183 163	188 179	237 759	389 817	m	m	m	m
Netherlands	34 227	48 418	59 356	59 356	34 227	48 418	59 356	59 356
New Zealand	46 298	70 700	70 700	70 700	46 110	71 900	71 900	71 900
Norway	335 300	377 000	377 000	421 200	368 400	405 000	405 000	446 600
Poland	24 787	32 809	40 010	41 702	28 020	37 490	45 785	47 728
Portugal	20 439	22 386	24 326	33 881	20 439	22 386	24 326	33 881
Scotland	21 438	34 200	34 200	34 200	21 438	34 200	34 200	34 200
Slovak Republic	6 064	7 280	7 614	8 210	6 064	7 280	7 614	8 210
Slovenia	18 306	20 307	22 246	23 369	18 306	20 307	22 246	23 369
Spain	30 767	33 437	35 458	43 363	31 573	34 336	36 421	44 595
Sweden[4, 5]	286 800	321 600	333 000	375 500	300 000	337 200	352 600	401 300
Switzerland[6]	88 226	111 013	m	135 691	100 312	128 727	m	153 591
Turkey	31 011	31 971	33 197	35 801	31 011	31 971	33 197	35 801
United States[4]	36 993	43 762	47 046	56 938	38 433	44 819	49 822	56 937
Partners								
Argentina[5]	31 318	m	40 994	49 804	31 318	m	40 994	49 804
Brazil	19 298	m	m	m	19 298	m	m	m
China	m	m	m	m	m	m	m	m
Colombia	m	m	m	m	m	m	m	m
India	m	m	m	m	m	m	m	m
Indonesia	9 384 000	m	12 693 600	13 790 400	10 864 800	m	14 058 000	15 319 200
Latvia	m	m	m	m	m	m	m	m
Russian Federation	m	m	m	m	m	m	m	m
Saudi Arabia	m	m	m	m	m	m	m	m
South Africa	m	m	m	m	m	m	m	m

1. Salaries of teachers with typical qualification instead of minimum. Please refer to Annex 3 for salaries of teachers with minimum qualification.
2. Includes kindergarten teachers only for pre-primary education.
3. Includes average bonuses for overtime hours for lower and upper secondary teachers.
4. Actual base salaries.
5. Year of reference 2011.
6. Salaries after 11 years of experience for columns 2, 6, 10 and 14.

Source: OECD. Argentina: UNESCO Institute for Statistics (World Education Indicators Programme). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933120860

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Table X2.4b. [1/2] Trends in teachers' salaries between 2000 and 2012[1]

Annual statutory teachers' salaries in public institutions for teachers with 15 years of experience and minimum training, by level of education, in national currency

