Highlights from Education at a Glance 2010

OECD

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OECD

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ISBN 978-92-64-08469-8 (print)
ISBN 978-92-64-08769-9 (PDF)
ISBN 978-92-64-08770-5 (HTML)

Also available in French: Regards sur l'éducation 2010 : Panorama

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Foreword

Highlights from Education at a Glance 2010 *offers a reader-friendly introduction to the OECD's collection of internationally comparable data on education.*

As the name suggests, it is derived from Education at a Glance 2010, *the OECD's flagship compendium of education statistics. However, it differs from that publication in a number of ways, most significantly in its structure, which is made up of five sections that explore the following topics:*

- **Education levels and student numbers:** *This section looks at education levels in the general population, how and where young people are studying and how well they make the transition into the world of work, overseas study and social barriers to education.*
- **The economic benefits of education:** *This section looks at the extent to which education brings economic gains to individuals, in the form of higher incomes and lower unemployment rates, and at how these benefits serve as an incentive for people and societies to invest in education.*
- **Paying for education:** *This section looks at how much countries spend on education, the role of private spending, what education money is spent on and whether countries are getting value for money.*
- **The school environment:** *This section looks at how much time teachers spend at work, and how much of that time is spent teaching, class sizes, teachers' salaries and the age and gender distribution of teachers.*
- **School choice, parent voice:** *This section looks at the extent to which parents can choose their children's schools, and the degree to which school autonomy makes that choice meaningful, as well as parents' role in school governance.*

In general, this publication uses the terminology employed in Education at a Glance. *However, in one or two places terminology has been simplified. Readers who want to find out more should consult the Reader's Guide.*

Tables and charts in this volume are all accompanied by a dynamic hyperlink, or StatLink, that will direct readers to an Internet site where the corresponding data are available in Excel™ format. In addition, reference is sometimes made in text to charts and tables that appear in Education at a Glance 2010. *This material can generally be accessed via the StatLinks accompanying the tables and charts in the relevant indicator, or at www.oecd.org/edu/eag2010.*

Readers wishing to find out more about the OECD's work on education should go to www.oecd.org/edu.

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StatLinks

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Look for the *StatLinks* at the bottom right-hand corner of the tables or graphs in this book. To download the matching Excel® spreadsheet, just type the link into your Internet browser, starting with the ***http://dx.doi.org*** prefix.
If you're reading the PDF e-book edition, and your PC is connected to the Internet, simply click on the link. You'll find *StatLinks* appearing in more OECD books.

Reader's Guide

This section introduces some of the terminology used in this publication, and explains how readers can use the links provided to get further information.

Levels of education

Education systems vary considerably from country to country, including the ages at which students typically begin and end each phase of schooling, the duration of courses, and what students are taught and expected to learn. These variations greatly complicate the compilation of internationally comparable statistics on education. In response, the United Nations created an International Standard Classification of Education (ISCED), which provides a basis for comparing different education and a standard terminology.

The table below introduces this system of classification and explains what is meant by each level of education. Readers should note that this publication uses slightly simplified terminology, which differs from that used in both the ISCED classification and in *Education at a Glance 2010*. The table shows the equivalent terms in the two publications, the ISCED classifications, and definitions of what it all means.

Term used to describe levels of education in *Education at a Glance 2010* *ISCED classification (and subcategories)*	**Term generally used in this publication**
Pre-primary education *ISCED 0*	**Pre-primary education** The first stage of organised instruction designed to introduce very young children to the school atmosphere. Minimum entry age of 3.
Primary education *ISCED 1*	**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.
Lower secondary 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 for entering workforce)*	**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.
Upper secondary education *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, ISCED 4.*	**Upper secondary education** Even 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 around the age of 15 or 16.
Post-secondary non-tertiary education *ISCED 4 (subcategories: 4A may prepare students for entry to tertiary education, both university level and vocationally oriented education; 4B typically prepares students to enter the workforce)*	**Post-secondary non-tertiary education** Programmes at this level may be regarded nationally as part of upper secondary or post-secondary education, but in terms of international comparison their status is less clear cut. Programme content may not be much more advanced than in upper secondary, and is certainly lower than at tertiary level. Entry typically requires completion of an upper secondary programme. Duration usually equivalent to between 6 months and 2 years of full-time study.

Term used to describe levels of education in *Education at a Glance 2010* *ISCED classification (and subcategories)*	**Term generally used in this publication**
Tertiary education *ISCED 5 (subcategories 5A and 5B, see below)*	**Tertiary education** ISCED 5 is the first stage of tertiary education (the second – ISCED 6 – involves advanced research). At level 5, it is often more useful to distinguish between two subcategories: 5A, which represent longer and more theoretical programmes; and 5B, where programmes are shorter and more practically oriented. Note, though, that as tertiary education differs greatly between countries, the demarcation between these two subcategories is not always clear cut.
Tertiary-type A *ISCED 5A*	**University-level education** "Long-stream" programmes that are theory based and aimed at preparing students for further research or to give access to highly skilled professions, such as medicine or architecture. Entry preceded by 13 years of education, students typically required to have completed upper secondary or post-secondary non-tertiary education. Duration equivalent to at least 3 years of full-time study, but 4 is more usual.
Tertiary-type B *ISCED 5B*	**Vocationally oriented tertiary education** "Short-stream" programmes that are more practically oriented or focus on the skills needed for students to directly enter specific occupations. Entry preceded by 13 years of education; students may require mastery of specific subjects studied at levels 3B or 4A. Duration equivalent to at least 2 years of full-time study, but 3 is more usual.
Advanced research programmes *ISCED 6*	**Advanced research programmes** The second stage of tertiary education. Programmes are devoted to advanced study and original research.

For fuller definitions and explanations of the ISCED standard, please consult *Classifying Education Programmes: Manual for ISCED-97 Implementation in OECD Countries* (1999).

Country coverage

OECD and partner countries: Data in this volume cover the 31 countries that were members of the OECD as of June 2010 as well as a number of partner countries and territories. These latter are indicated by italics.

Belgium: Data on Belgium may be applicable only to either the Flemish Community or the French Community. Where this is the case, the text and charts refer to Belgium (Fl) for the Flemish Community, and Belgium (Fr) for the French community.

EU19: The European Union countries prior to the Union's expansion in 2004, plus the four eastern European member countries of the OECD, namely the Czech Republic, Hungary, Poland and the Slovak Republic.

EU25: The 25 members of the EU following the 2004 expansion (and excluding Romania and Bulgaria, which entered in 2007).

Notes to tables and charts

See the relevant indicator in *Education at a Glance 2010* or click on the hyperlink in the source.

Symbols for missing data

A number of symbols are employed in the tables and charts to denote missing data:

a Data not applicable because category does not apply.

c There are too few observations to provide reliable estimates (*i.e.* there are fewer than 3% of students for this cell or too few schools for valid inferences). However, these statistics were included in the calculation of cross-country averages.

m Data are not available. In a few cases data have been included in other categories.

n Magnitude is either negligible or zero.

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1. EDUCATION LEVELS AND STUDENT NUMBERS

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To what level have adults studied?

- *On average across OECD countries, 29% of all adults have attained only primary or lower secondary levels of education, 44% upper secondary education and 28% tertiary level education.*
- *Upper secondary education is now the norm among younger adults in OECD countries, with substantially higher rates of attainment than among older adults.*
- *Among younger adults, tertiary attainment is also higher, reaching 35% of 25-34 year-olds.*

Significance

Education is important for both the present, giving individuals the knowledge and skills to participate fully and effectively in society, and for the future, as it helps expand scientific and cultural knowledge. This spread shows the level to which adults have studied, a measure that is often used as a proxy to illustrate human capital, or the skills available in a population and labour force.

Findings

In 25 OECD countries, as well as *Estonia*, *Israel*, the *Russian Federation* and *Slovenia*, 60% or more of all adults (25-64 year-olds) have completed at least upper secondary education; however, levels vary between countries. For instance, in Mexico, Portugal, Turkey and *Brazil*, this proportion falls to a third or less.

Comparing younger adults (25-34 year-olds) with older adults (55-64 year-olds) shows marked progress with regard to attainment of upper secondary education. On average across OECD countries, the proportion of younger adults who have attained at least upper secondary education is 22 percentage points higher than among older adults, 80% *versus* 58%. This increase has been particularly dramatic in Belgium, Chile, Greece, Ireland, Italy, Korea, Portugal and Spain, all of which have seen an increase in upper secondary attainment of at least 30 percentage points.

Differences between age groups are less pronounced in countries with generally high levels of educational attainment. In the 12 OECD countries where more than 80% of all adults have at least upper secondary attainment, the difference in the proportions of younger adults and older adults is, on average, 12 percentage points. In Germany and the United States, there is no significant difference between the two age groups. For countries with more room for growth, the average gain in attainment between the age groups is typically large, but situations differ widely. In Norway, the difference is 6 percentage points; in Korea it is 57 percentage points.

In almost all countries, younger adults have higher levels of tertiary attainment than the generation about to leave the labour market. On average across OECD countries, 28% of all adults have completed tertiary education, but among younger adults this level rises to 35% while among the older age group it falls to 20%. The expansion of tertiary education differs substantially among countries. In Ireland, Japan and Korea there is a difference of 25 percentage points or more in the tertiary attainment of the oldest and youngest age groups.

Trends

Over the past decade, the major changes in educational attainment have been at either end of the skills distribution, with a fall in the number of people failing to complete upper secondary education and a rise in the number completing tertiary education (see Table A1.4 in *Education at a Glance 2010*). Between 1998 and 2008, the proportion of adults who had not completed upper secondary education fell from 37 to 29%, while the proportion completing tertiary education rose from 21 to 28%. The proportion completing upper secondary and post-secondary non-tertiary education was almost unchanged, rising from 42 to 44%.

Definitions

Data on population and education attainment are taken from OECD and Eurostat databases, which are compiled from National Labour Force Surveys.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator A1).

Areas covered include:

- Educational attainment of adults, and by gender.
- Potential growth in population with tertiary attainment.

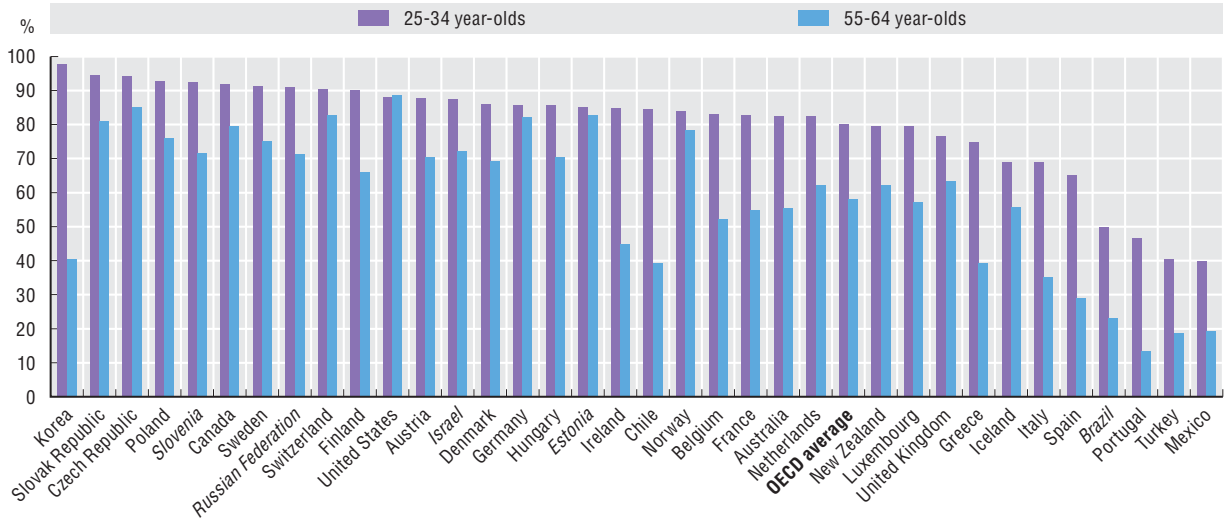
Additional data on gender gaps in secondary and tertiary education are available online in Indicator A1 at *www.oecd.org/edu/eag2010*.

Further reading from OECD

Reviews of National Policies for Education (series).

Figure 1.1. **Population that has attained at least upper secondary education, 2008**

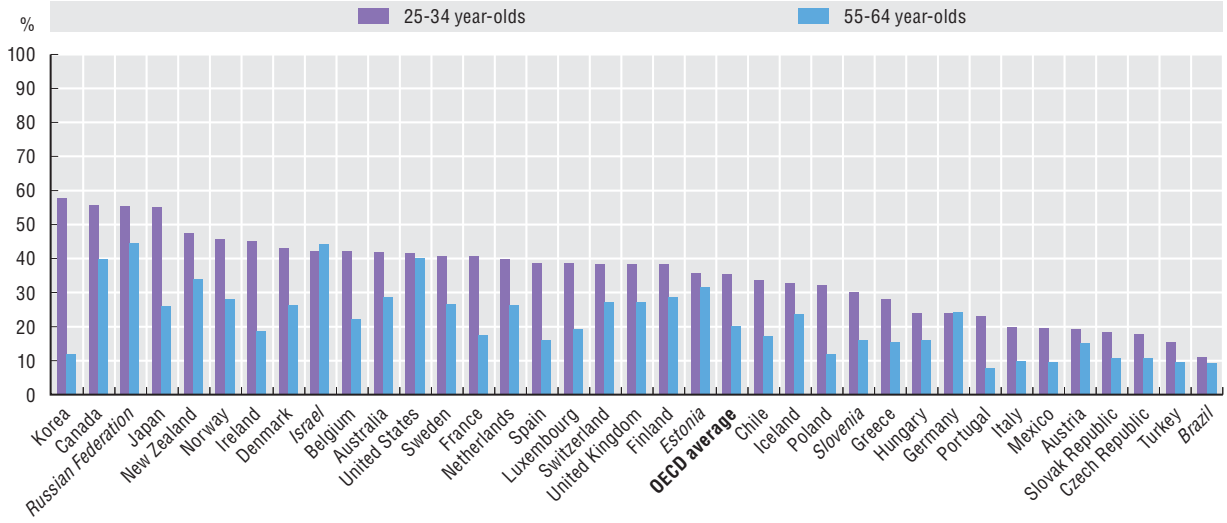
This figure shows the percentage of 25-34 year-olds and 55-64 year-olds who have been through at least upper secondary education. The rapid expansion of education in recent decades means younger people tend to have higher levels of education.



Source: OECD (2010), *Education at a Glance 2010*, Table A1.2a, available at *http://dx.doi.org/10.1787/888932310092*.

Figure 1.2. **Population that has attained tertiary education, 2008**

This figure shows the percentage of 25-34 year-olds and 55-64 year-olds who have been through tertiary education.



Source: OECD (2010), *Education at a Glance 2010*, Table A1.3a, available at *http://dx.doi.org/10.1787/888932310092*.

Who participates in education?

- *In most OECD countries, virtually everyone has access to at least 12 years of formal education.*
- *In more than half of OECD countries, over 70% of 3-4 year-olds are enrolled in either pre-primary or primary programmes.*
- *From 1995 to 2008, enrolment rates for 20-29 year-olds increased by 7.7 percentage points.*

Significance

A well-educated population is essential to economic and social development, so societies have a real interest in ensuring that children and adults have access to a wide range of educational opportunities. This spread examines access to education, and its evolution, from 1995 to 2008, focusing on the number of young people who continue studying once compulsory education has ended.

Findings

At least 90% of students are enrolled for a period of 14 or more years in Belgium, France, Germany, Hungary, Iceland, Ireland, Italy, Japan, the Netherlands, Norway, Spain, Sweden and *Estonia*. However, this enrolment period falls to 11 years in Greece, Korea, Mexico and the United States and to ten and seven years in Chile and Turkey respectively. On ave-rage, a child is more likely to be enrolled in formal education at age 4 in the EU19 countries than in other OECD countries. In most OECD countries, full enrolment (meaning more than 90% enrolment) begins between the ages of 5 and 6. However, in more than half of OECD countries, at least 70% of 3-4 year-olds are enrolled in either pre-primary or primary programmes. (See Table C1.1 in *Education at a Glance 2010*.)

The age at which compulsory education ends ranges from 14 in Korea, Portugal, Turkey and *Slovenia*, to 18 in Belgium, some provinces of Canada, Chile, Germany, Hungary and the Netherlands. In most OECD and partner countries, enrolment rates decline gradually during the last years of upper secondary education. More than 20% of 15-19 year-olds are not enrolled in education in Austria, Canada, Chile, Luxembourg, Mexico, New Zealand, Turkey, the United Kingdom and *Brazil*, *Israel* and the *Russian Federation*.

Enrolment rates for 20-29 year-olds indicate mostly the number of people attending tertiary education. (Note, tertiary enrolment rates can also be influenced by the presence of high numbers of international students.) On average in OECD countries, 25% of this age group was enrolled in education in 2008. Enrolment rates were 30% or more in Australia, Denmark, Finland, Iceland, Poland, Sweden and *Slovenia*.

Trends

Enrolment rates for 15-19 year-olds increased on average from 73% to 81% from 1995 to 2008. There has been growth, too, in enrolment for 20-29 year-olds, the age span during which most students are enrolled in tertiary education; between 1995 and 2008, their enrolment rates increased in all OECD countries except Portugal. Growth was at or above 12 percentage points in the Czech Republic, Finland, Greece, Hungary, Korea, New Zealand, Poland and Sweden, and particularly significant in the Czech Republic, Greece and Hungary, which were previously at the bottom of the scale of OECD countries. In around one-third of countries with available data, the enrolment rate for the two age groups has levelled off in the last five years. In upper secondary education, this may reflect the attainment of near-universal enrolment.

Definitions

Data for the 2007-08 school year are based on the UOE data collection on education statistics, administered annually by the OECD. Except where otherwise noted, figures are based on head counts and do not distinguish between full-time and part-time study.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

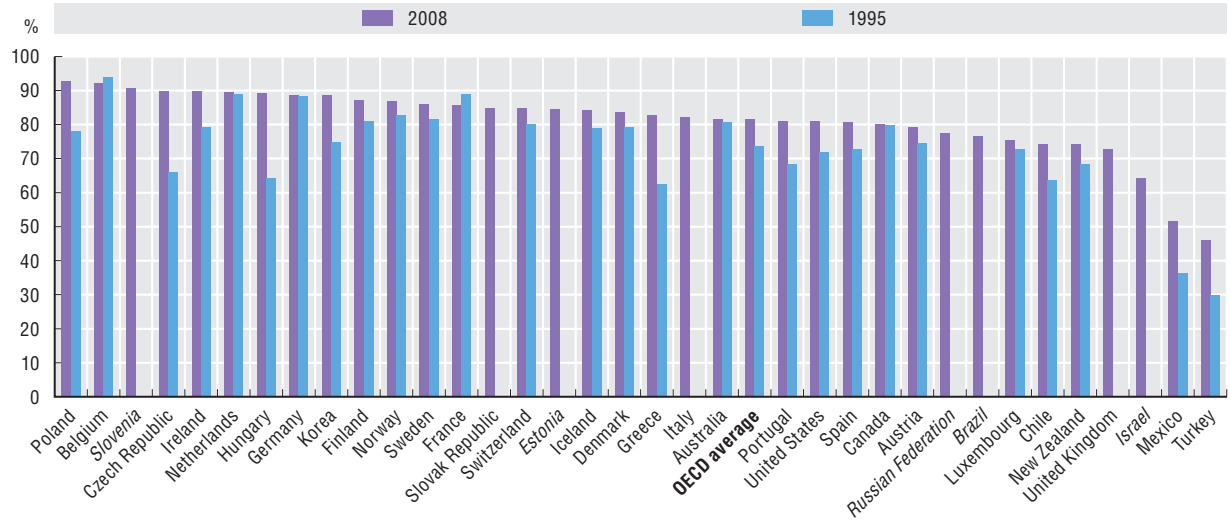
For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator C1).

Areas covered include:

- Students in primary, secondary and tertiary education, by type of institution or mode of enrolment.
- Transition characteristics from age 15 to 20, by level of education.
- Education expectancy.

Figure 1.3. **Enrolment rates of 15-19 year-olds (1995, 2008)**

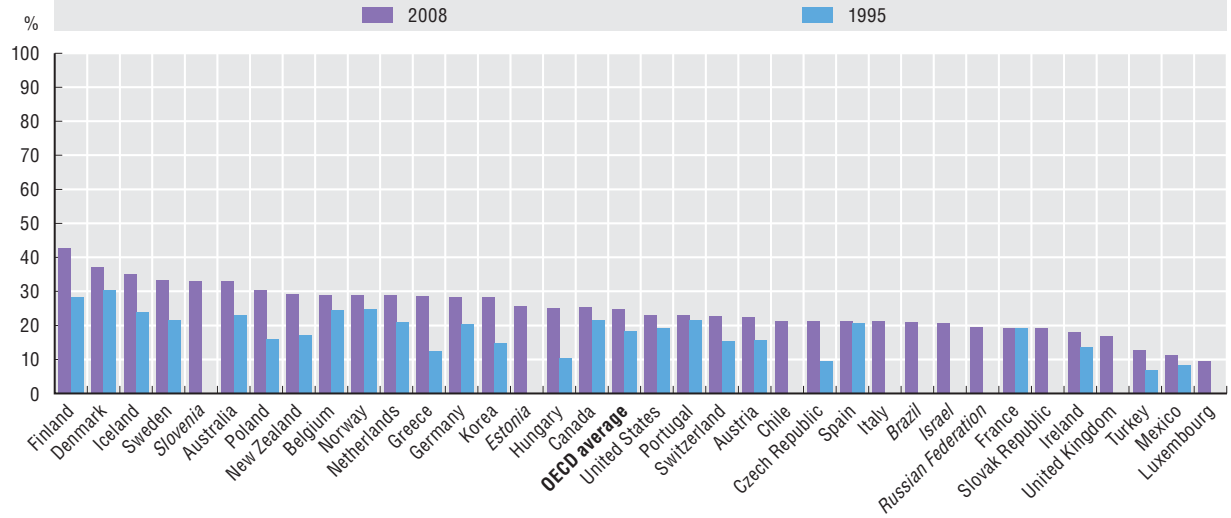
This figure shows the increase or decrease in the percentage of 15-19 year-olds enrolled in full-time and part-time education.



Source: OECD (2010), *Education at a Glance 2010*, Table C1.2, available at *http://dx.doi.org/10.1787/888932310415*.

Figure 1.4. **Enrolment rates of 20-29 year-olds (1995, 2008)**

This figure shows the increase or decrease in the percentage of 20-29 year-olds enrolled in full-time and part-time education.



Source: OECD (2010), *Education at a Glance 2010*, Table C1.2, available at *http://dx.doi.org/10.1787/888932310415*.

How many secondary students go on to tertiary education?

- *Since 1995, the proportion of young people graduating from upper secondary programmes has grown by seven percentage points on average in OECD countries with comparable data.*
- *Girls are now more likely than boys to complete upper secondary education in OECD countries, a reversal of historical trends.*
- *Entry rates to university-level education increased by more than 20 percentage points on average in OECD countries between 1995 and 2008.*

Significance

This indicator shows how many students finish secondary education and then make the transition into tertiary education. Completing upper secondary education does not in itself guarantee that students are adequately equipped with the basic skills and knowledge necessary to enter the labour market or tertiary studies. However, research has shown that young people in OECD countries who do not finish secondary education face severe difficulties when it comes to finding work.

Findings

In 22 of the 26 OECD and partner countries with comparable data, the percentage of young people graduating from upper secondary education rates exceeds 70%. In Finland, Germany, Greece, Ireland, Japan, Korea, Norway, Switzerland, the United Kingdom and *Israel* it is at least 90%. Graduation rates for girls exceed those for boys in almost all OECD and partner countries, except Switzerland and Turkey. The gap is greatest in Denmark, Iceland, New Zealand, Norway, Portugal, Spain and *Slovenia*, where girls' graduation rates exceed those of boys by more than 10 percentage points (see Table A2.1 in *Education at a Glance 2010*).

In most countries, upper secondary education is designed to prepare students to enter university-level education (tertiary-type A). (In Germany, Switzerland and *Slovenia*, however, students are more likely to graduate programmes that lead to vocationally oriented tertiary education, or tertiary-type B.) Despite this, there is significant variation between countries in the numbers of young people graduating from upper secondary who actually go on to university. For instance, in Belgium, Chile, Finland, Greece, Ireland, Italy, Japan and *Estonia* and *Israel*, the gap is more than 20 percentage points, suggesting that many young people who could go on to university do not do so. It should be noted that the structure of national education systems, such as the prevalence of vocationally oriented tertiary education, and the requirement to perform military service account for some of these variations.

In Australia, Austria, Iceland, Norway, Switzerland and the *Russian Federation* and *Slovenia*, the percentage of young people graduating from upper secondary education is substantially lower than the percentage entering university-level education. For some countries, notably Australia, Austria, Iceland, Norway and Switzerland, this apparent anomaly is explained in large part by the presence of international students. When data on such students are excluded, the entry rate for university-level education in Australia, for example, falls by 26 percentage points (see Chart A2.5 in *Education at a Glance 2010*). In Switzerland, the *Russian Federation* and *Slovenia*, the explanation can lie in students graduating from upper secondary programmes designed to prepare them for vocationally oriented tertiary education but who later enter university-level education.

Trends

The proportion of students graduating from upper secondary programmes grew by seven percentage points on average in OECD countries with comparable data between 1995 and 2008. Entry rates to university-level education also rose substantially, by nearly 20 percentage points.

Definitions

Data for the 2007-08 school year are based on the UOE data collection on education statistics, administered by the OECD in 2009. Upper secondary graduation rates are calculated for the years 2005-08 as net graduation rates, which represent the estimated percentage of the age cohort that will complete education at those levels. Gross graduation rates are presented for the years 1995, 2000-04 for all countries. The net entry rate for a specific age is obtained by dividing the number of first-time entrants of that age to each type of tertiary education by the total population in the corresponding age group.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

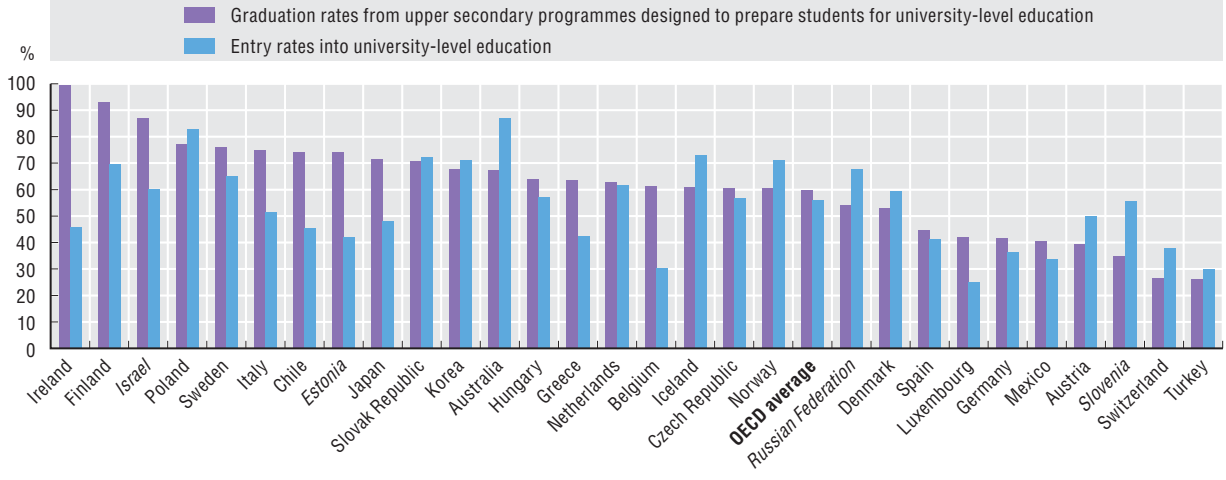
For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator A2).

Areas covered include:

- Current upper secondary graduation rates and trends.
- Graduation rates from non-tertiary post-secondary education.
- Entry rates by field of education.

Figure 1.5. **Access to university-level education for upper secondary graduates, 2008**

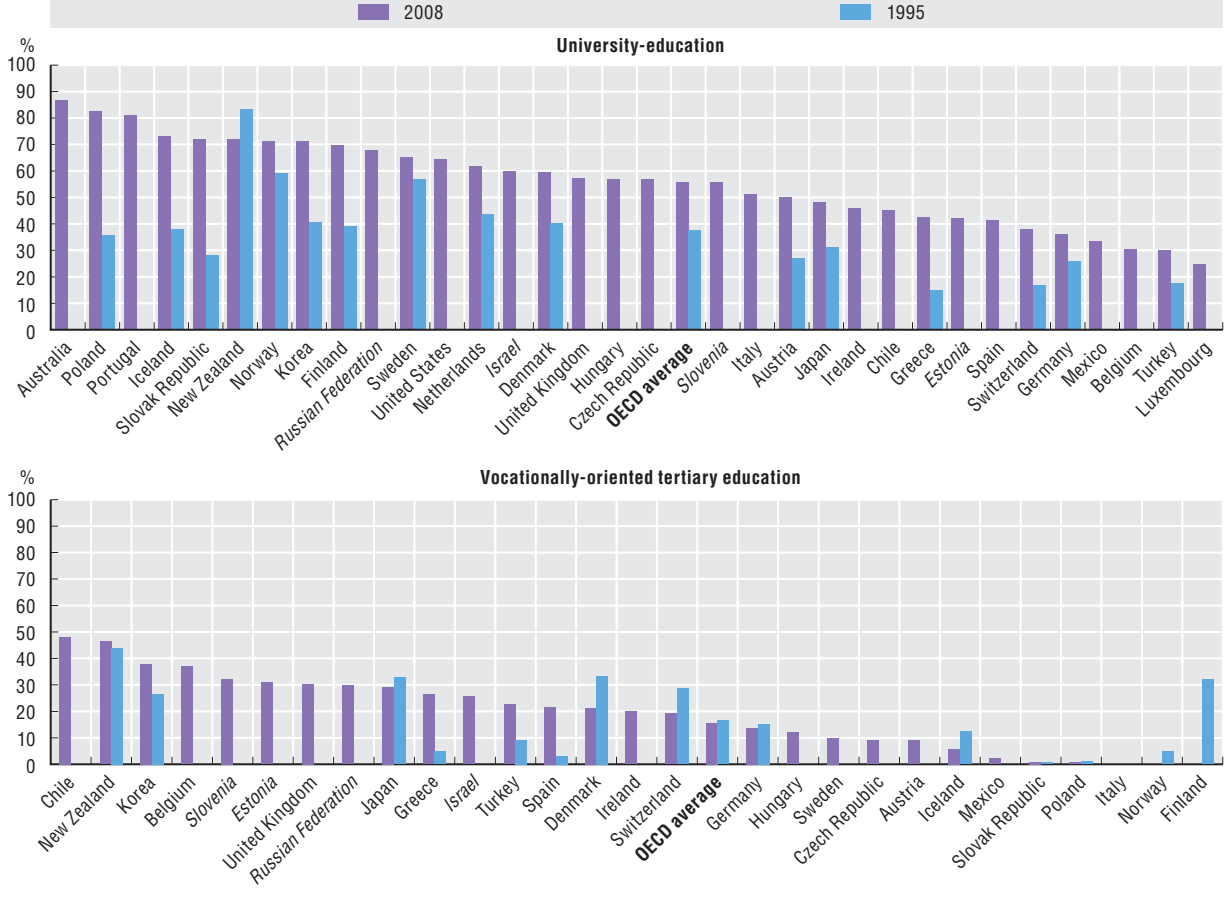
This figure shows the percentage of young people graduating from upper secondary programmes who go on to study at university level. In some countries (e.g. Australia), the proportion for the latter is higher than for the former – an apparent anomaly that may be explained by high numbers of international students at tertiary level.



Source: OECD (2010), *Education at a Glance 2010*, A2.1 and A2.3, available at *http://dx.doi.org/10.1787/888932310111*.

Figure 1.6. **Trends in entry rates to tertiary education (1995, 2008)**

These figures show the growth – or otherwise – in the percentage of young people entering university-level education and vocationally oriented tertiary education. Entry rates have risen in most OECD countries.



Source: OECD (2010), *Education at a Glance 2010*, Table A2.4, available at *http://dx.doi.org/10.1787/888932310111*.

How many young people graduate from tertiary education?

- *On average across 26 OECD countries with comparable data, 38% of young people complete university-level education.*
- *Graduation rates range from 10% or less in Luxembourg to 45% or more in Australia, Denmark, Finland, Iceland, Ireland, New Zealand, Poland, Portugal and the Slovak Republic.*
- *Graduation rates for young women are notably higher than those for young men – 46% versus 30%.*

Significance

Tertiary education serves as an indicator of the rate at which countries produce advanced knowledge. Countries with high graduation rates at tertiary level are also those most likely to be developing or maintaining a highly skilled labour force. Graduation rates from tertiary education (the structure and scope of which varies widely between countries) are influenced both by the degree of access to tertiary programmes and by the demand for higher skills in the labour market.

Findings

Graduation rates vary significantly between countries: In Luxembourg, 10% or less of young people graduate from university-level education (tertiary-type A); by contrast, the proportion is at least 45% in Australia, Denmark, Finland, Iceland, Ireland, New Zealand, Poland, Portugal and the Slovak Republic. (Note, however, that graduation rates for some countries with a higher number of international students, notably Australia and New Zealand, are artificially inflated by the presence of international students. For more, see Table A3.3 in *Education at a Glance 2010*.)

Disparities in graduation rates are even greater between men and women. On average in OECD countries, significantly more women obtain university-level qualifications than men, 46% *versus* 30%. The gender gap is at least 25 percentage points in Finland, Poland and the Slovak Republic and more than 40 percentage points in Iceland. In Germany, Luxembourg, Mexico, Switzerland and Turkey, the sexes are quite balanced. In Japan, by contrast, more men graduate from university-level education.

For the 26 OECD countries with comparable data, about 10% of young people graduate from vocationally oriented tertiary education (tertiary-type B). Graduation rates are significant – in excess of 20% of young people – in only a few OECD countries, most notably Canada, Ireland, Japan, New Zealand and *Slovenia*. At the highest levels of tertiary education, about 1.4% of young people graduate from advanced research programmes in the OECD area. The proportion exceeds 2% in Finland, Germany, Portugal, Sweden, Switzerland and the United Kingdom (see Table A3.3 in *Education at a Glance 2010*).

Trends

On average across OECD countries, graduation rates from university-level education have increased by 21 percentage points over the past 13 years, and there were increases – often quite substantial – in virtually every country for which data are available. In Denmark, New Zealand, Norway and Spain, increases were more marked from 1995 to 2000 than from 2000 to 2008. New Zealand has even experienced a decline in its graduation rate since 2000, mainly due to the fluctuation of international students entering and leaving the country. Between, 2000 and 2008, the most significant increases were reported in the Czech Republic and Switzerland, where the rate almost tripled over the period. In Switzerland's case, this reflects the creation of a new class of universities of applied science. There were also notable increases in Iceland, Italy, Portugal and Turkey.

Definitions

Data for the 2007-08 academic year are based on the UOE data collection on education statistics that is administered annually by the OECD. Tertiary graduates are those who obtain a university degree, vocational qualifications, or advanced research degrees of doctorate standard. Net graduation rates represent the estimated percentage of an age group that will complete tertiary education. (Graduation rates should not be confused with completion rates, which represent the proportion of people already enrolled in tertiary education who complete their course as opposed to those who drop out – see page 22.) Data presented here refer only to first-time graduates.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator A3).

Areas covered include:

- Graduation rates by gender.
- Distribution of graduates, by field of education.
- Proportion of graduates following the Bologna structures.

