

# INDICATOR B1

## HOW MUCH IS SPENT PER STUDENT?

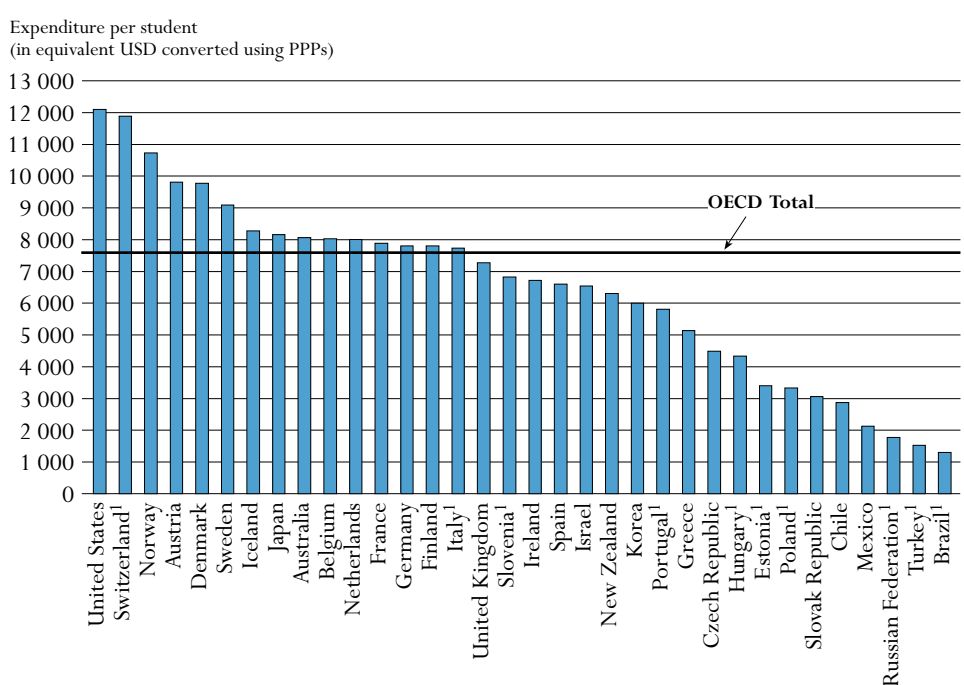
This indicator provides an assessment of the investment made in each student. Expenditure per student is largely influenced by teacher salaries (see Indicators B6 and D3), pension systems, instructional and teaching hours (see Indicators D1 and D4), teaching materials and facilities, the programme orientation provided to pupils/students (see Indicator C2) and the number of students enrolled in the education system (see Indicator C1). Policies put in place to attract new teachers or to reduce average class size or staffing patterns (see Indicator D2) have also contributed to changes over the time in expenditure per student.

### Key results

**Chart B1.1. Annual expenditure on educational institutions per student in primary through tertiary education (2004)**

Expenditure on educational institutions per student gives a measure of unit costs in formal education. This chart expresses annual expenditure on educational institutions per student in equivalent USD converted using purchasing power parities, based on full-time equivalents.

OECD countries as a whole spend USD 7 572 per student annually between primary and tertiary education, that is – USD 5 331 per primary student, USD 7 163 per secondary student and USD 14 027 per tertiary student, but these averages mask a broad range of expenditure across countries. As represented by the simple average across all OECD countries, countries spend twice as much per student at the tertiary level than at the primary level.



1. Public institutions only.  
 Countries are ranked in descending order of expenditure on educational institutions per student.  
 Source: OECD, Tables B1.1a. See Annex 3 for notes ([www.oecd.org/edu/eq2007](http://www.oecd.org/edu/eq2007)).  
 StatLink <http://dx.doi.org/10.1787/068176572003>

### Other highlights of this indicator

- Excluding R&D activities and ancillary services, expenditure on educational core services in tertiary institutions represents on average USD 7 664 and ranges from USD 4 500 or below in Greece, Italy, Poland and Turkey to more than USD 9 000 in Australia, Austria, Denmark, Norway, Switzerland and the United States.
- OECD countries spend on average USD 81 485 per student over the theoretical duration of primary and secondary studies. The cumulative expenditure for each primary and secondary student ranges from less than USD 40 000 in Mexico, Poland, the Slovak Republic and Turkey, and the partner economies Brazil, Chile, Estonia and the Russian Federation, to USD 100 000 or more in Austria, Denmark, Iceland, Luxembourg, Norway, Switzerland and the United States.
- Lower unit expenditure does not necessarily lead to lower achievement and it would be misleading to equate lower unit expenditure generally with lower quality of educational services. For example, the cumulative expenditure of Korea and the Netherlands is below the OECD average and yet both are among the best-performing countries in the PISA 2003 survey.
- Countries with low levels of expenditure per student can nevertheless show distributions of investment relative to GDP per capita similar to those countries with high levels of spending per student. For example, Hungary, Korea, Poland and Portugal, and the partner economy Estonia – countries with expenditure per student and GDP per capita below the OECD average at primary, secondary and post-secondary non-tertiary level of education – spend a higher proportion of money per student relative to GDP per capita than the OECD average.
- Expenditure on education tends to rise over time in real terms, as teachers' pay (the main component of costs) rises in line with general earnings. On the one hand, rising unit costs that are not paralleled by increasing outcomes raise the spectre of falling productivity levels in education. This differs considerably across educational sectors. Expenditure per student at primary, secondary and post-secondary non-tertiary levels increased by 50% or more between 1995 and 2004 in Greece, Hungary, Ireland, Poland, Portugal, the Slovak Republic and Turkey, and the partner economy Chile. On the other hand, spending per student at the tertiary level has in some cases fallen, as expenditure does not keep up with expanding student numbers.

## Policy context

### B1

#### Annual and cumulative expenditure on education per student in absolute terms and relative to GDP per capita

Effective schools require the right combination of trained and talented personnel, adequate facilities, and motivated students ready to learn. The demand for high-quality education, which can translate into higher costs per student, must be balanced against placing undue burden on taxpayers.

As a result, the question of whether the resources devoted to education yield adequate returns to the investments made figures prominently in the public debate. Although it is difficult to assess the optimal volume of resources required to prepare each student for life and work in modern societies, international comparisons of spending on education per student can provide a starting point for evaluating the effectiveness of different models of educational provision.

#### Trends in the development of expenditure on education per student

Policy makers must balance the importance of improving the quality of educational services with the desirability of expanding access to educational opportunities, notably at the tertiary level. The comparative review of how trends in educational expenditure per student have evolved shows that in many OECD countries the expansion of enrolments, particularly in tertiary education, has not always been paralleled by changes in educational investment.

In addition, decisions on the allocation of funds among the various levels of education are also important. For example, some OECD countries emphasise broad access to higher education and some invest in near-universal education for children as young as 3 or 4 years old.

## Evidence and explanations

#### What this indicator covers and what it does not cover

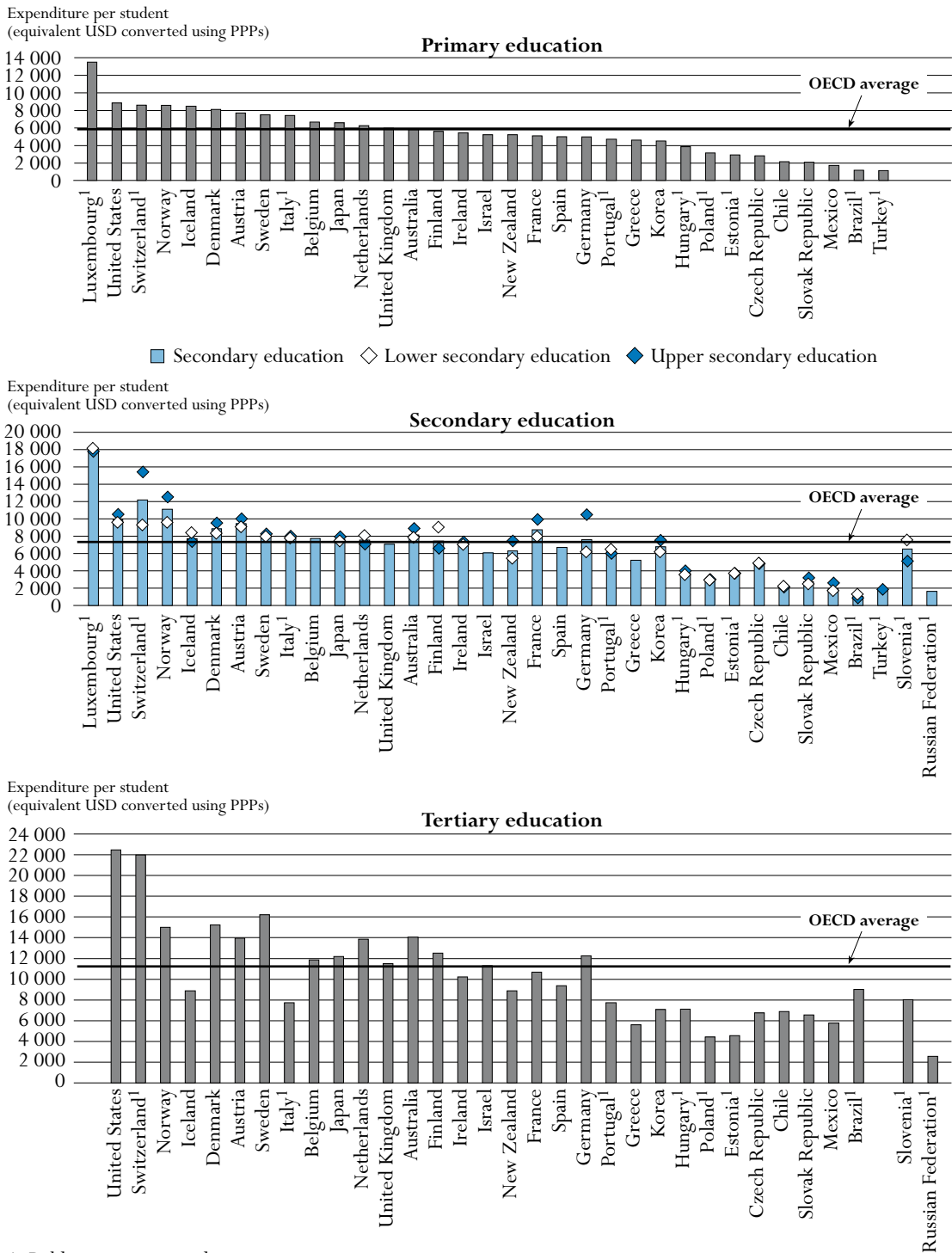
The indicator shows direct public and private expenditure on educational institutions in relation to the number of full-time equivalent students enrolled in these institutions.