		Primary education					Lower secondary education				
		2000	2005	2010	2011	2012	2000	2005	2010	2011	2012
		(1)	(2)	(7)	(8)	(9)	(10)	(11)	(16)	(17)	(18)
OECD	Australia	50 995	62 240	73 706	76 732	78 619	51 016	62 384	73 706	77 715	79 834
	Austria	25 826	31 050	35 526	35 889	36 653	26 916	33 635	38 451	38 882	39 748
	Belgium (Fl.)	29 579	35 417	40 042	41 094	41 968	31 191	35 417	40 042	41 094	41 968
	Belgium (Fr.)	28 638	33 598	38 875	40 184	41 070	30 482	33 973	38 875	40 184	41 070
	Canada	m	m	71 608	73 154	74 981	m	m	71 608	73 154	74 981
	Chile	m	m	8 493 461	8 785 016	9 224 259	m	m	8 493 461	8 785 016	9 224 259
	Czech Republic[2]	125 501	250 559	310 711	311 793	287 251	125 501	250 559	314 897	314 495	289 504
	Denmark[3]	285 200	332 015	434 802	434 802	435 268	285 200	332 015	434 802	434 802	435 268
	England	23 193	27 123	30 842	31 552	31 552	23 193	27 123	30 842	31 552	31 552
	Estonia	3 068	4 379	7 728	7 728	7 728	3 068	4 379	7 728	7 728	7 728
	Finland	26 506	33 171	37 769	38 222	38 850	31 115	36 109	40 791	41 280	41 958
	France	27 288	28 395	29 674	29 831	29 888	29 456	30 667	32 258	32 537	32 588
	Germany	m	m	47 647	49 587	50 991	m	m	52 784	54 514	55 534
	Greece	16 292	21 237	22 707	21 958	20 056	16 292	21 237	22 707	21 958	20 056
	Hungary[4]	897 168	1 944 576	1 916 568	1 911 204	1 890 288	897 168	1 944 576	1 916 568	1 911 204	1 890 288
	Iceland	1 884 000	2 573 556	3 987 224	3 987 224	4 047 201	1 884 000	2 573 556	3 987 224	3 987 224	4 047 201
	Ireland	33 370	46 591	53 620	52 472	52 472	33 729	46 591	53 620	52 472	52 472
	Israel	68 421	73 496	112 005	121 858	125 606	76 048	82 030	102 514	112 095	114 923
	Italy	20 849	25 234	27 645	27 845	27 845	22 836	27 487	30 121	30 340	30 340
	Japan	6 645 000	6 236 000	5 555 000	5 456 000	5 456 000	6 645 000	6 236 000	5 555 000	5 456 000	5 456 000
	Korea	26 757 000	39 712 000	42 003 257	44 222 400	45 800 400	26 661 000	39 616 000	41 907 257	44 126 400	45 704 400
	Luxembourg	m	62 139	93 182	93 182	97 902	m	81 258	99 782	99 782	104 831
	Mexico	86 748	124 082	163 419	176 627	183 981	109 779	157 816	209 350	224 596	237 759
	Netherlands	m	m	44 288	46 108	47 845	m	m	53 984	56 163	59 356
	New Zealand	49 450	54 979	65 609	67 413	68 074	49 450	54 979	67 295	68 197	70 700
	Norway	m	302 000	349 000	370 000	377 000	m	302 000	349 000	370 000	377 000
	Poland	m	23 328	30 785	32 878	35 101	m	26 935	35 071	37 459	40 010
	Portugal	17 180	22 775	27 038	28 069	24 326	17 180	22 775	27 038	28 069	24 326
	Scotland	22 743	29 827	33 666	34 200	34 200	22 743	29 827	33 666	34 200	34 200
	Slovak Republic	m	m	7 492	7 518	7 614	m	m	7 492	7 518	7 614
	Slovenia	m	17 939	22 433	22 646	22 246	m	17 939	22 433	22 646	22 246
	Spain	22 701	28 122	33 889	32 685	32 421	24 528	31 561	37 820	36 124	35 458
	Sweden[4]	248 300	283 200	m	322 600	m	248 300	290 400	m	333 000	m
	Switzerland[5]	85 513	90 483	96 241	96 923	97 438	102 409	103 037	109 537	110 777	111 013
	Turkey	2 638	17 166	28 144	29 822	32 079	a	a	a	a	33 197
	United States[4]	35 323	40 734	45 226	46 130	45 998	35 185	41 090	45 049	45 950	47 046
Partners	Argentina[4]	m	m	34 842	m	47 523	m	m	31 934	m	40 994
	Brazil	m	m	m	m	m	m	m	m	m	m
	China	m	m	m	m	m	m	m	m	m	m
	Colombia	m	m	m	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m	m	m	m
	Indonesia	m	m	11 142 000	m	11 142 000	m	m	12 693 600	m	12 693 600
	Latvia	m	m	m	m	m	m	m	m	m	m
	Russian Federation	m	m	m	m	m	m	m	m	m	m
	Saudi Arabia	m	m	m	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m	m	m	m

Note: Years 2006, 2007, 2008, 2009 (i.e. columns 3-6; 12-15; 21-24) are available for consultation on line (see *StatLink* below).

1. Data on salaries for countries now in the Euro zone are shown in Euros.
2. Break in time series following methodological changes in 2012.
3. Break in time series following methodological changes in 2009.
4. Actual base salaries.
5. Salaries after 11 years of experience.