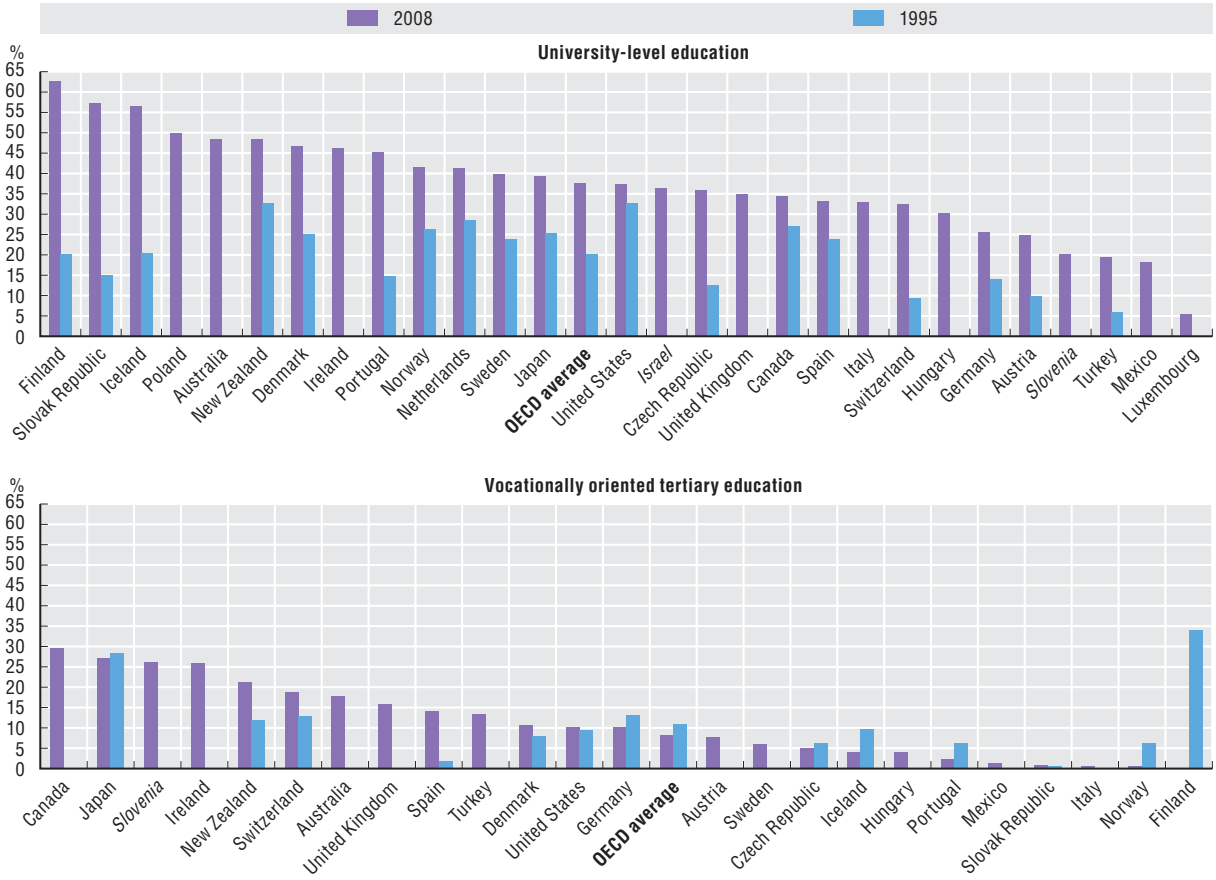
Further reading from OECD

Higher Education Management and Policy (journal).

OECD Reviews of Tertiary Education (series of national reviews).

Figure 1.7. **Graduation rates from tertiary education (1995, 2008)**

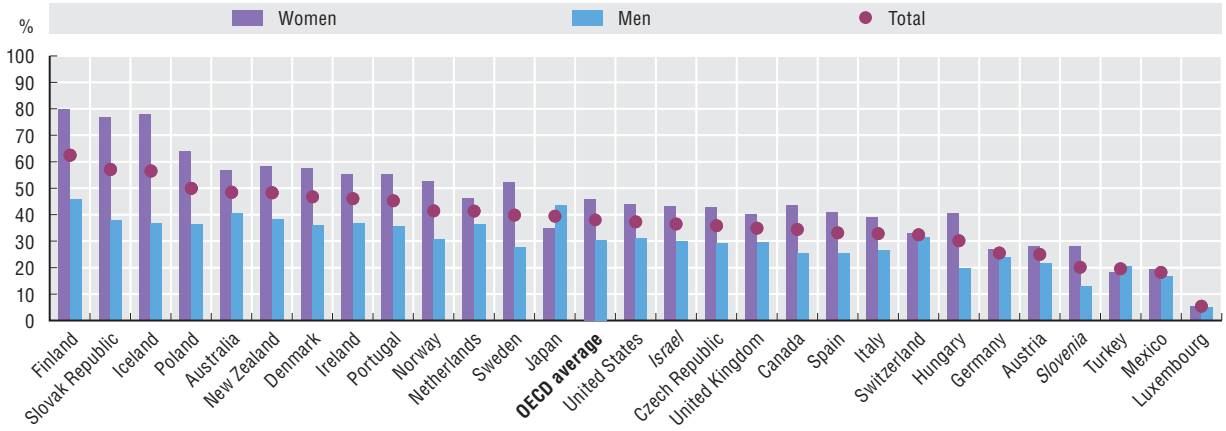
These figures show the growth or decline in the percentage of young people who are first-time graduates from university-level and vocationally oriented tertiary education.



Source: OECD (2010), *Education at a Glance 2010*, Table A3.2, available at *http://dx.doi.org/10.1787/888932310130*.

Figure 1.8. **Graduation rates from university-level education by gender, 2008**

This figure shows the percentage of young men and young women who are first-time graduates from university-level education.



Source: OECD (2010), *Education at a Glance 2010*, Table A3.1, available at *http://dx.doi.org/10.1787/888932310130*.

How many students graduate outside the normal age?

- *In Denmark, Finland, Iceland and Norway, students older than 25 account for 10% or more of first-time graduation rates from upper secondary education.*
- *Graduation rates for mature students account for a quarter of the total tertiary graduation rate in Finland, Iceland, New Zealand, Sweden and* Israel.
- *Finland, Iceland and Norway offer the greatest range of possibilities for later graduation at both the upper secondary and tertiary levels.*

Significance

Students typically graduate from upper secondary education in their late teens and from tertiary education by their mid-20s. However, in a number of countries some students study well beyond these age ranges. While some governments are taking measures to encourage students to make the most of their capacities by moving more rapidly into and through tertiary education, there is also value in ensuring that opportunities exist for people to complete their studies later in life so that they can equip themselves to compete in the labour market.

Findings

Completing upper secondary education is now considered the norm in most developed countries. In 22 of 26 OECD countries and all partner countries with comparable data, first-time upper secondary graduation rates exceed 70%. However, not all students graduate at the typical age, *i.e.* between the ages of 17 and 20. The reasons vary: Some countries, for example, offer a range of second chance or adult education programmes. In the Nordic countries, students can leave the education system relatively easily and re-enter at a later date: in Denmark, Finland, Iceland and Norway, first-time graduation rates for students older than 25 account for 10 percentage points or more.

Adults who can enter tertiary education after a period of work can raise their own human capital, improve the adaptability of the workforce to ongoing changes and help meet the demand for higher skills in the labour market. At tertiary level, where data are available for 21 countries, mature students have a high impact in Finland, Iceland, New Zealand, Sweden and *Israel*, where graduation rates for students aged over 30 account for a quarter or more of the total graduation rate.

However, staying longer in the school system also implies some additional costs, for example higher expenditure per student, foregone tax revenue and later launch of career trajectory. Government authorities in some countries take this situation seriously. In Finland, many upper secondary graduates have to wait for an extended period before they obtain a place in university or polytechnic education and furthermore, the average duration of studies is long. As a result, the median age of students graduating from tertiary education, nearly 27, is the third highest in the OECD area, after Iceland and Sweden. The Finnish government is taking measures to lower the age of graduation from tertiary education in order to increase the number of working years of the population and to finance the pensions of the large age group that is soon to retire.

For *Israel*, the high proportion of later graduations corresponds to the time spent in mandatory military service before embarking on tertiary studies. As a result, the median age of graduation from a university-level (tertiary-type A) programme is 27, or two years above the OECD average).

Finland, Iceland and Norway are the three countries with the most extensive possibilities for later graduation for adults at both the upper secondary and tertiary levels.

Definitions

Data refer to the academic year 2007-08 and are based on the UOE data collection on education statistics administered by the OECD in 2008. Where data are available, upper secondary and tertiary graduation rates are calculated as net graduation rates, which represent the estimated percentage of the age cohort that will complete education at those levels. Tertiary graduates in this section refer only to those who obtain university degrees.

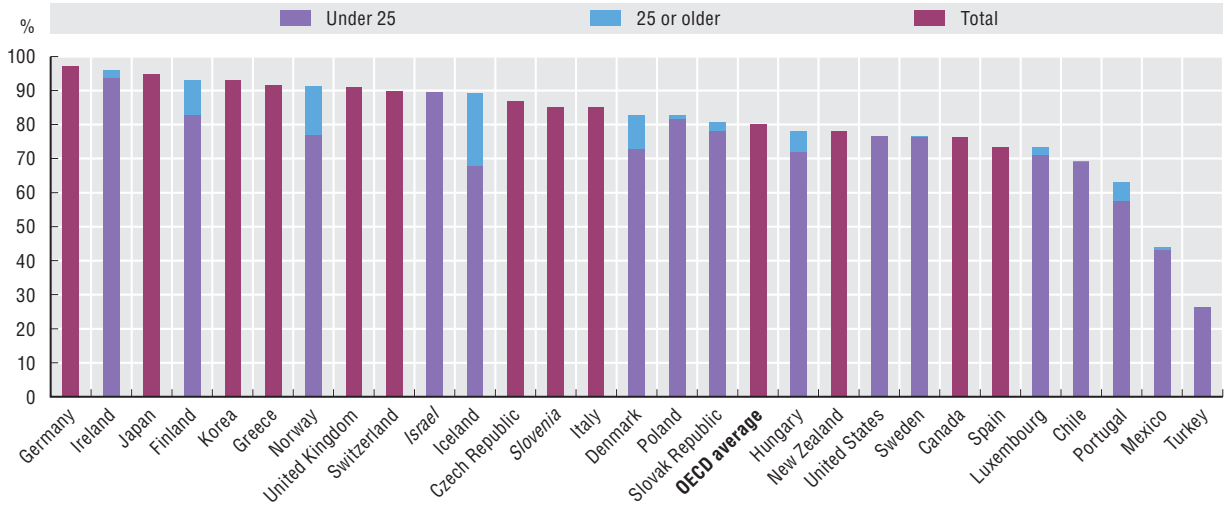
Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicators A2 and A3).

Figure 1.9. **Upper secondary graduation rates beyond the usual age, 2008**

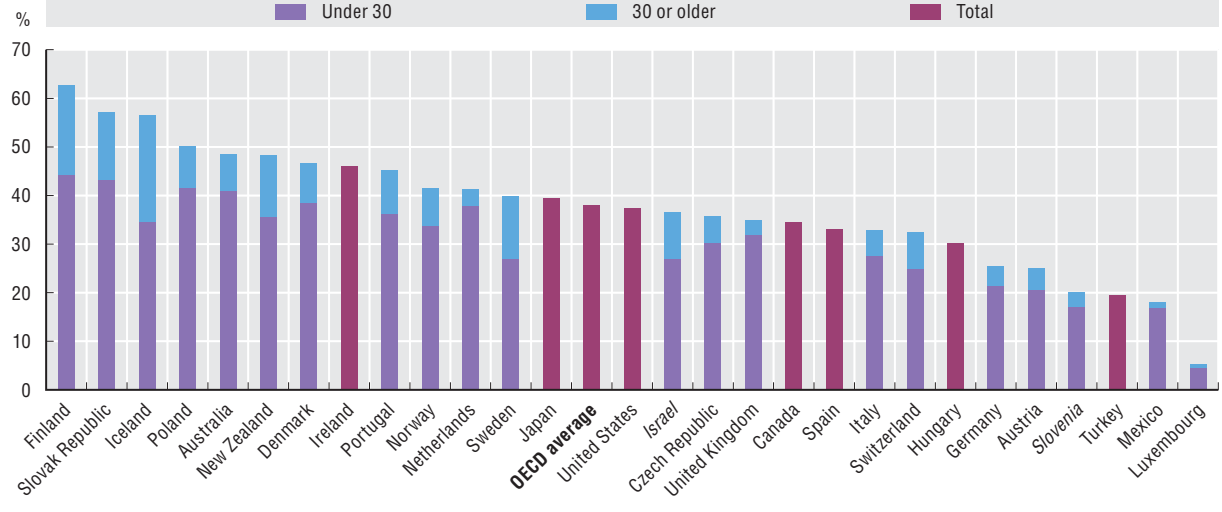
This figure shows the proportion of students graduating at age 25 or older from upper secondary education.



Source: OECD (2010), *Education at a Glance 2010*, Table A2.1, available at *http://dx.doi.org/10.1787/888932310111*.

Figure 1.10. **University-level graduation rates beyond the usual age, 2008**

This figure shows the number of students graduating at age 30 or older from university-level education.



Source: OECD (2010), *Education at a Glance 2010*, Table A3.1, available at *http://dx.doi.org/10.1787/888932310130*.

How many students drop out of tertiary education?

- *Among the 18 OECD countries for which data are available, some 31% of students who enter tertiary education leave without a tertiary qualification.*
- *Non-completion rates vary between countries – ranging from more than 40% of students in Mexico, New Zealand, Sweden and the United States to less than 25% in Belgium (Fl), Denmark, France, Japan, Korea, Spain and the* Russian Federation.
- *There is no clear link between non-completion and levels of tuition fees charged.*

Significance

This spread looks at the proportion of students who begin tertiary education but do not complete a first degree. Non-completion is not necessarily an indication of failure: in some countries, even a year of tertiary-level education may significantly improve a student's job-market prospects, while in others students may be able to retain credits from an initial period of study and then complete their studies later. However, high dropout rates may indicate problems in educational systems: courses may not be meeting students' educational expectations or their labour market needs, and may run for longer than students can justify being outside the labour market.

Findings

On average among the 18 OECD countries for which data are available, some 31% of students who enter tertiary education fail to graduate, making for a completion rate of 69%. Completion rates differ widely: In Mexico, New Zealand, Sweden and the United States, more than 40% of tertiary students do not graduate with at least a first degree at this level; by contrast, in Belgium (Fl), Denmark, France, Japan, Korea, Spain and the *Russian Federation*, the proportion is less than 25%. For countries for which only data on university-level education (tertiary-type A) is available, non-completion rates vary from 38% in *Israel* to 20% in Australia.

Completion rates tend to be higher for university-level education than for vocationally oriented tertiary education (tertiary-type B). On average among the 23 OECD countries for which data are available, some 30% of students in university-level education do not graduate from the programme they enter. However rates differ widely – in Japan the completion rate is 93% while in Mexico, New Zealand, Sweden and the United States it is below 60%. The completion rate in vocationally oriented tertiary education is 62% on average, ranging from 80% or above in Belgium (Fl), Germany, Japan and Korea to below 40% in New Zealand, Portugal and the United States (see Table A4.1 in *Education at a Glance 2010*).

In some countries, students may enter university-level education but graduate with a qualification from vocationally oriented tertiary education. This is the case for 15% of students in France: In other words, in France, out of 100 students who start university-level education, 64 will receive at qualification at that level, 15 will be re-oriented to a programme in vocationally oriented tertiary education, and only 21 will leave without a tertiary qualification. The reverse is also true – students who enter a programme in vocationally oriented tertiary education but graduate with a university-level qualification: This is the case for 21% of students who enrol in vocationally oriented tertiary education in Iceland, 9% in Sweden and 7% in New Zealand.

There appears to be no clear link between completion rates and the level of tuition fees charged to students (see page 62). In Australia, Japan, Korea, the Netherlands, New Zealand, the United Kingdom and the United States, tuition fees charged by university-level institutions exceed USD 1 500. In New Zealand and the United States completion rates are significantly below the OECD average of 70%, but in the other countries they are above it. By contrast, Denmark, which does not charge tuition fees and provides high levels of public subsidies for students, has a completion rate of 82%, well above the OECD average.

Definitions

Data were collected through a special survey undertaken in 2009-10. Completion rates are defined as the proportion of new entrants entering tertiary education who graduate with at least a first degree. This includes students who successfully graduate after re-orientating from university-level education to vocationally oriented tertiary education, and *vice versa*. The different methods used to calculate completion rates (*i.e.* true cohort or cross-section methods) are explained in Annex 3 of *Education at a Glance 2010*.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

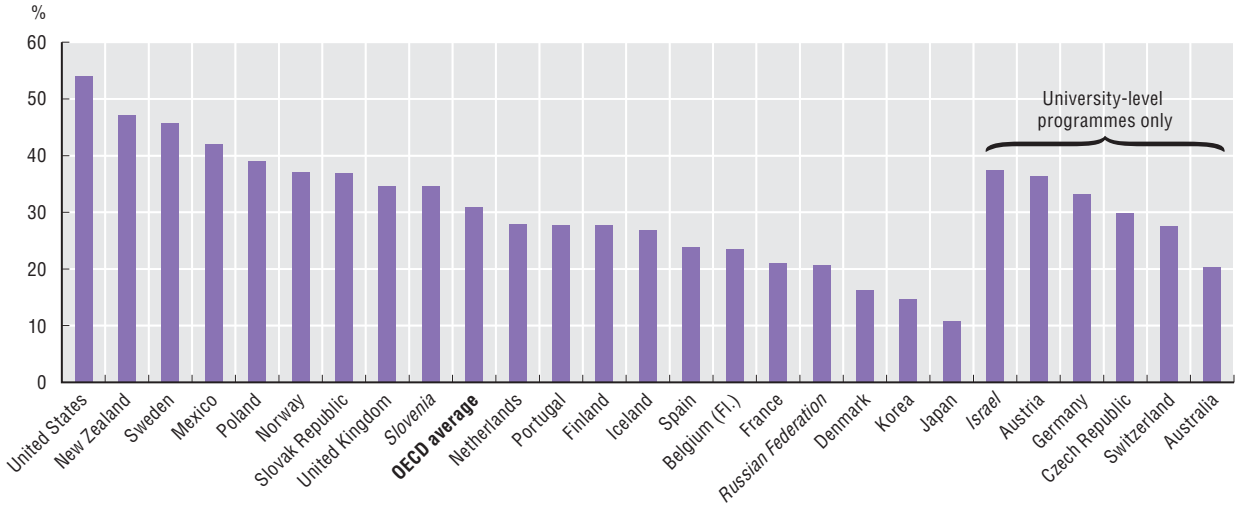
For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator A4).

Areas covered include:

- Estimated graduation rates for a 90% level of completion rates.

Figure 1.11. **Proportion of students who enter tertiary education without graduating, 2008**

This figure shows the proportion of students who enter tertiary education and do not subsequently graduate with at least a first degree at this level. Some students who are shown as not graduating may still be enrolled, or – especially in the United States – may finish their education at a different institution from the one they start at.



Source: OECD (2010), *Education at a Glance 2010*, Table A4.1, available at *http://dx.doi.org/10.1787/888932310149*.

How successful are students in moving from education to work?

- *On average across OECD countries, a 15-year-old in 2008 could expect to continue in formal education for about another 6 years and 10 months.*
- *On average, completing upper secondary education reduces unemployment among 20-24 year-olds by 8.3 percentage points and among 25-29 year-olds by 5.3 percentage points.*
- *The proportion of 20-24 year-olds who are not in education and have not attained upper secondary education is nearly 11 percentage points higher among people born abroad; however, there are very large variations between countries.*

Significance

This spread looks at the number of years young people can be expected to spend in education, employment and non-employment. All OECD countries are experiencing rapid social and economic changes that make the transition to working life more uncertain for younger individuals. In many cases, the challenges are especially severe for young people from an immigrant background. In the wake of the economic crisis, long-term unemployment among young adults is likely to rise in most countries.

Findings

On average, a 15-year-old can expect to remain in school for an additional 6 years and 10 months, but this rises to a high of at least 8 years in Denmark, Finland, Iceland, the Netherlands and *Slovenia* and a low of 5 years or less in Mexico and Turkey. In addition, an average 15-year-old can expect over the next 15 years to hold a job for about 6 years and 1 month, to be unemployed for just over 8 months and to be out of the labour market – neither in education nor seeking work – for 1 year and 2 months.

Young people (15-19 years-old) who are not in employment, education or training, or "NEETs", have attracted considerable attention in some countries, in part because they often receive little or no support from the welfare system. On average across OECD countries, the proportion of NEETs among 15-19 year-olds is 6.8%, ranging from over 31% in Turkey to 2.1% in the Netherlands.

On average, completing upper secondary education reduces the unemployment rate among 20-24 year-old non-students by 8.3 percentage points. Since it has become the norm in most OECD countries to complete upper secondary education, those who fail to do so are much more likely to have difficulty finding a job when they enter the labour market. In Belgium, France, Ireland, Luxembourg, the Slovak Republic, Spain and the United Kingdom, the unemployment rate for 20-24 year-old non-students with less than upper secondary education attainment is 15% or more.

The proportion of 20-24 year-olds who are not in education and have not attained upper secondary education is typically higher among people who were born abroad. On average across OECD countries, this difference is nearly 11 percentage points, but there are big variations between countries. In Austria, the Czech Republic, Greece, Poland, Switzerland, the United States and *Slovenia*, the foreign-born in this age group are three times more likely not to be in education and not to have attained upper secondary education. But in Australia, Canada, Hungary, Portugal and the United Kingdom, immigrants do better than natives.

Trends

Over the past 12 years, rates for those not in education and not employed have varied by 10 percentage points or more in the Czech Republic, Greece, Hungary, Poland, the Slovak Republic and Spain, indicating that 20-24 year-olds have experienced very different labour market conditions (see Chart C3.3 in *Education at a Glance 2010*).

Definitions

Data are collected as part of the annual OECD Labour Force Survey. For certain European countries, the data come from the annual European Labour Force Survey. Persons in education include those attending school part-time and full-time. Non-formal education or educational activities of very short duration are excluded. Note, the reference year used for data shown here, 2008, does not yet take into account the impact of the global recession (see next page).

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator C3).

Areas covered include:

- Expected years in education and not in education for 15-29 year-olds, plus trends and gender differences.
- Education and occupational mismatches for young individuals.

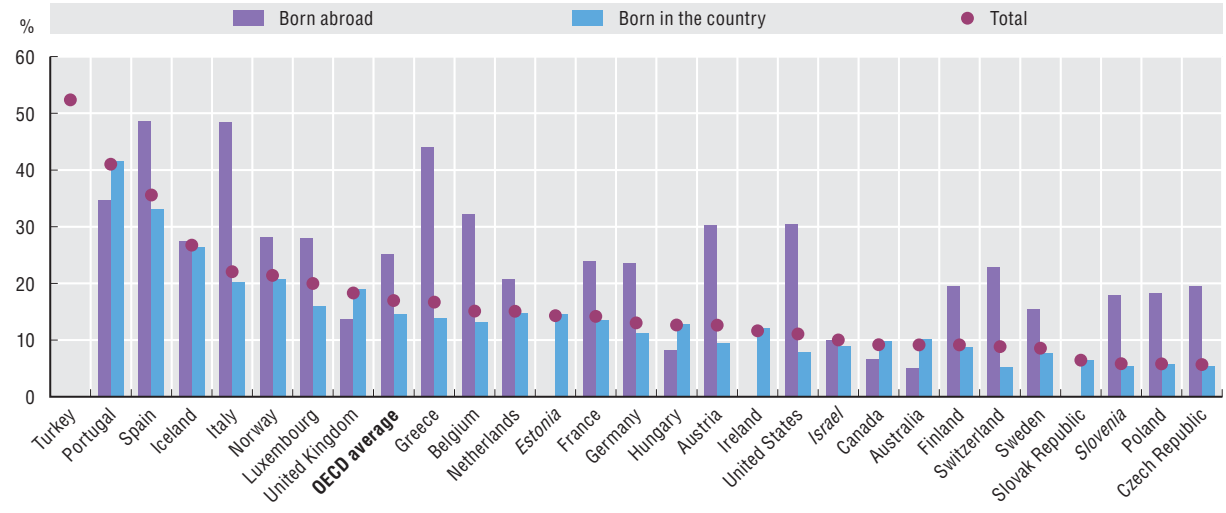
Further reading from OECD

Closing the Gap for Immigrant Students (2010).

From Education to Work (2005).

Figure 1.12. **Percentage of 20-24 year-olds not in education, 2007**

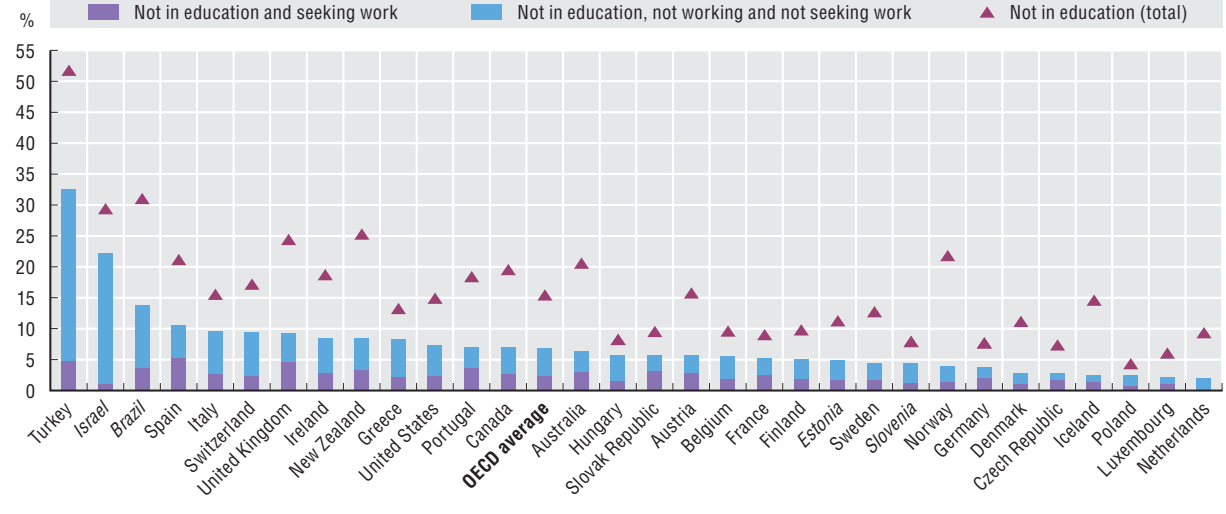
This figure shows the proportion of 20-24 year-olds who are not in education and who have not attained upper secondary education, by migrant status.



Source: OECD (2010), *Education at a Glance 2010*, Table C3.5, available at *http://dx.doi.org/10.1787/888932310453*.

Figure 1.13. **Percentage of 15-19 year-olds not in the labour market or the education system, 2008**

This figure shows the percentage of 15-19 year-olds who are not in education, as well as those not in education and unemployed and those not in education and not in the labour force.



Source: OECD (2010), *Education at a Glance 2010*, Table C3.2a, available at *http://dx.doi.org/10.1787/888932310453*.

How has the crisis affected the transition to work?

- *The unemployment rate for 15-29 year-olds in OECD countries increased on average by 3.3 percentage points between 2008 and 2009, more than for the general population.*
- *Within that group, unemployment among people who have not attended upper secondary education has risen more than among tertiary graduates.*
- *The proportion of 15-29 year-olds remaining on or re-entering education has risen in many OECD countries.*

Significance

The recession that followed the financial crisis of 2008 has led to a big increase in unemployment in OECD countries. By the end of 2011, OECD countries will need to create 15 million jobs to return to pre-crisis employment levels. This spread looks at how the jobs crisis has affected young people's transition from education to employment.

Findings

The economic crisis has affected labour markets in a number of ways. Part-time work has increased, average actual hours worked by the full-time employed have decreased, and the number of employees with temporary contracts has decreased in European countries. While the overall unemployment rate among the OECD countries increased by 2.0 percentage points between 2008 and 2009 (from 5.0% to 7.0%), the extent of the increase varies with age and level of education.

Young people have been the most affected. The unemployment rate for 15-29 year-olds in OECD countries has increased on average by 3.3 percentage points from 10.2% to 13.5%. As a result of the economic crisis, the labour market is becoming more selective and the lack of relevant skills and experience brings a higher risk of unemployment for recent entrants. The extent of risk varies with the level of education.

Among OECD countries (excluding Chile, Japan, Korea, Mexico and the United States), the lowest increase in the unemployment rate between 2008 and 2009 has been among those with higher levels of education. It increased by 4.8 percentage points for those who did not complete upper secondary education, and by 1.7 percentage points for those who completed tertiary education. Workers with the lowest educational attainment are more likely to be in sectors such as construction or the automobile industry, which have been severely affected by the crisis.

With jobs hard to find, returning to or remaining in education can be an alternative for many young people. Between 2008 and 2009, the proportion of 15-29 year-olds in OECD countries (excluding Chile, Japan, Korea, Luxembourg, Mexico and the United States), in education overall increased by 0.5 percentage points. Among 15-19 year-olds, the increase was 0.7 percentage points; among 20-24 year-olds, 0.9 percentage points; and among 25-29 year-olds, 0.3 percentage points. Overall, data suggest that these increases in participation largely reflect people remaining in – rather than returning to – education.

Definitions

Data presented here are derived in part from "The impact of the crisis on employment" in *Statistics in Focus 79/2009*, published by Eurostat (2009) and the *OECD Employent Outlook 2010*.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

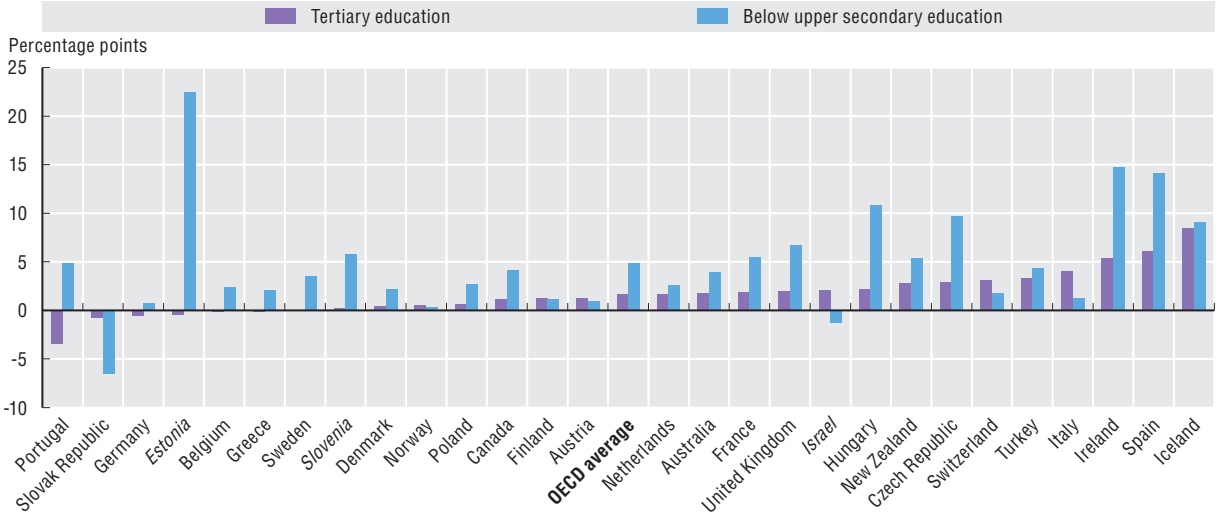
For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator C3).

Further reading from OECD

OECD Employment Outlook 2010 (2010).

Figure 1.14. **Change in unemployment rate for young people, 2008-09**

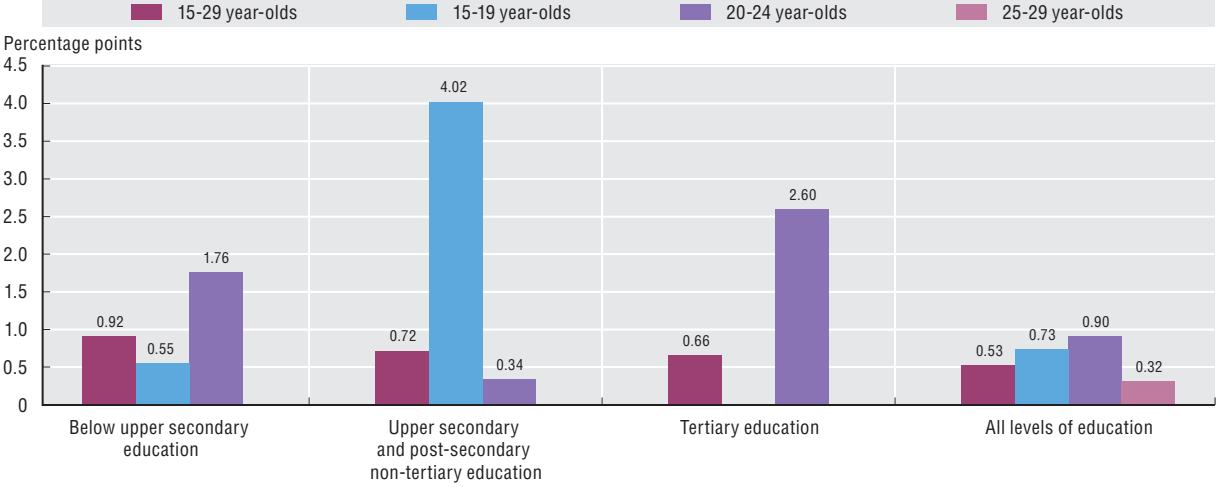
This figure shows the change in the number of 15-29 year-olds who were unemployed between 2008 and 2009.



Source: OECD (2010), *Education at a Glance 2010*, Box Chart 1 in Indicator C3, available at *http://dx.doi.org/10.1787/888932310453*.

Figure 1.15. **Change in numbers of young people participating in education, 2008-09**

This figure shows the change in percentage points in the numbers of students participating in education by age group and by level of educational attainment.



Source: OECD (2010), *Education at a Glance 2010*, Box Chart 2 in Indicator C3, available at *http://dx.doi.org/10.1787/888932310453*.

How many adults take part in education and training?

- *Across the OECD, more than 40% of the adult population participates in formal or non-formal education in a given year.*
- *The extent of participation varies considerably between countries, from more than 60% of adults in New Zealand and Sweden to less than 15% in Hungary and Greece.*
- *Adults with higher levels of pre-existing education and younger adults are more likely to take part in education and training.*

Significance

Continuing education and training for adults is essential to upgrade workers' skills and increase an economy's overall level of skills. This is especially the case as economies cope with trends like globalisation, changing technologies, the shift from manufacturing to services and more flexible management practices that increase the responsibility of lower-level workers. Changing demographics are also a major challenge: As societies age, people will need to go on working for longer, so developing the skills of older workers will be essential. Against that background, this spread looks at the extent to which the working age population is participating and investing in education and training.

Findings

Across the OECD, more than 40% of the adult population (25 to 64) takes part in at least one formal or non-formal education activity each year. Participation rates vary considerably: They stand at more than 60% of adults in New Zealand and Sweden; 50% or more in Finland, Norway and Switzerland; less than 25% in Italy and Poland; and less than 15% in Greece and Hungary.

There are also variations in participation between different groups of workers, notably between younger and older adults and between adults with higher and lower levels of educational attainment.

In most countries, younger adults (25 to 34) are most likely to take part in education and training and older workers (55 to 64) least likely (50% against 27%) (see Table A5.1a in *Education at a Glance 2010*). A number of factors may be at work here: Older workers may place less value on acquiring new skills and employers may offer them fewer training opportunities.

Participation is also greater among people with higher levels of education. On average for the OECD countries surveyed, participation in formal or non-formal education is 20 percentage points higher for people who have attained tertiary education than among those with upper secondary or post-secondary non-tertiary education. In turn, this latter group has a participation rate 18 percentage points higher than those who have not attained upper secondary education.

Differences in participation between men and women are generally small and are equal to or greater than five percentage points in only eight countries. In Canada, Finland, Sweden, the United States and *Estonia*, participation rates are higher for women; in the Czech Republic, Germany and the Netherlands they are higher for men (see Table A5.1a in *Education at a Glance 2010*).

Definitions

Data presented here are based on a special OECD data collection. Data for non-European countries were calculated from country-specific household surveys. Data for countries in the European statistical system come from the pilot EU Adult Education Survey, covering 29 countries. Formal education is defined as 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. Non-formal education is defined as an organised and sustained educational activity that may take place both within and outside educational institutions and cater to persons of all ages.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator A5).

Areas covered include:

- Participation in job-related non-formal education, by gender and labour force status.
- Mean hours in non-formal education, by gender, educational attainment and labour force status.