Public subsidies for students' living expenses have been excluded to ensure international comparability of the data. Expenditure data for students in private educational institutions are not available for certain OECD countries, and some other countries do not provide complete data on independent private institutions. Where this is the case, only the expenditure on public and government-dependent private institutions has been taken into account. Note that variation in expenditure on education per student may reflect not only variation in the material resources provided to students (*e.g.* variations in the ratio of students to teaching staff) but also variation in relative salary and price levels.

At the primary and secondary levels, educational expenditure is dominated by spending on instructional services; at the tertiary level, other services – particularly those related to R&D activities or ancillary services – can account for a significant proportion of educational spending. Indicator B6 provides further information on how spending is distributed by different types of services provided.

**Chart B1.2. Annual expenditure on educational institutions per student for all services, by level of education (2004)**

*In equivalent USD converted using PPPs, based on full-time equivalents*



1. Public institutions only.

Countries are ranked in descending order of expenditure per student in primary education.

Source: OECD, Table B1.1a. See Annex 3 for notes ([www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007)).

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## Expenditure on education per student in equivalent USD

Annual expenditure per student on educational institutions from primary through tertiary education provides an assessment of the investment made in each student. OECD countries as a whole spend on average USD 7 572 per student annually for students enrolled in primary through tertiary education. In 11 out of 34 OECD countries and partner economies, spending on education falls between USD 6 000 and 8 000 per student. Spending on education at these levels ranges from USD 4 000 per student or less in Mexico, Poland, the Slovak Republic and Turkey, and the partner economies Brazil, Chile, Estonia and the Russian Federation, to more than USD 9 000 per student in Austria, Denmark, Norway, Sweden, Switzerland and the United States (Table B1.1a). The drivers of expenditure per student vary across countries: among the five countries with the highest expenditure per student enrolled in primary through tertiary education, Switzerland is one of the countries with the highest teachers' salaries at the secondary level (see Indicator D3), the United States is one of the countries with the highest level of private expenditure at tertiary level of education whereas Austria, Denmark and Norway are among the countries with the lowest student to teaching staff ratio (see Indicator D2).

Even if overall spending per student is similar in some OECD countries, the ways in which resources are allocated across the different levels of education vary widely. OECD countries as a whole spend USD 5 331 per student at the primary level, USD 7 163 per student at the secondary level and USD 14 027 per student at the tertiary level. At the tertiary level, these totals are influenced by high expenditure in a few large OECD countries, most notably the United States. Spending on education per student in a typical OECD country (as represented by the simple mean across all OECD countries) amounts to USD 5 832 at the primary level, USD 7 276 at the secondary level and USD 11 100 at the tertiary level (Table B1.1a and Chart B1.2).

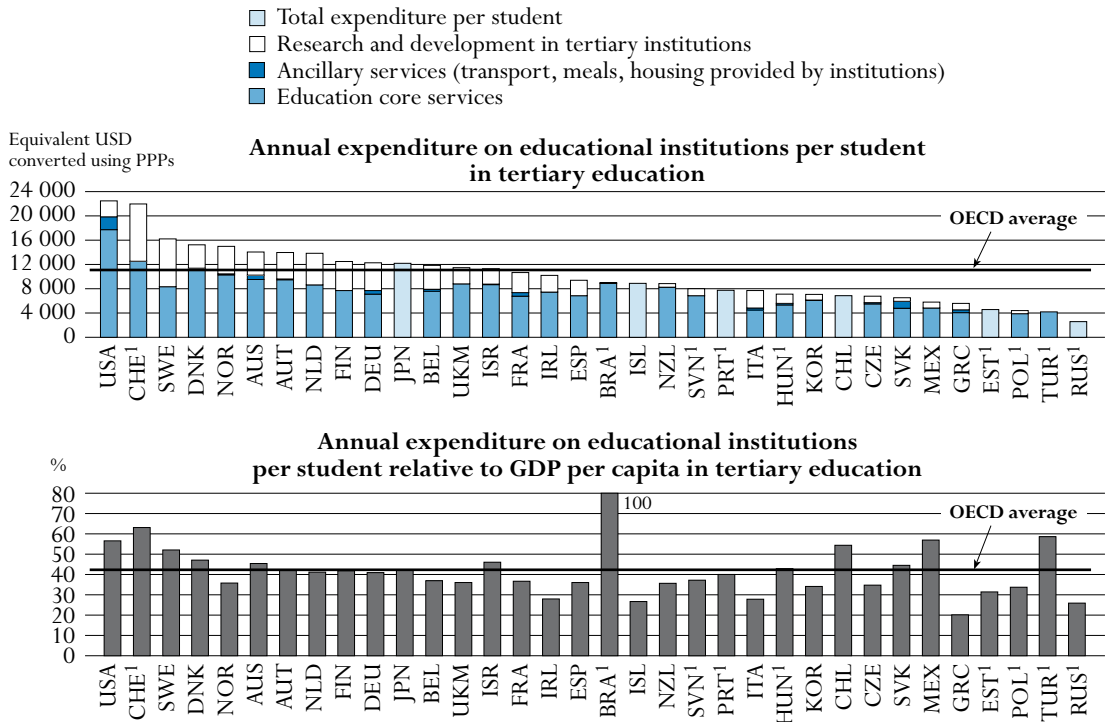
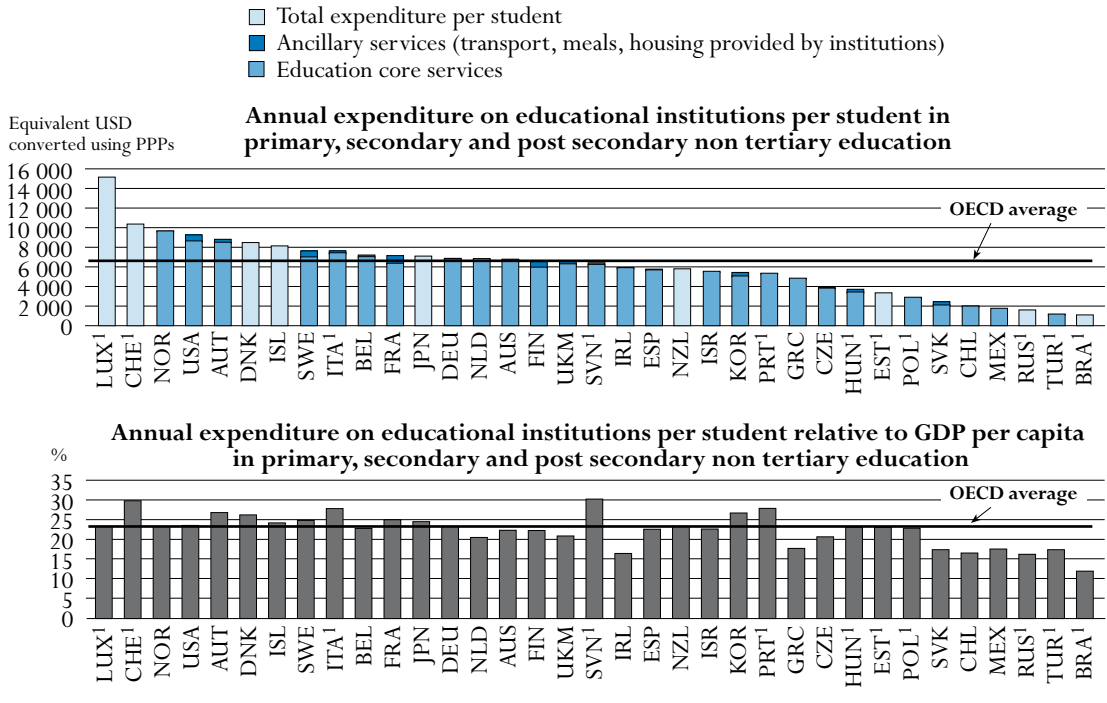
These averages mask a broad range of expenditure on education per student across OECD countries and partner economies. At the primary level, expenditure on educational institutions ranges from less than USD 1 200 per student in Turkey and the partner economy Brazil to USD 13 458 per student in Luxembourg. Differences among OECD countries are even greater at the secondary level, where spending on education per student varies by a factor of 15, from USD 1 033 in Brazil to USD 17 876 in Luxembourg. Expenditure on education per tertiary student ranges from USD 2 562 in the Russian Federation to more than USD 21 000 in Switzerland and the United States (Table B1.1a and Chart B1.2).

These comparisons are based on purchasing power parities for GDP, not on market exchange rates. They therefore reflect the amount of a national currency required to produce the same basket of goods and services in a given country as that produced by the USD in the United States.

## Expenditure on educational core services per student

On average, OECD countries for which data are available spend USD 5 745 on core educational services at primary, secondary and post secondary non-tertiary levels, which corresponds to 86% of the total expenditure per student at these levels. In 16 out of the 26 OECD countries and partner economies with available data, ancillary services provided by primary, secondary and post-secondary non-tertiary institutions account for less than 5% of the total expenditure per student. This proportion exceeds 10% of the total expenditure per student in a small group of countries including Finland, France, Hungary, the Slovak Republic and Sweden.

**Chart B1.3. Annual expenditure on educational institutions per student relative to GDP per capita, by service category and level of education (2004)**



Note: Please refer to the Reader's Guide for the list of country codes used in this chart.

1. Public institutions only.

Countries are ranked in descending order of expenditure per student for all services.

Source: OECD, Tables B1.1b and B1.4. See Annex 3 for notes ([www.oecd.org/edu/eqg2007](http://www.oecd.org/edu/eqg2007)).

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More differences in expenditure per student on core educational services compared to total expenditure are observed at the tertiary level. OECD countries in which most R&D is performed by tertiary educational institutions tend to report higher expenditure per tertiary student than countries in which a large part of R&D is performed in other public institutions or by industry. Excluding R&D activities and ancillary services, expenditure on core educational services in tertiary institutions represents, on average, USD 7 664 and ranges from USD 4 500 or below in Greece, Italy, Poland and Turkey to more than USD 9 000 in Australia, Austria, Denmark, Norway, Switzerland and the United States (Table B1.1b).

On average, expenditure on R&D and ancillary services at the tertiary level represents respectively 29 and 4% of all tertiary expenditure per student. In 8 out of 27 OECD countries and partner economies for which tertiary expenditure is available for every service category – Belgium, Finland, France, Germany, Italy, the Netherlands, Sweden and Switzerland – R&D expenditure and ancillary services in tertiary institutions represents 35% or more of total tertiary expenditure per student. On a per student basis this can translate into significant amounts, as in Finland, Germany, the Netherlands, Norway, Sweden, Switzerland and the United States, expenditure for R&D and ancillary services in tertiary institutions amounts to more than USD 4 500 per student (Chart B1.3 and Table B1.1b).