Source: OECD. Argentina: UNESCO Institute for Statistics (World Education Indicators Programme). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933120879

Table X2.4b. [2/2] Trends in teachers' salaries between 2000 and 2012[1]

Annual statutory teachers' salaries in public institutions for teachers with 15 years of experience and minimum training, by level of education, in national currency

		Upper secondary education				
		2000	2005	2010	2011	2012
		(19)	(20)	(25)	(26)	(27)
OECD	Australia	51 016	62 384	73 706	77 715	79 834
	Austria	29 728	34 265	39 535	39 927	40 785
	Belgium (Fl.)	39 886	45 301	51 454	52 844	53 968
	Belgium (Fr.)	39 207	43 704	50 108	51 643	52 757
	Canada	m	m	71 886	73 440	75 281
	Chile	m	m	9 004 818	9 307 217	9 772 573
	Czech Republic[2]	152 941	255 125	334 084	335 696	297 639
	Denmark[3]	335 000	404 229	504 046	504 046	505 477
	England	23 193	27 123	30 842	31 552	31 552
	Estonia	3 068	4 379	7 728	7 728	7 728
	Finland	32 681	38 263	43 168	43 686	45 292
	France	29 456	30 895	32 472	32 752	32 843
	Germany	m	m	57 150	58 930	59 549
	Greece	16 292	21 237	22 707	21 958	20 056
	Hungary[4]	1 128 996	2 432 388	2 262 636	2 260 944	2 184 756
	Iceland	2 220 000	3 014 000	4 012 000	4 012 000	4 294 829
	Ireland	33 729	46 591	53 620	52 472	52 472
	Israel	75 097	80 052	93 450	95 590	109 467
	Italy	23 518	28 259	30 966	31 190	31 190
	Japan	6 649 000	6 237 000	5 555 000	5 456 000	5 456 000
	Korea	26 661 000	39 616 000	41 907 257	44 126 400	45 704 400
	Luxembourg	m	81 258	99 782	99 782	104 831
	Mexico	m	m	m	m	m
	Netherlands	m	m	53 984	56 163	59 356
	New Zealand	49 450	54 979	68 980	68 980	71 900
	Norway	m	321 000	376 400	398 000	405 000
	Poland	m	31 216	40 120	42 860	45 785
	Portugal	17 180	22 775	27 038	28 069	24 326
	Scotland	22 743	29 827	33 666	34 200	34 200
	Slovak Republic	m	m	7 498	7 518	7 614
	Slovenia	m	17 939	22 433	22 646	22 246
	Spain	26 366	32 293	38 613	36 749	36 421
	Sweden[4]	264 700	313 600	m	352 600	m
	Switzerland[5]	121 629	120 602	127 839	128 860	128 727
	Turkey	2 441	17 403	28 883	30 483	33 197
	United States[4]	37 838	41 044	48 446	49 414	49 822
Partners	Argentina[4]	m	m	31 934	m	40 994
	Brazil	m	m	m	m	m
	China	m	m	m	m	m
	Colombia	m	m	m	m	m
	India	m	m	m	m	m
	Indonesia	m	m	14 058 000	m	14 058 000
	Latvia	m	m	m	m	m
	Russian Federation	m	m	m	m	m
	Saudi Arabia	m	m	m	m	m
	South Africa	m	m	m	m	m

Note: Years 2006, 2007, 2008, 2009 (i.e. columns 3-6; 12-15; 21-24) are available for consultation on line (see *StatLink* below).

1. Data on salaries for countries now in the Euro zone are shown in Euros.
2. Break in time series following methodological changes in 2012.
3. Break in time series following methodological changes in 2009.
4. Actual base salaries.
5. Salaries after 11 years of experience.

Source: OECD. Argentina: UNESCO Institute for Statistics (World Education Indicators Programme). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

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Table X2.4c. Reference statistics used in calculating teachers' salaries (2000, 2005-12)