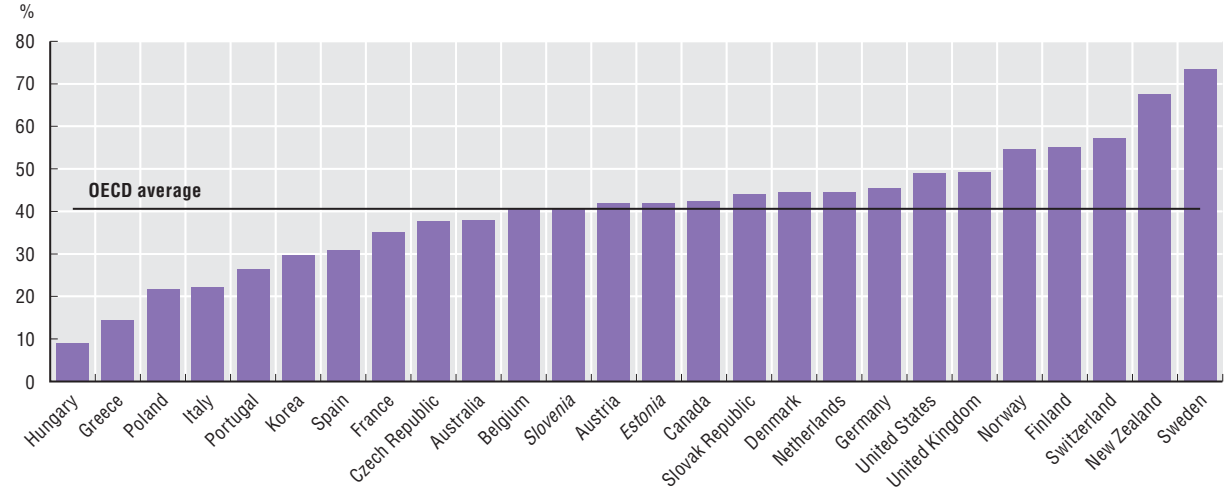
Further reading from OECD

Recognising Non-Formal and Informal Learning (2010).

Education and Training Policy – Qualifications Systems: Bridges to Lifelong Learning (2009).

Figure 1.16. **Participation in formal or non-formal education, 2007**

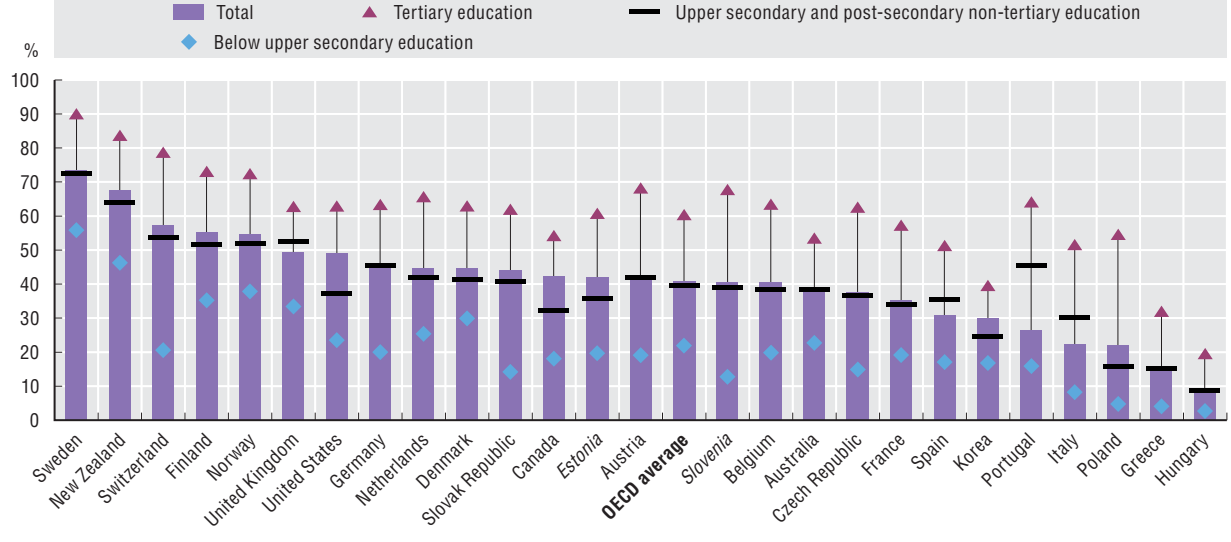
This figure shows the percentage of adults (25 to 64) who take part in formal or non-formal education. Across the OECD, the average participation rate is 41%.



Source: OECD (2010), *Education at a Glance 2010*, Table A5.1a, available at *http://dx.doi.org/10.1787/888932310168*.

Figure 1.17. **Participation in formal or non-formal education, by educational attainment, 2007**

This figure shows the percentage of adults by level of educational attainment who take part in formal or non-formal education. People with higher levels of attainment tend to participate more in further education.



Source: OECD (2010), *Education at a Glance 2010*, Table A5.1b, available at *http://dx.doi.org/10.1787/888932310168*.

How many adults investigate training opportunities?

- *Adults who looked for information on training were twice as likely to participate in formal or non-formal education as those who did not.*
- *On average, 52% of adults had no contact with either the education and learning system or the information and guidance system.*
- *On average, 7% of adults looked for information but did not participate in further learning.*

Significance

As noted on the preceding pages, education and training for adults are key to expanding the workforce's skills. However, in most countries, substantial numbers of adults – especially those with relatively low levels of education – do not take part in further learning. Information, guidance and counselling services can provide a first step to increasing adult participation by helping to create accessible learning environments, supporting learning at all ages and in a range of settings, and empowering citizens to manage their learning and work. This spread looks at the number of adults who make use of such information and guidance systems.

Findings

Individuals who looked for information were twice as likely to participate in formal or non-formal education as those who did not. The relative difference varies from less than twice in Finland, Germany, the Slovak Republic and Sweden, to more than three times in Greece, Hungary, Italy, Poland and Portugal.

On average in the countries providing data, 52% of adults (25 to 64) had no contact with either the education and learning system or the information and guidance system, 41% participated in adult education and 7% looked for information but did not participate. Countries vary markedly on all three measures. More than two-thirds of adults remained outside both systems in Greece, Hungary, Italy, Poland and Portugal, while two-thirds participated in Finland, the Netherlands, Sweden and the United Kingdom.

Even among those who have not looked for information about learning possibilities in the past year, a sizeable 27% of adults took part in educational activities. How is this possible? Probably the most important explanation is employer-sponsored training: workers are given training that they did not seek or choose. Another possibility is attendance at learning activities of fairly long duration, which continue without the need for further information by the participant.

Definitions

Data presented here are based on a special OECD data collection. Data for non-European countries were calculated from country-specific household surveys. Data for countries in the European statistical system come from the pilot EU Adult Education Survey, covering 29 countries. Formal education is defined as 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. Non-formal education is defined as an organised and sustained educational activity that may take place both within and outside educational institutions and cater to persons of all ages.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator A5).

Areas covered include:

- Proportion of adults who have looked for or found information on formal or non-formal education opportunities, by gender, age group and labour market status.

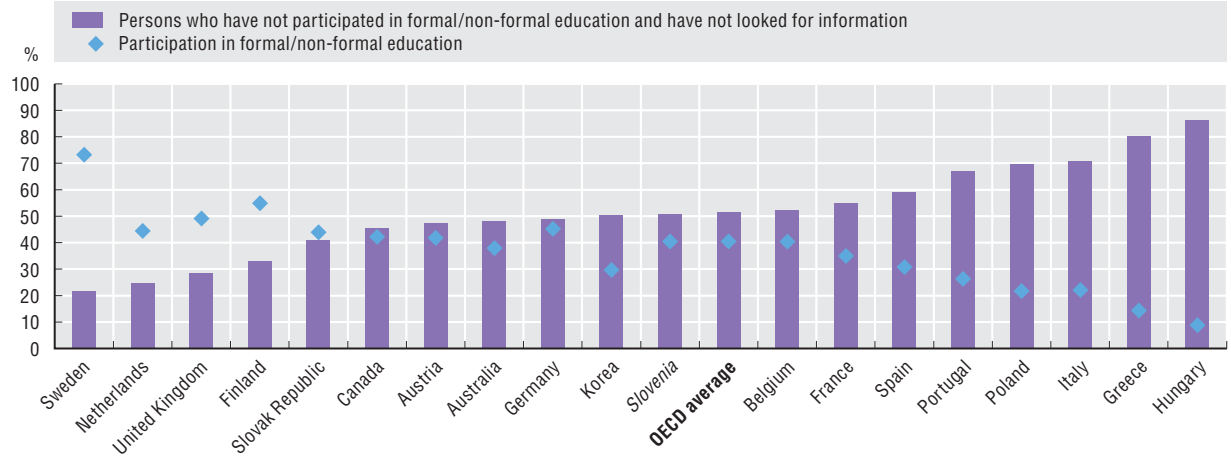
Further reading from OECD

Education and Training Policy – Qualifications Systems: Bridges to Lifelong Learning (2009).

Co-financing Lifelong Learning: Towards a Systemic Approach (2004).

Figure 1.18. **Adults who have not sought information on nor participated in formal or non-formal education, 2007**

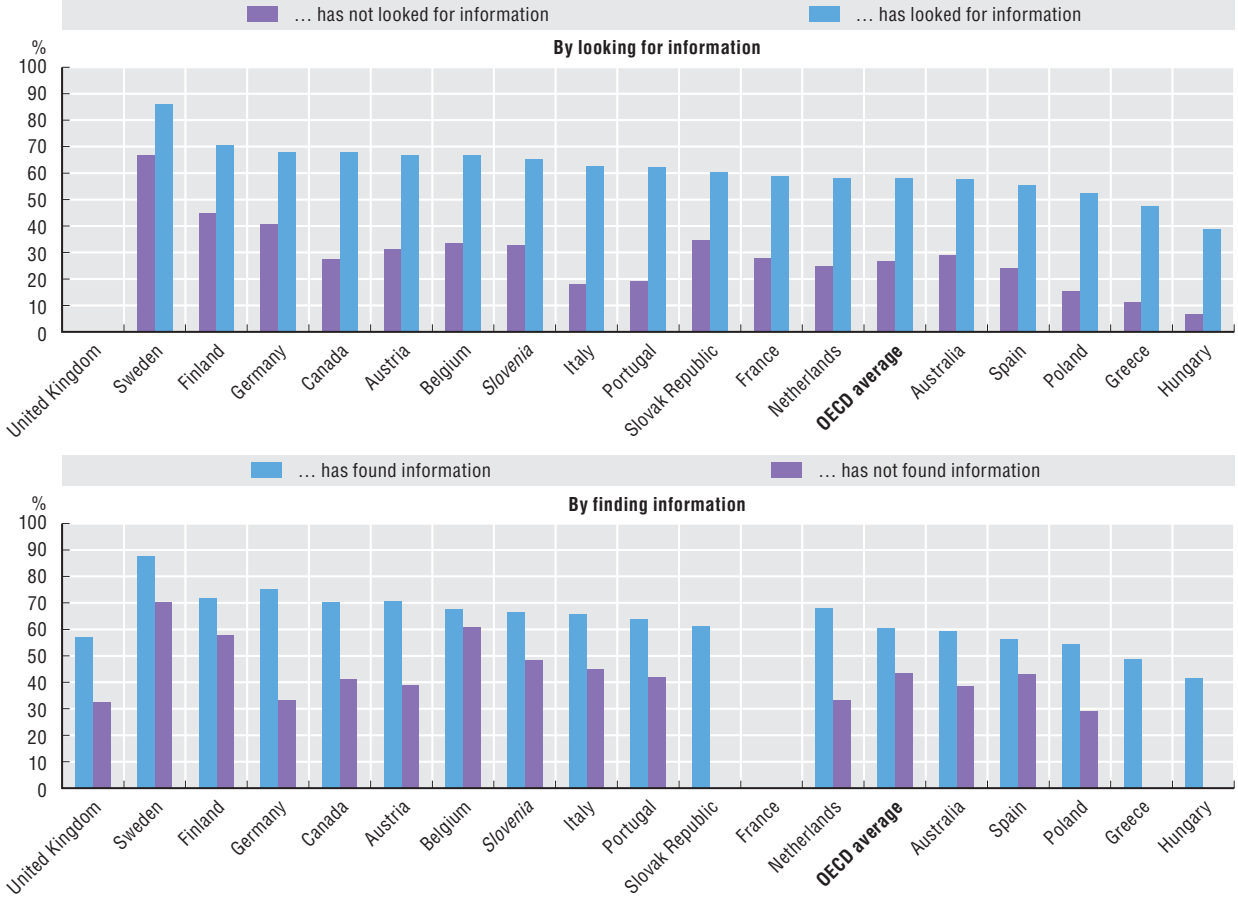
This figure shows the percentage of adults (25 to 64) who have neither taken part in nor sought information on formal or non-formal education compared with the percentage of adults who have taken part in such education.



Source: OECD (2010), *Education at a Glance 2010*, Table A5.2 available at *http://dx.doi.org/10.1787/888932310168*.

Figure 1.19. **Participation in formal or non-formal education by people who have looked for or found information on learning activities**

These figures show the percentage of adults who have taken part in further education by two categories: 1. Those who did so after looking or not looking for information; 2.Those who did so after finding or not finding information.



Source: OECD (2010), *Education at a Glance 2010*, Table A5.3, available at *http://dx.doi.org/10.1787/888932310168*.

How many students study abroad?

- *In 2008, over 3.3 million tertiary students were enrolled outside their country of citizenship, representing an increase of nearly 11% on the previous year.*
- *Just over 79% of students worldwide who study abroad do so in OECD countries.*
- *Asians account for almost 49% of all students studying abroad in the OECD area.*

Significance

This spread looks at the extent to which students are studying abroad. One way for students to expand their knowledge of other cultures and languages, and to better equip themselves in an increasingly globalized labour market, is to pursue their higher-level education in countries other than their own. Some countries, particularly in the European Union, have even established policies and schemes that promote such mobility to foster intercultural contacts and help build social networks.

Findings

OECD countries attract the bulk of students who study abroad worldwide – just slightly under four out of five. A number of those students (31%) are themselves from other OECD countries: Of the total number of students studying abroad in the OECD area, 2.4% come from France 3.4% from Germany 2.1% from Japan, 4.6% from Korea and 1.8% each from Canada and the United States. But the biggest single source country is China, which accounts for 17.1% of all students studying abroad in the OECD area (or 18.5% if Hong Kong, China is included). Indeed, Asia generally is the biggest source area for such students, accounting for just under 49% of the total in OECD countries. Their presence is particularly strong in Australia, Japan and Korea, where they account for more than 75% of international and foreign students. In the OECD area, the Asian group is followed by the Europeans, accounting for 24.5% of international and foreign students, followed by Africa with 10.1%, South America with 5.3% and North America with 3.7% (see Table C2.2 in *Education at a Glance 2010*).

There are big variations between countries in the percentage of international students enrolled in their tertiary student body. In Australia, international students represent 20.6% of tertiary students; 15.5% in Austria; 12.9% in New Zealand; 14.1% in Switzerland; and 14.7% in the United Kingdom. By contrast, the proportion in Chile and in *Estonia* and *Slovenia* is less than 2%.

As noted on page 16, the large presence of international students has a significant impact on tertiary entry rates in a number of countries, in especially Australia and New Zealand (see Chart A2.5 in *Education at a Glance 2010*). Equally, as the second chart on the opposite page shows, international and foreign students can have a big impact on tertiary graduation rates. If data from international students were excluded, graduation rates from university-level education in Australia and New Zealand would drop by 15 and 8 percentage points respectively.

Trends

Over the past three decades, the number of international students has grown substantially, from 0.8 million worldwide in 1975 to 3.3 million in 2008, a more than four-fold increase. This growth has accelerated since the late 1990s, mirroring the globalization of economies and societies.

Definitions

Data on international and foreign students are based on the UOE data collection on education statistics, administered annually by the OECD. Data from the UNESCO Institute for Statistics are also included. Students are classified as "international" if they left their country of origin and moved to another country to study. Students are classified as "foreign" if they are not citizens of the country in which they are studying. This latter category includes some students who are permanent residents, albeit not citizens, of the countries in which they are studying (for example, young people from immigrant families).

Going further

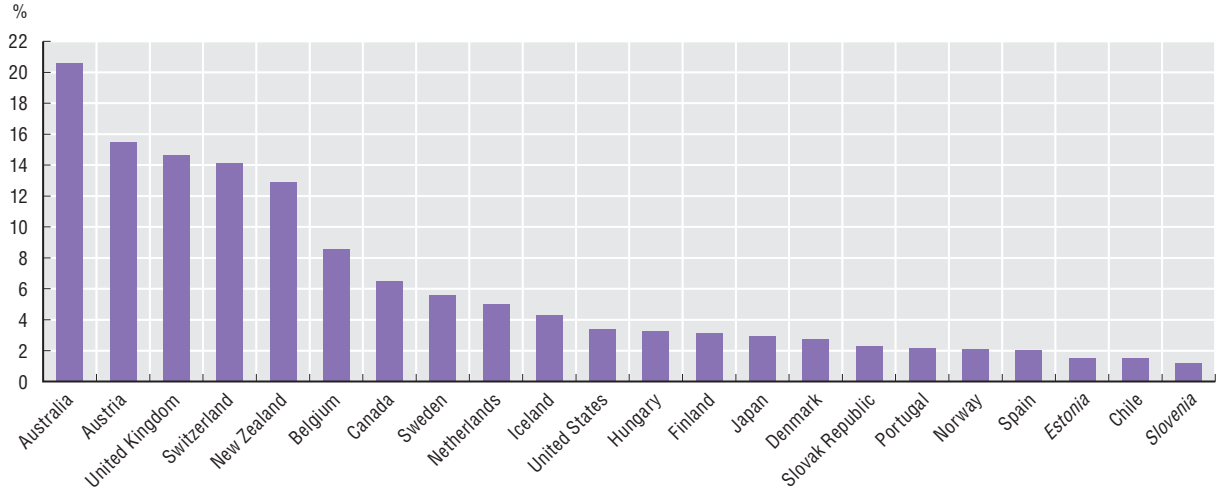
For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicators C2 and A3).

Areas covered include:

- Distribution of students by country of origin and destination.
- Trends in the numbers of students studying abroad.

Figure 1.20. **Percentage of international students enrolled in tertiary enrolments, 2008**

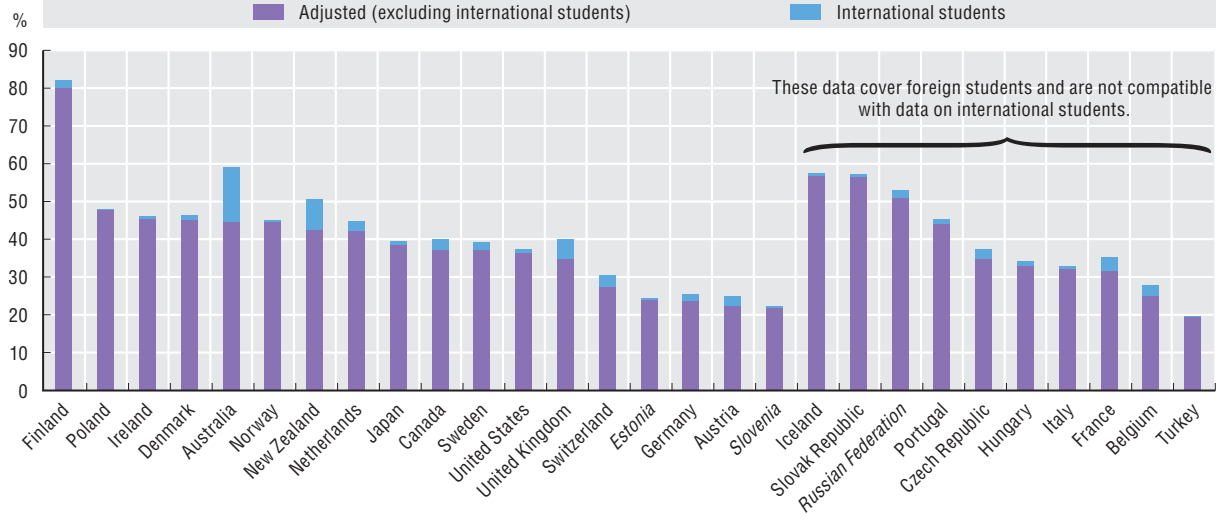
This figure shows the share of international students in each country's student body at tertiary level.



Source: OECD (2010), *Education at a Glance 2010*, Table C2.1, available at *http://dx.doi.org/10.1787/888932310434*.

Figure 1.21. **Impact of international/foreign students on graduation rates in university-level education, 2008**

This figure shows the percentage of international and foreign students compared with domestic students among graduates taking a first degree.



Source: OECD (2010), *Education at a Glance 2010*, Table A3.3, available at *http://dx.doi.org/10.1787/888932310130*.

Where do students go to study?

- *Five countries – Australia, France, Germany, the United Kingdom and the United States – hosted almost half of the world's students who studied abroad in 2008.*
- *The United States saw a significant drop as a preferred destination of foreign students between 2000 and 2008, falling from about 26% of the global market share to less than 19%.*
- *Thirty per cent or more of international students are enrolled in sciences, agriculture or engineering in Canada, Denmark, Finland, Germany, Sweden, Switzerland and the United States and* Slovenia.

Significance

This indicator describes students' preferred destinations and subjects they study. As well as its social and educational effects, international study has a substantial economic impact. Some OECD countries already show signs of specialisation in the sort of education programmes they offer, and the internationalisation of education is likely to have a growing impact on countries' balance of payments as a result of revenue from tuition fees and domestic consumption by international students. There are financial benefits, too, for educational institutions; international students can also help them to reach the critical mass needed to diversify the range of their educational programmes.

Findings

The five most popular destination countries in 2008 were as follows: The United States, which took in 19% of all foreign students; the United Kingdom, 10%; and Australia, France and Germany, which each took in 7%. Other major destinations include Canada, 6%; Japan and the *Russian Federation*, 4%; and Italy, 2%. (Figures for Australia, the United Kingdom and United States refer to international students; see Definitions on previous page.)

Language is an essential factor in students' choice of destination country. Countries whose language of instruction is widely spoken and read (*e.g.* English, French, German and Russian) are therefore leading destinations, although Japan is a notable exception. The dominance of English-speaking destinations, such as Australia, Canada, the United Kingdom and the United States, may be explained by the fact that students intending to study abroad are most likely to have learned English in their home country or wish to improve their English language skills through immersion and study abroad. An increasing number of institutions in non-English-speaking countries now offer courses in English as a way of attracting more foreign students.

Sciences attract at least one in six international students in Germany (16.9%), just over 17% in Iceland, just over 20% in New Zealand, and just under 20% in the United States; in Japan, however, the figure is fewer than one in fifty (1.3%). Non-Anglophone countries tend to enrol high proportions of such students in the humanities and the arts, ranging from over 20% in Germany to almost 42% in Iceland. Social sciences, business and law programmes also attract students in large numbers. In Australia, the Netherlands and *Estonia*, these fields enrol around half of all international students. In EU countries, health and welfare programmes attract large proportions of international students, most notably in Belgium, accounting for almost 34% of international students, Hungary with almost 36% and Spain more than 33%.

Trends

A number of countries saw a fall in their market shares in the first half of this decade. The most notable decline was in the United States, which was the destination for more than one in four international students in 2000, but less than one in five in 2008. Germany's market share fell by about 3 percentage points, the United Kingdom's by 2 percentage points, and Belgium's by about a percentage point. By contrast, the impressive growth in the *Russian Federation's* share by 2 percentage points makes it an important new player on the international education market. There were increases also in the shares of Australia, Korea, and New Zealand, which grew by about a percentage point each. The slump in the United States' share may be due in part to the tightening of conditions of entry for foreign students following the September 2001 attacks, and to competition from universities in the Asia-Pacific, which are becoming increasingly active in their marketing efforts.

Definitions

See previous spread.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator C2).

Areas covered include:

- Trends in international education market shares.

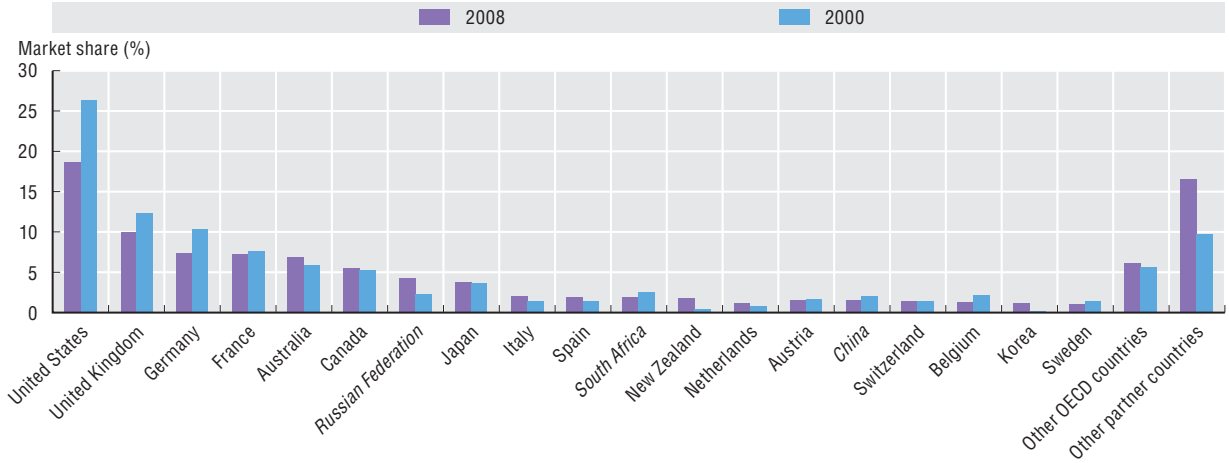
Further reading from OECD

Cross-border Tertiary Education: A Way towards Capacity Development (2007).

Internationalisation and Trade in Higher Education: Opportunities and Challenges (2004).

Figure 1.22. **Trends in market share for international education (2000, 2008)**

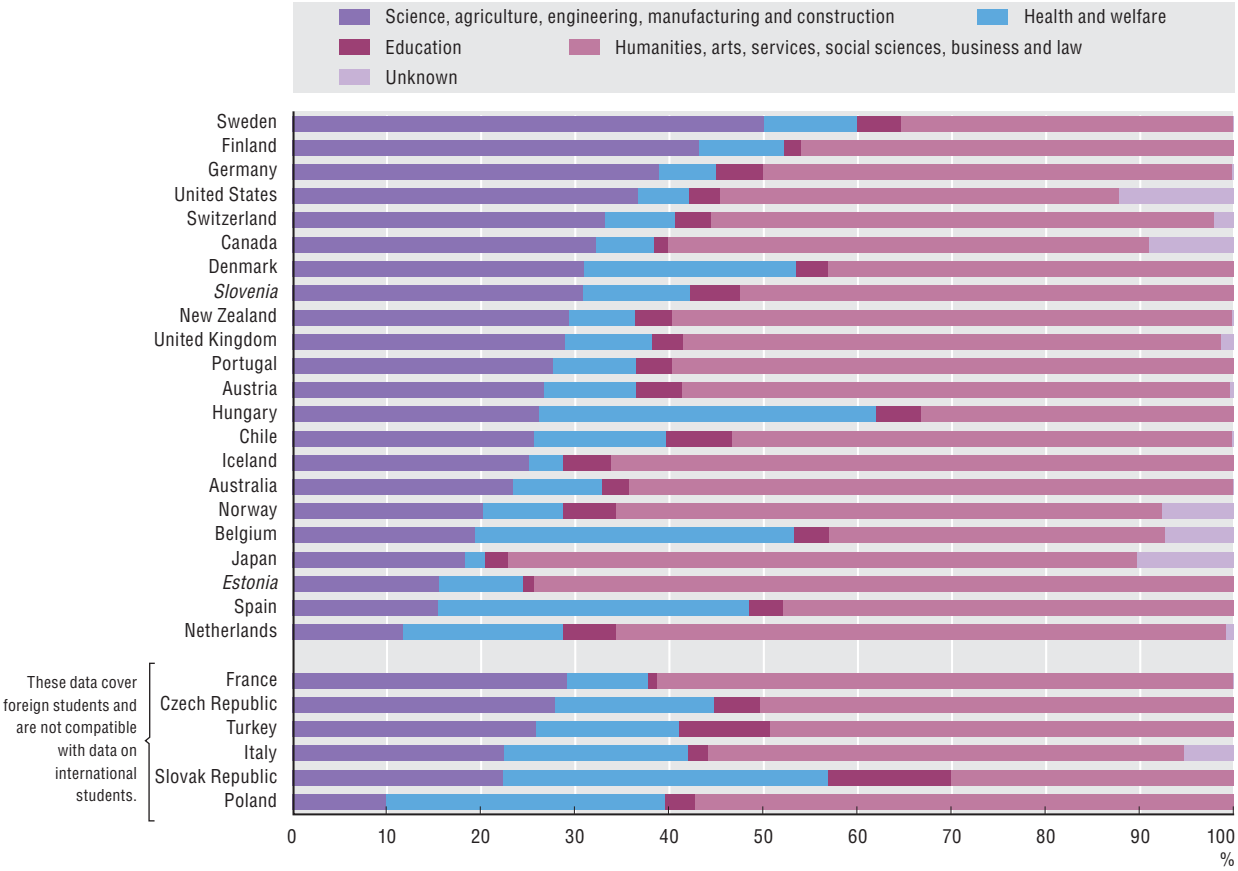
This figure shows the share of all foreign tertiary students taken by each of the major study destinations, and how that share has changed. Most notably, more than a quarter of all foreign students went to the United States in 2000, but this has since fallen to less than a fifth.



Source: OECD (2010), *Education at a Glance 2010*, Table C2.7, available at *http://dx.doi.org/10.1787/888932310434*.

Figure 1.23. **Subjects studied by international students, 2008**

This figure shows the fields of study pursued by international students.



Source: OECD (2010), *Education at a Glance 2010*, Table C2.5, available at *http://dx.doi.org/10.1787/888932310434*.

2. THE ECONOMIC AND SOCIAL BENEFITS OF EDUCATION

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How much more do tertiary graduates earn?

- *Earnings tend to rise in line with people's level of education.*
- *The earnings premium for tertiary education is substantial and exceeds 50% in more than half the countries studied.*
- *Across all countries and all levels of education, women earn less than men, and that gap is not reduced with more education.*

Significance

This spread examines the relative earnings of workers with different levels of education. Differences in pre-tax earnings between educational groups provide a good indication of supply and demand for education. Combined with data on earnings over time, these differences provide a strong signal of whether education systems are meeting the demands of the labour market.

Findings

Variations among countries in relative earnings reflect a number of factors, including the demand for skills in the labour market, minimum wage legislation, the strength of unions, the coverage of collective bargaining agreements, the supply of workers at various levels of educational attainment, and levels of part-time and seasonal work. Still, earnings differentials are among the more straightforward indications as to whether the supply of educated individuals meets demand, particularly in the light of changes over time.

As the data show, educational attainment is strongly linked to average earnings. In all countries, graduates of tertiary education earn more overall than upper secondary and post-secondary non-tertiary graduates – their earnings are 153% of the earnings of people at the lower level of education. At the other end of the education scale, people who have not completed upper secondary education earn only 78% of what those with upper secondary or post-secondary non-tertiary education earn.

Women earn substantially less than men, on average, and that gap is not reduced with more education. The gap is smallest among those with upper secondary and post-secondary non-tertiary education, where women's earnings are 76% of men's, and largest among those with tertiary education, at 72%. Financial rewards from tertiary education benefit women more than men only in Australia, Ireland, Japan, Korea, the Netherlands, Spain, Switzerland, the United Kingdom, Turkey and *Brazil* and *Estonia*. The reverse is true in the remaining countries with the exceptions of Austria, Canada and Norway, where – relative to upper secondary education – the earnings of men and women are equally enhanced by tertiary education. Despite the earnings advantages of higher education, earnings differentials between men and women with the same educational attainment remain substantial.

The earnings advantage from education increases with age. Tertiary earnings are relatively higher at an older age in all countries except Australia, Italy, Turkey and the United Kingdom and *Brazil* and *Israel*. For those with below upper secondary education the earnings disadvantage generally increases with age (see Chart A7.3 in *Education at a Glance 2010*).

Trends

The earnings premium from tertiary education rose in most countries in the 10 years to 2008 (see Table A7.2a in *Education at a Glance 2010*). The rise was most notable in Germany and Hungary although these countries have low tertiary attainment levels compared to the OECD average. But in a few countries, most notably New Zealand, Sweden and the United Kingdom, the premium decreased slightly. Whether this reflects weakening demand for tertiary graduates or the entry into the labour market of younger tertiary graduates with relatively low starting salaries is unclear.

Definitions

Earnings data differ across countries in a number of ways, including whether they are reported annually, monthly or weekly. Thus results shown here should be interpreted with caution. Similarly, the prevalence of part-time and part-year earnings in most countries suggest that caution is needed in interpreting earnings differentials in countries, particularly between men and women.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator A7).

Areas covered include:

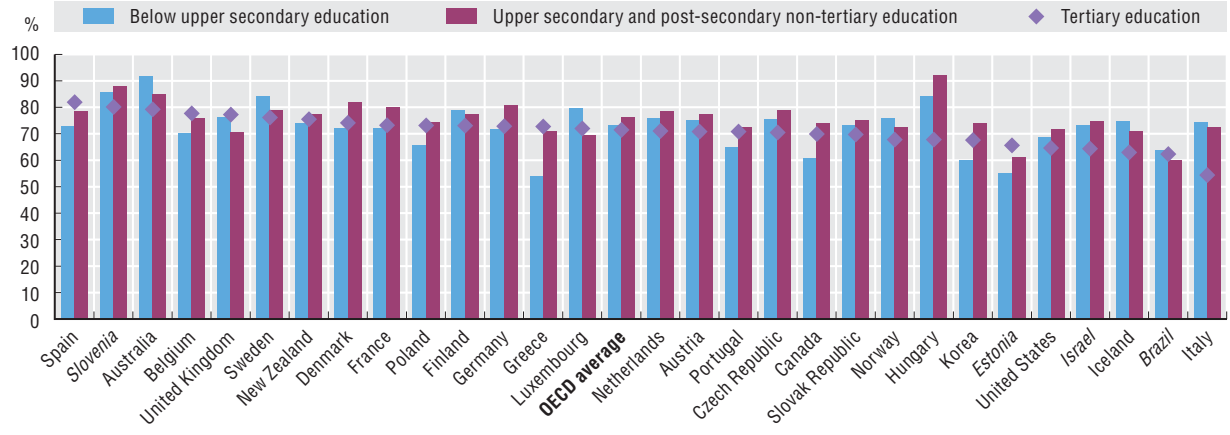
- Trends in relative earnings of the population.
- Differences in earnings by gender and by age.
- Differences in earnings distribution according to educational attainment.

Further reading from OECD

Understanding the Social Outcomes of Learning (2007).