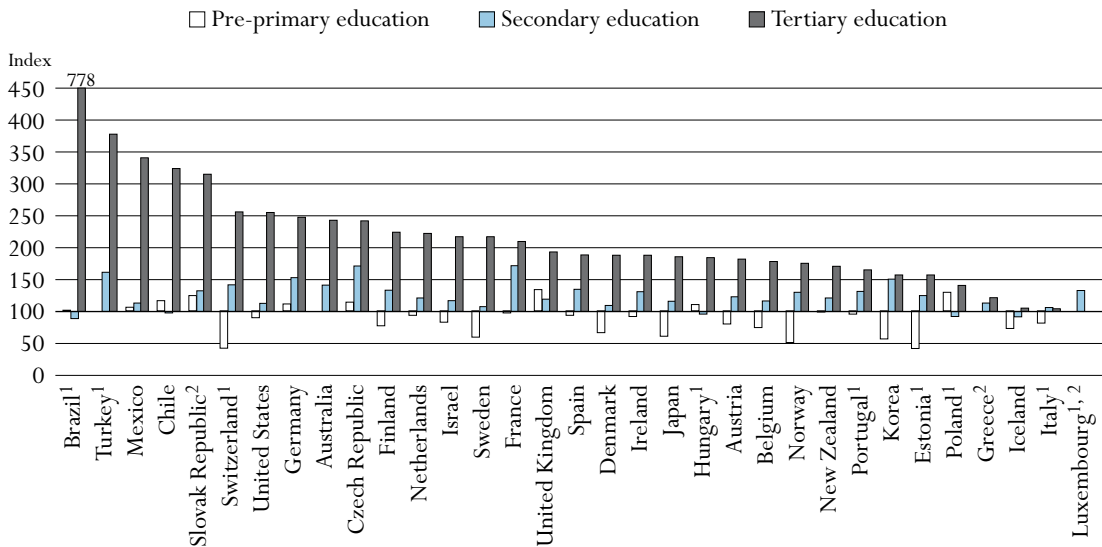
### **Differences in educational expenditure per student between levels of education**

Expenditure on education per student exhibits a common pattern throughout OECD countries: in each OECD country, spending rises sharply from primary to tertiary education. This pattern can be understood by looking at the main determinants of expenditure, particularly the location and mode of educational provision. The vast majority of education still takes place in traditional school settings with (generally) similar organisation, curriculum, teaching style and management. These shared features are likely to lead to similar patterns of unit expenditure.

Comparisons of the distribution of expenditure between levels of education indicate the relative emphasis placed on education at different levels in various OECD countries, as well as of the relative costs of providing education at those levels.

Although expenditure on education per student rises with the level of education (from primary to tertiary) in almost all OECD countries and partner economies, the relative sizes of the differentials vary markedly among countries (Chart B1.4). At the secondary level, expenditure on education per student is, on average, 1.2 times that at the primary level, and the difference exceeds 1.5 in the Czech Republic, France, Germany, Korea and Turkey. These five OECD countries have similar patterns with a significant increase of the number of instructional hours received by the students between primary and secondary education combined to a decrease compared to the OECD average in the number of teaching hours given by teachers between these two levels of education (see Indicators D1 and D4).

OECD countries spend, on average, 2.0 times as much on education per student at the tertiary level than at the primary level, but spending patterns vary widely among countries. For example, whereas Greece, Iceland, Italy and Poland only spend between 1.1 and 1.5 times as much on a student in tertiary education as on a student in primary education, Mexico, the Slovak Republic and Turkey, and the partner economies Brazil and Chile, spend more than 3.0 times on a student at the tertiary level (Chart B1.4).

**Chart B1.4. Expenditure on educational institutions per student at various levels of education for all services relative to primary education (2004)***Primary education = 100*


Note: A ratio of 300 for tertiary education means that expenditure on educational institutions per tertiary student is three times the expenditure on educational institutions per primary student. A ratio of 50 for pre-primary education means that expenditure on educational institutions per pre-primary student is half the expenditure on educational institutions per primary student.

1. Public institutions only.

2. Some levels of education are included with others. Refer to “x” code in Table B1.1a for details.

Countries are ranked in descending order of expenditure on educational institutions per student in tertiary education relative to primary education.

Source: OECD, Table B1.1a. See Annex 3 for notes ([www.oecd.org/edu/eq2007](http://www.oecd.org/edu/eq2007)).

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### Distribution of expenditure on educational institutions relative to number of students enrolled

The money invested in the education systems of OECD countries can be compared to the proportion of students enrolled at each level of education. Table B1.2 shows the relationship between the two and analyses the different strategies put in place by countries to allocate the expenditure between the levels of education.

On average among the 26 OECD countries for which data are available, two-thirds of all expenditure on educational institutions is allocated to primary, secondary and post-secondary non-tertiary education while around three-quarters of students are enrolled at this level of education. The difference between the two figures exceeds 10 percentage points in Hungary, Japan, Mexico, the Slovak Republic and the United States, and the partner economies Brazil, Chile and Israel (Table B1.2).

Compared to primary, secondary and post-secondary non-tertiary education, there are significant differences between the proportion of money invested and the proportion of students enrolled in



tertiary education. On average among the 26 OECD countries for which data are available, 24% of all expenditure on educational institutions is allocated to tertiary education, whereas only 15% of students are enrolled in tertiary education. The difference between the two proportions in tertiary education ranges from below 7 percentage points in France, Greece, Iceland, Italy, Korea, New Zealand, Poland, Portugal and the United Kingdom, and the partner economies Estonia and Slovenia, to more than 14 percentage points in the United States, and the partner economies Brazil and Chile (Table B1.2).

### **Educational expenditure per student over the theoretical duration of primary and secondary education**

OECD countries spend on average USD 81 485 per student over the theoretical duration of primary and secondary studies. Although the theoretical duration of primary and secondary studies is quite similar – between 12 and 13 years in 30 out of 36 OECD countries and partner economies – the cumulative expenditure per student varies considerably. The cumulative expenditure for each primary and secondary student ranges from less than USD 40 000 in Mexico, Poland, the Slovak Republic and Turkey, and the partner economies Brazil, Chile, Estonia and the Russian Federation, to USD 100 000 or more in Austria, Denmark, Iceland, Luxembourg, Norway, Switzerland and the United States (Table B1.3a and Chart B1.5a).

Lower unit expenditure does not necessarily produce lower achievement and it would be misleading to equate lower unit expenditure generally with lower quality of educational services. Cumulative spending per student between primary and secondary education is moderate in Korea and the Netherlands and yet both were among the best-performing countries in PISA 2003 survey. In contrast, spending per student is USD 100 000 or more in Italy and the United States, while both performed below average in the PISA 2003 survey.

### **Educational expenditure per student over the average duration of tertiary studies**

Both the typical duration and the intensity of tertiary education vary among OECD countries. Therefore, the differences among countries in annual expenditure on educational services per student (as shown in Chart B1.2) do not necessarily reflect the variation in the total cost of educating the typical tertiary student.

Today, students can choose from a range of institutions and enrolment options to find the best fit for their degree objectives, abilities and personal interests. Many students enrol on a part-time basis while others work while studying or attend more than one institution before graduating. These varying enrolment patterns can affect the interpretation of expenditure on education per student.

In particular, comparatively low annual expenditure on education per student can result in comparatively high overall costs of tertiary education if the typical duration of tertiary studies is long. Chart B1.5b shows the average expenditure incurred per student throughout the course of tertiary studies. The figures account for all students for whom expenditure is incurred, including those who do not finish their studies. Although the calculations are based on a number of simplified assumptions and therefore should be treated with some caution (see Annex 3 at [www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007)), some striking shifts in the rank order of OECD countries and partner economies between the annual and aggregate expenditure can be noted.

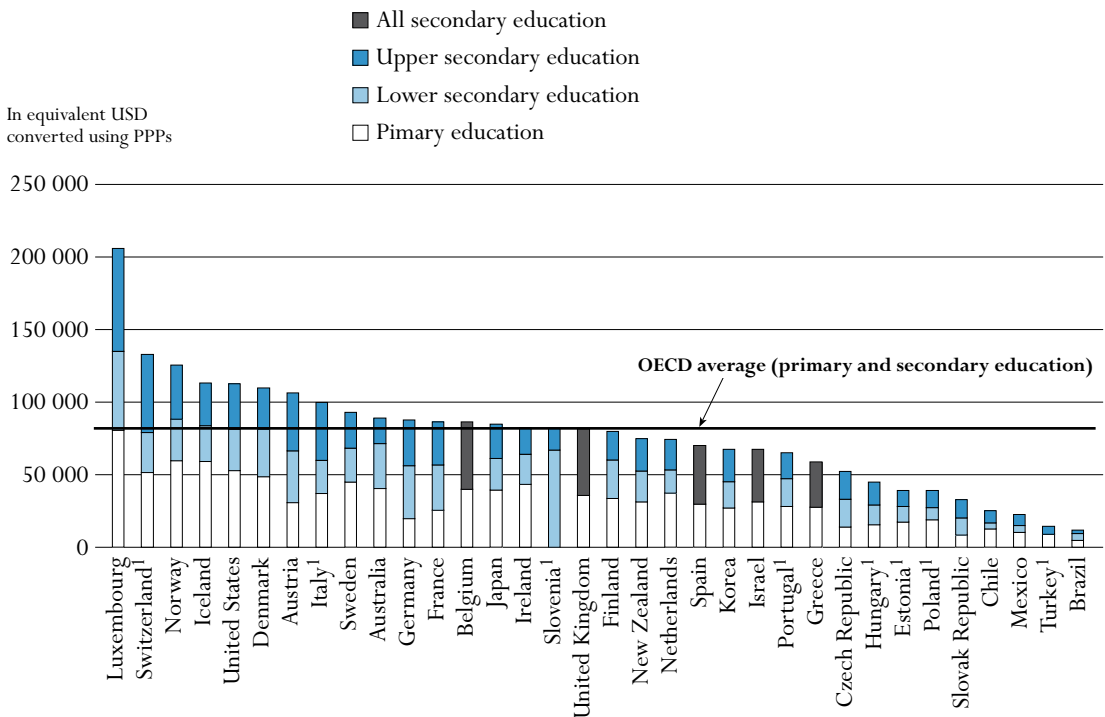


For example, annual spending per tertiary student in Japan is about the same as in Germany: USD 12 193 in Japan compared with USD 12 255 in Germany (Table B1.1a). But because of differences in the tertiary degree structure (see Indicator A2), the average duration of tertiary studies is a little bit more than one year longer in Germany than in Japan (5.4 years in Germany, compared with 4.1 years in Japan). As a consequence, the cumulative expenditure for each tertiary student is almost USD 15 000 lower in Japan than in Germany: USD 49 624 compared with USD 65 733 (Chart B1.5b and Table B1.3b).

The total cost of tertiary-type A studies in Switzerland (USD 127 568) is more than twice as high as in the other reporting countries, except Austria, Germany and the Netherlands (Table B1.3b). These differences must, of course, be interpreted in light of differences in national degree structures, as well as possible differences among OECD countries in the academic level of the qualifications of students leaving university. While similar trends are observed in tertiary-type B studies, the total cost of these studies tends to be much lower than those of tertiary-type A programmes, largely because of their shorter duration.