		Purchasing power parity for private consumption (PPP)[1]			Private consumption deflators (2005 = 100)									Reference year for 2012 salary data
		2011	2012	Jan 2012	Jan 2000	Jan 2005	Jan 2006	Jan 2007	Jan 2008	Jan 2009	Jan 2010	Jan 2011	Jan 2012	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
OECD	Australia	1.53	1.54	1.53	89	100	103	106	110	113	116	119	122	2012
	Austria	0.85	0.86	0.85	92	100	102	105	107	109	110	113	116	2011/2012
	Belgium (Fl.)[2]	0.88	0.88	0.88	91	100	103	106	109	110	111	114	117	Jan 2012
	Belgium (Fr.)[2]	0.88	0.88	0.88	91	100	103	106	109	110	111	114	117	Jan 2012
	Canada	1.28	1.28	1.28	91	100	102	103	105	106	107	109	110	2011/2012
	Chile	370.20	375.95	373.08	86	100	104	107	113	118	121	125	130	2012
	Czech Republic	14.90	14.77	14.84	90	100	101	103	107	110	111	111	112	2011/2012
	Denmark	8.52	8.50	8.51	92	100	102	103	105	108	110	113	115	2011/2012
	England[3]	0.76	0.77	0.76	94	100	103	105	108	111	114	119	123	2011/2012
	Estonia	0.61	0.63	0.62	84	100	105	112	120	124	125	130	135	2011/2012
	Finland	0.98	0.99	0.98	93	100	101	103	106	108	110	113	117	Jan 2012
	France	0.88	0.88	0.88	91	100	102	104	107	108	108	110	112	2011/2012
	Germany	0.82	0.82	0.82	93	100	101	103	104	105	106	108	110	2011/2012
	Greece	0.76	0.75	0.75	86	100	103	107	111	113	116	120	123	2012
	Hungary	137.88	141.75	139.82	73	100	104	109	116	121	126	131	137	2011/2012
	Iceland	138.89	142.72	140.81	82	100	105	111	122	139	150	156	163	2011/2012
	Ireland	0.95	0.95	0.95	84	100	102	105	107	104	100	99	101	2011/2012
	Israel	4.27	4.27	4.27	93	100	102	103	106	110	113	117	120	2011/2012
	Italy	0.83	0.83	0.83	87	100	102	105	108	109	110	112	116	2011/2012
	Japan	116.10	113.33	114.72	105	100	100	99	99	98	96	94	94	2011/2012
	Korea	912.02	914.68	913.35	85	100	102	104	107	111	114	117	121	2012
	Luxembourg	0.99	0.99	0.99	90	100	103	105	108	110	112	114	117	2011/2012
	Mexico	8.94	9.19	9.06	73	100	103	108	113	121	128	133	138	2011/2012
	Netherlands	0.87	0.87	0.87	87	100	102	104	106	106	106	108	111	2011/2012
	New Zealand	1.59	1.57	1.58	93	100	102	105	107	111	114	116	118	2011/2012
	Norway	9.80	9.65	9.72	91	100	101	103	105	109	111	113	114	2011/2012
	Poland	1.94	1.93	1.93	85	100	102	104	107	111	113	118	123	2011/2012
	Portugal	0.70	0.70	0.70	86	100	103	106	109	109	109	111	115	2011/2012
	Scotland[3]	0.76	0.77	0.76	94	100	103	105	108	111	114	119	123	2011/2012
	Slovak Republic	0.57	0.57	0.57	76	100	104	108	111	114	115	117	122	2011/2012
	Slovenia	0.68	0.67	0.68	76	100	102	106	111	114	116	118	120	2011/2012
	Spain	0.78	0.77	0.77	85	100	104	107	111	112	113	115	119	2011 /2012
	Sweden	9.27	9.11	9.19	93	100	101	102	105	107	109	111	112	2011
	Switzerland	1.61	1.57	1.59	97	100	101	103	105	106	106	107	107	2011/2012
	Turkey	1.16	1.24	1.20	28	100	109	118	128	138	147	160	174	2012
	United States	1.00	1.00	1.00	90	100	103	106	109	111	112	114	116	2011/2012
Partners	Argentina	m	m	m	m	m	m	m	m	m	m	m	m	2011
	Brazil	1.83	1.89	1.86	65	100	106	111	117	125	132	141	150	2012
	China	m	m	m	m	m	m	m	m	m	m	m	m	m
	Colombia	m	m	m	m	m	m	m	m	m	m	m	m	m
	India	m	m	m	m	m	m	m	m	m	m	m	m	m
	Indonesia	5 583.76	5 704.67	5 644.22	61	100	113	129	146	159	167	177	188	2011/2012
	Latvia	m	m	m	m	m	m	m	m	m	m	m	m	m
	Russian Federation	17.08	17.69	17.39	m	m	m	m	m	m	m	m	m	2011
	Saudi Arabia	m	m	m	m	m	m	m	m	m	m	m	m	m
	South Africa	m	m	m	m	m	m	m	m	m	m	m	m	m

1. Data on PPPs and GDP for countries now in the Euro zone are shown in Euros.
2. Data on PPPs and deflators refer to Belgium.
3. Data on PPPs and deflators refer to the United Kingdom.