Figure 2.1. **Differences in earnings between women and men, 2008**

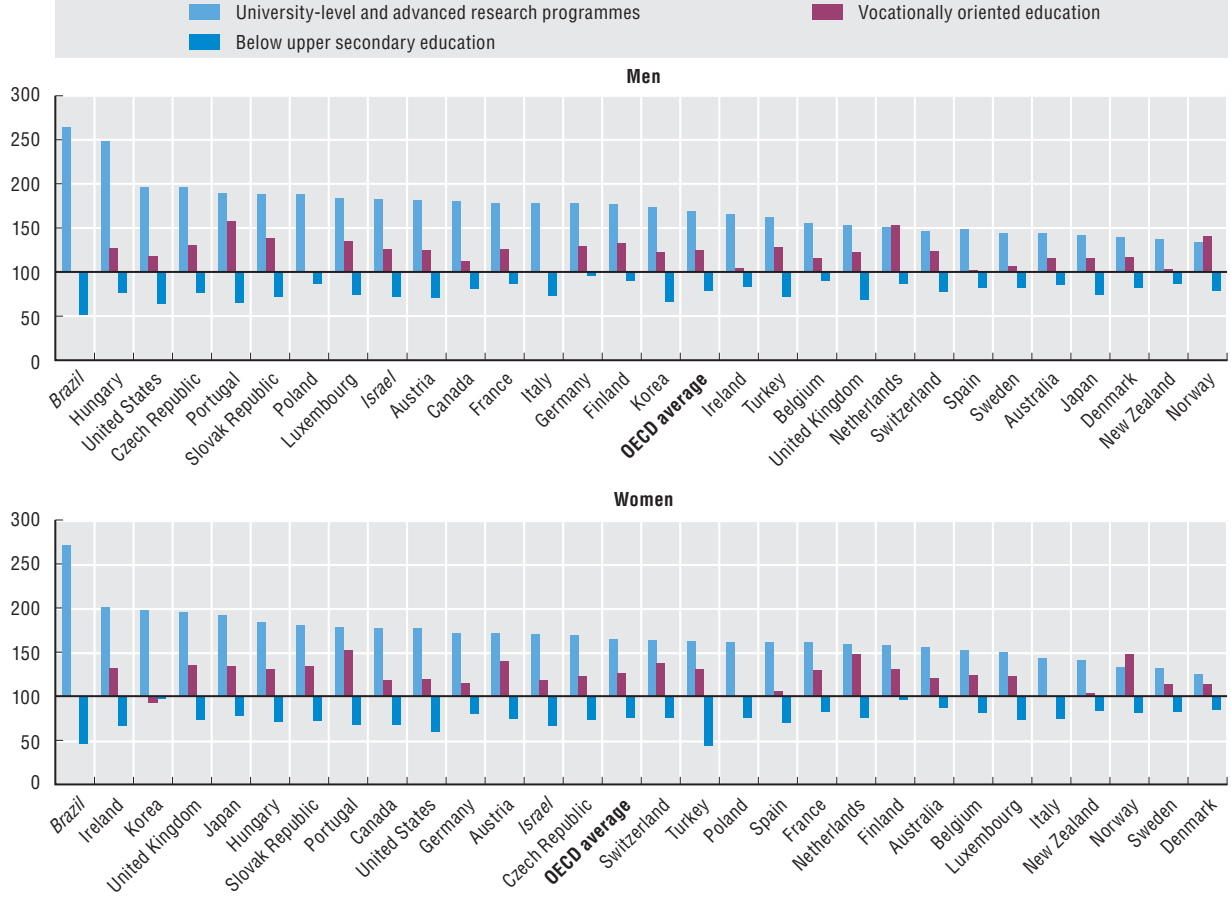
This figure shows women's average full-time, full-year earnings as a percentage of men's by level of educational attainment.



Source: OECD (2010), *Education at a Glance 2010*, Table A7.3a, available at *http://dx.doi.org/10.1787/888932310206*.

Figure 2.2. **Relative earnings from employment, 2008**

These figures show the earnings of men and women by their level of educational attainment (relative to the earnings of graduates of upper secondary and post-secondary non-tertiary education).



Source: OECD (2010), *Education at a Glance 2010*, Table A7.1, available at *http://dx.doi.org/10.1787/888932310206*.

How does education affect employment rates?

- *In general, people with higher levels of education have better job prospects; the difference is particularly marked between those who have attained upper secondary education and those who have not.*
- *In all OECD countries, tertiary graduates are more likely to be in work than non-graduates.*
- *Men generally have higher employment rates than women; the gap is especially large among people with low levels of education.*

Significance

This spread examines the relationship between education and the labour force. OECD countries depend upon a stable supply of well-educated workers to promote economic development. Data on employment and unemployment rates – and how they evolve over time – can thus carry important information for policy makers about the supply, and potential supply, of skills available to the labour market and about employers' demand for these skills.

Findings

Education has a substantial impact on employment prospects. On average across OECD countries, close to 85% of the population with tertiary education is employed. This falls to just over 76% for people with upper secondary and post-secondary non-tertiary education and to just 56% for those without an upper secondary education.

In OECD countries, an upper secondary education is typically considered the minimum needed to be competitive in the labour market. On average, the unemployment rate among those who have completed this level of education is 4 percentage points lower than among those who have not (see Table A6.2a in *Education at a Glance 2010*).

Employment rates for men are always higher than those for women, but the gap narrows substantially among people with higher levels of education. Among those with only a lower secondary education, the employment rate for men is just under 74% and just over 50% for women; among those with university-level education, this rises to just under 90% for men and just under 80% for women. Employment rates for women with lower secondary education are particularly low (below 40%) in Chile, Hungary, Poland, the Slovak Republic and Turkey. For women with university-level education they equal or exceed 75% everywhere except Chile, Japan, Korea, Mexico and Turkey, but remain below those of men in all countries.

When it comes to unemployment, the relationships are less clear cut. Differences in unemployment rates for men and women are smallest among those with tertiary education Among women, the unemployment rate is 2 percentage points higher than for men only in Greece, Italy, Spain, Portugal and Turkey. Among those with upper secondary education, women have generally somewhat higher unemployment rates than men. But among those who have not attained upper secondary education, the unemployment rate for men is higher than that for women in 15 OECD countries (see Chart A6.3 in *Education at a Glance 2010*).

Trends

Although differences in unemployment rates among educational groups have narrowed somewhat over the past decade, higher education still generally improves job prospects. On average across OECD countries, the unemployment rate among those with tertiary-level attainment has stayed at or below 4%; for those with upper secondary education it's stayed below 7%. But for those with less than upper secondary education, it's breached 10% several times since 1997 (see Table A6.4a in *Education at a Glance 2010*).

Definitions

The employment rate refers to the number of persons in employment as a percentage of the population of working age. The unemployment rate refers to unemployed persons as a percentage of the civil labour force. The unemployed are defined as people actively seeking employment and currently available to start work. The employed are defined as those who work for pay or profit for at least one hour a week, or who have a job but are temporarily not at work due to illness, leave or industrial action.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

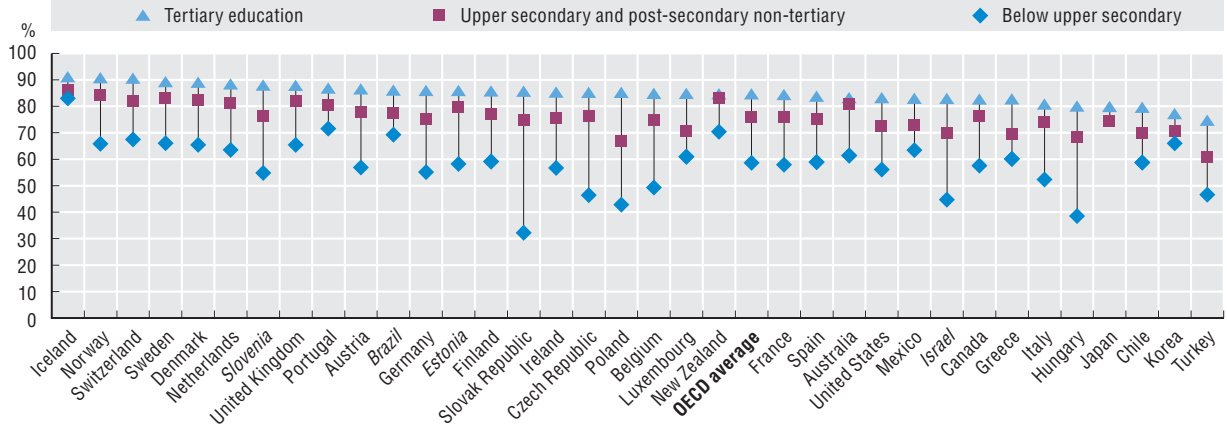
For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator A6).

Areas covered include:

- Trends in employment and unemployment rates, by gender and educational attainment.

Figure 2.3. **Employment rates by level of educational attainment, 2008**

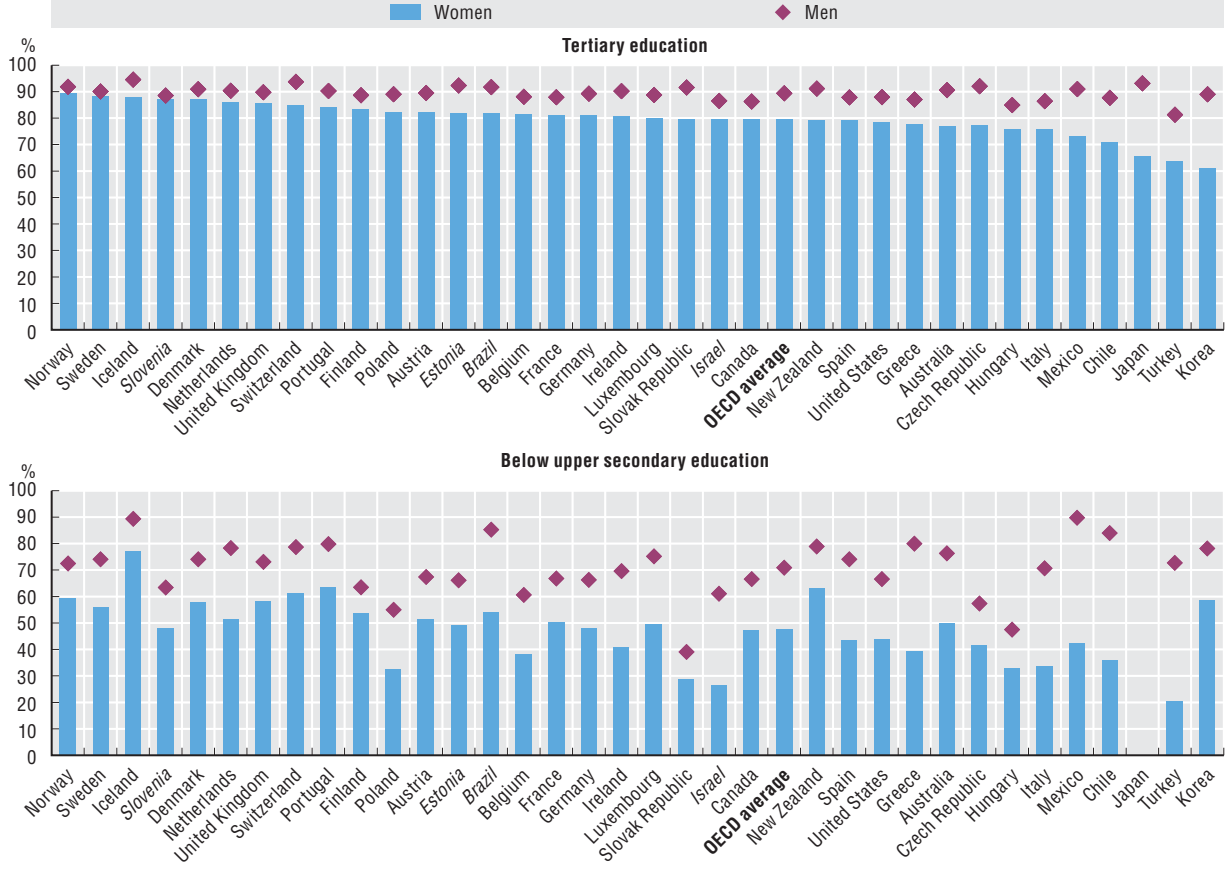
This figure shows the percentage of the working age population (25-64 year-olds) who are in employment by their levels of education. Graduates of tertiary education are more likely to have a job than people whose education ended before upper secondary level.



Source: OECD (2010), *Education at a Glance 2010*, Table A6.3a, available at *http://dx.doi.org/10.1787/888932310187*.

Figure 2.4. **Employment rates for men and women by level of educational attainment, 2008**

These figures shows the difference in employment rates between men and women at two levels of educational attainment.



Source: OECD (2010), *Education at a Glance 2010*, Tables A6.4b and A6.4c, available at *http://dx.doi.org/10.1787/888932310187*.

What are the incentives for people to invest in education?

- *Rewards are typically higher for individuals attaining tertiary education than upper secondary education or post-secondary non-tertiary education.*
- *Tertiary education brings substantial rewards in most countries, generating a net financial return over a man's working life of more than USD 145 000 on average in OECD countries.*
- *Rewards for investing in tertiary education are typically lower for women of more than USD 50 000 on average.*

Significance

The efforts people make to continue education after compulsory schooling can be thought of as an investment with the potential to bring rewards in the form of future financial returns. People invest in education in two ways (these are the "costs"): directly, through the payment of tuition fees, for example, and indirectly, by sacrificing potential income when not in work and studying. As with any investment, a rate of return can be calculated. In this case, it is driven mainly by the reality that people with higher levels of education earn more and are more likely to be in work ("benefits"). Where the rate of return is high, it implies a real financial incentive for people to continue their education.

Findings

On average across OECD countries, the net present value of investing in tertiary education on average is USD 146 000 for men and USD 92 000 for women. For upper secondary or post-secondary non-tertiary education, these fall to USD 68 000 for men and USD 47 000 for women.

But behind these averages lie big variations between countries. For men, the rewards from tertiary education (in terms of net present value) vary from just under USD 21 000 in Denmark to just under USD 367 000 in Portugal (for women, the figures are, respectively, just under USD 12 000 to just under USD 207 000). However, in Denmark as in New Zealand and Sweden, student loans and grants may lower investment costs and make tertiary education a more attractive proposition, especially for students from less affluent backgrounds. In Denmark grants amount to USD 7 500 per year for a student not living at home. Accounting for these grants would reduce the investment cost by more than half and add about USD 28 000 to the overall value of a tertiary education. Overall, however, the returns to tertiary education – as with upper secondary and post-secondary non-tertiary education – tend to be driven by the earnings premium; other components are less important in explaining differences among OECD countries.

With the exceptions of Australia, Korea, Spain and Turkey, the net present value of investing in tertiary education tends to be higher for men than for women (see Table A8.2 in *Education at a Glance 2010*). Nonetheless in Korea, Portugal, the United Kingdom and the United States, an investment in tertiary education generates over USD 150 000 for both men and women (although, except for Korea, men's returns are higher than women's in these countries); this gives a strong incentive to complete this level of education. In some countries, relatively weak returns from upper secondary education mean that women need to continue their education to tertiary level to fully reap the benefits of going beyond compulsory schooling.

Definitions

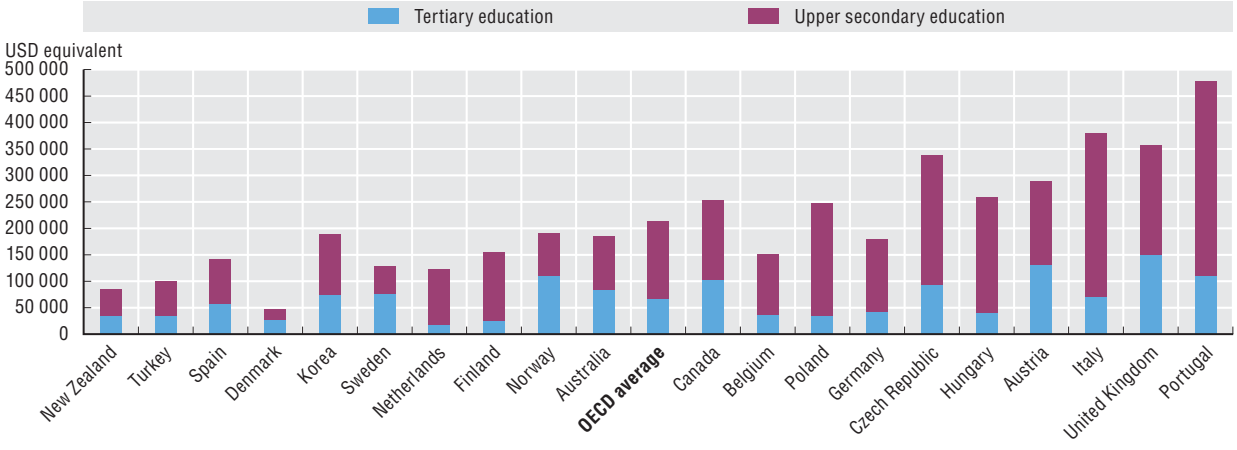
The economic returns to education are measured in terms of net present value, or NPV. In the calculations, private investment costs include after-tax foregone earnings adjusted for the probability of finding a job (unemployment rate) and direct private expenditures on education. The discount rate is set at 3%, which largely reflects the typical interest on an investment in long-term government bonds in an OECD country. The rate used in this edition is below the rate of 5% used in *Education at a Glance 2009*. This change has a substantial impact on the net present value of education and needs to be taken into account if the results for these two years are compared.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, as well as a technical explanation of how the NPV is derived, see *Education at a Glance 2010* (Indicator A8).

Figure 2.5. **Economic returns for an individual from obtaining higher levels of education, 2006**

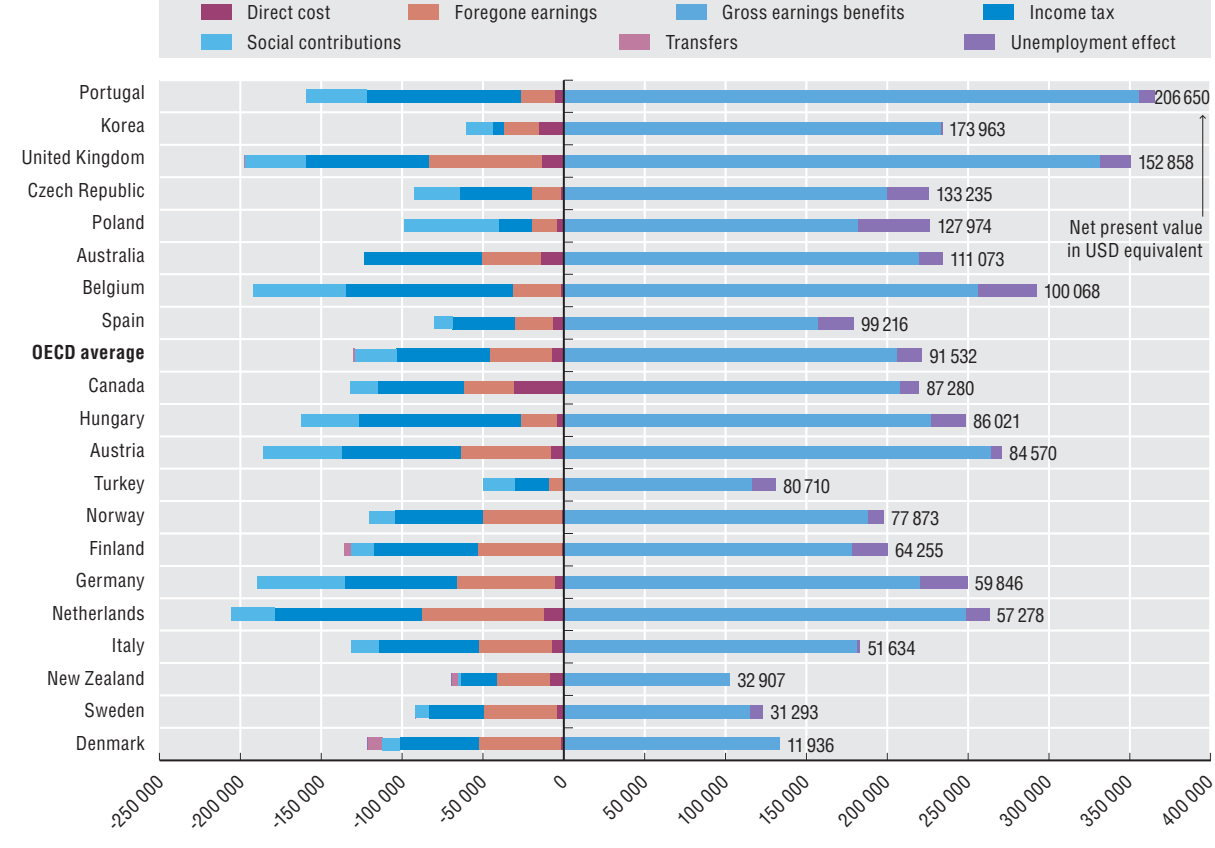
This figure shows the private economic returns – in the form of net present value – for men obtaining, firstly, an upper secondary or post-secondary non-tertiary education, and, secondly, a tertiary education as part of their initial education.



Source: OECD (2010), *Education at a Glance 2010*, Tables A8.1 and A8.2, available at *http://dx.doi.org/10.1787/888932310225*.

Figure 2.6. **Components of the private net present value for women obtaining tertiary education, 2006**

This figure shows the balance of costs and benefits that determine the rewards for women investing in tertiary education.



Source: OECD (2010), *Education at a Glance* 2010, Table A8.2, available at *http://dx.doi.org/10.1787/888932310225*.

What are the incentives for societies to invest in education?

- *On average among OECD countries, the net public return for a man obtaining a tertiary qualification is USD 86 000.*
- *The net public return is almost three times the cost of investing in tertiary education, which means there is a strong incentive for governments to expand higher education.*
- *As with returns to individuals, the benefits to the public purse are higher when people complete tertiary rather than upper secondary education.*

Significance

The economic benefits of education flow not just to individuals but also to governments through additional tax receipts when people enter the labour market. These public returns, which take into account the fact that providing education is also a cost to governments, offer an additional perspective on the overall returns to education. Of course, they must also be understood in the much wider context of the benefits that economies and societies gain from increasing levels of education.

Findings

On average across countries, the net public return from an investment in tertiary education exceeds USD 86 000 for a male student, accounting for the main cost and benefits at this level of education. This is almost triple the amount of public investments made in tertiary education across OECD countries, and as such, provides a strong incentive for governments to expand higher education.

For the public sector, the costs of education include direct expenditures on education (such as paying teachers' salaries), public-private transfers, and lost tax revenues on students' foregone earnings. The benefits include increased revenue from income taxes and social insurance payments on higher wages as well as a lower need for social transfers. But in practice, rising levels of education give rise to a much wider – and more complex – set of fiscal effects on the benefit side. For instance, better educated individuals generally have better health, which lowers public expenditure on provision of health care. Also, their earnings premium means they spend more on goods and services, which has wider economic benefits. However, data on these indirect effects of education are not readily available.

Together with foregone public earnings in the form of taxes and social contributions, direct and indirect public investment costs exceed USD 50 000 in Austria, Denmark, the Netherlands and Sweden for a man with tertiary education. In Korea and Turkey the total public investment cost does not exceed USD 15 000. On average among OECD countries, the total present value of public investment for a man obtaining a tertiary qualification is USD 33 000. Such public investments are large, but they are exceeded by private investment costs in most countries.

Definitions

The economic returns to education are measured by the net present value (see previous spread). Public costs include lost income tax receipts during the schooling years, and public expenditures. The benefits for the public sector are additional tax and social contribution receipts associated with higher earnings and savings from transfers (housing benefits and social assistance) that the public sector does not have to pay above a certain level of earnings.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator A8).

Areas covered include:

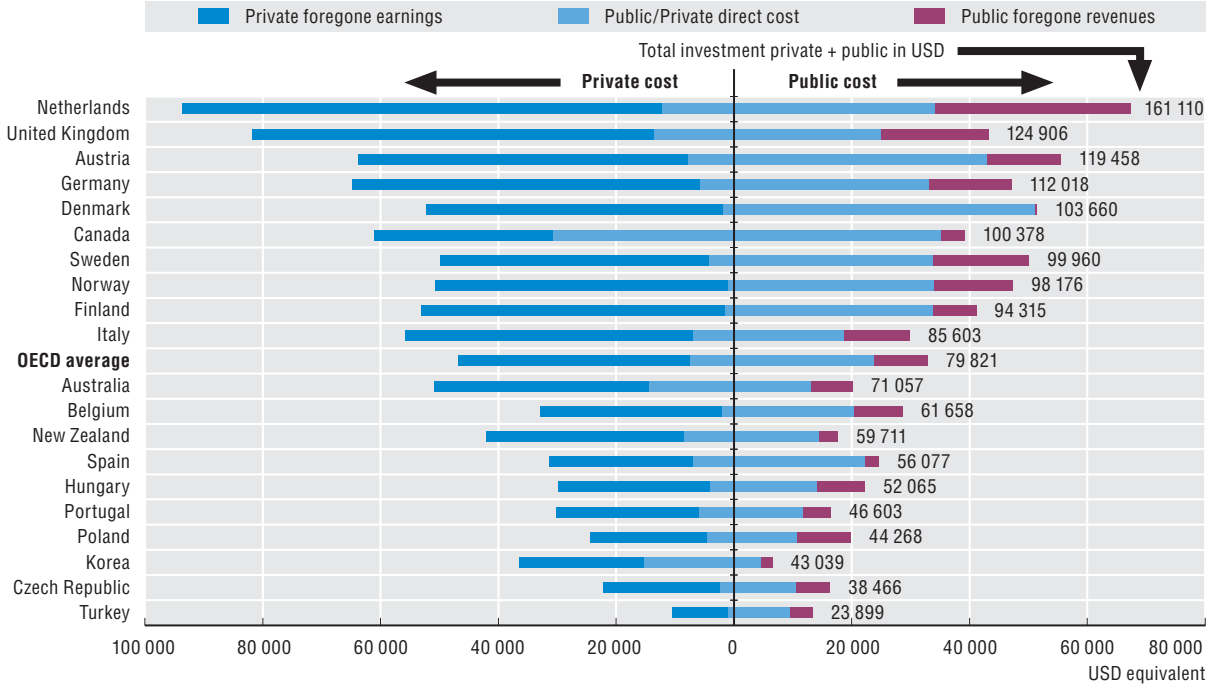
- Public rates of return for an individual obtaining tertiary education, as part of initial education.
- Public rates of return for an individual obtaining an upper secondary education or post-secondary non-tertiary education, as part of initial education.

Further reading from OECD

Understanding the Social Outcomes of Learning (2007).

Figure 2.7. **Public *versus* private investment for someone obtaining tertiary education, 2006**

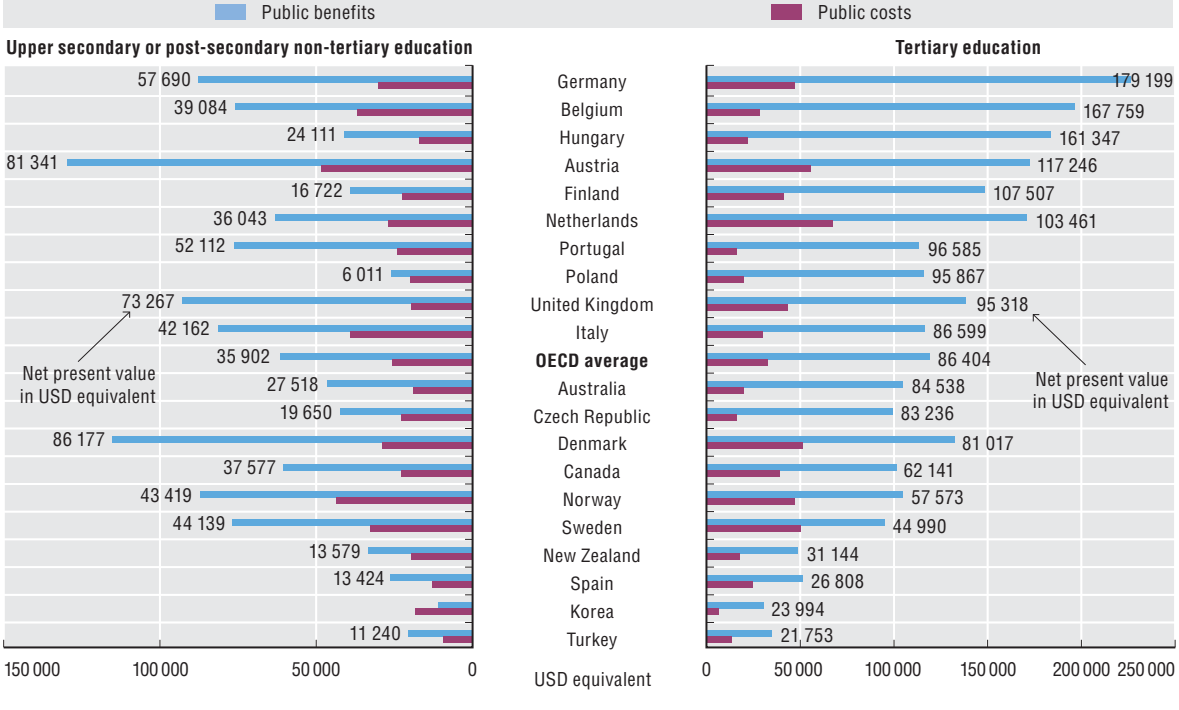
This figure shows the balance between the costs to the individual and the costs to the public purse for a male student pursuing tertiary education.



Source: OECD (2010), *Education at a Glance 2010*, Tables A8.2 and A8.4, available at *http://dx.doi.org/10.1787/888932310225*.

Figure 2.8. **Public costs and benefits for someone obtaining higher levels of education, 2006**

This figure shows both the costs and the benefits to the public purse from a male student obtaining upper secondary or post-secondary non-tertiary education and tertiary education.



Source: OECD (2010), *Education at a Glance* 2010, Tables A8.3 and A8.4, available at *http://dx.doi.org/10.1787/888932310225*.

How expensive are graduates to hire?

- *On average employers pay USD 74 000 for a man with tertiary education and USD 53 000 for a woman.*
- *At the other end of the education scale, the cost of hiring a male worker without upper secondary education is USD 40 000 and USD 29 000 for a female worker.*
- *Annual labour costs are at least USD 20 000 below the OECD average for all education levels in the Czech Republic, Hungary, Poland and the Slovak Republic.*

Significance

The skills of a country's workforce provide a substantial advantage that can bring economic benefits over the long term. But the extent of this advantage will be determined by the cost – in other words, how expensive is it to hire skilled workers? To answer that question, this spread looks at the relative cost of hiring workers with different levels of education across OECD countries.

Findings

The cost of hiring tertiary graduates varies substantially among countries. In Iceland, Italy, the Netherlands, Norway and the United States, over the course of a year, employers pay USD 20 000 or more than the OECD average to employ higher educated individuals. By contrast, they pay at least USD 20 000 less than the average in the Czech Republic, Hungary, New Zealand, Poland and the Slovak Republic. Among other factors, these differences reflect productivity differentials and prevailing wage rates among countries.

Annual labour costs increase sharply for workers with higher levels of educational attainment. On average across OECD countries, labour costs for those with below upper secondary education are USD 40 000 for men and USD 29 000 for women. For those with upper secondary education, the cost rises to USD 48 000 for men and USD 36 000 for women. But the big rise is for highly skilled workers: On average employers pay USD 74 000 for a man with tertiary education and USD 53 000 for a woman.

There are substantial differences between countries in hiring costs for workers with different levels of educational attainment. In the Czech Republic, Hungary, Poland and the Slovak Republic, annual labour costs are at least USD 20 000 below the OECD average across all educational levels. Even though tertiary graduates in these countries enjoy high relative earnings compared with non-graduates, overall these countries' relative cost advantage is still typically in the high-end skill segment. New Zealand and Spain also enjoy a substantial cost advantage in the market for highly skilled workers; however, educated workers are relatively inexpensive compared with their less educated peers. In a few countries with higher cost levels overall, labour costs decrease with higher educational levels. Compared to other OECD countries, individuals with higher education are less expensive to employ than those with lower levels of education in Belgium, Denmark, Finland and Sweden.

Generally, differences between countries in the cost of hiring younger graduates (25-34 year-olds) are less pronounced than for the total workforce (25-64 year olds). Annual labour costs also vary substantially between countries when it comes to hiring inexperienced and experienced tertiary workers. They range from less than USD 20 000 for a recent graduate (25-34 year-old) in Poland to over USD 140 000 for an experienced graduate (45-54 year-old) in Italy. On average across the OECD area, an employer can expect to pay an additional USD 27 000 per year for an experienced tertiary graduate (see Chart A10.3 in *Education at a Glance 2010*).

Definitions

Calculations are based on a new data collection on the earnings of individuals who work full-time and full-year. This data collection is supplemented with information on employers' social contributions and non-tax compulsory payments from the OECD's Taxing Wages Database.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator A10).

Areas covered include:

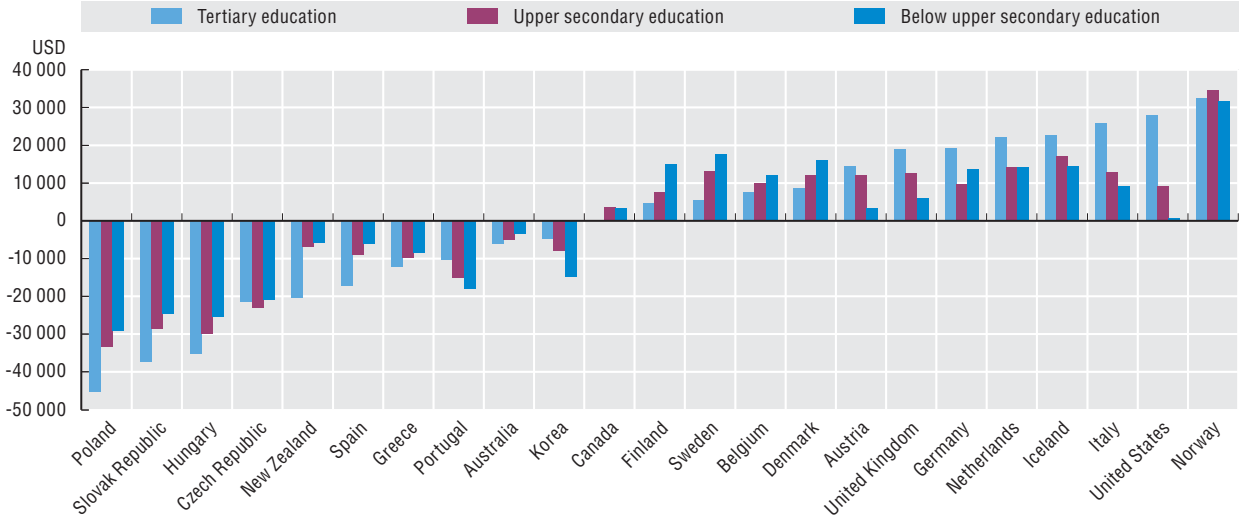
- Annual full-time earnings and annual labour costs by age group.
- Foreign direct investment and annual labour costs for tertiary-educated population.

Further reading from OECD

Taxing Wages (annual).

Figure 2.9. **Annual labour costs for workers by educational attainment**

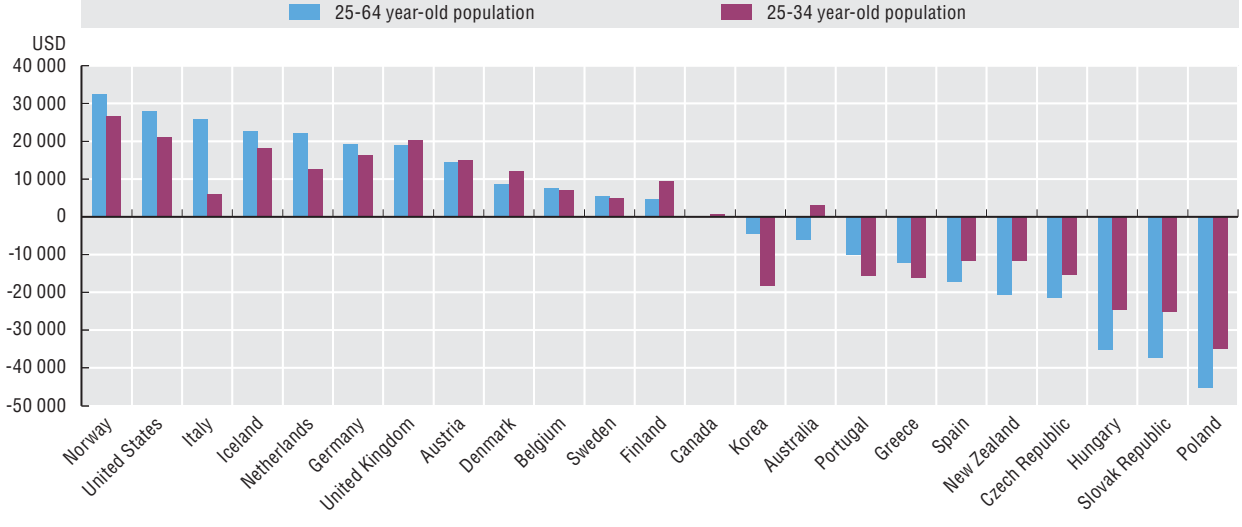
This figure shows the extent to which countries deviate from the average (specifically, the OECD mean) in annual labour costs for workers by various levels of education attainment



Source: OECD (2010), *Education at a Glance 2010*, Table A10.1, available at *http://dx.doi.org/10.1787/888932310263*.