**Chart B1.5a. Cumulative expenditure on educational institutions per student over the theoretical duration of primary and secondary studies (2004)**

*Annual expenditure on educational institutions per student multiplied by the theoretical duration of studies, in equivalent USD converted using PPPs*



1. Public institutions only.

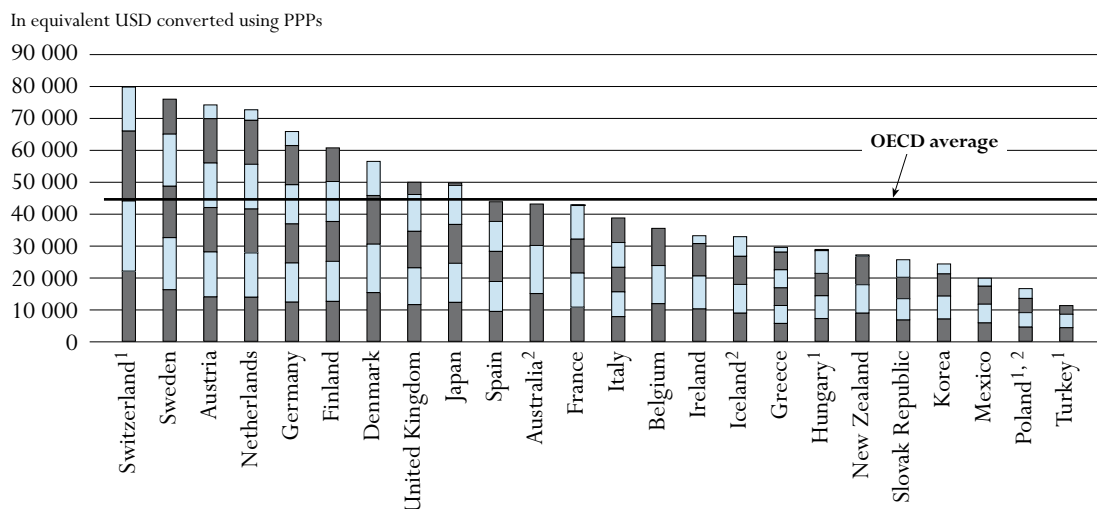
Countries are ranked in descending order of the total expenditure on educational institutions per student over the theoretical duration of primary and secondary studies.

Source: OECD, Table B1.3a. See Annex 3 for notes ([www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007)).

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**Chart B1.5b. Cumulative expenditure on educational institutions per student over the average duration of tertiary studies (2004)**

Annual expenditure on educational institutions per student multiplied by the average duration of studies, in equivalent USD converted using PPPs



Note: Each segment of the bar represents the annual expenditure on educational institutions per student. The number of segments represents the number of years a student remains on average in tertiary education.

1. Public institutions only.

2. Tertiary-type A and advanced research programmes only.

Countries are ranked in descending order of the total expenditure on educational institutions per student over the average duration of tertiary studies.

Source: OECD, Table B1.3b. See Annex 3 for notes ([www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007)).

StatLink <http://dx.doi.org/10.1787/068176572003>

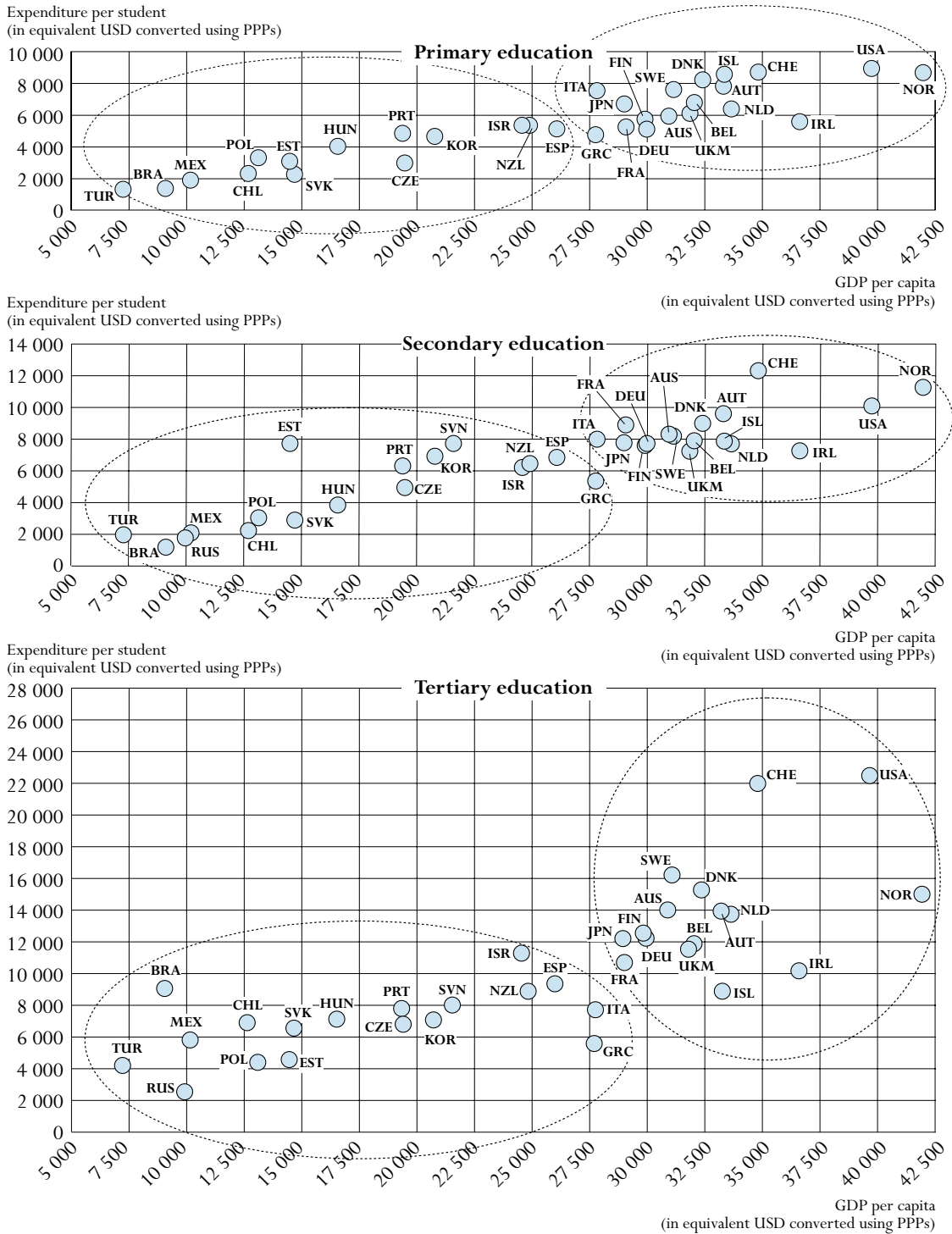
### Educational expenditure per student in relation to GDP per capita

Expenditure on education per student relative to GDP per capita is a unit spending measure that takes OECD countries' relative wealth into account. Since education is universal at lower levels, spending on education per student at the lower levels of education relative to GDP per capita can be interpreted as the resources spent on young people relative to a country's ability to pay. At higher levels of education, this measure is affected by a combination of national income, spending and enrolment rates. At the tertiary level, for example, OECD countries can be relatively high on this measure if a large proportion of their wealth is spent on educating a relatively small number of students.

The relationship between GDP per capita and expenditure per student is complex. Chart B1.6 shows the co-existence of two different relationships between two distinct groups of countries (see the ovals in Chart B1.6). Countries with a GDP per capita equivalent to less than USD 27 500 demonstrate a clear positive relationship between spending on education per student and GDP per capita at primary and secondary levels of education (the Czech Republic, Hungary, Korea, Mexico, New Zealand, Poland, Portugal, the Slovak Republic, Spain and Turkey, and the partner economies Brazil, Chile, Estonia, Israel, the Russian Federation and Slovenia). Poorer OECD countries tend to spend less per student than richer OECD countries.

**Chart B1.6. Annual expenditure on educational institutions per student relative to GDP per capita (2004)**

*In equivalent USD converted using PPPs, by level of education*



Note: Please refer to the Reader's Guide for the list of country codes used in this chart.  
 Source: OECD, Tables B1.1a and B1.4 and Annex 2. See Annex 3 for notes ([www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007)).  
 StatLink <http://dx.doi.org/10.1787/068176572003>



By contrast, there is a considerable variation in spending on education per student among OECD countries with a GDP per capita greater than USD 27 500 (see the ovals in Chart B1.6). Finland, France and Japan, for example, are countries with similar levels of GDP per capita that spend very different proportions of their GDP per capita on both the secondary and tertiary levels of education. Thus, the proportion of GDP per capita spent per secondary student in Finland and Japan at 25 and 26 %, respectively, are at the level of the OECD average, while for France (at 30%) the proportion is above average. However, France spends 37% of GDP per capita per tertiary student, whereas Finland and Japan spend both 42%, (Table B1.4 and Chart B1.3).

Expenditure on education per student averages 20% of GDP per capita at the primary level, 25% at the secondary level and 40% at the tertiary level (Table B1.4). Countries with low levels of expenditure per student can nevertheless show distributions of investment relative to GDP per capita which are similar to countries with a high level of spending per student. For example, Hungary, Korea, Poland and Portugal and the partner economy Estonia – countries with expenditure per student and GDP per capita below the OECD average at primary, secondary and post-secondary non-tertiary level of education – spend more per student relative to GDP per capita than the OECD average. Similarly, Mexico, Sweden, Turkey and the United States and the partner economy Chile spend more than 50% of GDP per capita on each tertiary-level student; this is among the highest proportions after Switzerland, which spend 63% of GDP per capita on each tertiary-level student. Brazil has the highest proportion, with 100% of GDP per capita spent per each tertiary-level student. However, this high level of expenditure is allocated to a small number of students because only 3% of the students enrolled in all levels of education combined are enrolled at the tertiary level in Brazil (Tables B1.2 and B1.4 and Chart B1.3).