Source: OECD. Argentina: UNESCO Institute for Statistics (World Education Indicators Programme). See Annex 3 for notes (*www.oecd.org/edu/eag.htm*).

Please refer to the Reader's Guide for information concerning the symbols replacing missing data.

StatLink http://dx.doi.org/10.1787/888933120898

General notes

Definitions

Gross domestic product (GDP) refers to the producers' value of the gross outputs of resident producers, including distributive trades and transport, less the value of purchasers' intermediate consumption plus import duties. GDP is expressed in local money (in millions). For countries which provide this information for a reference year that is different from the calendar year (such as Australia and New Zealand), adjustments are made by linearly weighting their GDP between two adjacent national reference years to match the calendar year.

The **GDP deflator** is obtained by dividing the GDP expressed at current prices by the GDP expressed at constant prices. This provides an indication of the relative price level in a country.

GDP per capita is the gross domestic product (in equivalent USD converted using PPPs) divided by the population.

Purchasing power parity exchange rates (PPP) are the currency exchange rates that equalise the purchasing power of different currencies. This means that a given sum of money when converted into different currencies at the PPP rates will buy the same basket of goods and services in all countries. In other words, PPPs are the rates of currency conversion which eliminate the differences in price levels among countries. Thus, when expenditure on GDP for different countries is converted into a common currency by means of PPPs, it is, in effect, expressed at the same set of international prices so that comparisons between countries reflect only differences in the volume of goods and services purchased.

Total public expenditure, as used for the calculation of the education indicators, corresponds to the non-repayable current and capital expenditure of all levels of government. Current expenditure includes final consumption expenditure (e.g. compensation of employees, consumption of intermediate goods and services, consumption of fixed capital, and military expenditure), property income paid, subsidies, and other current transfers paid (e.g. social security, social assistance, pensions and other welfare benefits). Capital expenditure is spending to acquire and/or improve fixed capital assets, land, intangible assets, government stocks, and non-military, non-financial assets, and spending to finance net capital transfers.

Sources

The 2014 edition of the *National Accounts of OECD Countries: Detailed Tables, Volume II.*

The theoretical framework underpinning national accounts has been provided for many years by the United Nations' publication *A System of National Accounts,* which was released in 1968. An updated version was released in 1993 (commonly referred to as SNA93).

OECD Analytical Database, January 2014.

Note regarding data from Israel

The statistical data for Israel are supplied by and are under the responsibility of the relevant Israeli authorities. The use of such data by the OECD is without prejudice to the status of the Golan Heights, East Jerusalem and Israeli settlements in the West Bank under the terms of international law.

Annex

3

Sources, Methods and Technical Notes

Annex 3 on sources and methods is available in electronic form only. It can be found at:
www.oecd.org/edu/eag.htm

Annex 3: Chapter A
www.oecd.org/edu/eag/annex3-ChapterA.pdf

Annex 3: Chapter B
www.oecd.org/edu/eag/annex3-ChapterB.pdf

Annex 3: Chapter C
www.oecd.org/edu/eag/annex3-ChapterC.pdf

Annex 3: Indicator D1
www.oecd.org/edu/eag/annex3-IndicatorD1.pdf

Annex 3: Indicator D2-D5
www.oecd.org/edu/eag/annex3-IndicatorD2-D5.pdf

Annex 3: Indicator D6
www.oecd.org/edu/eag/annex3-IndicatorD6.pdf

Annex 3: Indicator D7
www.oecd.org/edu/eag/annex3-IndicatorD7.pdf

Contributors to this Publication

Many people have contributed to the development of this publication.
The following lists the names of the country representatives who have taken part to the INES meetings and to the preparatory work leading to the publication of *Education at a Glance 2014: OECD Indicators*.

The OECD wishes to thank them all for their valuable efforts.

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