Figure 2.10. **Annual labour costs for tertiary graduates by age group**

This figure shows the extent to which countries deviate from the average (specifically, the OECD mean) in annual labour costs for tertiary-educated workers by age group



Source: OECD (2010), *Education at a Glance 2010*, Tables A10.1 and A10.2, available at *http://dx.doi.org/10.1787/888932310263*.

What are the social benefits of education?

- *Adults with higher levels of educational attainment are more likely to report that their health is "good", that they are interested in politics and have more interpersonal trust.*
- *The biggest increase in the likelihood of people reporting better health is seen among those who have completed upper secondary, rather than tertiary, education. By contrast, the biggest jump in people reporting higher levels of political interest is between those who have completed tertiary, rather than upper secondary, education.*
- *The association between educational attainment and social outcomes remains after adjusting for gender and age; it also remains, but is less strong, after adjusting for income.*

Significance

Raising people's standard of health and improving social cohesion are major concerns for OECD governments. There is general agreement on the important role education can play in attaining both these outcomes, but far less certainty over how exactly this can be achieved. Against this background, this spread looks at the relationship between educational attainment and social measures of well-being for 27 countries. It focuses on three outcomes that reflect the health and cohesiveness of the society: self-assessed health, political interest and interpersonal trust.

Findings

Health: Education can benefit people's physical and mental well-being by helping them choose healthier lifestyles, better manage illness and avoid conditions that could damage their health, such as dangerous jobs. The effect can be direct, for example raising individual's competencies, and indirect, for example raising income, which helps improve living conditions.

For self-reported good health, the greatest differences are seen between people who have completed upper secondary education and those who have not (and this holds true even after controlling for gender and age).

Political interest: Education can directly increase civic and social engagement by providing people with relevant information and experience and by developing competencies, values and beliefs that encourage civic participation. Indirectly, it may act by raising individuals' social status and thus potentially offering better access to social and political power.

The biggest increase in the likelihood of people expressing political interest is seen in those who have completed tertiary education, and, again, this is the case after adjusting for gender and age. For example, in Canada, the probability of tertiary graduates expressing an interest in politics was 25 percentage points higher than among people with only an upper secondary education; the gap was only 2 points between people with an upper secondary education and those who had not completed this level of education.

Interpersonal trust: Education can have a direct impact by helping individuals better understand and embrace the values of social cohesion and diversity. It can also work indirectly: People with higher levels of education are likely to live and work in environments in which crime and anti-social behaviour tend to be less frequent; the opposite is likely to be true for those with low levels of education.

Unlike the previous two categories, the increase in interpersonal trust between people at different levels of educational attainment is relatively consistent.

Definitions

Developmental work for this indicator was carried out by INES Network on Labour Market, Economic and Social Outcomes of Learning in collaboration with the OECD's Centre for Educational Research and Innovation. Methodologies are based on work conducted by CERI's Social Outcomes of Learning project. Calculations are based on micro-data from the European Social Survey (ESS) 2004, 2006 and 2008, International Social Survey Programme 2006, General Social Survey 2008 (Canada and New Zealand), KEDI Social Capital Survey 2008 (Korea) and the National Health Interview Survey 2008 (United States). Readers should note that, given the potentially significant cross-country bias in reporting one's health status, comparisons on self-reported health should be interpreted with caution.

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

Going further

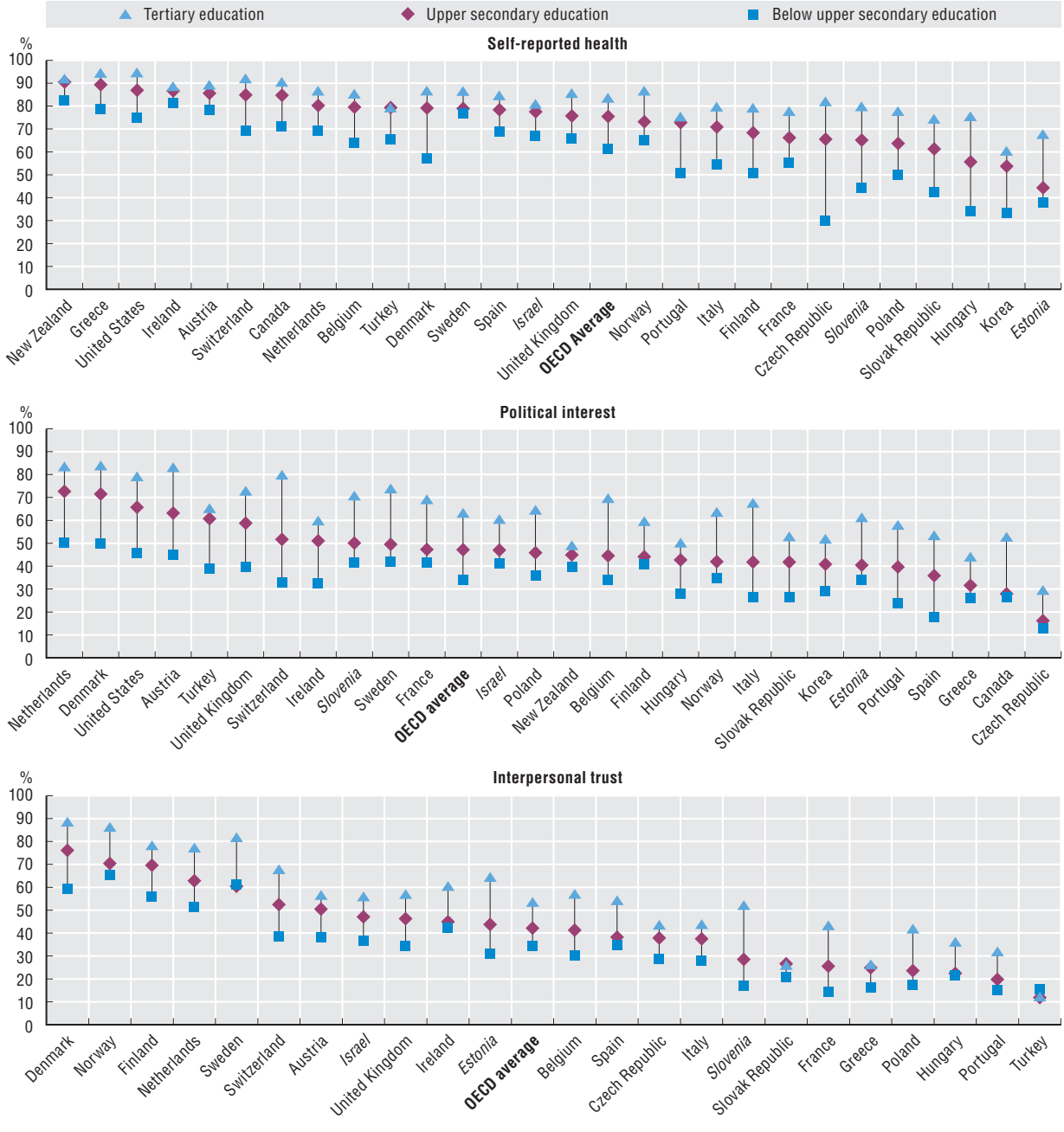
For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator A9).

Further reading from OECD

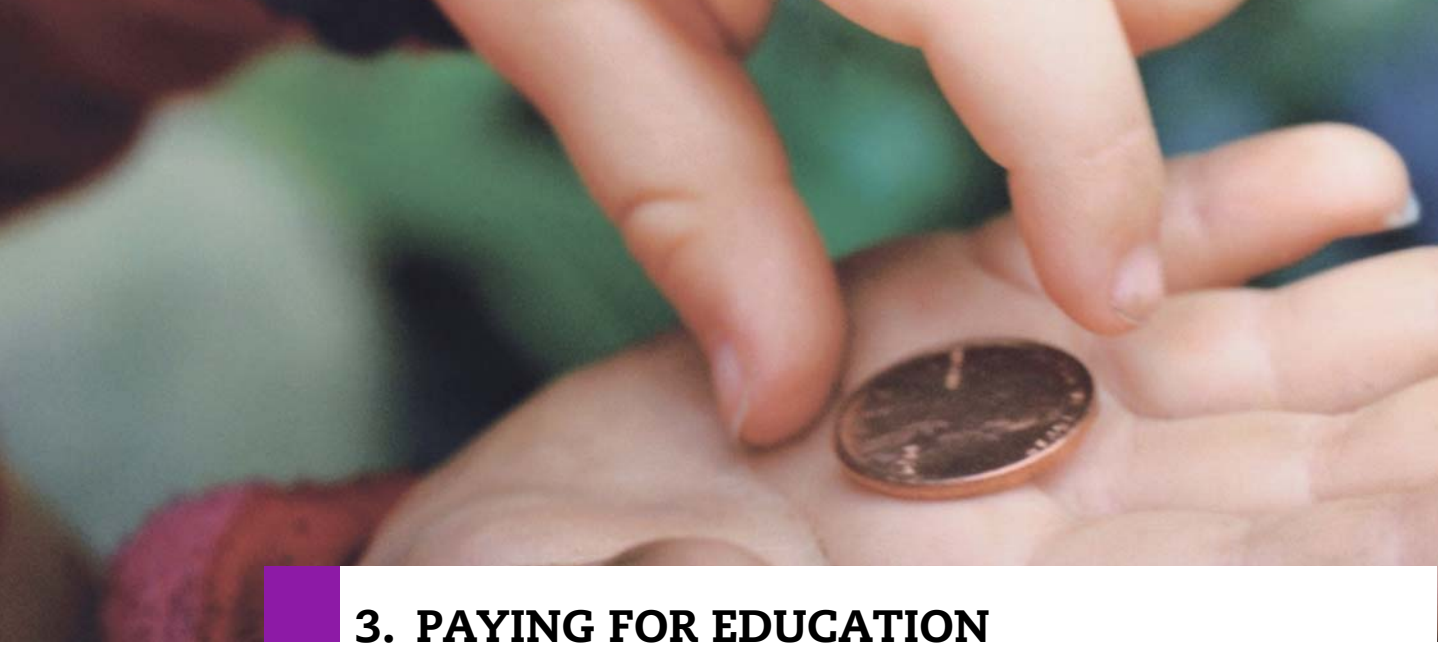
Improving Health and Social Cohesion through Education (forthcoming, 2010).

Figure 2.11. **Proportion of adults reporting various social outcomes by level of education (2008)**

These figures show the percentages of adults reporting good health, an interest in politics and interpersonal trust by level of educational attainment.



Source: OECD (2010), *Education at a Glance 2010*, Tables A9.1, A9.2 and A9.3, available at *http://dx.doi.org/10.1787/888932310244*.



3. PAYING FOR EDUCATION

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How much is spent per student?

- *OECD countries as a whole spend USD 9 195 per student each year between primary and tertiary education, although spending levels vary widely among countries.*
- *On average, OECD countries spend nearly twice as much per student at the tertiary level than at the primary level.*
- *Most spending in education is devoted to salaries for teachers and other staff.*

Significance

This spread shows the levels of combined public and private spending on education. In debates about learning, demand for high-quality education, which may mean spending more per student, is often tempered by the desire not to raise taxes. While it is difficult to determine the level of spending needed to prepare a student for work and life, international comparisons can provide reference points for comparisons of education resources.

Findings

OECD countries as a whole spend USD 9 195 per student each year for primary, secondary and tertiary education. But spending varies widely among individual countries, from USD 4 000 per student or less in Chile, Mexico, the Slovak Republic and *Brazil*, to more than USD 10 000 in Austria, Denmark, Norway, Sweden, Switzerland and the United States.

The factors that drive spending vary among countries: Among the six countries with the highest expenditure by educational institutions per student enrolled in primary to tertiary education, Switzerland has the highest teachers' salaries at secondary level after Luxembourg, the United States has the highest level of private expenditure at tertiary level and Austria, Denmark, Norway and Sweden are among the countries with the lowest ratios for students to teaching staff (see page 72).

In each OECD country, spending rises sharply from primary to tertiary education. OECD countries as a whole spend USD 6 756 per student at primary level, USD 8 153 at secondary level and USD 16 625 at tertiary level.

Most spending in education is devoted to salaries for teachers and other staff. At tertiary level, however, other services, particularly research and development activities, also account for a large slice of expenditure. Once R&D activities and ancillary services are excluded, expenditure by educational core services in tertiary institutions falls to an average USD 8 587 per student. By contrast, spending on ancillary services at primary, secondary and post-secondary non-tertiary levels exceeds 10% only in Finland, France, Hungary, Korea, the Slovak Republic, Sweden and the United Kingdom (see Table B1.2 in *Education at a Glance 2010*).

Finally, it should be noted that examining only the annual spending per student may not fully reflect the total spent on a student at each level of education. For example, annual spending per tertiary student in Ireland is about the same as in France, at USD 12 631 and USD 12 773, respectively. But because of differences in how courses are structured, it takes more than a half a year extra to complete a degree in France than in Ireland. As a result, the cumulative expenditure for each tertiary student is more than USD 10 000 less in Ireland than in France – USD 40 925 *versus* USD 51 346 (see Chart B1.5 in *Education at a Glance 2010*).

Definitions

Data refer to the financial year 2007 and are based on the UOE data collection on education statistics administered by the OECD in 2009. Spending per student at a particular level of education is calculated by dividing the total expenditure by educational institutions at that level by the corresponding full-time equivalent enrolment.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

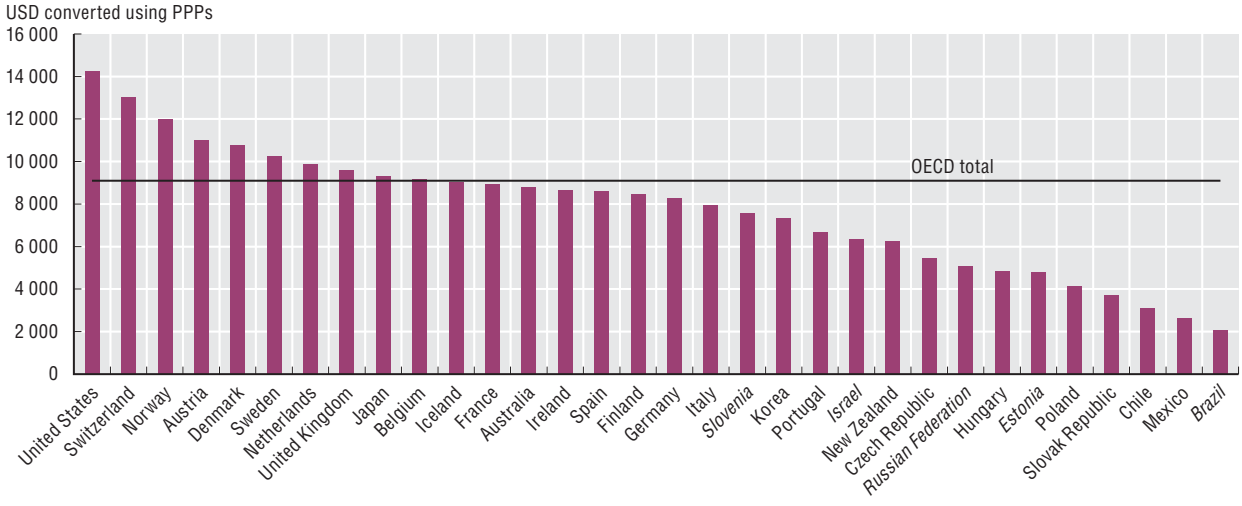
For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator B1).

Areas covered include:

- Annual expenditure by educational institutions per student for all services, and compared to GDP per capita.
- Cumulative expenditure by educational institutions per student.

Figure 3.1. **Annual expenditure per student, 2007**

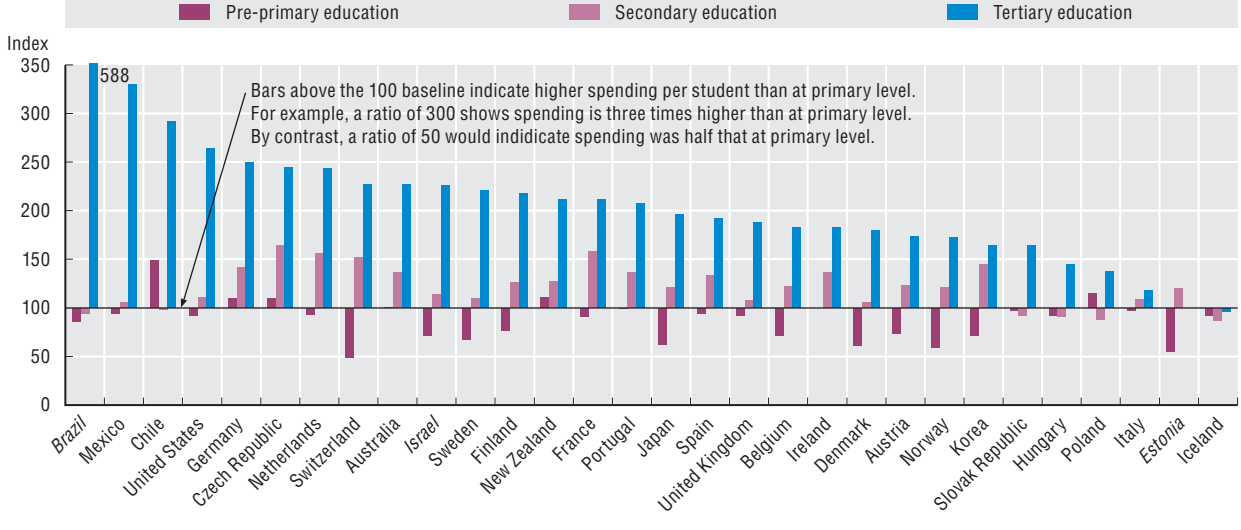
This figure shows how much is spent annually (by educational institutions) per student between primary and tertiary education; these data give a sense of the cost per student of formal education.



Source: OECD (2010), *Education at a Glance 2010*, Table B1.1a, available at *http://dx.doi.org/10.1787/888932310282*.

Figure 3.2. **Expenditure on education relative to spending on primary education, 2007**

This figure shows annual spending (by educational institutions) per student for different levels of education compared with spending at primary level.



Source: OECD (2010), *Education at a Glance 2010*, Table B1.1a, available at *http://dx.doi.org/10.1787/888932310282*.

Has spending per student increased?

- *Expenditure by educational institutions per student at primary, secondary and post-secondary non-tertiary level increased on average by 43% between 1995 and 2007, a period when enrolment levels remained generally static.*
- *At tertiary level, however, student numbers generally rose; in some cases this was not matched by an equivalent increase in spending, resulting in a fall in expenditure per student.*
- *However, from 2000 to 2007, expenditure by educational institutions per student at the tertiary level increased by 14 percentage points on average in OECD countries after remaining stable between 1995 and 2000.*

Significance

This spread looks at whether spending on education has risen or fallen in recent years. Policy makers are under constant pressure to find ways of improving the quality of educational services while expanding access to educational opportunities, notably at tertiary level. Over time, spending on educational institutions does indeed tend to rise, in large part because teachers' salaries rise in line with general earnings. However, if the cost of schooling each student is not accompanied by improvements in educational outcomes, it raises the spectre of falling productivity levels.

Findings

Expenditure by educational institutions per student at the primary, secondary and post-secondary non-tertiary levels increased in every country, on average, by 43% between 1995 and 2007 during a period of relatively stable student numbers. The increase is quite similar over the first and second halves of this time period; only the Czech Republic, Norway and Switzerland showed a decrease between 1995 and 2000, followed by an increase between 2000 and 2007. Changes in enrolments do not seem to have been the main factor behind changes in expenditure at these levels of education.

The pattern is different at the tertiary level where spending per student between 1995 and 2007 fell in some cases, as expenditure failed to keep up with expanding student numbers. Such spending remained stable between 1995 and 2000 but then increased by 14% on average in OECD countries from 2000 to 2007, as governments invested massively in response to the expansion of tertiary education. The Czech Republic, Iceland, Korea, Poland, Portugal, the Slovak Republic, the United Kingdom and *Estonia* followed this pattern and increased expenditure by educational institutions by more than 50% between 2000 and 2007. However, the increase in expenditure per student between 2000 and 2007 did not totally counterbalance the decrease between 1995 and 2000 in the Czech Republic and the Slovak Republic.

Between 2000 and 2007, Chile, Hungary, Iceland, Ireland, the Netherlands, Switzerland, *Brazil* and *Israel* saw falls in per-student expenditure in tertiary education. In all of these countries, the declines were mainly the result of rapid increases – at least 10% – in tertiary student numbers. Among countries that saw a rise of more than 20% in enrolments in tertiary education, five (the Czech Republic, Mexico, Poland, the Slovak Republic and the United States) matched this with an at least equivalent increase in expenditure on tertiary education; the others (Chile, Hungary, Iceland, Ireland, the Netherlands, Switzerland, *Brazil* and *Israel*) did not. Spain was the only country that saw falls in tertiary enrolment over this period.

Definitions

Data for the 2007 financial year are based on the UOE data collection on education statistics administered by the OECD in 2009. OECD countries were asked to collect the 2000 data according to the definitions and the coverage of UOE 2009 data collection. All expenditure data, as well as the GDP for 2000, are adjusted to 2007 prices using the GDP price deflator. Spending per student at a particular level of education is calculated by dividing the total expenditure by educational institutions at that level by the corresponding full-time equivalent enrolment.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator B1).

Areas covered include:

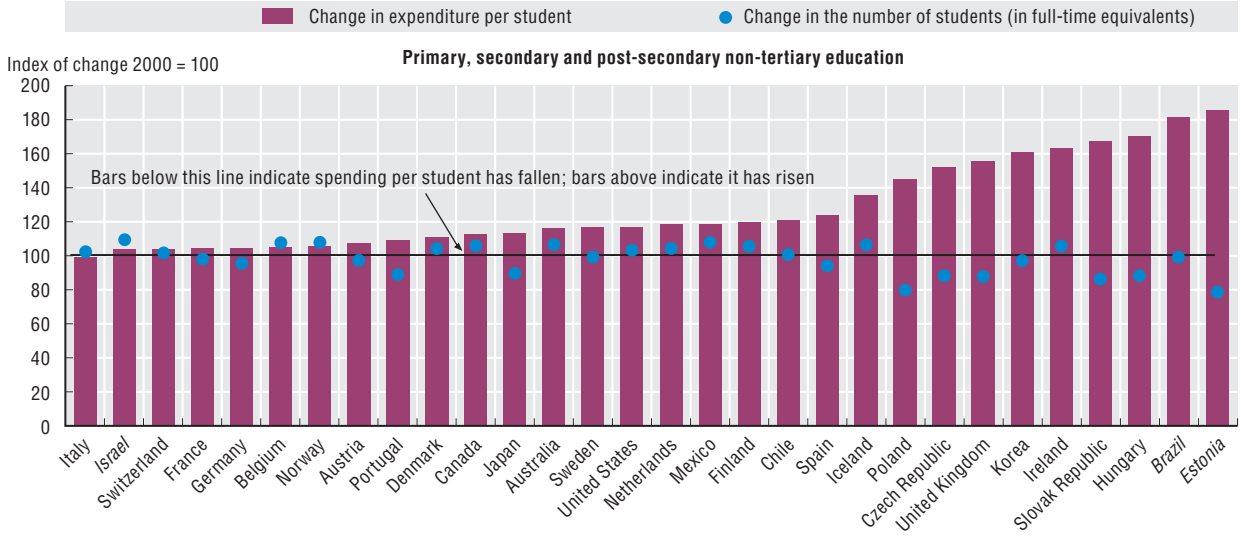
- Changes in expenditure by educational institutions by level of education.
- Changes in expenditure and in GDP per capita.

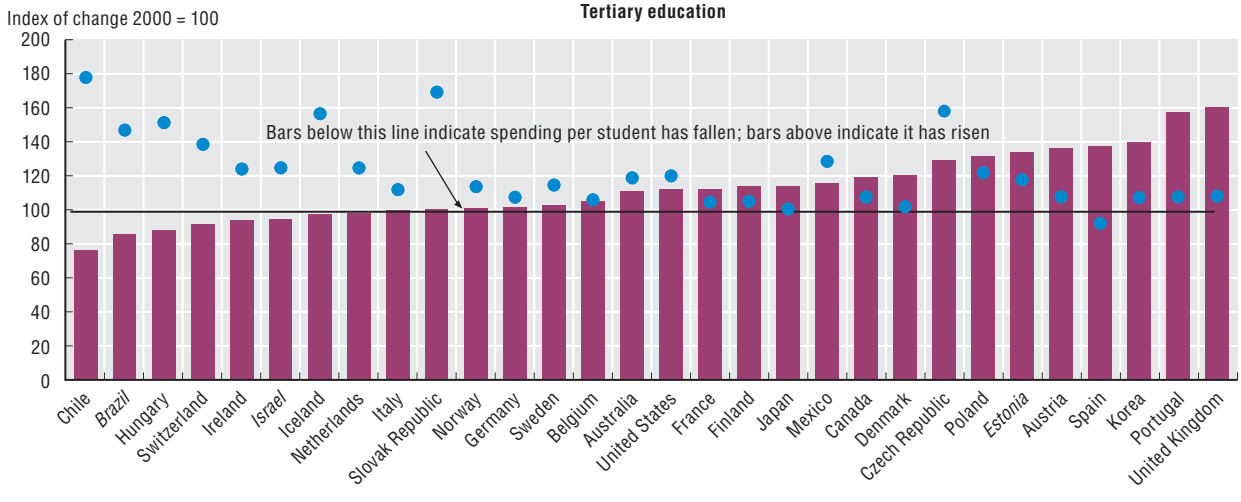
Further reading from OECD

Trends Shaping Education (2008).

Figure 3.3. **Trends in expenditure per student (2000, 2007)**

These figures show the increase or decline in spending in real terms (by educational institutions) per student.





Source: OECD (2010), *Education at a Glance 2010*, Table B1.5, available at *http://dx.doi.org/10.1787/888932310282*.

What share of national wealth is spent on education?

- *OECD countries spend 6.2% of their collective GDP on education institutions.*
- *Between 1995 and 2007, expenditure on educational institutions for all levels of education increased an average of 49% in OECD countries, reflecting the fact that more people are competing upper secondary and tertiary education than ever before.*
- *Over the same period, expenditure on educational institutions for all levels of education combined fell behind GDP growth in more than half the 27 countries for which data are available.*

Significance

This spread shows the proportion of a nation's wealth that is invested in education. In other words, it shows to what extent a country, which includes the government, private enterprise and individual students and their families, prioritises education in relation to overall spending.

Findings

OECD countries spend 6.2% of their collective GDP on education, but levels vary greatly between countries: They are above 7% in Denmark, Iceland, the United States, *Israel* and the *Russian Federation*, but at or below 4.5% in Italy and the Slovak Republic.

About 59% of combined OECD expenditure on educational institutions, or 3.6% of combined GDP, is devoted to primary, secondary and post-secondary non-tertiary education. Tertiary education accounts for nearly one-third of the combined OECD spending on education, or 2.0% of combined GDP. Canada, Chile, Korea and the United States spend between 2.0% and 3.1% of their GDP on tertiary institutions. In Belgium, France, Iceland, Mexico, Norway, Switzerland, the United Kingdom and *Brazil* the share of spending on tertiary institutions is below the OECD average while their share of GDP spent on primary, secondary and post-secondary non-tertiary education is above the OECD average.

Differences in spending on educational institutions are most striking at the pre-primary level, where they range from less than 0.1% of GDP in Australia and Ireland to 0.8% or more in Iceland, *Israel* and the *Russian Federation* (see Table B2.2 in *Education at a Glance 2010*). However, as countries often structure and fund pre-primary education in very different ways, it is unsafe to draw inferences from these data on access to and quality of early childhood education.

Trends

Since more people completed secondary and tertiary education between 1995 and 2007 than ever before, many countries made massive financial investments in education during that period. For all levels of education combined, public and private investment in education increased on average by 49% in OECD countries over this period. In three-quarters of these countries, the increase is larger for tertiary education than for primary to post-secondary non-tertiary levels combined (see the web-only Table B2.5 in *Education at a Glance 2010*).

However, looked at from the perspective of share of GDP, the numbers are less striking: Between 1995 and 2007, expenditure for all levels of education combined increased faster than GDP in only 10 of the 27 countries for which data are available and fell in the remaining 17. The decline was not uniform across all levels of education: For primary to post-secondary non-tertiary education, it fell in 18 of the 27 countries; but at tertiary level it decreased significantly in only six – Australia, Finland, Hungary, Ireland, the Netherlands and Norway. It should be noted, however, that changes in national income can have a big impact on these trends. For example, spending in Ireland on all levels of education combined doubled between 1995 and 2007, but GDP rose even faster. As a result, expenditure as a proportion of GDP fell.

Definitions

Data refer to the 2007 financial year and are based on the UOE data collection on education statistics administered by the OECD in 2009. Expenditure on educational institutions includes expenditure on both instructional institutions (those that provide teaching to individuals in an organized group setting or through distance education) and non-instructional institutions (those that provide administrative, advisory or professional services to other educational institutions, but do not enrol students, themselves).

Information on data for Israel: *http://dx.doi.org/10.1787/888932315602*.

Going further

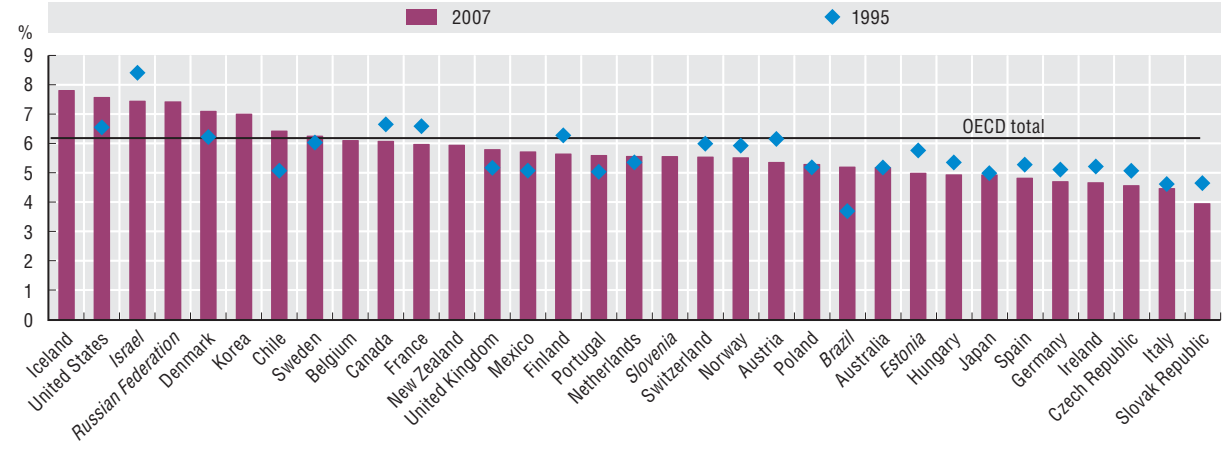
For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator B2).

Areas covered include:

- Expenditure on educational institutions as a percentage of GDP.
- Change in expenditure, 1995-2006.

Figure 3.4. **Trends in education expenditure as a percentage of GDP (1995, 2007)**

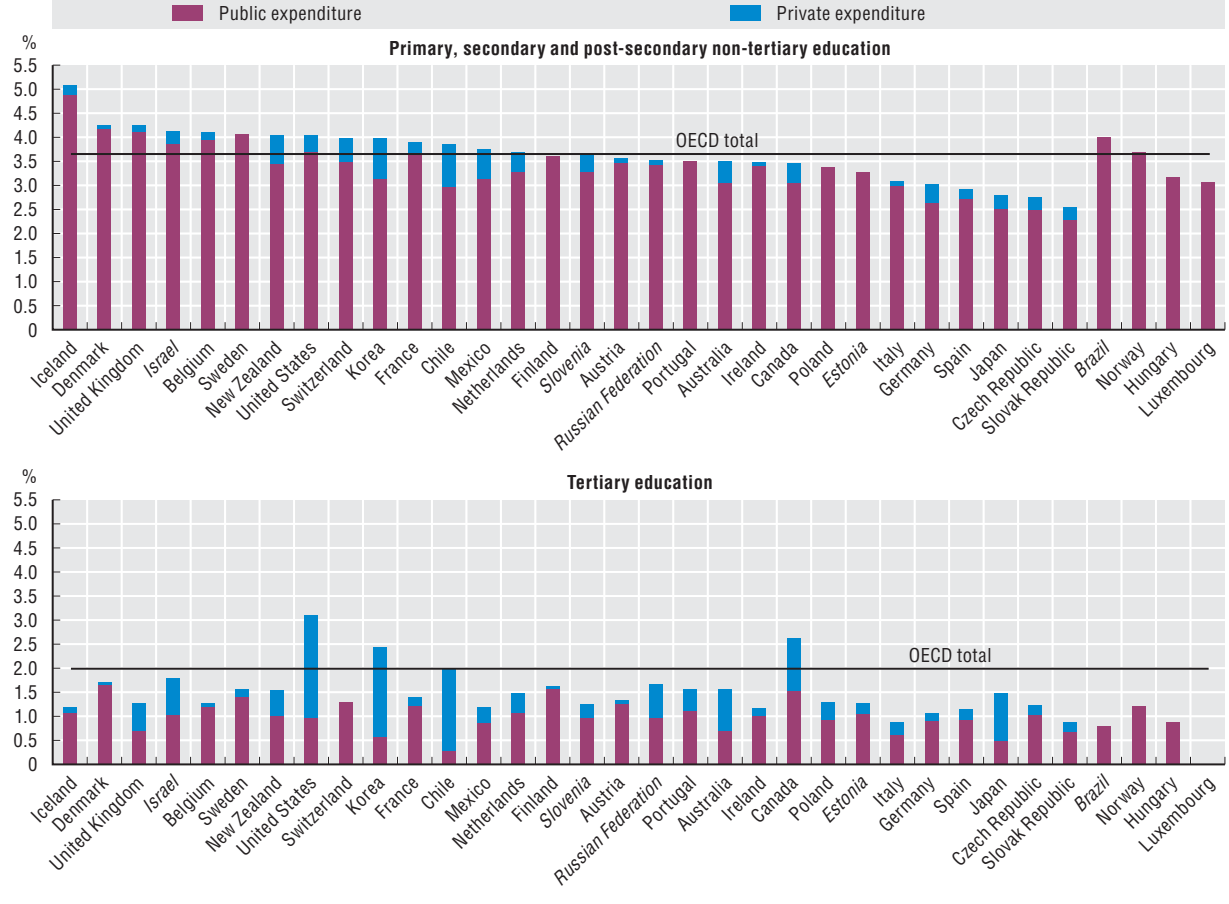
This figure shows the share of national income countries devote to spending on educational institutions, and how that share has changed.



Source: OECD (2010), *Education at a Glance 2010*, Table B2.1, available at *http://dx.doi.org/10.1787/888932310301*.

Figure 3.5. **Expenditure as a percentage of GDP, 2007**

These figures show the share of national income – both public and private – devoted to each level of education.



Source: OECD (2010), *Education at a Glance 2010*, Table B2.4, available at *http://dx.doi.org/10.1787/888932310301*.

What share of public spending goes on education?

- *Even in countries with little public involvement in other areas, public funding of education is a social priority, accounting for 13.3% of total public expenditure on average in OECD countries.*
- *Public expenditure on primary, secondary and post-secondary, non-tertiary education is, on average, about three times that on tertiary education in OECD countries.*
- *Between 1995 and 2007, education accounted for a growing share of total public expenditure in most countries.*

Significance

Public spending on education, as a percentage of total public spending, indicates the importance placed on education relative to that of other areas of public spending, such as health care, social security and national security. Since the second half of the 1990s, most OECD countries have sought to consolidate public budgets, and education has had to compete with a wide range of other areas for public financial support. This spread evaluates the change in spending on education both in absolute terms and relative to changes in the size of public budgets.

Findings

On average, OECD countries devoted 13.3% of total public expenditures to education in 2007, with levels ranging from 10% or less in the Czech Republic, Italy and Japan to almost 22% in Mexico.

Even in countries with relatively low rates of public spending, education is considered a priority. For example, the share of public spending devoted to education in Chile, Mexico, New Zealand, the Slovak Republic and the *Russian Federation* is among the highest of OECD countries, yet total public spending accounts for a relatively low proportion of GDP in these countries.