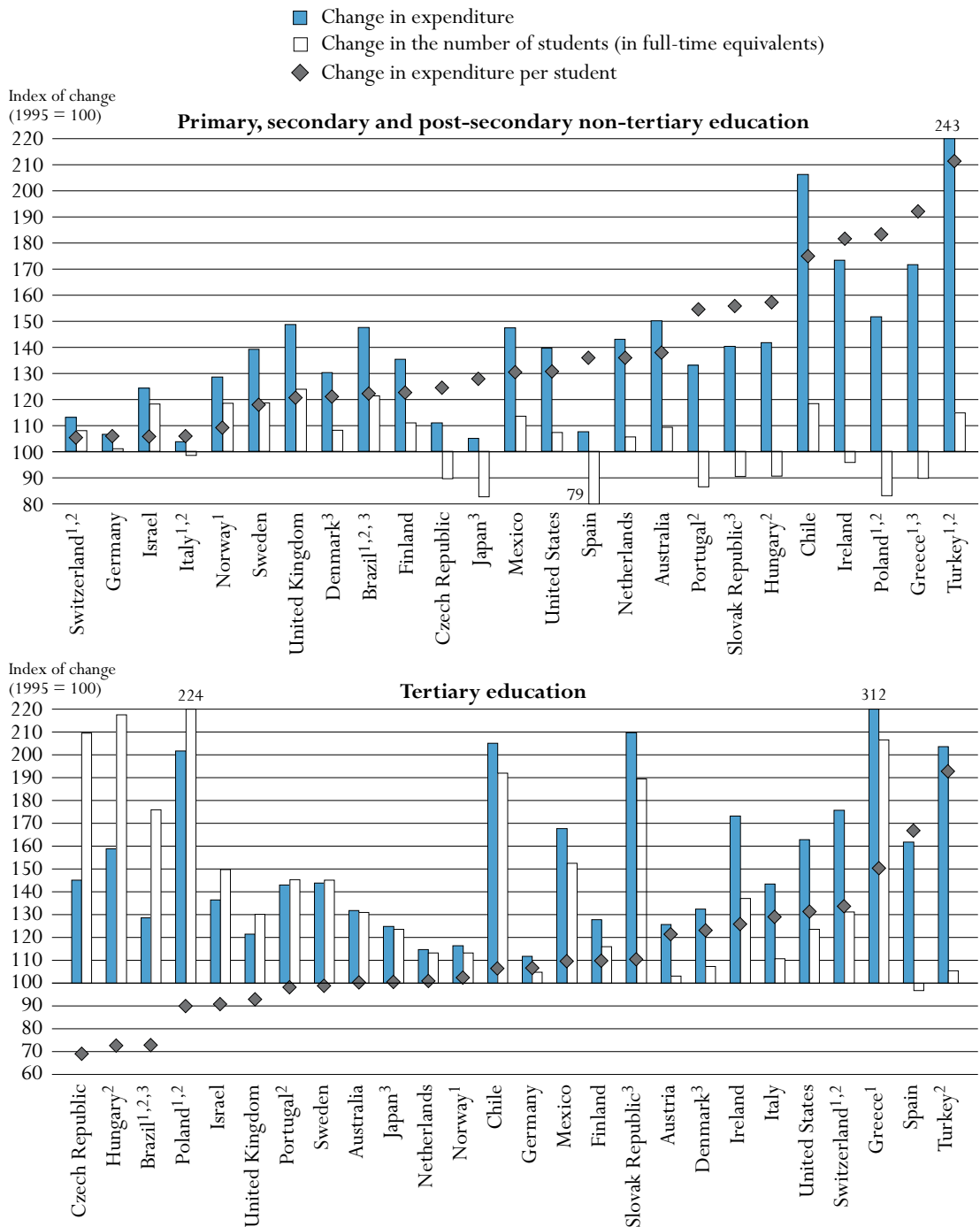
### **Change in expenditure on education per student between 1995 and 2004**

The number of young people in a population influences both the enrolment rate and the amount of resources and organisational effort which a country must invest in its education system. The size of the youth population in a given country shapes the potential demand for initial education and training. The higher the number of young people, the greater the potential demand for educational services. Table B1.5 and Chart B1.7 show, in absolute terms and at 2004 constant prices, the effects of changes in enrolment and total expenditure between 1995 and 2004 on educational expenditure per student.

Expenditure per primary, secondary and post-secondary non-tertiary student increased in every country between 1995 and 2004. In 18 out of the 25 OECD countries and partner economies for which data are available, changes exceed 20% between 1995 and 2004 and this increase is of 50% or more in a group of countries including Greece, Hungary, Ireland, Poland, Portugal, the Slovak Republic and Turkey, and the partner economy Chile. All the countries with the highest increases present similar patterns with a level of expenditure per primary, secondary and post-secondary non-tertiary student below the OECD average in 2004 combined for all of them (except Turkey and the partner economy Chile) to a decrease in the number of students enrolled in primary, secondary and post-secondary non-tertiary education between 1995 and 2004. The only countries where the increase in expenditure on education per primary, secondary and post-secondary non-tertiary student is 10% or below for the same period are Germany, Italy, Norway and Switzerland, and the partner economy Israel (Table B1.5 and Chart B1.7).

**Chart B1.7. Changes in the number of students as well as changes in expenditure on educational institutions per student, by level of education (1995, 2004)**

*Index of change between 1995 and 2004 (1995=100, 2004 constant prices)*



1. Public expenditure only.  
 2. Public institutions only.  
 3. Some levels of education are included with others. Refer to “x” code in Table B1.1a for details.  
 Countries are ranked in ascending order of change in expenditure on educational institutions per student.  
 Source: OECD, Table B1.5. See Annex 3 for notes ([www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007)).

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Although institutional arrangements are often slow in adapting to changing demographic conditions, changes in enrolments do not seem to have been the main factor driving changes in expenditure per primary, secondary and post-secondary non-tertiary student. The Czech Republic, Greece, Hungary, Japan, Poland, Portugal and Spain are exceptions to this pattern, where a drop of more than 10% in enrolments contributed to a significant increase in spending on education per student. In the case of Japan and Spain, the enrolment decline was concomitant with a slight rise in expenditure on education; in Greece, Poland and Portugal, it came at the same time as a sharp spending increase (Table B1.5 and Chart B1.7).

Other patterns are found in Finland, Mexico, Norway, Sweden, Turkey and the United Kingdom, and the partner economies Brazil, Chile and Israel: the nine countries with the highest percent increase in the number of primary, secondary and post-secondary non-tertiary students between 1995 and 2004. In Finland, Mexico, Norway, Sweden, Turkey and the United Kingdom, and the partner economies Brazil and Chile, increases in expenditure outpaced rising enrolments, leading to an increase in expenditure per student whereas in the partner economy Israel, an increase in student numbers was counterbalanced by a similar increase in educational spending (Table B1.5 and Chart B1.7).

The pattern is different at the tertiary level of education. Out of the 26 OECD countries and partner economies for which data are available, the Czech Republic, Hungary, Poland, Portugal, Sweden and the United Kingdom, and in the partner economies Brazil and Israel show expenditure on tertiary education per student declining between 1995 and 2004. In all of these countries, this decline was mainly the result of a rapid increase (30% or more) in the number of tertiary students during the same period (Chart B1.7). However, expenditure per student at the tertiary level rose significantly in Greece, Ireland, Mexico, the Slovak Republic and Switzerland, and the partner economy Chile, despite a significant growth in enrolment of 107, 37, 53, 90, 31 and 92%, respectively. Austria, Denmark, Germany, Spain and Turkey were the only countries in which the number of tertiary students increased by less than 10% (Table B1.5 and Chart B1.7).

### Definitions and methodologies

Data refer to the financial year 2004 and are based on the UOE data collection on education statistics administered by the OECD in 2006 (for details see Annex 3 at [www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007)). Expenditure on education per student at a particular level of education is calculated by dividing the total expenditure on educational institutions at that level by the corresponding full-time equivalent enrolment. Only those educational institutions and programmes for which both enrolment and expenditure data are available are taken into account. Expenditure in national currency is converted into equivalent USD by dividing the national currency figure by the purchasing power parity (PPP) index for GDP. The PPP exchange rate is used because the market exchange rate is affected by many factors (interest rates, trade policies, expectations of economic growth, etc.) that have little to do with current relative domestic purchasing power in different OECD countries (Annex 2 gives further details).

The OECD average is calculated as the simple average over all OECD countries for which data are available. The OECD total reflects the value of the indicator if the OECD region is considered as a whole (see the Reader's Guide for details).

Table B1.5 shows the changes in expenditure on educational institutions per student between the financial years 1995 and 2004. OECD countries were asked to collect the 1995 data according to the definitions and the coverage of UOE 2006 data collection. All expenditure data, as well as the GDP for 1995, are adjusted to 2004 prices using the GDP price deflator.

Expenditure on education per student relative to GDP per capita is calculated by expressing expenditure on education per student in units of national currency as a percentage of GDP per capita, also in national currency. In cases where the educational expenditure data and the GDP data pertain to different reference periods, the expenditure data are adjusted to the same reference period as the GDP data, using inflation rates for the OECD country in question (see Annex 2).


Expected expenditure over the average duration of tertiary studies (Table B1.3b) is calculated by multiplying current annual expenditure by the typical duration of tertiary studies. The methodology used for the estimation of the typical duration of tertiary studies is described in Annex 3 ([www.oecd.org/edu/eqg2007](http://www.oecd.org/edu/eqg2007)). For the estimation of the duration of tertiary education, data are based on a special survey carried out in OECD countries in 2005.

The ranking of OECD countries by annual expenditure on educational services per student is affected by differences in how countries define full-time, part-time and full-time equivalent enrolment. Some OECD countries count every participant at the tertiary level as a full-time student while others determine a student's intensity of participation by the credits which he or she obtains for successful completion of specific course units during a specified reference period. OECD countries that can accurately account for part-time enrolment will have higher expenditure per full-time equivalent student than OECD countries that cannot differentiate between different modes of student attendance.

Note that data appearing in earlier editions of this publication may not always be comparable to data shown in the 2007 edition due to changes in definitions and coverage that were made as a result of the OECD expenditure comparability study (see Annex 3 at [www.oecd.org/edu/eqg2007](http://www.oecd.org/edu/eqg2007) for details on changes).