On average in OECD countries, public funding of primary, secondary and post-secondary non-tertiary education is nearly three times that of tertiary education, mainly due to near universal enrolment rates below tertiary education, but also because the private share tends to be greater at the tertiary level. This ratio varies from double or less in Canada, Denmark, Finland and Norway to five times in Chile and Korea. The latter figure is indicative of the relatively high proportion of private funds going to tertiary education in these two countries.

Trends

Although budget consolidation puts pressure on all the areas of public expenditure, from 1995 to 2007 public expenditure on education typically grew faster than total public spending. The main increase in public expenditure on education relative to total public spending took place from 1995 to 2000; between 2000 and 2007, public expenditure on education and on other public sectors increased in the same proportions.

Over the 12 years, the proportion of public budgets spent on education in OECD countries rose from 12.1% to 13.3%. The greatest relative increases were in Chile, which saw an increase from 14.5 to 17.9%, Denmark (12.2 to 15.4%), the Netherlands (9.1 to 11.7%), the Slovak Republic (14.1 to 19.4%), Sweden (10.7 to 12.7%) and *Brazil* (11.2 to 16.1%).

Definitions

Data refer to the financial year 2007 and are based on the UOE data collection on education statistics administered by the OECD in 2009. Public expenditure on education includes expenditure by all public entities, including ministries other than the ministry of education, local and regional governments and other public agencies. Total public expenditure, also referred to as total public spending, corresponds to the non-repayable current and capital expenditure of all levels of government.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

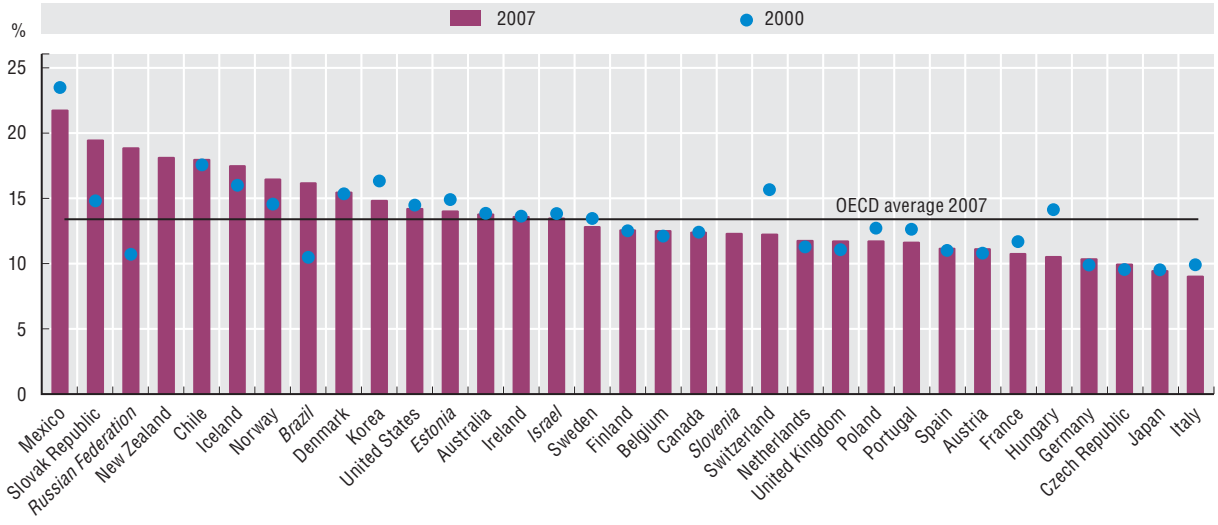
For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator B4).

Areas covered include:

- Distribution of total public expenditure on education.
- Initial sources of public educational funds and final purchasers of educational resources by level of government (online).

Figure 3.6. **Trends in public spending on education as a percentage of total public expenditure (2000, 2007)**

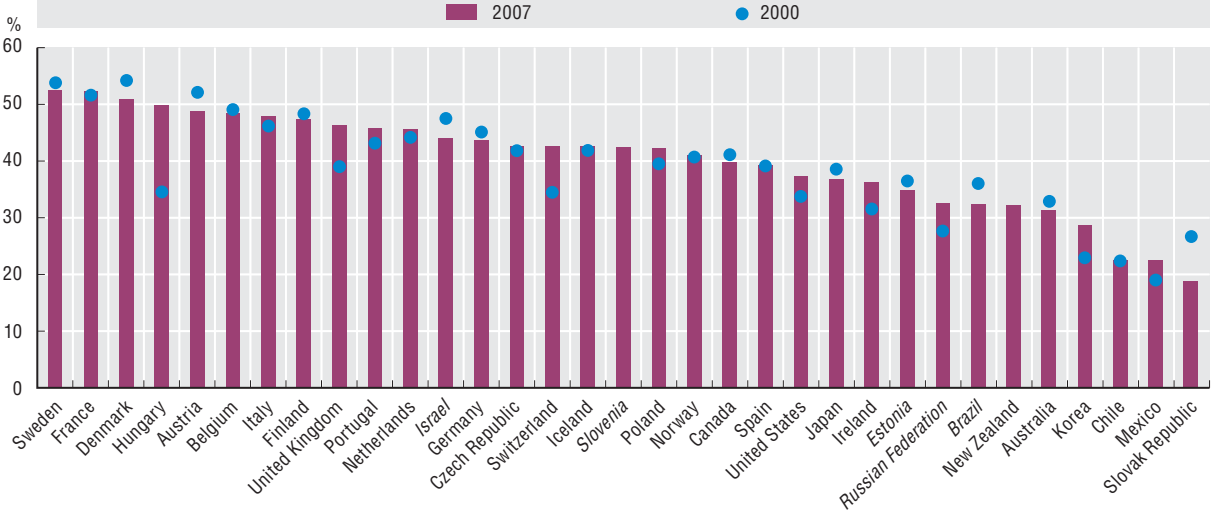
This figure shows total public spending on education (which includes spending on educational institutions and spending such as public subsidies to households), and how it has evolved.



Source: OECD (2010), *Education at a Glance 2010*, Table B4.1, available at *http://dx.doi.org/10.1787/888932310339*.

Figure 3.7. **Total public expenditure as a percentage of GDP (2000, 2007)**

This figure shows the size of public spending as a percentage of the overall economy. These data provide context for looking at how much of public spending is devoted to education.



Source: OECD (2010), *Education at a Glance 2010*, Chart B4.2, available at *http://dx.doi.org/10.1787/888932310339*.

What is the role of private spending?

- *On average, 83% of expenditure for all levels of education combined is from public sources.*
- *On average for all levels of education combined, public expenditure per student on public institutions is more than twice what it is on private institutions – USD 7 466 versus USD 3 675.*
- *For the 17 OECD countries for which trend data are available, the share of public funding in tertiary institutions fell from 78% in 1995 to 70% in 2007.*

Significance

This spread shows how the financing of educational institutions is shared between public and private entities, particularly at tertiary level. Public funding provides a very large part of investment in education, but the role of private sources has become more important. Some stakeholders are concerned that this balance should not become so tilted that it discourages some potential students from attending tertiary education. Thus, it is important to look at changes in public/private funding shares to determine if they are influencing patterns and levels of student participation.

Findings

In all OECD countries for which comparable data are available, public funding for all levels of education represents 83% of all funds, on average. Private funding tends to be concentrated at two levels of education – pre-primary and tertiary. At the pre-primary level, it represents an average of 20% of total funding in OECD countries, which is higher than the percentage for all levels of education combined (see Chart B3.2 in *Education at a Glance 2010*). This proportion varies widely, ranging from 5% or less in Belgium, the Netherlands, Sweden and *Estonia* to over 50% in Australia, Japan and Korea.

At tertiary level, private funding represents on average 31% of total expenditure on educational institutions. The proportion of expenditure on tertiary institutions covered by individuals, businesses and other private sources, including subsidised private payments, ranges from less than 5% in Denmark, Finland and Norway, to more than 40% in Australia, Canada, Japan, the United Kingdom, the United States and *Israel* and the *Russian Federation* to over 75% in Chile and Korea.

Private entities other than households contribute more, on average, to tertiary education than to other levels of education. In Australia, Canada, Japan, Korea, the Netherlands, the Slovak Republic, Sweden, the United Kingdom, the United States and *Israel* and the *Russian Federation*, 10% or more of spending on tertiary education comes from private entities other than individual households.

Public expenditure mainly funds public institutions, but it can also play a role in funding private institutions, although this varies according to the level of education. Public expenditure on public institutions per student is more than twice the level on private institutions at the pre-primary level (USD 5 562 and USD 2 566, respectively), somewhat under twice the level at the primary, secondary and post-secondary non-tertiary level (USD 7 262 and USD 4 045, respectively) and more than three times the level at the tertiary level (USD 10 424 and USD 3 417, respectively).

Trends

While public funding for all levels of education increased across OECD countries for which comparable data are available between 2000 and 2007, private spending on education increased even more in more than three-quarters of these countries. As a result, the decrease in the share of public funding on educational institutions was more than 5 percentage points in Canada, Mexico, Portugal, the Slovak Republic and the United Kingdom.

Decreases in the share of public expenditure in total expenditure on educational institutions and, consequently increases in the share of private expenditure, have not generally gone hand in hand with cuts (in real terms) in public expenditure on educational institutions. In fact, many OECD countries with the highest growth in private spending have also shown the highest increase in public funding of education. This indicates that an increase in private spending tends not to replace public investment but to complement it.

Definitions

Data refer to the 2007 financial year and are based on the UOE data collection on education statistics, administered by the OECD in 2009. Private spending includes all direct expenditure on educational institutions, whether partially covered by public subsidies or not.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator B3).

Areas covered include:

- Relative proportions of public and private expenditure on educational institutions for all levels of education, and trends.
- Annual public expenditure on educational institutions per student by type of institution.

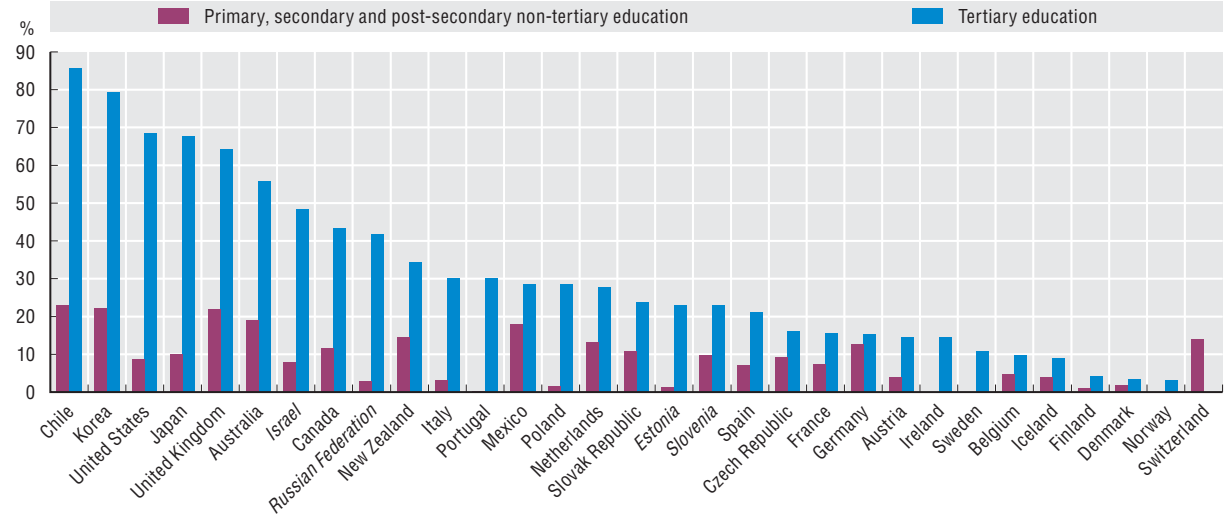
Further reading from OECD

OECD Reviews of Tertiary Education (ongoing).

Higher Education Management and Policy (journal).

Figure 3.8. **Share of private expenditure on educational institutions, 2007**

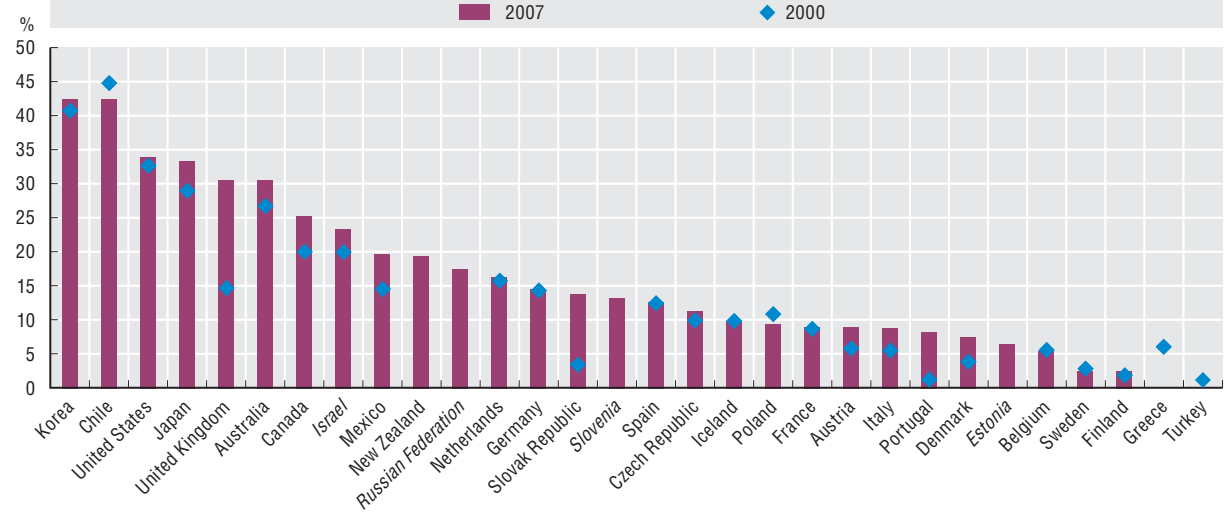
This figure shows the percentage of spending on educational institutions accounted for by private spending.



Source: OECD (2010), *Education at a Glance 2010*, Tables B3.2a and B3.2b, available at *http://dx.doi.org/10.1787/888932310320*.

Figure 3.9. **Trends in share of private expenditure (2000, 2007)**

This figure shows the increase – or otherwise – in private spending as a percentage of total expenditure on all levels of education from 2000 to 2007.



Source: OECD (2010), *Education at a Glance 2010*, Table B3.1, available at *http://dx.doi.org/10.1787/888932310320*.

How much do tertiary students pay?

- *Public institutions charge no tuition fees in eight OECD countries; but in a third of countries with available data, they charge annual fees for national students of over USD 1 500.*
- *Reforms over the last decade have seen tuition fees introduced in Luxembourg and parts of Germany, and significant fee increases in Austria, Italy, Portugal and the United Kingdom.*
- *An average of 21% of public spending on tertiary education is devoted to supporting students, households and other private entities.*

Significance

This spread examines the relationships between annual tuition fees, direct and indirect public spending on education, and public subsidies for student living costs. Governments can address issues of access to and equality of education opportunities by subsidising tuition fees and financially aiding students and their families, particularly students from low-income families. But how this aid is given – whether through grants, scholarships or loans – is a subject for debate in many countries.

Findings

Tuition fees are a subject of lively debate, and over the past decade there have substantial reforms in OECD countries. Some, such as Luxembourg and some German federal states, have introduced fees while others, including Austria, Italy, Portugal and the United Kingdom, significantly raised them. Another group of countries – Denmark, Ireland and the Slovak Republic – increased tuition fees charged for foreign students. Finally, Ireland abolished tuition fees for national students. The question of loans *versus* grants in supporting tertiary students is also under debate in a number of countries. Student support systems have developed particularly extensively in Australia, Chile, Denmark, the Netherlands, New Zealand, Norway, and the United Kingdom, where public subsidies account for more than 25% of public spending on tertiary education.

Overall, there are large differences among OECD countries in the average tuition fees charged in tertiary education. They are negligible or low in the Nordic countries, the Czech Republic, Ireland and Mexico; by contrast, they reach more than USD 5 000 in the United States. However, tuition fees are only one part of the picture. It is important also to look at broader support that may be available to students. In this context, countries can be placed into four main groups:

1. No or low tuition fees, and generous student support systems; these include the Nordics.
2. High tuition fees and well-developed student support systems; these include Australia, Canada, the Netherlands, New Zealand, the United Kingdom, and the United States.
3. High tuition fees but less developed student support systems; Japan and Korea.
4. Low tuition fees and less developed student support systems; these include Austria, Belgium, the Czech Republic, France, Ireland, Italy, Poland and Spain.

Although tuition fees for tertiary education are generally high (more than USD 1 500) in group 2, large public subsidies are available to students. At 69%, the average entry rate into universities among these countries is slightly above the OECD average, and higher than most countries with low tuition fees, except the Nordics. In countries with low tuition fees and relatively low subsidies for students, such as those in group 4, the average entry rate into tertiary education is a relatively low 48%.

Definitions

Data refer to the financial year 2006 and are based on the UOE data collection on education statistics administered by the OECD in 2008. Data on tuition fees charged by educational institutions and financial aid to students were collected through a special survey undertaken in 2007 and updated in 2008 and 2009 and refer to the academic year 2006-07. Public subsidies to households include grants/scholarships, public student loans, family or child allowances contingent on student status, public subsidies in cash or in kind for housing, transport, medical expenses, books and supplies, social, recreational and other purposes, and interest-related subsidies for private loans.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator B5).

Areas covered include:

- Average tuition fees charged by tertiary-type A educational institutions.
- Distribution of financial aid to students.
- Governance of tertiary institutions.

Further reading from OECD

OECD Reviews of Tertiary Education (ongoing).

Higher Education Management and Policy (journal).

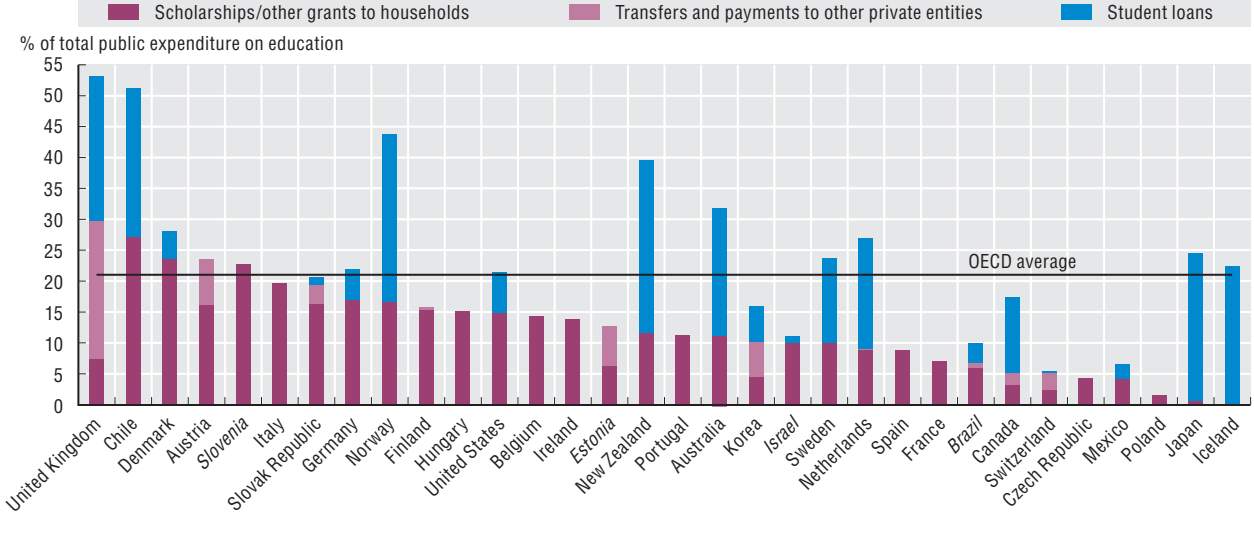
Figure 3.10. **Tuition fees in tertiary education, 2006-07**

This figure shows the average annual tuition fees charged to full-time national students in public institutions for university-level education.

Source: OECD (2010), *Education at a Glance 2010*, Table B5.1, available at *http://dx.doi.org/10.1787/888932310358*.

Figure 3.11. **Public subsidies for tertiary education, 2007**

This figure shows the public subsidies for education given to households and other private entities as a percentage of total public expenditure on education, broken down by the type of subsidy.



Source: OECD (2010), *Education at a Glance 2010*, Table B5.3, available at *http://dx.doi.org/10.1787/888932310358*.

What are education funds spent on?

- *In primary, secondary and post-secondary non-tertiary education combined, current expenditure accounts for an average of 92% of total spending in OECD countries.*
- *Staff costs account for 79% of current expenditure at the primary, secondary and post-secondary non-tertiary levels.*
- *High spending on R&D is a distinctive feature of tertiary institutions and averages over one-quarter of expenditure.*

Significance

This spread shows how OECD countries spend their funds for education, including the split between capital expenditure, which is one-off spending on things like school buildings, and current expenditure, which is recurring spending on things like teacher salaries. How spending is apportioned, both between current and capital outlays and within these categories, can affect the quality of services, the condition of facilities, and the ability of education systems to adjust to changing demographic and enrolment trends.

Findings

In primary, secondary, and post-secondary non-tertiary education, current expenditure accounts for 92% of total spending, on average, across all OECD countries. In large part this is attributable to the labour-intensiveness of education, with teacher salaries accounting for a very large slice of current – and total – education spending (see below). At these levels of education, the split between current and capital spending varies significantly between countries. The current shares ranges from 84% in Luxembourg to at least 97% in Austria, Belgium, Chile, Mexico and Portugal.

At tertiary level, the proportion of total expenditure for capital outlays is larger than at the primary, secondary and post-secondary non-tertiary levels (9.3 *versus* 7.6%), generally because of greater differentiation and sophistication of teaching facilities.

On average across OECD countries, staff salaries account for 79% of current expenditure at the primary, secondary and post-secondary non-tertiary levels, rising to 90% or more in Mexico and Portugal. On average, OECD countries spend 0.3% of GDP on ancillary services provided by primary, secondary and post-secondary non-tertiary institutions, representing 7% of total spending on these institutions.

At tertiary level, OECD countries spend an average of 32% of current expenditure for purposes other than staff salaries. This is explained by the higher cost of facilities and equipment at this level of education.

Variations among OECD countries in spending on R&D activities in tertiary education can explain a significant part of the differences in overall spending on students at this level. High levels of R&D spending (between 0.4 and 0.8% of GDP) in universities in Australia, Austria, Belgium, Canada, Finland, France, Germany, the Netherlands, Norway, Sweden, Switzerland and the United Kingdom imply that spending on education per student in these countries would be considerably lower if the R&D component were excluded.

Definitions

Data refer to the financial year 2007 and are based on UOE data collection on education statistics administered by the OECD in 2009. R&D expenditure includes all spending on research performed at universities and other tertiary education institutions, regardless of whether the research is financed from general institutional funds or through separate grants or contracts from public or private sponsors.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

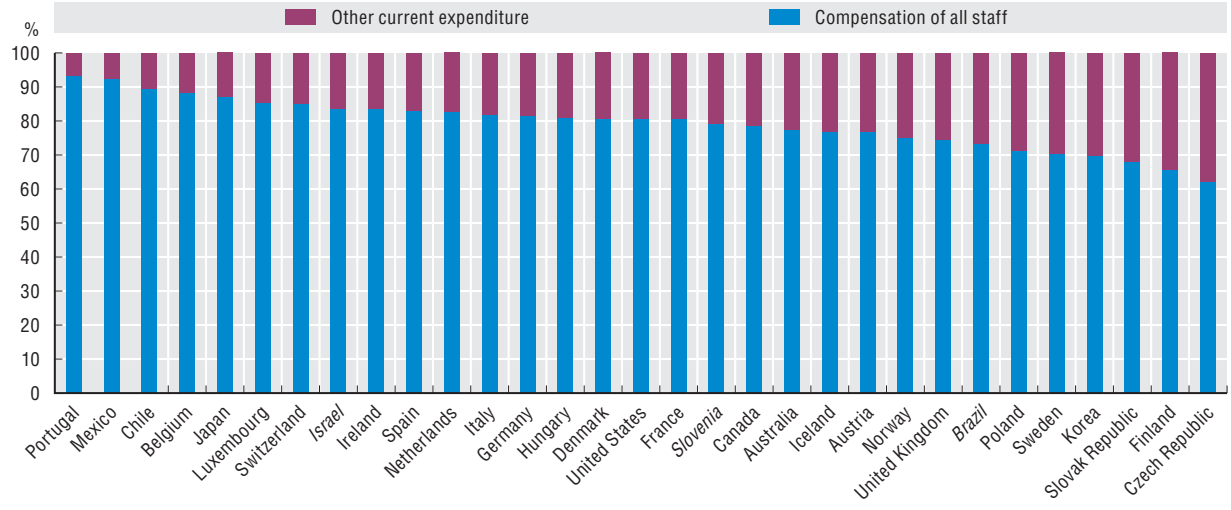
For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator B6).

Areas covered include:

- Expenditure on educational institutions by service category as a percentage of GDP.
- Distribution of current expenditure on educational institutions by level of education.

Figure 3.12. **Staff costs as a proportion of current expenditure in education, 2007**

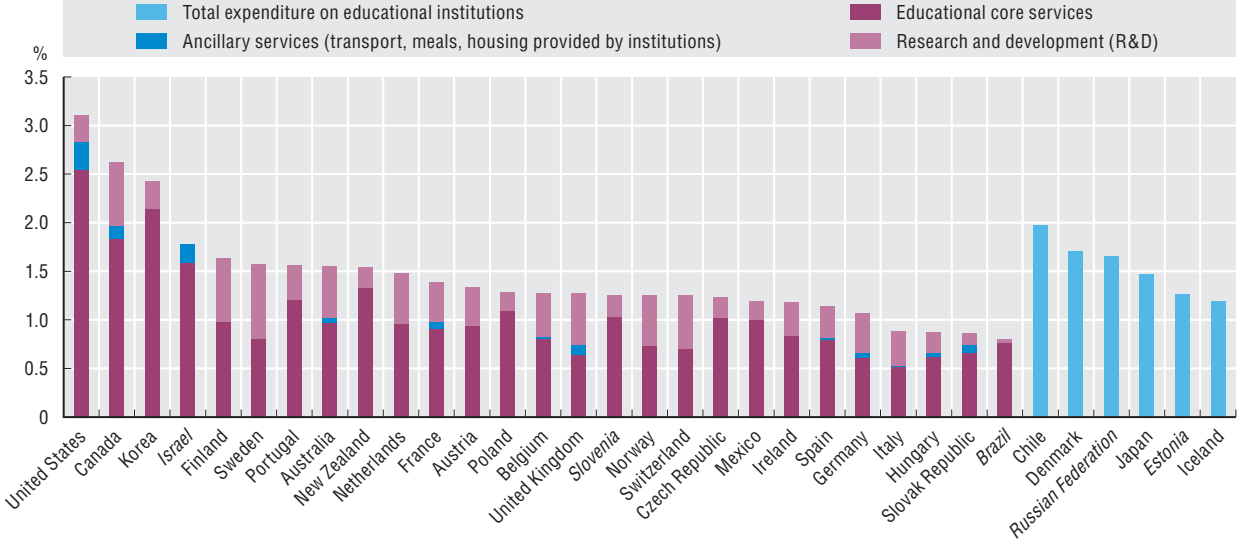
This figure shows the proportion of current expenditure devoted to paying staff in primary, secondary and post-secondary non-tertiary education. Other areas of current spending include transport, student counselling, and recurring spending on school materials and research.



Source: OECD (2010), *Education at a Glance 2010*, Table B6.2b, available at *http://dx.doi.org/10.1787/888932310377*.

Figure 3.13. **Expenditure on services and research in tertiary education, 2007**

This figure shows expenditure on educational core services, R&D and ancillary services in tertiary educational institutions as a percentage of GDP.



Source: OECD (2010), *Education at a Glance 2010*, Table B6.1, available at *http://dx.doi.org/10.1787/888932310377*.

What accounts for variations in spending on salary costs?

- *Similar levels of expenditure among countries in primary and secondary education 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.*
- *Salary cost per student at upper secondary level of education varies significantly between countries, from USD 528 in Chile to more than 10 times that in Luxembourg, Spain and Switzerland.*
- *The higher the level of education, the greater the impact of teachers' salaries and the lower the impact of class size on salary cost per student as a percentage of GDP per capita.*

Significance

The relationship between resources devoted to education and outcomes has been the focus of much interest in recent years, as governments seek to ensure value for money in public spending while satisfying the education needs of society and the economy. Indeed, various reforms have been implemented during the last decade in primary and secondary education which have had important impacts in this area (see Box B7.2 in *Education at a Glance 2010*). Consequently, there is considerable interest in international comparisons of how various school systems allocate resources. This spread examines these questions from the perspective of salary cost per student – a calculation based on four factors: hours students spend in the classroom, teachers' teaching hours, estimated class size and teachers' salaries. Salary cost per student is calculated for each country and then compared with the OECD average.

Findings

Salary cost per student is a complex calculation based, as noted above, on four factors. To give a concrete example of how these factors interact, consider Spain in the top chart on the opposite page. The salary cost per student at upper secondary level of education there is USD 2 481 higher than the OECD average. This is because Spain has higher teachers' salaries (+ USD 369) than the OECD average, annual instruction time for students close to the average (– USD 23) and above-average teaching time for teachers (– USD 259). However these effects are dampened by significantly smaller class sizes (+ USD 2 394).

Overall, salary cost per student at upper secondary level varies significantly, ranging from USD 528 in Chile to more than ten times that in Luxembourg, Spain and Switzerland. But these totals need to be understood in terms of the relative importance of each of the four factors. For example, salary cost per student is USD 3 913 in Japan, similar to the United Kingdom's USD 3 937, both of which are above the OECD average. However, in Japan the total is driven by the fact that teachers have below-average teaching time while in the United Kingdom the key factor is smaller class size.

Naturally, teachers' salaries vary according to countries' relative level of wealth. For that reason, it can be useful to compare salary cost per student in terms of GDP per capita (see Chart B7.3 in *Education at a Glance 2010*). On average in OECD countries, the salary cost per student at upper secondary level represents 10.9% of GDP per capita, but reaches as high as 20.1% in Spain.

Differences between countries are largest at the upper secondary level of education and smaller at lower levels of education. This is most obvious in countries where salary cost per student (as a percentage of GDP per capita) is furthest from the OECD average. By contrast, differences between country totals and the OECD average generally increase at lower levels of education.

Definitions

Values for variables are derived mainly from *Education at a Glance 2009*, and refer to the school year 2006-07 and the calendar year 2006 for indicators related to finance. To compensate for missing values, some data have been estimated on the basis of data published in previous editions of *Education at a Glance* while others have been replaced by the average for all OECD countries. Salary cost per student is calculated based on the salary of teachers, the number of hours of instruction for students, the number of hours of teaching for teachers and a proxy class size.

Going further

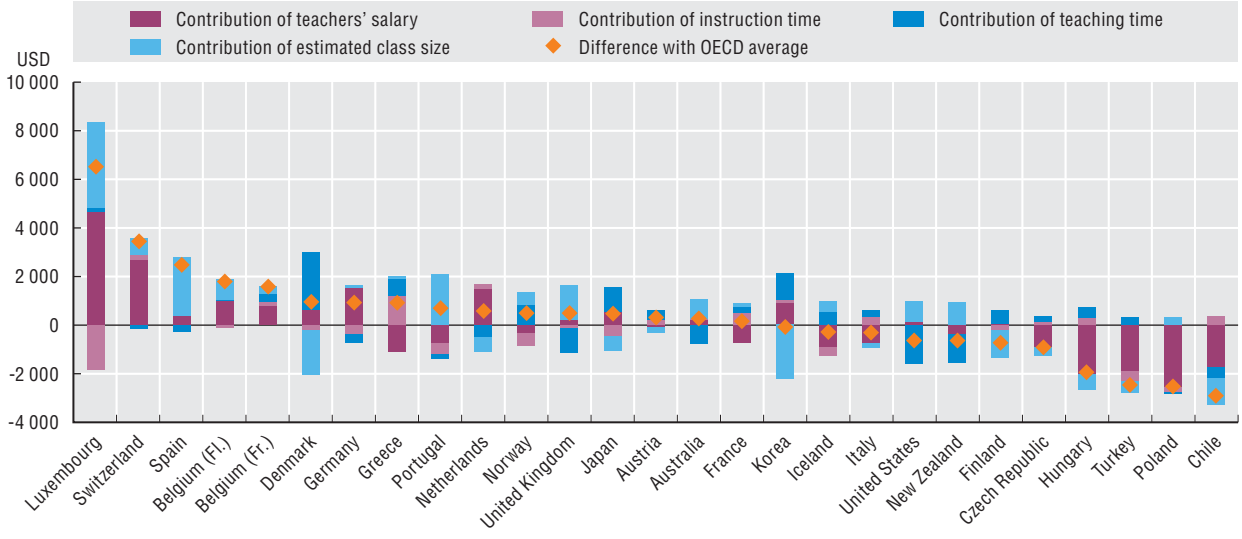
For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator B7).

Areas covered include:

- Salary cost per student by levels of education.
- Salary cost per student as a percentage of GDP per capita.

Figure 3.14. **Contribution of various factors to salary cost per student at upper secondary level, 2006**

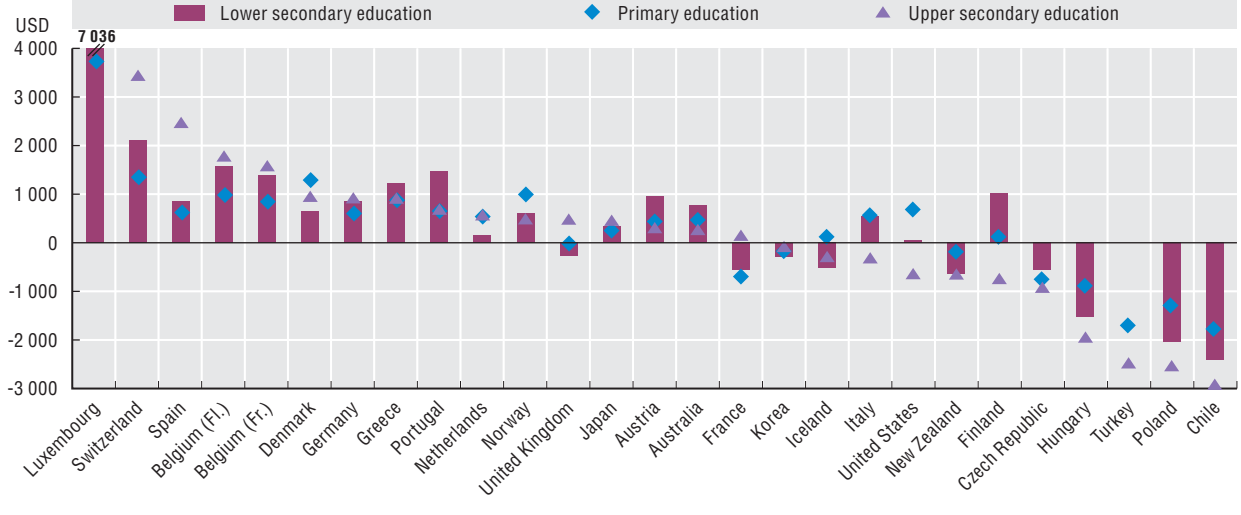
This figure shows the contribution (in US dollars) of the four factors that affect differences between salary cost per student and compares each country's total with the OECD average.



Source: OECD (2010), *Education at a Glance 2010*, Table B7.3, available at *http://dx.doi.org/10.1787/888932310396*.

Figure 3.15. **Differences in salary cost per student by level of education, 2006**

This figure shows the difference between the salary cost per student as a percentage of GDP per capita and the OECD average for each level of education.



Source: OECD (2010), *Education at a Glance 2010*, Tables B7.1, B7.2 and B7.3, available at *http://dx.doi.org/10.1787/888932310396*.

4. THE SCHOOL ENVIRONMENT

How long do students spend in the classroom? 70

How many students are in each classroom? 72

How much are teachers paid? 74

How much time do teachers spend teaching? 76

Who are the teachers? 78

How long do students spend in the classroom?

- *In OECD countries, 7-8 year-olds receive 759 hours per year of compulsory instruction; the time devoted to compulsory instruction is 43 hours longer for 9-11 year-olds and 127 hours longer for 12-14 year-olds.*
- *The teaching of reading, writing and literature, mathematics and science accounts for 48% of compulsory instruction time for 9-11 year-olds in OECD countries, and 40% for 12-14 year-olds.*
- *The proportion of compulsory instruction time for 9-11 year-olds devoted to reading, writing and literature ranges from 16% in Iceland to at least 30% in France, Mexico and the Netherlands.*

Significance

This spread examines the amount of time students spend in formal education between the ages of 7 and 15. The choices that countries make about how much time should be devoted to education and which subjects should be compulsory reflect national education priorities. Since a large part of public investment in education goes to instruction time in formal classroom settings, the length of time students spend in school is an important factor in determining the amount of funding that should be devoted to education.

Findings

In OECD countries, the total number of instruction hours that students are intended to receive (including both compulsory and non-compulsory parts) between the ages of 7 and 14 averages 6 777 hours. However, formal requirements range from fewer than 4 715 hours in Poland to over 8 000 hours in Italy and *Israel*.

For 9-11 year-olds in OECD countries, 48% of the compulsory curriculum is devoted to three basic subject areas: reading, writing and literature (23%), mathematics (16%) and science (9%). But there is great variation among countries in the percentage of class time devoted to these subjects. Reading, writing and literature, for example, accounts for 16% of instruction time in Iceland, compared with 30% or more in France, Mexico and the Netherlands. There are also great differences in the time spent learning modern foreign languages. In England, Japan, Mexico and the Netherlands, it accounts for 3% or less of instruction time, which rises to 10% in Germany, Greece, Italy, Spain and *Estonia*, *Israel* and *Slovenia*, and to 25% in Luxembourg.

For 12-14 year-olds in OECD countries, an average of 40% of the compulsory curriculum is devoted to three subjects: reading, writing and literature (16%), mathematics (13%) and science (12%). Compared with 9-11 year-olds, a relatively larger part of the curriculum for this older age group is devoted to social studies (12%) and modern foreign languages (13%).

Most OECD countries define a specific number of hours for compulsory instruction. Within that part of the curriculum, students have varying degrees of freedom to choose the subjects they want to learn. Australia offers the greatest degree of flexibility in the compulsory curriculum: 57% of that curriculum can be shaped by students themselves among 9-11 year-olds and 41% among 12-14 year-olds.

Definitions

Data on teaching time distinguish between "compulsory" and "intended" teaching time. Compulsory teaching time refers to the minimum amount of teaching that schools are expected to provide. Intended instruction time is an estimate of the number of hours during which students are taught both compulsory and non-compulsory parts of the curriculum. It does not, however, indicate the quality of the education provided nor the level or quality of the human and material resources involved. Data on instruction time are from the 2009 OECD-INES Survey on Teachers and the Curriculum and refer to the 2007-08 school year.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator D1).

Areas covered include:

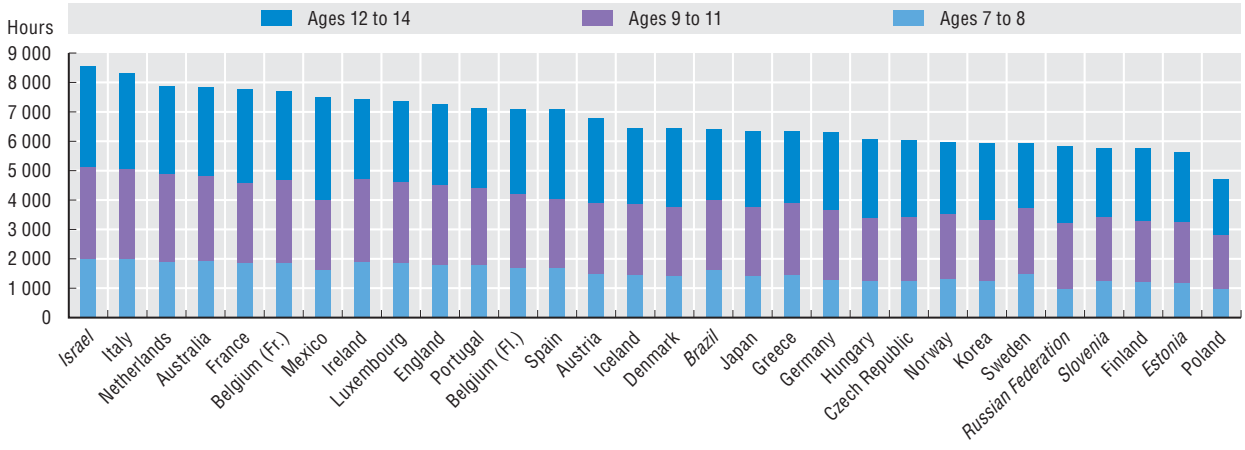
- Compulsory and intended instruction time in public institutions.
- Instruction time per subject.

Further reading from OECD

21st Century Learning Environments (2006).

Figure 4.1. **Total number of instruction hours in public institutions, 2008**

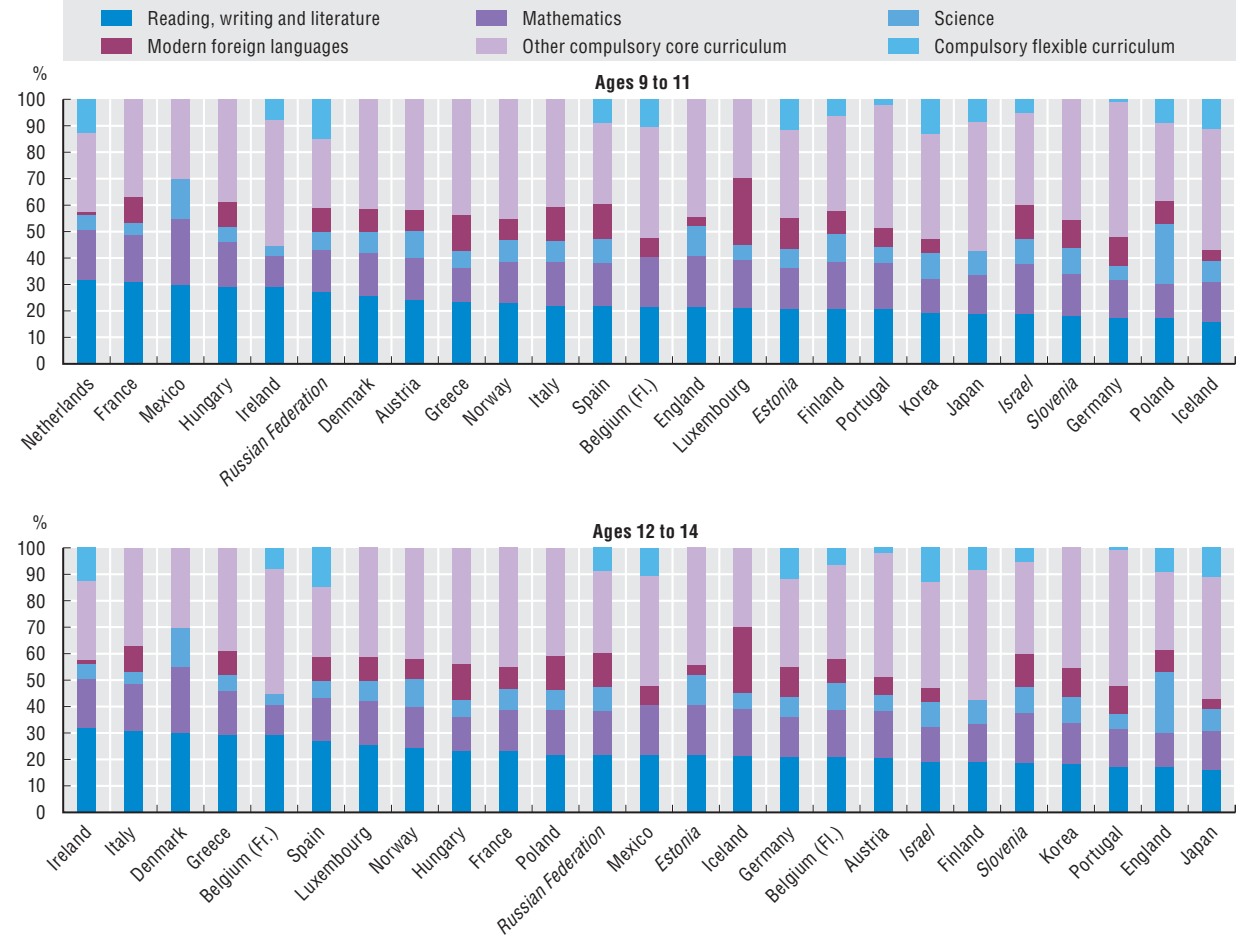
This figure shows the hours of intended instruction that students receive between ages 7 and 14 (this represents the compulsory instruction time public schools are required to deliver as well as the time devoted to non-compulsory instruction).



Source: OECD (2010), *Education at a Glance 2010*, Table D1.1, available at *http://dx.doi.org/10.1787/888932310472*.

Figure 4.2. **Instruction time by subject, 2008**

These figures show the percentage of compulsory instruction time devoted to each subject.



Source: OECD (2010), *Education at a Glance 2010*, Tables D1.2a and D1.2b, available at *http://dx.doi.org/10.1787/888932310472*.

How many students are in each classroom?

- *On average, there are about 22 students per class at primary level, but this varies from 30 or more per class in Chile and Korea to nearly half that number in Luxembourg and the* Russian Federation.
- *The number of students per class increases by an average of more than two between primary and lower secondary education.*
- *The student-to-teacher ratio in lower and upper secondary education is slightly lower in private than in public institutions.*

Significance

This spread examines the number of students per class at the primary and lower secondary levels, and the ratio of students to teachers at all levels. Class size is a hotly debated topic in many OECD countries. While smaller classes are often perceived as enabling a higher quality of education, evidence on the impact of class size on student performance is mixed.

Findings

At the primary level, the average class size in OECD countries is about 22 students, ranging from 30 or more in Chile and Korea to fewer than 20 in Austria, the Czech Republic, Denmark, Finland, Greece, Iceland, Italy, Luxembourg, Mexico, Poland, Portugal, the Slovak Republic and Switzerland and *Estonia*, the *Russian Federation* and *Slovenia*.

In lower secondary education, the average class size is 24 students, ranging from more than 35 students in Korea to 20 or fewer in Denmark, Iceland, Luxembourg and Switzerland, and the *Russian Federation*.

At the primary level, the ratio of students to teaching staff (with part-time and full-time teachers combined and expressed in terms of full-time equivalents), ranges from 24 students or more per teacher in Chile, Korea, Mexico, Turkey and *Brazil* to fewer than 11 in Hungary, Italy, Norway and Poland. The OECD average in primary education is 16 students per teacher, and 14 at secondary level (see Chart D2.3 in *Education at a Glance 2010*).

Across the OECD, average class sizes at the primary and lower secondary levels do not differ by more than One student per class between public and private institutions. However, there are differences between countries. At primary level, the average class in a public institution has at least four more students than one in a private institution in Poland, Turkey, the United Kingdom, and the United States, and *Brazil* and the *Russian Federation*. By contrast, the reverse is true for Japan and Spain. At the lower secondary level, where private education is more prevalent than at primary level, class sizes are larger in private institutions in 13 countries.

Trends

Among two-thirds of countries with comparable data, class sizes tended to decrease slightly between 2000 and 2008, most notably in countries that had relatively large class sizes in 2000, such as Korea and Turkey. By contrast, they tended to increase in countries that had relatively small class sizes in 2000, such as Iceland.

Definitions

Data refer to the 2007-08 school year, and are based on the UOE data collection on education statistics administered by the OECD in 2009. Class sizes have been calculated by dividing the number of students enrolled by the number of classes. The ratio of students to teachers has been calculated by dividing the number of full-time students at a given level of education by the number of full-time teachers at that level. Data for Switzerland refer to public institutions.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator D2).

Areas covered include:

- Average class size, by type of institution and level of education.
- Ratio of students to teaching staff.
- Teaching staff and non-teaching staff employed in educational institutions.

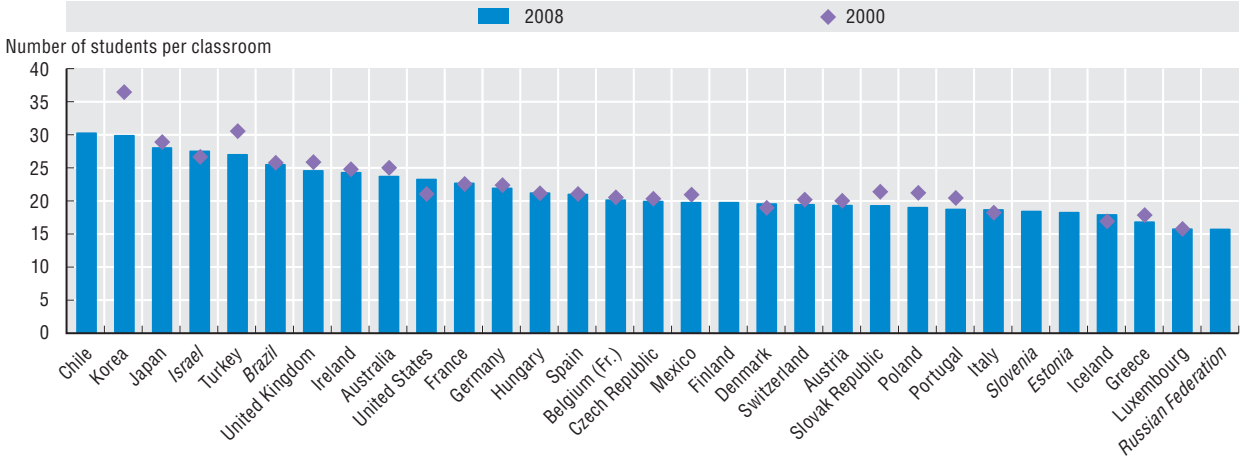
Further reading from OECD

Improving School Leadership (Vol. 1: Policy and Practice) (2008).

21st Century Learning Environments (2006).

Figure 4.3. **Trends in average class size in primary education (2000, 2008)**

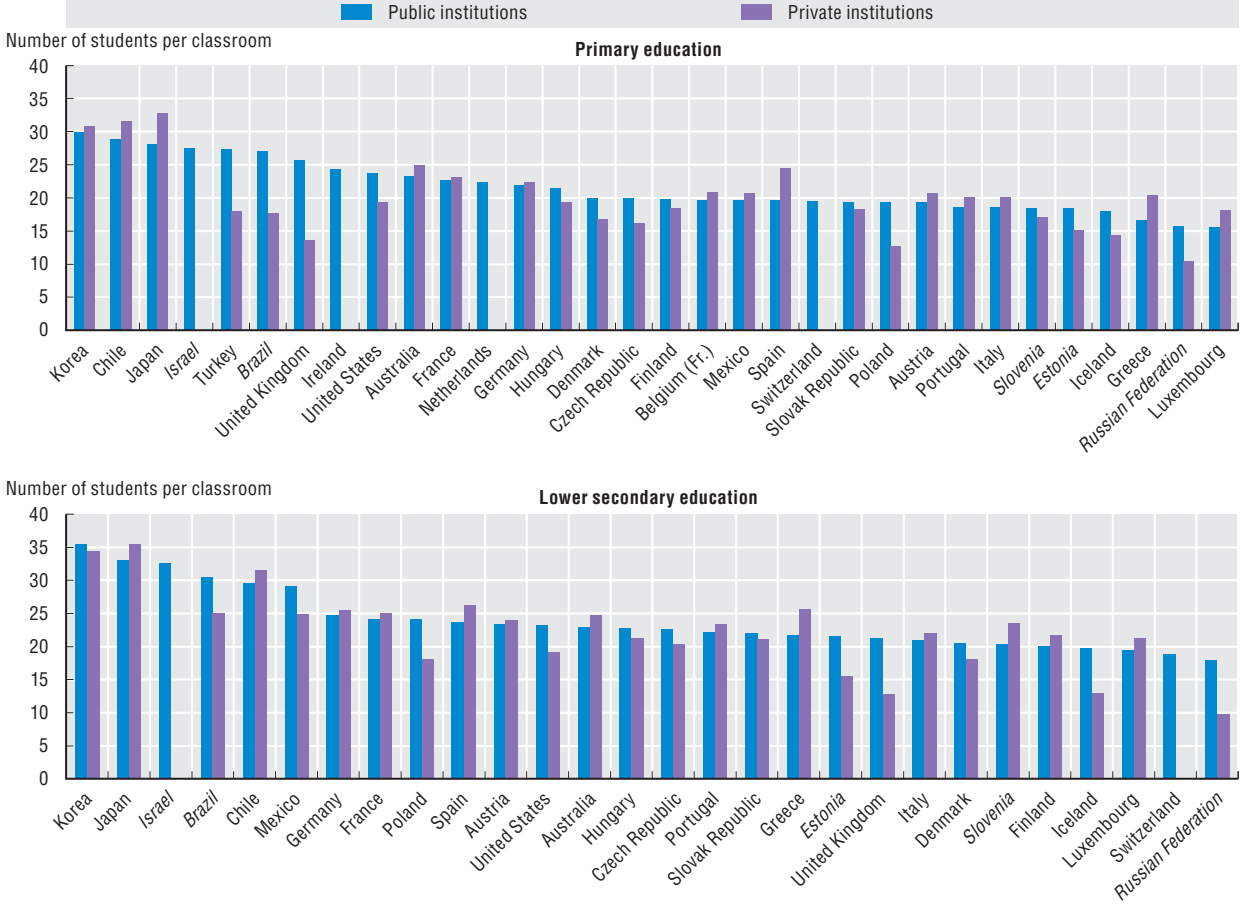
This figure shows the number of students on average in primary classes, and whether these numbers have risen or fallen.



Source: OECD (2010), *Education at a Glance 2010*, Tables D2.1 and D2.4, available at *http://dx.doi.org/10.1787/888932310491*.

Figure 4.4. **Average class size in public and private institutions, 2008**

These figures show whether class sizes differ between public and private schools.



Source: OECD (2010), *Education at a Glance 2010*, Table D2.1, available at *http://dx.doi.org/10.1787/888932310491*.

How much are teachers paid?

- *Salaries for lower secondary teachers with at least 15 years' experience range from less than USD 16 000 in Hungary and Estonia to more than USD 98 000 in Luxembourg.*
- *For both primary and secondary education, salaries at the top of the scale are on average around 70% higher than starting salaries.*
- *Salaries in primary and secondary education have grown in real terms since 1996 in almost all OECD countries, with the biggest rises in Finland, Hungary and Mexico and* Estonia.

Significance

This spread shows the starting, mid-career and maximum statutory salaries of teachers in public primary and secondary education. Since teachers' salaries are the largest single cost in education, teacher compensation is a critical consideration for policy makers seeking to maintain both the quality of teaching and a balanced education budget.

Findings

In most OECD countries, teachers' salaries rise with the level of education they teach. For example, in Belgium, Luxembourg, the Netherlands, Poland and Switzerland, the salary of an upper secondary teacher with at least 15 years experience is at least 25% higher than that of a primary teacher with the same experience. The difference is less than 5%, however, in Australia, England, Greece, Ireland, Japan, Korea, New Zealand, Portugal and Scotland and *Estonia* and *Slovenia*.

Salaries at the top of the scale are on average around 70% higher than starting salaries for both primary and secondary education, although this differential largely varies among countries in line with the number of years it takes to progress through the scale. Top-of-the-scale salaries in Korea and Portugal are more than 2.5 times starting salaries, but it takes 37 and 31 years respectively to reach the top of the scale.

To get a sense of the relative value of teachers' salaries within countries, a number of comparisons are useful, such as in terms of GDP per capita (see Chart D3.2 in *Education at a Glance 2010*). They can also be compared with the earnings of other tertiary graduates. Salaries for teachers with 15 years of experience in lower secondary education are 26% more than the earnings of workers with tertiary education in Spain. By contrast, they are below 60% in the Czech Republic, Hungary, Iceland, Italy and *Israel* and *Slovenia*.

Trends

Teachers' salaries grew in real terms at both primary and secondary levels in virtually all OECD countries between 1996 and 2008. The biggest increases occurred in Hungary and *Estonia*, but both still have low real and relative salaries. Top-of-the-scale salaries rose faster than starting and mid-career salaries in Finland, Greece and Mexico (at lower secondary level) and *Estonia*. In Australia, Denmark, England, New Zealand and Scotland, starting salaries rose faster than mid-career or top-of-the-scale salaries for all education levels.

Definitions

Data are from the 2010 OECD-INES Survey on Teachers and the Curriculum and refer to the 2007-08 school year. Gross teachers' salaries were converted using GDP and purchasing power parities (PPPs) exchange rate data from the OECD National Accounts database. Starting salaries refer to the average scheduled gross salary per year for a fully qualified full-time teacher. Earnings for workers with tertiary education are average earnings for full-time full-year workers aged between 25 and 64 year and with education at ISCED 5A/5B/6. Data presented here offer a simplified illustration of international comparisons in teacher compensation. Large differences in taxation, social benefits and allowances and additional payments for teachers as well as variations in teaching time, workloads and the use of part-time teachers must also be taken into account in making international comparisons of teachers' benefits. It is thus important to exercise caution in interpreting comparisons of teachers' salaries.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator D3).

Areas covered include:

- Teachers' salaries and trends.
- Additional payments for teachers.

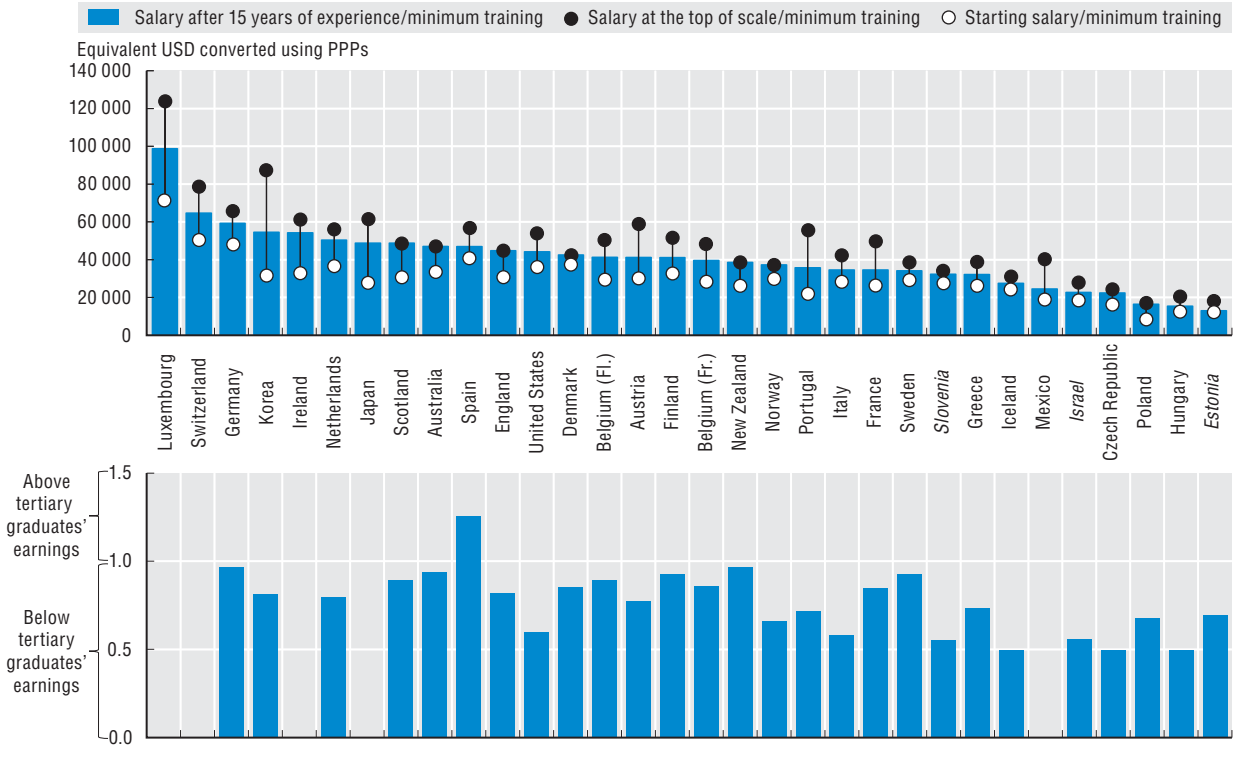
Further reading from OECD

Evaluating and Rewarding the Quality of Teachers: International Practices (2009).

Teachers Matter: Attracting, Developing and Retaining Effective Teachers (2005).

Figure 4.5. **Teachers' salaries in lower secondary education, 2008**

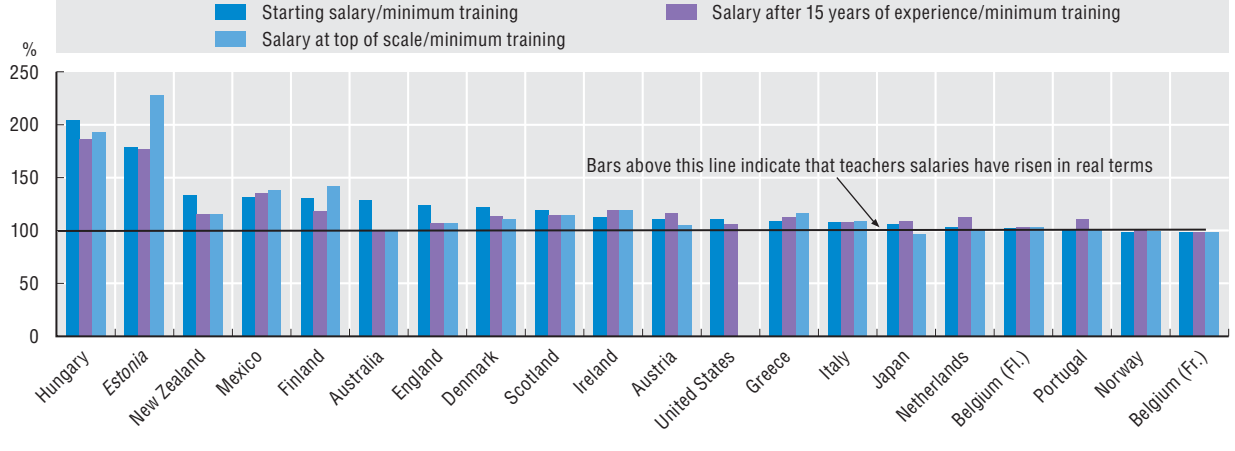
The upper chart in this figure shows how much teachers are paid, and how this varies depending on their years of experience. The lower chart compares the salaries of teachers (with 15 years' experience) with the earnings of full-time workers with tertiary education.



Source: OECD (2010), *Education at a Glance 2010*, Table D3.1, available at *http://dx.doi.org/10.1787/888932310510*.

Figure 4.6. **Trends in teachers' salaries in lower secondary education (1996, 2008)**

This figure shows how the salaries of teachers with different levels of experience have changed in real terms from 1996 to 2008.



Source: OECD (2010), *Education at a Glance 2010*, Table D3.2 available at *http://dx.doi.org/10.1787/888932310510*.

How much time do teachers spend teaching?

- *The number of teaching hours per year in public primary schools averages 786, but ranges from fewer than 650 hours in Denmark, Greece, Hungary, Poland and Estonia to 1 097 in the United States.*
- *The average number of teaching hours per year in upper secondary schools is 661, but ranges from 364 in Denmark to 1 051 in the United States.*
- *The way teachers' working time is regulated varies substantially among countries.*

Significance

This spread examines the time teachers spend teaching and doing non-teaching work, such as preparing lessons and assessing students. Although working time and teaching time only partly determine teachers' actual workload, they do provide valuable insights into differences in what is demanded of teachers in different countries and so may be related to the attractiveness of teaching as a profession. The amount of time teachers spend teaching is also one of the factors that affect the financial resources countries need to allocate to education.

Findings

Primary teachers tend to spend more hours teaching than secondary teachers, although the size of the gap varies between countries. A primary teacher is required to teach over 200 hours more than a lower-secondary teacher in the Czech Republic, France and Korea, and 200 hours more than an upper secondary teacher Denmark, Japan, Norway and *Israel*. By contrast, the gap with lower-secondary and sometimes upper secondary teachers is less than 60 hours or almost non-existent in Denmark, Germany, Hungary, Iceland, New Zealand, Poland, Scotland and the United States and *Estonia* and *Slovenia*.

The composition of teachers' annual teaching time, in terms of days, weeks and hours a day, varies considerably between countries. In Korea, primary teachers put in the highest number of days of instruction (220), yet their average teaching time per day is only 3.8 hours (below the OECD average of 4.2). In Denmark, teachers must complete 200 days of instruction in 42 weeks, while in Iceland they must complete 180 days in 36 weeks. The number of hours taught per day of instruction explains the difference. While primary teachers in Iceland complete 20 fewer days of instruction than their counterparts in Denmark, they teach for about 30 minutes longer each day.

While some countries formally regulate contact time only, others also set working hours. Indeed, in most countries, teachers are formally required to work a specified number of hours each week, including teaching and non-teaching time, to earn their full-time salary. These hours vary between countries, as does the allocation of time to teaching and non-teaching activities. Usually, the number of teaching hours is specified, but some countries also regulate, at the national level, the amount of time a teacher must be present in the school.

In Belgium (Fr.), Finland, France, Italy and the *Russian Federation* and *Slovenia*, there are no formal requirements for primary and secondary education as to how much time teachers should spend on non-teaching duties. However, this does not mean that teachers are given total freedom to carry out other tasks.

Definitions

Data are from the 2009 OECD-INES Survey on Teachers and the Curriculum and refer to the 2007-08 school year. Teaching time is defined as the number of hours per year that a full-time teacher teaches a group or class of students. Working time refers to the normal working hours of a full-time teacher and includes time directly associated with teaching and hours devoted to teaching-related activities, such as preparing lessons, counselling students, correcting assignments and tests, and meeting with parents and other staff.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator D4).

Areas covered include:

- Organisation of teachers' working time.
- Number of teaching hours per year, by level of education.

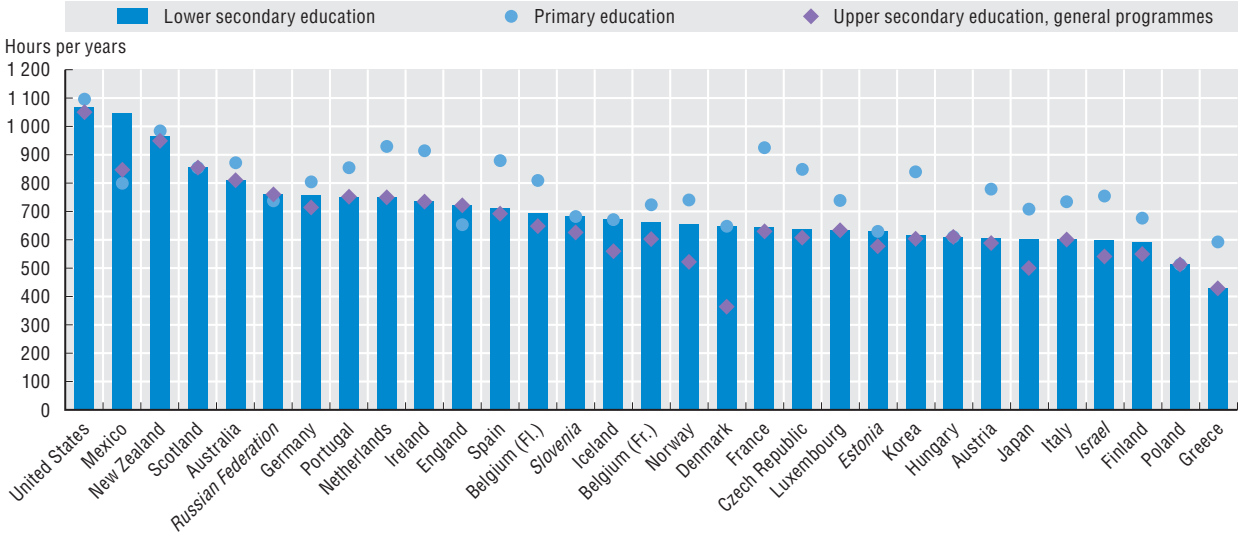
Further reading from OECD

21st Century Learning Environments (2006).

Teachers Matter: Attracting, Developing and Retaining Effective Teachers (2005).

Figure 4.7. **Annual teaching hours by education level, 2008**

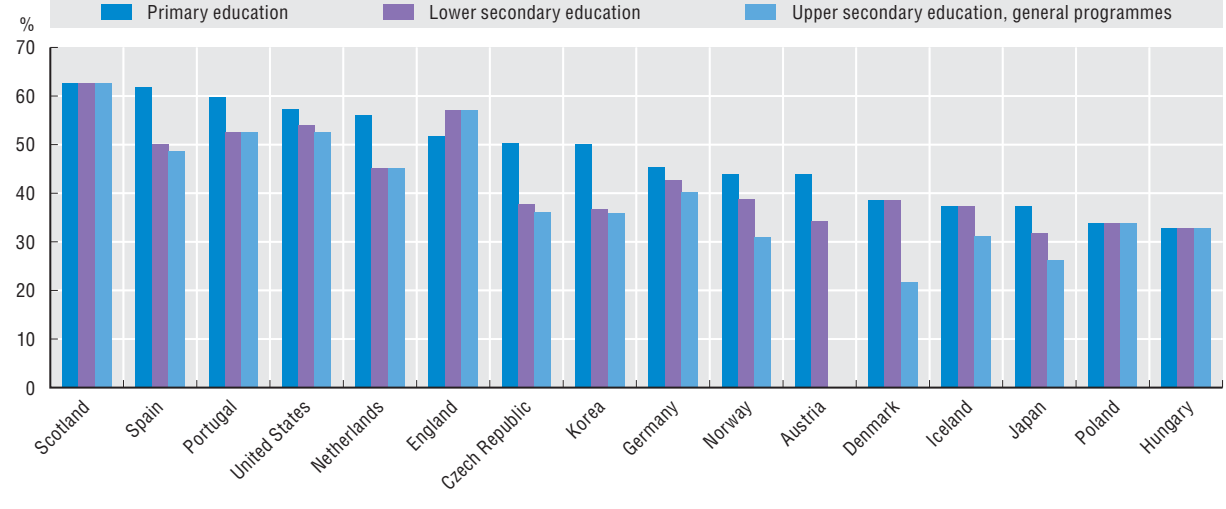
This figure shows the variation in annual teaching hours for teachers in different levels of education.



Source: OECD (2010), *Education at a Glance 2010*, Table D4.1, available at *http://dx.doi.org/10.1787/888932310529*.

Figure 4.8. **Percentage of teachers working time spent teaching, 2008**

This figure shows the amount of their working time that teachers spend teaching. Contact time with students is a major part of teachers' workloads, but duties also include preparing classes and correcting assignments.



Source: OECD (2010), *Education at a Glance 2010*, Table D4.1, available at *http://dx.doi.org/10.1787/888932310529*.

Who are the teachers?

- *On average in OECD countries, 30% of primary teachers, 33% of lower secondary teachers and almost 36% of upper secondary teachers are 50 or older.*
- *On average, just over 80% of primary school teachers in OECD countries are women.*
- *The proportion of women among teaching staff tends to decline at higher levels of education, reaching just over 40% at tertiary level.*

Significance

This spread presents a profile of the teaching workforce. Getting a better understanding of the teaching workforce means countries can anticipate teacher shortages and work to improve the teaching profession's attractiveness as a career choice.

Findings

On average across the OECD, 30% of primary teachers are 50 or older, but the levels are much higher in some countries: 50% in Germany and 49% in Sweden and 42% in Italy. Except Sweden, these countries also have high proportions of lower secondary teachers aged over 50: 52% for Germany and nearly 60% for Italy. In Italy, less than 1% of lower secondary school teachers are aged below 30, compared with an OECD average of 12%.

As for the broader age distribution of teachers across the OECD area, the average percentage of teachers in the 40-49 age group is roughly the same in primary and lower and upper secondary education – between just over 27 and just under 30%. Teachers aged 39 or below tend to be more prevalent in primary education, where they account for 42% of teachers on average. At lower secondary level, they account for just over 38% of teachers, and at upper secondary a little less than 35%.