### Further references

The following additional material relevant to this indicator is available on line at:

**StatLink**  <http://dx.doi.org/10.1787/068176572003>

- *Table B1.1c Annual expenditure on educational institutions per student for core services (2004)*



Table B1.1a.  
Annual expenditure on educational institutions per student for all services (2004)  
In equivalent USD converted using PPPs for GDP, by level of education, based on full-time equivalents

	Pre-primary education (for children 3 years and older)	Primary education	Secondary education			Post-secondary non-tertiary education	Tertiary education (including R&D activities)			All tertiary education excluding R&D activities	Primary to tertiary education
			Lower secondary education	Upper secondary education	All secondary education		Tertiary-type B education	Tertiary-type A & advanced research programmes	All tertiary education		
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
<b>OECD countries</b>											
Australia	m	5 776	7 747	8 853	8 160	7 969	8 425	15 000	14 036	10 250	8 053
Austria	6 106	7 669	8 969	9 962	9 446	x(4)	10 072	14 281	13 959	9 595	9 803
Belgium	4 915	6 636	x(5)	x(5)	7 751	x(5)	x(9)	x(9)	11 842	7 920	8 019
Canada	m	m	m	m	m	m	m	m	m	m	m
Czech Republic	3 178	2 791	4 769	4 790	4 779	2 191	3 273	7 142	6 752	5 711	4 484
Denmark	5 323	8 081	8 224	9 466	8 849	x(4, 9)	x(9)	x(9)	15 225	11 387	9 766
Finland	4 282	5 581	8 918	6 555	7 441	x(5)	8 729	12 507	12 505	7 697	7 798
France	4 938	5 082	7 837	9 883	8 737	4 081	9 113	11 195	10 668	7 372	7 880
Germany	5 489	4 948	6 082	10 459	7 576	10 573	6 413	13 218	12 255	7 724	7 802
Greece	x(2)	4 595	x(5)	x(5)	5 213	5 688	2 549	7 199	5 593	4 521	5 135
Hungary <sup>1</sup>	4 231	3 841	3 433	3 968	3 692	6 351	5 089	7 198	7 095	5 607	4 326
Iceland	6 114	8 434	8 284	7 330	7 721	x(4, 9)	x(9)	x(9)	8 881	m	8 264
Ireland	4 948	5 422	6 943	7 309	7 110	5 169	x(9)	x(9)	10 211	7 445	6 713
Italy <sup>1</sup>	5 971	7 390	7 657	7 971	7 843	m	8 378	7 716	7 723	4 812	7 723
Japan	3 945	6 551	7 325	7 883	7 615	x(4, 9)	7 619	13 777	12 193	m	8 148
Korea	2 520	4 490	6 057	7 485	6 761	a	4 263	8 600	7 068	6 154	5 994
Luxembourg <sup>1</sup>	x(2)	13 458	18 036	17 731	17 876	m	m	m	m	m	m
Mexico	1 794	1 694	1 602	2 564	1 922	a	x(9)	x(9)	5 778	4 834	2 128
Netherlands	5 807	6 222	7 948	7 037	7 541	6 624	a	13 846	13 846	8 637	7 999
New Zealand	5 112	5 190	5 334	7 424	6 299	5 412	5 791	9 834	8 866	8 240	6 298
Norway	4 327	8 533	9 476	12 498	11 109	x(5)	x(9)	x(9)	14 997	10 449	10 721
Poland <sup>1</sup>	4 045	3 130	2 822	2 949	2 889	3 147	2 756	4 471	4 412	3 893	3 323
Portugal <sup>1</sup>	4 461	4 681	6 359	5 962	6 168	m	x(9)	x(9)	7 741	m	5 809
Slovak Republic	2 575	2 073	2 389	3 155	2 744	x(4)	x(4)	6 535	6 535	5 940	3 058
Spain	4 617	4 965	x(5)	x(5)	6 701	a	8 363	9 582	9 378	6 853	6 599
Sweden	4 417	7 469	7 836	8 218	8 039	3 437	x(9)	x(9)	16 218	8 355	9 085
Switzerland <sup>1</sup>	3 581	8 570	9 197	15 368	12 176	8 401	5 971	23 395	21 966	12 515	11 883
Turkey <sup>1</sup>	m	1 120	a	1 808	1 808	a	x(9)	x(9)	m	4 231	1 527
United Kingdom	7 924	5 941	x(5)	x(5)	7 090	x(5)	x(9)	x(9)	11 484	8 792	7 270
United States	7 896	8 805	9 490	10 468	9 938	m	x(9)	x(9)	22 476	19 842	12 092
<b>OECD average</b>	<b>4 741</b>	<b>5 832</b>	<b>6 909</b>	<b>7 884</b>	<b>7 276</b>	<b>4 315</b>	~	~	<b>11 100</b>	<b>7 951</b>	<b>7 061</b>
<b>OECD total</b>	<b>5 117</b>	<b>5 331</b>	~	~	<b>7 163</b>	~	~	~	<b>14 027</b>	<b>11 443</b>	<b>7 572</b>
<b>EU19 average</b>	<b>4 896</b>	<b>5 788</b>	<b>7 215</b>	<b>7 694</b>	<b>7 236</b>	<b>4 726</b>	~	~	<b>10 191</b>	<b>7 192</b>	<b>6 811</b>
<b>Partner economies</b>											
Brazil <sup>1</sup>	1 171	1 159	1 172	801	1 033	a	x(4)	9 019	9 019	8 903	1 303
Chile <sup>2</sup>	2 460	2 120	2 106	2 062	2 077	a	4 371	8 090	6 873	m	2 864
Estonia <sup>1</sup>	1 186	2 894	3 579	3 670	3 623	3 717	4 194	n	4 552	m	3 402
Israel	4 278	5 192	x(5)	x(5)	6 066	4 272	8 673	11 922	11 289	8 771	6 540
Russian Fed. <sup>1</sup>	m	x(5)	x(5)	x(5)	1 615	x(5)	1 863	2 840	2 562	m	1 775
Slovenia <sup>1</sup>	6 369	x(3)	7 428	5 062	6 525	x(4)	x(9)	x(9)	8 011	6 866	6 824

1. Public institutions only.

2. Year of reference 2005.

Source: OECD. See Annex 3 for notes ([www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007)).

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


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Table B1.1b.

**Annual expenditure per student on core services, ancillary services and R&D (2004)***In equivalent USD converted using PPPs for GDP, by level of education and type of service, based on full-time equivalents*

	Primary, secondary and post-secondary non-tertiary education			Tertiary education			
	Educational core services	Ancillary services (transport, meals, housing provided by institutions)	Total	Educational core services	Ancillary services (transport, meals, housing provided by institutions)	R & D	Total
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
<b>OECD countries</b>							
Australia	6626	285	6911	9543	707	3786	14036
Austria	8516	422	8938	9493	102	4364	13959
Belgium	7031	279	7310	7596	324	3922	11842
Canada	m	m	m	m	m	m	m
Czech Republic	3822	208	4030	5490	222	1041	6752
Denmark <sup>1</sup>	8492	a	8492	11387	a	3838	15225
Finland	5963	697	6660	7696	n	4808	12505
France	6361	901	7262	6770	602	3296	10668
Germany	6828	155	6983	7132	591	4531	12255
Greece <sup>1</sup>	4855	76	4931	4072	448	1072	5593
Hungary <sup>2</sup>	3436	397	3833	5313	294	1488	7095
Iceland <sup>1</sup>	x(3)	x(3)	8138	x(7)	x(7)	x(7)	8881
Ireland	5902	131	6034	7445	x(7)	2766	10211
Italy <sup>2</sup>	7434	307	7741	4498	314	2912	7723
Japan <sup>1</sup>	x(3)	x(3)	7105	x(7)	x(7)	x(7)	12193
Korea	5079	471	5550	6105	49	913	7068
Luxembourg <sup>1,2</sup>	x(3)	x(3)	15157	m	m	m	m
Mexico	1789	m	1789	4834	m	944	5778
Netherlands	6841	73	6914	8634	3	5210	13846
New Zealand	x(3)	x(3)	5815	8240	x(7)	627	8866
Norway	9670	101	9772	10265	184	4548	14997
Poland <sup>2</sup>	2914	84	2998	3891	2	519	4412
Portugal <sup>2</sup>	5362	37	5400	x(7)	x(7)	x(7)	7741
Slovak Republic <sup>1</sup>	2120	442	2562	4781	1160	594	6535
Spain	5683	209	5892	6853	m	2525	9378
Sweden	7001	743	7744	8355	n	7863	16218
Switzerland <sup>2</sup>	x(3)	x(3)	10378	12515	x(4)	9451	21966
Turkey <sup>2</sup>	1183	79	1262	4170	x(4)	m	m
United Kingdom	6323	333	6656	8792	m	2693	11484
United States	8640	729	9368	17738	2104	2634	22476
<i>OECD average</i>	<i>5745</i>	<i>311</i>	<i>6608</i>	<i>7664</i>	<i>395</i>	<i>3181</i>	<i>11100</i>
<i>EU19 average</i>	<i>5827</i>	<i>305</i>	<i>6607</i>	<i>6953</i>	<i>290</i>	<i>3144</i>	<i>10191</i>
<b>Partner economies</b>							
Brazil <sup>1,2</sup>	x(3)	x(3)	1087	8903	x(4)	116	9019
Chile <sup>3</sup>	2013	86	2099	x(7)	x(7)	x(7)	6873
Estonia <sup>2</sup>	x(3)	x(3)	3340	x(7)	x(7)	n	4552
Israel	5542	22	5564	8658	113	2517	11289
Russian Federation <sup>2</sup>	x(3)	x(3)	1615	x(7)	x(7)	x(7)	2562
Slovenia <sup>2</sup>	6258	267	6525	6851	15	1145	8011

1. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.

2. Public institutions only.

3. Year of reference 2005.

Source: OECD. See Annex 3 for notes ([www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007)).

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


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Table B1.2.

**Distribution of expenditure (as a percentage) on educational institutions compared to number of students enrolled at each level of education (2004)**

This table shows the distribution of educational expenditure and of students across levels of education. The number of students is adjusted to the financial year, e.g. when reading the first and second columns, in the Czech Republic, 9.5 % of all expenditure on educational institutions is allocated to pre-primary education whereas 13.3 % of pupils/students are enrolled at this level of education.