Looking at all levels of education, including tertiary, women represent an average of just over 66% of all teachers in the OECD area, but the percentage of women teachers tends to fall from one level of education to the next: On average across the OECD area, women account for almost 97% of teachers at pre-primary level; just over 80% at primary level; just under 67% at lower secondary level; slightly more than 53% at upper secondary level; and just over 40% in tertiary education.

Definitions

Data refer to the academic year 2007-08 and are based on the UOE data collection on education statistics administered by the OECD in 2009.

Going further

For additional data and notes go to "Indicator D7" at *www.oecd.org/edu/eag2010*.

Areas covered include:

- Age distribution of teachers by country and level of education.
- Gender distribution of teachers by country and level of education.

Further reading from OECD

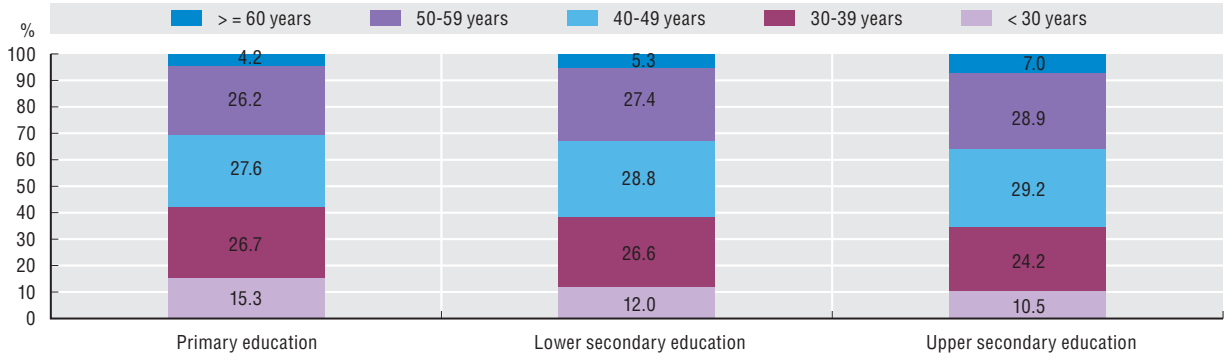
Educating Teachers for Diversity: Meeting the Challenge (2010).

Evaluating and Rewarding the Quality of Teachers: International Practices (2009).

Teachers Matter: Attracting, Developing and Retaining Effective Teachers (2005).

Figure 4.9. **Age distribution of teachers, OECD average, 2008**

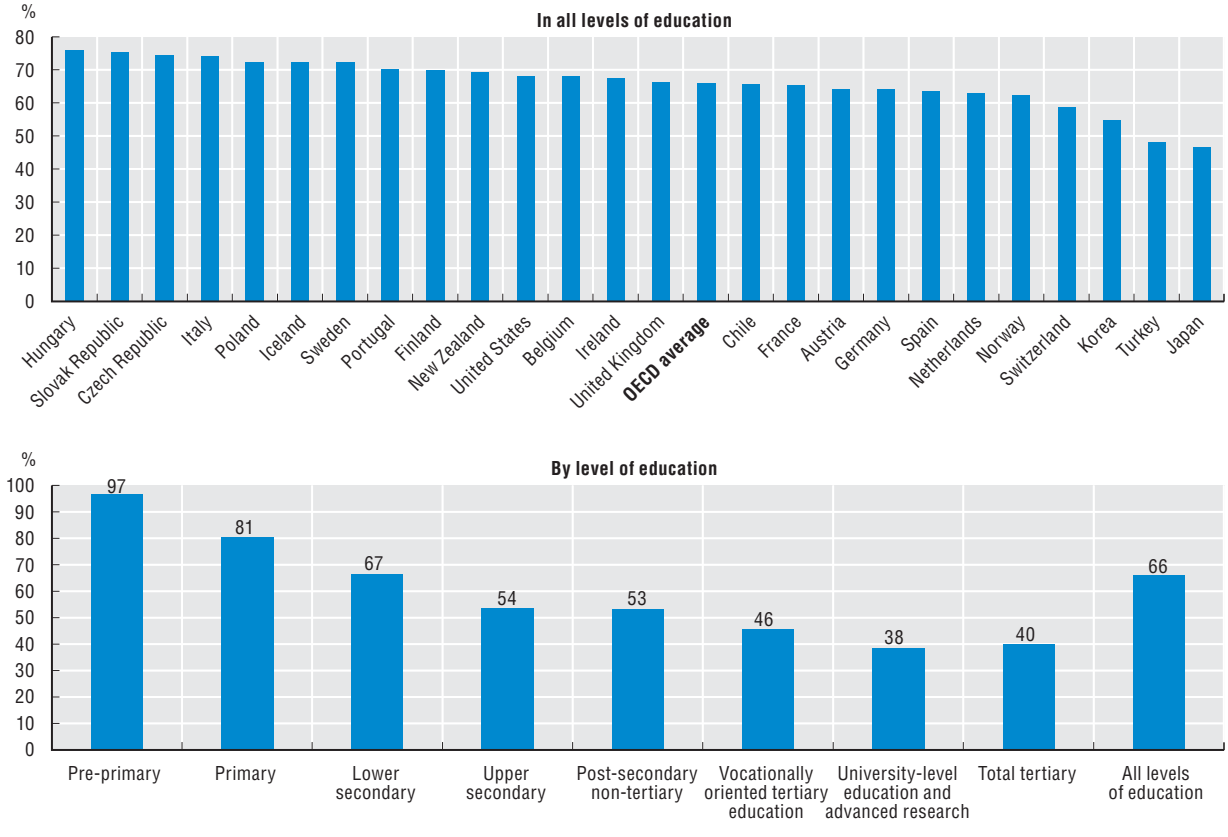
This figure shows the OECD average percentages of teachers in each age group in primary, lower secondary and upper secondary education.



Source: OECD (2010), *Education at a Glance 2010*, Table D7.1 (web only), available at *http://dx.doi.org/10.1787/888932310586*.

Figure 4.10. **Gender distribution of teachers in OECD countries, 2008**

These figures show the percentage of women teachers in all levels of education and by each level of education in OECD countries.



Source: OECD (2010), *Education at a Glance 2010*, Table D7.2 (web only), available at *http://dx.doi.org/10.1787/888932310586*.

Building the Subway

5. SPECIAL SECTION: SCHOOL CHOICE, PARENT VOICE

How much school choice do parents have? 82

Are schools highly regulated or autonomous? 84

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How much school choice do parents have?

– *Most countries rely on public schools to provide compulsory education, although private alternatives also exist.*

– *Opportunities for school choice have expanded in the past 25 years. Restrictions on school choice among public schools have been reduced in more than half of countries that reported findings.*

Significance

This spread looks at the scope and nature of choice available to parents. It looks first at the alternatives to public schools that are available and, second, at the extent to which parents can choose their child's school from among public and private alternatives. The issue of school choice has been hotly debated in a number of countries. Proponents argue that, among other benefits, it can allow parents to "vote with their feet" when a school is failing and allows schools to better match their services to students' needs. Opponents argue that it can encourage a two-tier education system, with the benefits being enjoyed mostly by better-off families.

Findings

Most countries allow both public and private schools to provide compulsory education. Out of the 28 OECD countries for which data are available, four out of five allow government-dependent and independent institutions to provide such schooling. Over 70% of OECD countries also report that homeschooling may be allowed.

In practice, however, most compulsory schooling is provided by public institutions. Enrolments in government-dependent private schools exceed 10% in only seven countries – Belgium, Chile, Denmark, France, the Netherlands, New Zealand and Spain. For independent private schools they exceed 10% in only Mexico, Portugal and *Brazil*. Only half of countries reported figures for homeschooling; on average, it accounts for only 0.4% of total enrolments.

In about five-sixths of OECD countries, the main criterion used to assign students to schools is geographical location – *i.e.* the proximity of the family home to the school. Public schools establish selective admission criteria in only 12 out of 30 OECD countries at the primary level and in 17 out of 30 at the lower secondary level (see online Table D5.5 in *Education at a Glance 2010*). By contrast, independent private schools report the greatest flexibility in establishing admission criteria at both the primary (16 out of 19 OECD countries) and lower secondary (16 out of 18 OECD countries) levels. Criteria typically include academic achievement, religion and gender.

In public education, opportunities for school choice have expanded since 1985 at both primary and lower secondary level. Such opportunities grew at primary level in 17 of the 30 OECD countries for which data is available and at the lower secondary level in 18. The reforms also include new funding mechanisms that promote school choice in England, Finland, Hungary, Italy, Luxembourg (lower secondary), Poland, Portugal (lower secondary), the Slovak Republic, Sweden, the United States and *Estonia* and *Israel* (see online Table D5.6 in *Education at a Glance 2010*).

Similarly, for government-dependent private schools, school choice has expanded at primary level in 11 of the 23 OECD countries for which data are available and at lower secondary level in 12 of 24. New funding mechanisms in support of school choice have also been created in the Czech Republic, England, Finland, Hungary, Poland, the Slovak Republic, Sweden and *Israel* and *Slovenia*.

Definitions

Data are from the 2009 OECD-INES Survey on School Choice and Parent Voice and refer to the school year 2007-08. Data on enrolments are based on the UOE data collection on educational systems administered annually by the OECD and refer to the school year 2007-08. Educational institutions are classified as either public or private. Public institutions are controlled and managed directly by a public or government agency or by a body whose members are appointed by a public authority or elected by public franchise. Private institutions are controlled and managed by a non-government organisation or by a governing board whose members are mostly not publicly appointed: They cover three categories: 1) Government-dependent private institutions – these receive more than half of their core funding from government agencies or rely on government funding to pay teaching staff. 2) Independent private institutions – these receive less than 50% of core funding from government and teachers are not paid by government. 3) Home-schooling – education of children at home, by parents or sometimes tutors, that replaces school-based compulsory education.

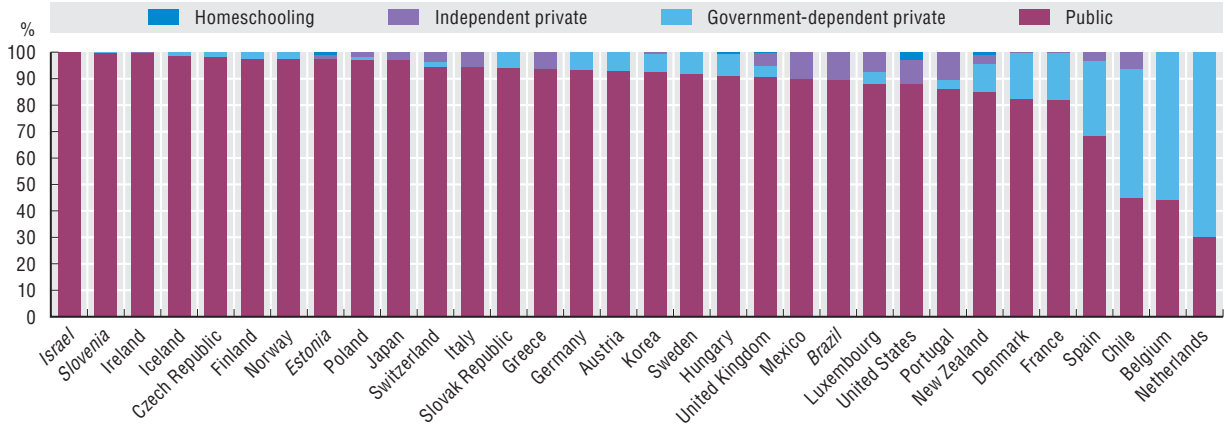
Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator D5).

Figure S.1. **Distribution of students across various types of schools, 2008**

This figure shows the breakdown of students between public and private institutions (which, in turn, comprises three sub-categories: government-dependent; independent; and homeschooling).



Source: OECD (2010), *Education at a Glance 2010*, Table D5.2, available at *http://dx.doi.org/10.1787/888932310548*.

Table S.1. **Freedom for parents to choose a public school, 2008**

This table shows the extent to which parents can choose among public schools at both the primary and lower secondary levels (x = no, ✓= yes).

	Initial assignment based on geographical area		Families are given a general right to enrol in any traditional public school they wish		Choice of other public schools is restricted to the district or municipality		Choice of other public schools is restricted by region		Families must apply to enroll in a public school other than the one assigned to their child		There is free choice of other public schools if there are places available		Others restrictions or conditions	
	Primary	Lower secondary	Primary	Lower secondary	Primary	Lower secondary	Primary	Lower secondary	Primary	Lower secondary	Primary	Lower secondary	Primary	Lower secondary
Austria	✓	✓	✓	✓	x	x	x	x	✓	✓	✓	✓	✓	✓
Belgium (Fl.)	x	x	✓	✓	x	x	x	x	x	x	✓	✓	x	x
Belgium (Fr.)	x	x	✓	✓	x	x	x	x	x	x	✓	✓	x	x
Brazil	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Chile	x	x	✓	✓	x	x	x	x	x	x	✓	x	x	x
Czech Republic	✓	✓	✓	✓	x	x	x	x	x	x	✓	✓	x	x
Denmark	✓	✓	✓	✓	x	x	x	x	✓	✓	✓	✓	x	x
England	✓	✓	✓	✓	x	x	x	x	✓	✓	✓	✓	x	x
Estonia	✓	✓	✓	✓	x	x	x	x	✓	✓	✓	✓	x	x
Finland	✓	✓	x	x	x	x	x	x	✓	✓	x	x	✓	✓
France	✓	✓	x	x	x	x	x	x	x	✓	x	✓	x	x
Germany	✓	✓	x	x	✓	x	✓	x	✓	✓	x	✓	x	✓
Greece	✓	✓	x	x	x	x	x	x	x	x	x	x	x	x
Hungary	✓	✓	✓	✓	x	x	x	x	✓	✓	✓	✓	x	x
Iceland	✓	✓	x	x	✓	✓	✓	✓	✓	✓	✓	✓	x	x
Ireland	✓	✓	x	✓	x	x	x	x	✓	✓	✓	✓	x	x
Israel	✓	✓	✓	✓	✓	✓	✓	✓	x	x	✓	✓	x	x
Italy	✓	✓	✓	✓	x	x	x	x	✓	✓	✓	✓	m	m
Japan	✓	✓	x	x	x	x	✓	✓	✓	✓	x	x	x	x
Korea	✓	✓	x	x	x	x	x	x	x	x	x	x	x	x
Luxembourg	✓	✓	✓	✓	x	x	x	x	✓	✓	✓	✓	x	x
Mexico	✓	✓	✓	✓	x	x	x	x	✓	✓	✓	✓	x	x
Netherlands	x	x	✓	x	x	x	x	x	x	x	✓	x	x	✓
New Zealand	x	x	✓	✓	x	x	x	x	x	✓	✓	✓	x	x
Norway	✓	✓	x	x	✓	✓	✓	✓	✓	✓	x	x	m	m
Poland	✓	✓	x	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
Portugal	✓	✓	✓	✓	x	x	x	x	✓	✓	✓	✓	x	x
Scotland	✓	✓	x	x	x	x	x	x	✓	✓	✓	✓	✓	✓
Slovak Republic	✓	✓	✓	✓	x	x	x	x	x	x	✓	✓	x	x
Slovenia	✓	✓	x	x	x	x	x	x	✓	✓	✓	✓	x	x
Spain	✓	✓	✓	✓	x	x	x	x	✓	✓	✓	✓	x	x
Sweden	✓	✓	x	x	x	x	x	x	x	x	✓	✓	x	x
Switzerland	✓	✓	x	x	✓	✓	✓	✓	✓	✓	x	x	x	x
United States	✓	✓	m	m	✓	✓	✓	✓	✓	✓	x	x	✓	✓

Source: OECD (2010), *Education at a Glance 2010*, Table D5.1, available a*thttp://dx.doi.org/10.1787/888932310548*.

Are schools highly regulated or autonomous?

– *Most OECD countries set a standard or partially standardised curriculum for public schools; the requirement is less widely imposed for independent private schools.*

– *About half of OECD countries allow public schools to promote a religion or religious practices; almost all allow independent private schools to do so.*

Significance

This spread looks at schools' autonomy – the extent to which they are free to design their own curricula, promote a religious viewpoint and set their hiring rules, and the requirement for students to take national exams, among other factors. For true school choice to exist, schools must differ so that parents can make meaningful decisions on the basis of school profiles or pedagogical practices. If all schools are identical, or very similar, choice is less attractive and less meaningful. More heavily regulated schools are assumed to be more similar to each other. On that basis, the nature and scope of regulation can be seen as influencing the amount and significance of school choice.

Findings

The autonomy of schools is examined here across five areas: requirement to follow standardised curriculum; requirement for students to sit national exams; promotion of religion; requirement for teachers to meet certification standards; and restrictions on staffing and class size.

Requirement to follow standardised curriculum: At the lower secondary level, 93% of OECD countries reported a standard or partially standardised curriculum in public schools. For government-dependent private schools, the percentage was 91%; for independent private schools 59%; and for homeschooling 61%. The picture is similar at the primary level.

Requirement for students to sit national exams: At the lower secondary level, 36% of OECD countries had mandatory national exams for public schools. For government-dependent private schools, the percentage was 32%; for independent private schools, 30%; and for homeschooling, 18%. Such exams are less prevalent at the primary level, ranging from 14% of OECD countries for public schools to 5% for families that homeschool.

Promotion of religion or religious practices: The religious profile of schools is an important driver of school choice. At the lower secondary level, 46% of OECD countries allowed public schools to promote religion or religious practices. But for government-dependent private schools, this proportion rose to 83%; for independent private schools it was 95%; for homeschooling 83%. The picture is similar at the primary level.

Employment and certification standards: With the exception of Chile, all countries reported having employment and certification standards for personnel working in public schools at primary level; all but Denmark reported that this also applied to government-dependent private schools. These standards were less often obligatory for independent private schools – ranging from 16 out of 21 OECD countries at the primary level and 14 out of 20 at the lower secondary level. Of the countries that permitted homeschooling, the Czech Republic, the Slovak Republic, Switzerland and *Estonia* also had standards for personnel who instructed students in the home.

Restrictions on staffing and class size: These exist in around 70% of OECD countries for public schools compared with around half for government-dependent private schools and around a third for independent private schools. Only Switzerland and *Estonia* reported such restrictions for homeschooling. Restrictions were slightly more prevalent for primary than for lower secondary schools.

Definitions

Data are from the 2009 OECD-INES Survey on School Choice and Parent Voice and refer to the school year 2007-08. Educational institutions are classified as either public or private. Public institutions are controlled and managed directly by a public or government agency or by a body whose members are appointed by a public authority or elected by public franchise. Private institutions are controlled and managed by a non-government organisation or by a governing board whose members are mostly not publicly appointed: They cover three categories: 1) Government-dependent private institutions – these receive more than half of their core funding from government agencies or rely on government funding to pay teaching staff. 2) Independent private institutions – these receive less than 50% of core funding from government and teachers are not paid by government. 3) Homeschooling – education of children at home, by parents or sometimes tutors, that replaces school-based compulsory education.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator D5).

Areas covered include:

– National assessment requirements.

Table S.2. **Government regulation of schools, 2008**

These tables shows the extent to which regulations are applied to schools at the primary and lower secondary levels across five major areas (x = no, ✓= yes).

P.S. Public schools
G.P.S. Government-dependent private schools
I.P.S. Independent private schools
H. Homeschooling

	A standard curriculum or partially standardised curriculum is required				Mandatory national examination is required				Schools can promote religion or religious practices				Personnel must meet employment and certification standards				There are restrictions on staffing and class size			
	P.S.	G.P.S.	I.P.S.	H.	P.S.	G.P.S.	I.P.S.	H.	P.S.	G.P.S.	I.P.S.	H.	P.S.	G.P.S.	I.P.S.	H.	P.S.	G.P.S.	I.P.S.	H.
Primary																				
Austria	✓	✓	x	✓	x	x	x	x	✓	✓	✓	✓	✓	✓	x	x	✓	✓	x	x
Belgium (Fl.)	✓	✓	m	a	x	x	m	a	x	x	m	a	✓	✓	m	a	✓	✓	m	a
Belgium (Fr.)	✓	✓	m	✓	x	x	m	x	x	✓	m	a	✓	✓	m	a	✓	✓	m	a
Brazil	✓	a	✓	a	x	a	x	a	x	a	✓	a	✓	a	✓	a	x	a	x	a
Chile	✓	✓	✓	x	x	x	x	x	✓	✓	✓	✓	x	✓	✓	x	x	x	x	x
Czech Rep.	✓	✓	a	✓	x	x	a	x	✓	✓	a	✓	✓	✓	a	✓	✓	✓	a	x
Denmark	✓	✓	✓	✓	✓	x	x	x	x	✓	✓	✓	✓	x	x	x	✓	x	x	x
England	✓	✓	x	x	✓	✓	x	x	✓	✓	✓	✓	✓	✓	✓	x	✓	✓	x	x
Finland	✓	✓	a	✓	a	a	a	a	✓	✓	a	✓	✓	✓	a	x	x	x	a	x
France	✓	✓	✓	✓	x	x	x	x	x	x	✓	a	✓	✓	x	x	x	x	x	a
Germany	✓	✓	m	a	x	x	m	a	x	✓	m	a	✓	✓	m	a	✓	✓	m	a
Greece	✓	a	✓	a	✓	a	✓	a	m	a	m	a	✓	a	✓	a	✓	a	✓	a
Hungary	✓	✓	x	x	x	x	x	x	✓	✓	m	a	✓	✓	m	a	✓	x	m	a
Iceland	✓	✓	✓	✓	x	x	x	x	✓	✓	✓	✓	✓	✓	✓	x	x	x	x	x
Ireland	✓	a	✓	x	x	a	x	x	✓	a	✓	a	✓	a	x	a	✓	a	x	a
Estonia	✓	a	✓	✓	✓	a	✓	✓	✓	a	✓	✓	✓	a	✓	✓	✓	a	✓	✓
Israel	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	x	m	m	m	m	✓	✓	m	m
Italy	✓	a	✓	a	x	a	✓	a	x	a	✓	a	✓	a	✓	a	✓	a	✓	a
Japan	✓	a	✓	a	x	a	x	a	x	a	✓	a	✓	a	✓	a	✓	a	✓	a
Korea	✓	a	✓	a	x	a	x	a	x	a	x	a	✓	a	✓	a	✓	a	✓	a
Luxembourg	✓	✓	✓	✓	x	x	x	x	x	✓	✓	✓	✓	✓	✓	x	✓	✓	✓	x
Mexico	✓	a	✓	a	x	a	x	a	x	a	x	a	✓	a	✓	a	x	a	x	a
Netherlands	x	x	x	x	x	x	x	x	x	✓	✓	a	✓	✓	✓	a	x	x	x	x
New Zealand	✓	✓	✓	x	x	x	x	x	✓	✓	✓	✓	✓	✓	x	x	✓	✓	x	x
Norway	✓	x	x	✓	x	x	x	x	x	✓	✓	✓	✓	✓	✓	x	✓	✓	✓	x
Poland	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	a	✓	✓	✓	x	✓	✓	✓	x
Portugal	✓	✓	✓	✓	x	x	x	x	✓	✓	✓	a	✓	✓	✓	a	✓	✓	m	a
Scotland	m	m	x	x	m	m	x	x	m	m	✓	✓	✓	m	✓	x	✓	m	x	x
Slovak Republic	✓	✓	a	✓	x	x	a	x	✓	✓	a	✓	✓	✓	a	✓	✓	x	a	a
Slovenia	✓	✓	x	✓	x	x	x	x	x	✓	✓	a	✓	✓	a	a	✓	✓	a	a
Spain	✓	✓	✓	a	x	x	x	a	x	✓	✓	a	✓	✓	✓	a	✓	✓	✓	a
Sweden	✓	✓	a	✓	x	x	a	x	x	x	a	x	✓	✓	a	x	x	x	a	x
Switzerland	✓	✓	✓	✓	x	x	x	x	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
United States	x	a	x	x	x	a	x	x	x	a	✓	✓	✓	a	m	x	✓	a	x	x
Lower secondary																				
Austria	✓	✓	x	✓	x	x	x	x	✓	✓	✓	✓	✓	✓	x	x	✓	✓	x	x
Belgium (Fl.)	✓	✓	m	a	x	x	m	a	x	x	m	a	✓	✓	m	a	✓	✓	m	a
Belgium (Fr.)	✓	✓	m	a	x	x	x	x	x	✓	m	a	✓	✓	m	a	✓	✓	m	a
Brazil	✓	a	✓	a	x	a	x	a	x	a	✓	a	✓	a	✓	a	x	a	x	a
Chile	✓	✓	✓	x	x	x	x	x	✓	✓	✓	✓	✓	✓	✓	x	x	x	x	x
Czech Rep	✓	✓	a	a	x	x	a	a	✓	✓	a	a	✓	✓	a	a	m	m	a	a
Denmark	✓	✓	✓	✓	✓	x	x	x	x	✓	✓	✓	✓	x	x	x	✓	x	x	x
England	✓	✓	x	x	x	x	x	x	✓	✓	✓	✓	✓	✓	x	x	x	x	x	x
Estonia	✓	a	✓	✓	✓	a	✓	✓	✓	a	✓	✓	✓	a	✓	✓	✓	a	✓	✓
Finland	✓	✓	a	✓	a	a	a	a	✓	✓	a	✓	✓	✓	a	x	x	x	a	x
France	✓	✓	✓	✓	✓	✓	✓	x	x	x	✓	a	✓	✓	x	x	x	x	x	a
Germany	✓	✓	m	a	✓	✓	m	a	x	✓	m	a	✓	✓	m	a	✓	✓	m	a
Greece	✓	a	✓	a	✓	a	✓	a	m	a	m	a	✓	a	✓	a	✓	a	✓	a
Hungary	✓	✓	x	x	x	x	x	x	✓	✓	m	a	✓	✓	m	a	✓	x	m	a
Iceland	✓	✓	✓	✓	x	x	x	x	✓	✓	✓	✓	✓	✓	✓	x	x	x	x	x
Ireland	✓	a	✓	a	✓	a	✓	a	✓	a	✓	a	✓	a	x	a	✓	a	x	a
Israel	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	a	m	m	m	m	✓	✓	m	m
Italy	✓	a	✓	a	x	a	✓	a	x	a	✓	a	✓	a	✓	a	✓	a	✓	a
Japan	✓	a	✓	a	x	a	x	a	x	a	✓	a	✓	a	✓	a	✓	a	✓	a
Korea	✓	✓	a	a	x	x	a	a	x	x	a	a	✓	✓	a	a	✓	✓	a	a
Luxembourg	✓	✓	x	✓	✓	✓	x	a	✓	✓	✓	a	✓	✓	✓	a	✓	x	x	a
Mexico	✓	a	✓	a	x	a	x	a	x	a	x	a	✓	a	✓	a	x	a	x	a
Netherlands	x	x	x	x	✓	✓	✓	✓	x	✓	✓	a	✓	✓	✓	a	x	x	x	a
New Zealand	✓	✓	x	x	x	x	x	x	✓	✓	✓	x	✓	✓	x	x	x	x	x	x
Norway	✓	x	x	✓	✓	✓	x	x	x	✓	✓	✓	✓	✓	✓	x	✓	✓	✓	x
Poland	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	a	✓	✓	✓	x	✓	✓	✓	x
Portugal	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	a	✓	✓	✓	a	✓	✓	m	a
Scotland	m	m	x	x	m	m	x	x	m	m	✓	✓	✓	m	✓	x	✓	m	x	x
Slovak Rep.	✓	✓	a	a	x	x	a	a	✓	✓	a	a	✓	✓	a	a	✓	x	a	a
Slovenia	✓	✓	x	✓	x	x	x	x	x	✓	✓	a	✓	✓	a	a	✓	✓	a	a
Spain	✓	✓	✓	a	x	x	x	a	x	✓	✓	a	✓	✓	✓	a	✓	✓	✓	a
Sweden	✓	✓	a	✓	x	x	a	x	x	x	a	x	✓	✓	a	x	x	x	a	x
Switzerland	✓	✓	✓	✓	x	x	x	x	x	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	a
United States	x	a	x	x	x	a	x	x	x	a	✓	✓	✓	a	m	x	✓	a	x	x

Source: OECD (2010), *Education at a Glance 2010*, Table D5.4, available at *http://dx.doi.org/10.1787/888932310548*.

Do parents have a say in schooling?

– *Many OECD countries require some parent involvement on school governing boards.*

– *With just four exceptions, all countries reported having regulations providing a formal complaints process for public schools.*

Significance

This indicator looks at "parent voice" – or the extent to which parents can influence schools and how they may do so. It focuses on three formal types of parent voice: actual participation in governance; providing advice but not directly participating in governance; and the ability to make complaints or register grievances. Like school choice, parent voice can play an important role in signalling problems in the education system.

Findings

There are a number of ways in OECD countries in which parents can make their voices heard, ranging from direct involvement in school governance to the right to make complaints:

Parent involvement on school governing boards: This is required for public schools in 18 out of 30 OECD countries for which data are available and in 13 out of 23 OECD countries for government-dependent private schools. But for independent private schools, it's only required in Denmark, Greece, Iceland, Italy, Korea, Luxembourg and *Estonia*.

Parent associations: These are common in most countries and can perform a number of functions. They play a direct or formal role in providing advice to governments in 10 of 26 OECD countries. Their role in advising government is indirect or more informal in 24 of 27 OECD countries. Only in England and Korea do they play neither a formal nor an informal role.

Parent associations are typically organised at the school level, but national or regional groups can also exist. Just over 70% of OECD countries reported parent associations for public and private schools operating at the national level, more than half reported that they also exist at the regional level and around 40% have them at the local level.

Complaints and appeals mechanisms: With the exceptions of Japan, Korea, Mexico and *Brazil*, all countries reported having regulations providing a formal complaints process regarding public schools. Such regulations were just as common for government-dependent private schools, but only 12 out of 20 OECD countries reported having them for independent private schools. An ombudsman or agency to receive complaints related to public schools exists in 18 out of 30 OECD countries.

Appeals processes: Most countries reported that parents were able to appeal decisions by public, government-dependent private and independent private schools. In all countries but Denmark, Japan and Korea, parents could appeal decisions made by public schools. This was the case for government-dependent private schools in 21 out of 23 OECD countries and for independent private schools in 15 out of 19 OECD countries.

Definitions

Data are from the 2009 OECD-INES Survey on School Choice and Parent Voice and refer to the school year 2007-08. For definitions of school types (both public and private) see previous spread. To a greater or lesser extent, parent voice and appeals to overturn decisions made by schools can exist or be made at multiple levels of government. Data presented here distinguish between the following six levels of governance (ranked in order from national level to the body with most immediate oversight): central government; state governments (in federal systems); provincial/regional authorities or governments (the second level of government in non-federal systems); sub-regional or inter-municipal authorities or governments (the third level of government in non-federal systems); local authorities or governments; school, school board or committee.

Information on data for Israel:
http://dx.doi.org/10.1787/888932315602.

Going further

For additional material, notes and a full explanation of sourcing and methodologies, see *Education at a Glance 2010* (Indicator D6).

– Requirement for parental involvement in governing boards, public and private sector.

Table S.3. **Opportunities for parents to exercise voice at school level in public schools, 2008**

This table shows the range of ways in which parents can influence schooling and launch appeals against school decisions.

✓ Yes
0 No, although they might exist
x No

	Austria	Belgium (Fl.)	Belgium (Fr.)	Czech Rep.	England	*Estonia*	France	Greece	Iceland	Luxembourg	Netherlands	New Zealand	Portugal	*Slovenia*	Hungary	*Israel*	Norway	Poland	Sweden	Chile	Denmark	Germany	Ireland	Italy	Korea	Slovak Rep.	Spain	Finland	Switzerland	United States	Scotland	*Brazil*	Mexico	Japan	OECD Percent (Yes)
Schools have a governing board in which parents can take part	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	**0**	**0**	**0**	**0**	**0**	✓	✓	✓	✓	✓	✓	✓	✓	**0**	**0**	**0**	✓	**0**	x	**0**	70%
Parent associations exist that can advise or influence decision making	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	x	✓	✓	x	90%
Regulations provide a formal process that parents can use to file complaints	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	x	✓	✓	✓	✓	✓	✓	x	x	x	90%
There exists a designated ombudsman or agency that receives complaints	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	x	x	x	x	x	✓	✓	x	x	x	x	x	x	x	x	60%

Source: OECD (2010), *Education at a Glance 2010*, Chart D6.1, available at *http://dx.doi.org/10.1787/888932310567*.

Table S.4. **Requirement for schools to have a governing board in which parents can take part, 2008**

This table shows the extent to which parents are required to be represented on public school governing boards and the potential role they may play.

Public Schools

✓ Yes, and some parent representation is required.
✓* Yes, but parent representation is optional.
x* No, boards are not required, although they may exist.
x No such boards exist.

	Austria	Belgium (Fl.)	Belgium (Fr.)	*Brazil*	Chile	Czech Rep.	Denmark	England	*Estonia*	Finland	France	Germany	Greece	Hungary	Iceland	Ireland	*Israel*	Italy	Japan	Korea	Luxembourg	Mexico	Netherlands	New Zealand	Norway	Poland	Portugal	Scotland	Slovak Rep.	*Slovenia*	Spain	Sweden	Switzerland	United States
Primary	✓	✓	✓*	x*	✓	✓	✓	✓	✓	x*	✓	✓	✓	x*	✓	✓	x*	✓	x*	✓	✓*	x	✓*	✓	x*	x*	✓	✓	✓	✓	✓	x*	x*	x*
Lower secondary	✓	✓	✓*	x*	✓	✓	✓	✓	✓	x*	✓	✓	✓	x*	✓	✓	x*	✓	x*	✓	✓	x	✓*	✓	x*	x*	✓	✓	✓	✓	✓	x*	x*	x*

Source: OECD (2010), *Education at a Glance 2010*, Table D6.1, available at *http://dx.doi.org/10.1787/888932310567*.

ISBN 978-92-64-08469-8
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Statistical Note

Coverage of 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 the ownership or sponsorship of the institutions concerned and regardless of education delivery mechanisms. With one exception described below, all types of students and all age groups are meant to be included: children (including students with special needs), adults, nationals, foreigners, as well as students in open distance learning, in special education programmes or in educational programmes organised by ministries other than the Ministry of Education, provided the main aim of the programme is the educational development of the individual. However, vocational and technical training in the workplace, with the exception of combined school and work-based programmes that are explicitly deemed to be parts 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 studies or have a subject matter content similar to "regular" education studies or that the underlying programmes lead to potential qualifications similar to corresponding regular educational programmes. Courses for adults that are primarily for general interest, personal enrichment, leisure or recreation are excluded.

Calculation of international means

For many indicators an OECD average is presented and for some an OECD total.

OECD average: This 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.

OECD total: This is calculated as a 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.

Note that both the OECD average and the OECD total can be significantly affected by missing data. Given the relatively small number of countries, 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.

OECD PUBLISHING, 2, rue André-Pascal, 75775 PARIS CEDEX 16
PRINTED IN FRANCE
(96 2010 06 1 P) ISBN 978-92-64-08469-8 – No. 57441 2010

Highlights from Education at a Glance 2010

Highlights from Education at a Glance 2010 is a companion publication to the OECD's flagship compendium of education statistics, *Education at a Glance*. It provides easily accessible data on key topics in education today, including:

- **Education levels and student numbers**: How far have adults studied, and what access do young people have to education?
- **Economic and social benefits of education**: How does education affect people's job prospects and what is its impact on incomes?
- **Paying for education**: What share of public spending goes on education, and what is the role of private spending?
- **The school environment**: How many hours do teachers work and how does class size vary?
- **School choice, parent voice**: How much school choice do parents have and do parents have a say in schooling?

Each indicator is presented on a two-page spread. The left-hand page explains the significance of the indicator, discusses the main findings, examines key trends and provides readers with a roadmap for finding out more in the OECD education databases and in other OECD education publications. The right-hand page contains clearly presented charts and tables, accompanied by dynamic hyperlinks (StatLinks) that direct readers to the corresponding data in Excel™ format. *Highlights from Education at a Glance 2010* is an ideal introduction to the OECD's unrivalled collection of internationally comparable data on education and learning.

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ISBN 978-92-64-08469-8
96 2010 06 1 P