	Pre-primary education (for children 3 years and older)		Primary, secondary and post-secondary non-tertiary education		All tertiary education		Not allocated by level		All levels of education	
	Proportion of expenditure on educational institutions	Proportion of students enrolled, based on full-time equivalents	Proportion of expenditure on educational institutions	Proportion of students enrolled, based on full-time equivalents	Proportion of expenditure on educational institutions	Proportion of students enrolled, based on full-time equivalents	Proportion of expenditure on educational institutions	Proportion of students enrolled, based on full-time equivalents	Proportion of expenditure on educational institutions	Proportion of students enrolled, based on full-time equivalents
	(1)	(2)	(2)	(2)	(3)	(3)	(4)	(4)	(5)	(5)
<b>OECD countries</b>										
Australia	m	2.9	m	81.5	m	15.5	m	0.1	m	100
Austria	8.6	13.2	68.4	71.9	22.4	15.0	a	a	100	100
Belgium	9.8	15.3	67.9	71.4	20.4	13.2	2.0	n	100	100
Canada	m	m	m	m	m	m	m	m	m	m
Czech Republic	9.5	13.3	65.7	72.2	22.1	14.5	2.7	n	100	100
Denmark <sup>1</sup>	12.0	20.5	60.3	64.5	25.2	15.0	2.5	n	100	100
Finland	6.2	10.8	64.5	71.8	29.3	17.4	n	n	100	100
France	11.6	17.3	66.7	67.7	21.7	15.0	n	n	100	100
Germany	9.6	13.4	66.7	73.1	21.5	13.4	2.1	0.1	100	100
Greece	x(2)	x(2)	64.7	71.2	32.6	28.8	2.7	n	100	100
Hungary <sup>2</sup>	15.4	16.4	60.4	71.0	19.9	12.7	4.3	n	100	100
Iceland <sup>1</sup>	9.2	12.8	68.3	73.7	14.6	13.5	7.9	n	100	100
Ireland	0.1	0.1	74.3	82.6	25.7	17.3	n	n	100	100
Italy <sup>2</sup>	9.3	11.7	71.7	69.6	19.0	18.7	n	n	100	100
Japan <sup>1</sup>	4.0	8.4	61.7	71.9	27.3	18.6	6.9	1.1	100	100
Korea	1.9	4.7	61.3	67.4	32.2	27.9	4.5	n	100	100
Luxembourg	m	m	m	m	m	m	m	m	m	m
Mexico	10.3	12.3	67.0	80.2	20.1	7.5	2.6	n	100	100
Netherlands	7.4	9.9	67.5	76.0	25.1	14.1	n	n	100	100
New Zealand	4.8	6.0	72.8	79.1	20.9	14.9	1.5	n	100	100
Norway	4.8	11.5	68.4	72.2	23.3	16.0	3.5	n	100	100
Poland <sup>2</sup>	11.0	9.2	66.7	75.4	22.2	15.3	n	n	100	100
Portugal <sup>2</sup>	5.9	7.8	69.2	76.2	21.1	16.1	3.9	n	100	100
Slovak Republic <sup>1</sup>	10.5	12.6	63.5	76.5	23.1	10.9	3.0	n	100	100
Spain	12.4	16.8	62.4	66.3	25.2	16.9	n	n	100	100
Sweden	7.8	14.7	66.2	71.8	26.1	13.5	n	n	100	100
Switzerland <sup>2</sup>	3.8	10.6	69.0	77.8	25.5	11.6	1.7	n	100	100
Turkey <sup>2</sup>	m	1.6	m	89.6	m	8.8	n	n	m	100
United Kingdom	6.2	4.3	75.0	83.5	18.9	12.2	n	a	100	100
United States	5.8	8.7	57.8	72.4	36.4	19.0	n	n	100	100
<b>OECD average</b>	<b>7.9</b>	<b>10.6</b>	<b>66.5</b>	<b>74.2</b>	<b>23.9</b>	<b>15.5</b>	<b>1.9</b>	<b>n</b>	<b>100</b>	<b>100</b>
<b>Partner economies</b>										
Brazil <sup>1,2</sup>	9.0	9.9	73.7	87.5	17.2	2.6	n	n	100	100
Chile <sup>3</sup>	7.6	8.8	56.8	76.6	35.5	14.6	n	n	100	100
Estonia <sup>2</sup>	7.6	19.2	85.4	76.7	6.3	4.1	0.7	n	100	100
Israel	10.3	16.0	56.1	68.0	23.4	14.0	10.2	1.9	100	100
Russian Federation <sup>2</sup>	15.2	m	56.5	m	18.3	m	10.0	n	100	m
Slovenia <sup>2</sup>	9.8	10.4	68.9	71.6	21.3	18.0	n	n	100	100

1. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.

2. Public institutions only.

3. Year of reference 2005.

Source: OECD. See Annex 3 for notes ([www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007)).

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


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Table B1.3a.  
**Cumulative expenditure on educational institutions per student for all services over the theoretical duration  
of primary and secondary studies (2004)**  
*In equivalent USD converted using PPPs for GDP, by level of education*

	Average theoretical duration of primary and secondary studies (in years)				Cumulative expenditure per student over the theoretical duration of primary and secondary studies (in USD)					
	Primary education	Lower secondary	Upper secondary education	Total primary and secondary education	Primary education	Lower secondary	Upper secondary education	All secondary education	Total primary and secondary education	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	
OECD countries	Australia	7.0	4.0	2.0	13.0	40 434	30 988	17 706	48 694	89 128
	Austria	4.0	4.0	4.0	12.0	30 674	35 875	39 848	75 723	106 397
	Belgium	6.0	2.0	4.0	12.0	39 813	x(8)	x(8)	46 508	86 321
	Canada	6.0	3.0	3.0	12.0	m	m	m	m	m
	Czech Republic	5.0	4.0	4.0	13.0	13 957	19 076	19 159	38 234	52 191
	Denmark	6.0	4.0	3.0	13.0	48 485	32 895	28 398	61 292	109 778
	Finland	6.0	3.0	3.0	12.0	33 484	26 753	19 664	46 417	79 901
	France	5.0	4.0	3.0	12.0	25 410	31 348	29 649	60 996	86 406
	Germany	4.0	6.0	3.0	13.0	19 792	36 491	31 377	67 868	87 660
	Greece	6.0	3.0	3.0	12.0	27 570	x(8)	x(8)	31 280	58 850
	Hungary <sup>1</sup>	4.0	4.0	4.0	12.0	15 365	13 731	15 873	29 604	44 969
	Iceland	7.0	3.0	4.0	14.0	59 041	24 852	29 321	54 173	113 214
	Ireland	8.0	3.0	2.5	13.5	43 378	20 828	18 273	39 102	82 479
	Italy <sup>1</sup>	5.0	3.0	5.0	13.0	36 951	22 970	39 857	62 827	99 778
	Japan	6.0	3.0	3.0	12.0	39 308	21 974	23 648	45 623	84 931
	Korea	6.0	3.0	3.0	12.0	26 942	18 171	22 455	40 626	67 568
	Luxembourg <sup>1</sup>	6.0	3.0	4.0	13.0	80 748	54 109	70 924	125 033	205 781
	Mexico	6.0	3.0	3.0	12.0	10 166	4 805	7 692	12 496	22 662
	Netherlands	6.0	2.0	3.0	11.0	37 332	15 895	21 112	37 008	74 340
	New Zealand	6.0	4.0	3.0	13.0	31 140	21 334	22 271	43 606	74 746
	Norway	7.0	3.0	3.0	13.0	59 729	28 427	37 493	65 921	125 650
	Poland <sup>1</sup>	6.0	3.0	4.0	13.0	18 783	8 467	11 797	20 264	39 047
	Portugal <sup>1</sup>	6.0	3.0	3.0	12.0	28 088	19 076	17 887	36 963	65 051
	Slovak Republic	4.0	5.0	4.0	13.0	8 294	11 943	12 620	24 563	32 857
	Spain	6.0	4.0	2.0	12.0	29 787	x(8)	x(8)	40 206	69 994
	Sweden	6.0	3.0	3.0	12.0	44 817	23 509	24 653	48 162	92 979
Switzerland <sup>1</sup>	6.0	3.0	3.5	12.5	51 420	27 590	53 788	81 378	132 798	
Turkey <sup>1</sup>	8.0	a	3.0	11.0	8 961	a	5 423	5 423	14 384	
United Kingdom	6.0	3.0	3.5	12.5	35 646	x(8)	x(8)	46 086	81 732	
United States	6.0	3.0	3.0	12.0	52 833	28 470	31 403	59 872	112 705	
<i>OECD average</i>	<i>5.9</i>	<i>3.3</i>	<i>3.3</i>	<i>12.4</i>	<i>33 768</i>	<i>~</i>	<i>~</i>	<i>47 717</i>	<i>81 485</i>	
Partner economies	Brazil <sup>1</sup>	4.0	4.0	3.0	11.0	4 636	4 687	2 404	7 091	11 727
	Chile <sup>2</sup>	6.0	2.0	4.0	12.0	12 722	4 211	8 248	12 459	25 182
	Estonia <sup>1</sup>	6.0	3.0	3.0	12.0	17 363	10 736	11 009	21 746	39 108
	Israel	6.0	3.0	3.0	12.0	31 152	x(8)	x(8)	36 396	67 548
	Russian Federation <sup>1</sup>	4.0	5.0	2.0	11.0	x(9)	x(9)	x(9)	x(9)	17 763
	Slovenia <sup>1</sup>	6.0	3.0	3.0	12.0	x(6)	66 854	15 187	82 041	82 041

1. Public institutions only.

2. Year of reference 2005.

Source: OECD. See Annex 3 for notes ([www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007)).

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


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Table B1.3b.  
**Cumulative expenditure on educational institutions per student for all services  
 over the average duration of tertiary studies (2004)**

*In equivalent USD converted using PPPs for GDP, by type of programme*

	Method <sup>1</sup>	Average duration of tertiary studies (in years)			Cumulative expenditure per student over the average duration of tertiary studies (in USD)		
		Tertiary-type B education	Tertiary- type A and advanced research programmes	All tertiary education	Tertiary-type B education	Tertiary- type A and advanced research programmes	All tertiary education
		(1)	(2)	(3)	(4)	(5)	(6)
OECD countries							
Australia	CM	m	2.87	m	m	43 050	m
Austria	CM	2.78	5.60	5.30	28 001	79 971	73 984
Belgium	CM	2.41	3.67	2.99	x(6)	x(6)	35 406
Canada		m	m	m	m	m	m
Czech Republic		m	m	m	m	m	m
Denmark	AF	2.10	3.84	3.70	x(6)	x(6)	56 333
Finland	CM	a	4.85	4.85	a	60 659	60 659
France <sup>2</sup>	CM	3.00	4.74	4.02	27 340	53 062	42 885
Germany	CM	2.37	6.57	5.36	15 205	86 815	65 733
Greece	CM	5.00	5.26	5.25	12 745	37 869	29 362
Hungary <sup>3</sup>	CM	2.00	4.05	4.05	10 178	29 153	28 736
Iceland	CM	x(3)	x(3)	3.69	x(6)	x(6)	32 770
Ireland	CM	2.21	4.02	3.24	x(6)	x(6)	33 083
Italy	AF	m	5.14	5.01	m	39 658	38 694
Japan	CM	2.11	4.51	4.07	16 077	62 132	49 624
Korea	CM	2.07	4.22	3.43	8 825	36 291	24 242
Luxembourg		m	m	m	m	m	m
Mexico	AF	x(3)	3.42	3.42	x(6)	x(6)	19 762
Netherlands	CM	a	5.24	5.24	a	72 555	72 555
New Zealand	CM	1.87	3.68	3.05	10 829	36 188	27 042
Norway	CM	m	m	m	m	m	m
Poland <sup>3</sup>	CM	m	3.68	m	m	16 453	m
Portugal		m	m	m	m	m	m
Slovak Republic	AF	2.47	3.90	3.82	x(6)	x(6)	25 485
Spain	CM	2.15	5.54	4.66	17 980	53 084	43 700
Sweden	CM	2.26	4.93	4.68	x(6)	x(6)	75 901
Switzerland <sup>3</sup>	CM	2.19	5.45	3.62	13 057	127 568	79 611
Turkey <sup>3</sup>	CM	2.73	2.37	2.65	x(6)	x(6)	11 229
United Kingdom <sup>2</sup>	CM	3.52	5.86	4.34	x(6)	x(6)	49 873
United States		m	m	m	m	m	m
<b>OECD average</b>		<b>2.28</b>	<b>4.50</b>	<b>4.11</b>	<b>~</b>	<b>~</b>	<b>44 394</b>

1. Either the chain method (CM) or an approximation formula (AF) was used to estimate the duration of tertiary studies.

2. Average duration of tertiary studies is estimated based on national data.

3. Public institutions only.

Source: OECD. See Annex 3 for notes ([www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007)).

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


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Table B1.4.  
Annual expenditure on educational institutions per student for all services relative to GDP per capita (2004)  
By level of education, based on full-time equivalents

	Pre-primary education (for children 3 years and older)	Primary education	Secondary education			Post-secondary non-tertiary education	Tertiary education (including R&D activities)			All tertiary education excluding R&D activities	Primary to tertiary education	
			Lower secondary education	Upper secondary education	All secondary education		Tertiary-type B education	Tertiary-type A and advanced research programmes	All tertiary education			
												(1)
OECD countries	Australia	m	19	25	29	26	26	27	49	45	33	26
	Austria	18	23	27	30	28	x(4)	30	43	42	29	29
	Belgium	15	21	x(5)	x(5)	24	x(5)	x(9)	x(9)	37	25	25
	Canada	m	m	m	m	m	m	m	m	m	m	m
	Czech Rep.	16	14	25	25	25	11	17	37	35	29	23
	Denmark	16	25	25	29	27	x(4, 9)	x(9)	x(9)	47	35	30
	Finland	14	19	30	22	25	x(5)	29	42	42	26	26
	France	17	18	27	34	30	14	31	39	37	25	27
	Germany	18	17	20	35	25	35	21	44	41	26	26
	Greece	x(2)	17	x(5)	x(5)	19	21	9	26	20	16	19
	Hungary <sup>1</sup>	26	23	21	24	22	38	31	44	43	34	26
	Iceland	18	25	25	22	23	x(4, 9)	x(9)	x(9)	27	m	25
	Ireland	14	15	19	20	19	14	x(9)	x(9)	28	20	18
	Italy <sup>1</sup>	22	27	28	29	28	m	30	28	28	17	28
	Japan	14	23	25	27	26	x(4, 9)	26	48	42	m	28
	Korea	12	22	29	36	33	a	21	42	34	30	29
	Luxembourg <sup>1</sup>	x(2)	21	28	27	28	x(5)	m	m	m	m	m
	Mexico	18	17	16	25	19	a	x(9)	x(9)	57	48	21
	Netherlands	17	19	24	21	22	20	a	41	41	26	24
	New Zealand	21	21	21	30	25	22	23	40	36	33	25
Norway	10	20	23	30	27	x(5)	x(9)	x(9)	36	25	26	
Poland <sup>1</sup>	31	24	22	23	22	24	27	34	34	30	25	
Portugal <sup>1</sup>	23	24	33	31	32	m	x(9)	x(9)	40	m	30	
Slovak Rep.	18	14	16	22	19	x(4)	x(4)	45	45	41	21	
Spain	18	19	x(5)	x(5)	26	a	32	37	36	26	25	
Sweden	14	24	25	26	26	11	x(9)	x(9)	52	27	29	
Switzerland <sup>1</sup>	10	25	26	44	35	24	17	67	63	36	34	
Turkey <sup>1</sup>	m	16	a	25	25	a	x(9)	x(9)	m	59	21	
United Kingdom	25	19	x(5)	x(5)	22	x(5)	x(9)	x(9)	36	28	23	
United States	20	22	24	26	25	m	x(9)	x(9)	57	50	30	
<i>OECD average</i>	<i>18</i>	<i>20</i>	<i>23</i>	<i>28</i>	<i>25</i>	<i>16</i>	<i>23</i>	<i>41</i>	<i>40</i>	<i>31</i>	<i>26</i>	
<i>EU19 average</i>	<i>17</i>	<i>19</i>	<i>23</i>	<i>27</i>	<i>25</i>	<i>13</i>	<i>25</i>	<i>40</i>	<i>38</i>	<i>31</i>	<i>25</i>	
Partner economies	Brazil <sup>1</sup>	13	13	13	9	11	a	x(4)	100	100	98	14
	Chile <sup>2</sup>	19	17	17	16	16	a	35	64	54	m	23
	Estonia <sup>1</sup>	8	20	25	25	25	26	29	n	32	m	24
	Israel	17	21	x(5)	x(5)	25	17	35	49	46	36	27
	Russian Fed. <sup>1</sup>	m	x(5)	x(5)	x(5)	16	x(5)	19	29	26	m	18
	Slovenia <sup>1</sup>	30	x(3)	34	24	30	x(4)	x(9)	x(9)	37	32	32

1. Public institutions only.

2. Year of reference 2005.

Source: OECD. See Annex 3 for notes ([www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007)).

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Table B1.5.

**Change in expenditure on educational institutions for all services per student relative to different factors, by level of education (1995, 2004)**

*Index of change between 1995 and 2004 (GDP deflator 1995=100, 2004 constant prices)*

	Primary, secondary and post-secondary non-tertiary education				Tertiary education			
	Change in expenditure	Change in the number of students	Change in expenditure per student		Change in expenditure	Change in the number of students	Change in expenditure per student	
OECD countries	Australia	150	109	138	Australia	132	131	101
	Austria	108	m	m	Austria	126	103	122
	Belgium	m	m	m	Belgium	m	m	m
	Canada	m	m	m	Canada	m	m	m
	Czech Republic	111	89	124	Czech Republic	145	210	69
	Denmark <sup>1</sup>	130	108	121	Denmark <sup>1</sup>	133	107	123
	Finland	135	111	122	Finland	128	116	110
	France	m	m	m	France	m	m	m
	Germany	106	101	105	Germany	112	105	107
	Greece <sup>1,2</sup>	172	90	192	Greece <sup>2</sup>	312	207	151
	Hungary <sup>3</sup>	142	90	157	Hungary <sup>3</sup>	159	218	73
	Iceland	m	m	m	Iceland	m	m	m
	Ireland	174	96	181	Ireland	174	137	126
	Italy <sup>2,3</sup>	104	98	105	Italy	144	111	130
	Japan <sup>1</sup>	105	82	127	Japan <sup>1</sup>	125	124	101
	Korea	m	91	m	Korea	m	150	m
	Luxembourg	m	m	m	Luxembourg	m	m	m
	Mexico	147	114	130	Mexico	168	153	110
	Netherlands	143	106	136	Netherlands	115	113	101
	New Zealand <sup>2</sup>	162	m	m	New Zealand <sup>2</sup>	109	m	m
	Norway <sup>2</sup>	129	118	109	Norway <sup>2</sup>	117	113	103
	Poland <sup>2,3</sup>	152	83	183	Poland <sup>2,3</sup>	202	224	90
	Portugal <sup>3</sup>	133	86	154	Portugal <sup>3</sup>	143	146	98
	Slovak Republic <sup>1</sup>	140	90	155	Slovak Republic <sup>1</sup>	210	190	111
	Spain	107	79	136	Spain	162	97	167
	Sweden	139	119	117	Sweden	144	145	99
Switzerland <sup>2,3</sup>	113	108	105	Switzerland <sup>2,3</sup>	176	131	134	
Turkey <sup>2,3</sup>	243	115	211	Turkey <sup>3</sup>	191	106	181	
United Kingdom	149	124	120	United Kingdom	122	130	93	
United States	140	107	130	United States	163	124	132	
<i>OECD average</i>	<i>139</i>	<i>101</i>	<i>138</i>		<i>155</i>	<i>141</i>	<i>109</i>	
<i>EU19 average</i>	<i>134</i>	<i>98</i>	<i>137</i>		<i>158</i>	<i>148</i>	<i>107</i>	
Partner economies	Brazil <sup>1,2,3</sup>	148	123	122	Brazil <sup>1,2,3</sup>	129	176	73
	Chile <sup>4</sup>	207	118	175	Chile <sup>4</sup>	206	192	107
	Estonia	m	m	m	Estonia	m	m	m
	Israel	124	118	105	Israel	137	150	91
	Russian Federation	m	m	m	Russian Federation	m	m	m
	Slovenia	m	m	m	Slovenia	m	m	m

1. Some levels of education are included with others. Refer to "x" code in Table B1.1a for details.


2. Public expenditure only.

3. Public institutions only.

4. Year of reference 2005.

Source: OECD. See Annex 3 for notes ([www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007)).

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

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# READER'S GUIDE

## **Coverage of the statistics**

Although a lack of data still limits the scope of the indicators in many countries, the coverage extends, in principle, to the entire national education system (within the national territory) regardless of 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.

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

The OECD total is calculated as 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.

For financial tables using 1995 data, both the OECD average and OECD total are calculated for countries providing both 1995 and 2004 data. This allows comparison of the OECD average and OECD total over time with no distortion due to the exclusion of certain countries in the different years.

For many indicators an EU19 average is also presented. It is calculated as the unweighted mean of the data values of the 19 OECD countries that are members of the European Union for which data are available or can be estimated. These 19 countries are Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Hungary, Italy, Ireland, Luxembourg, the Netherlands, Poland, Portugal, the Slovak Republic, Spain, Sweden and the United Kingdom.

### ■ **Classification of levels of education**

The classification of the levels of education is based on the revised International Standard Classification of Education (ISCED-97). The biggest change between the revised ISCED and the former ISCED (ISCED-76) is the introduction of a multi-dimensional classification framework, allowing for the alignment of the educational content of programmes using multiple classification criteria. ISCED is an instrument for compiling statistics on education internationally and distinguishes among six levels of education. The glossary available at [www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007) describes in detail the ISCED levels of education, and Annex 1 shows corresponding typical graduation ages of the main educational programmes by ISCED level.

### ■ **Symbols for missing data**

Six symbols are employed in the tables and charts to denote missing data:

- a* Data is not applicable because the 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 is not available.
- n* Magnitude is either negligible or zero.
- w* Data has been withdrawn at the request of the country concerned.
- x* Data included in another category or column of the table (*e.g.* *x*(2) means that data are included in column 2 of the table).
- ~ Average is not comparable with other levels of education.

### ■ **Further resources**

The website [www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007) provides a rich source of information on the methods employed for the calculation of the indicators, the interpretation of the indicators in the respective national contexts and the data sources involved. The website also provides access to the data underlying the indicators as well as to a comprehensive glossary for technical terms used in this publication.

Any post-production changes to this publication are listed at [www.oecd.org/edu/eag2007](http://www.oecd.org/edu/eag2007).

The website [www.pisa.oecd.org](http://www.pisa.oecd.org) provides information on the OECD Programme for International Student Assessment (PISA), on which many of the indicators in this publication draw.

*Education at a Glance* uses the OECD's StatLinks service. Below each table and chart in *Education at a Glance 2007* is a url which leads to a corresponding Excel workbook containing the underlying data for the indicator. These urls are stable and will remain unchanged over time. In addition, readers of the *Education at a Glance* e-book will be able to click directly on these links and the workbook will open in a separate window.

### Codes used for territorial entities

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

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



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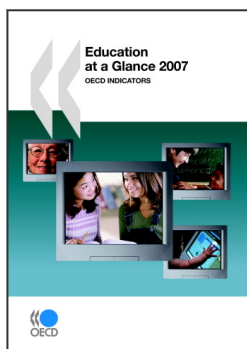
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