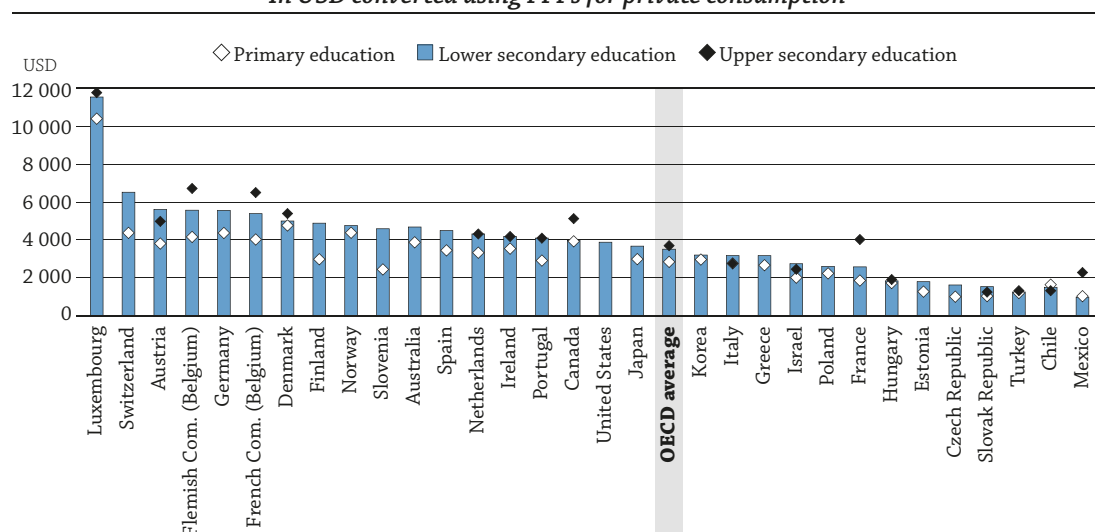


WHICH FACTORS INFLUENCE THE LEVEL OF EXPENDITURE ON EDUCATION?

- Teachers' compensation usually accounts for the largest share of expenditure on education. Four factors influence the salary cost of teachers per student: teachers' salaries, instruction time of students, teaching time of teachers and estimated class size (see Box B7.1 and *Definitions* section). Variations in the salary cost of teachers per student result from the various combinations of these four factors.
- On average across OECD countries, the salary cost of teachers per student increases with the level of education. This general increase is partly due to increases in teachers' salaries and in students' instruction time at higher educational levels.
- Between 2010 and 2015, the salary cost of teachers per student increased in a majority of countries at both primary and lower secondary levels of education.

Figure B7.1. Annual salary cost of teachers per student in public institutions, by level of education (2015)

In USD converted using PPPs for private consumption



Countries and economies are ranked in descending order of the salary cost of teachers per student in lower secondary education.

Source: OECD (2017), Table B7.1. See *Source* section for more information and Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).

StatLink <http://dx.doi.org/10.1787/888933558116>

Context

Governments have become increasingly interested in the relationship between the amount of resources devoted to education and student learning outcomes. They seek to provide more and better education for their population, while at the same time ensuring that public funding is used efficiently, particularly when public budgets are tight. Teachers' compensation usually accounts for the largest share of expenditure on education and thus of expenditure per student (see Indicator B6). The salary cost of teachers, as calculated in this indicator, is a function of students' instruction time, teachers' teaching time, teachers' salaries and the number of teachers needed to teach students (which depends on estimated class size) (see *Definitions* section and Box B7.1).

Differences among countries in these four factors may explain differences in the level of expenditure per student. Similarly, a given level of expenditure may be associated with different combinations of these factors. This indicator examines the choices countries make when investing their resources in primary and secondary education and explores how changes in policy choices between 2010 and 2015 related to these four factors have affected the salary cost of teachers. Some of these choices

do not reflect policy decisions, but instead demographic changes that led to a change in the number of students. For example, in countries where enrolments have been declining in recent years, class size would also shrink (assuming all other factors remain constant), unless there is a simultaneous drop in the number of teachers as well.

■ Other findings

- Similar levels of expenditure among countries can mask a variety of contrasting policy choices. For example, in their lower secondary general programmes, Australia and Slovenia had similar salary costs of teachers per student in 2015 (both above the OECD average). In Slovenia, this was the result of below-average teachers' salaries and instruction time pushing costs down, and below-average teaching time and estimated class size pushing costs up. In Australia, teachers' salaries and instruction time are above average, but the salary cost per student is pushed down by the above-average teaching time.
- The ranking of countries by salary cost of teachers per student changes considerably when done as a percentage of GDP per capita rather than by value in USD. For example, while Luxembourg has by far the highest salary cost in lower secondary education (at USD 11 532 per student, compared to USD 6 515 for Switzerland, the second highest country), its salary cost as a share of GDP (11.2%) ranks it in only tenth place.
- Teachers' salaries generally have the biggest influence on the extent to which the absolute (USD) salary cost of teachers per student varies at each level of education; estimated class size has the second largest impact. However, when taking into account differences in countries' wealth (i.e. analysing salaries over GDP per capita), teachers' salaries are less often the primary factor.

Analysis

B7

Variation in the salary cost of teachers per student by level of education

Per-student expenditure reflects structural and institutional factors – the organisation of schools and curricula. Current expenditure on educational institutions can be broken down into compensation of staff and other expenditures (i.e. maintenance of school buildings, providing students' meals or the rental of school buildings and other facilities). Teacher compensation usually constitutes the largest part of current expenditure, and therefore of expenditure on education (see Indicator B6). As a result, the level of teacher compensation relative to the number of students (referred to here as “salary cost of teachers per student”) is the largest share of expenditure per student.

Box B7.1. Calculating the salary cost of teachers per student

One way to analyse the factors that have an impact on expenditure per student and the extent of their impact is to compare the differences between national figures and the OECD average. This analysis computes the differences in expenditure per student among countries and the OECD average, and then calculates the contribution of these different factors to the variation from the OECD average.

This exercise is based on a mathematical relationship between the various factors and follows the method presented in the Canadian publication *Education Statistics Bulletin* (Quebec Ministry of Education, Recreation and Sports, 2003) (see explanations in Annex 3). Educational expenditure is mathematically linked to three factors related to a country's school context (number of hours of instruction time for students, number of teaching hours for teachers, estimated class size) and one factor relating to teachers (statutory salary).

Expenditure is broken down into compensation of teachers and other expenditure (defined as all expenditure other than compensation of teachers). The salary cost of teachers per student (CCS) is calculated using the following equation:

$$CCS = SAL \times instT \times \frac{1}{teachT} \times \frac{1}{ClassSize} = \frac{SAL}{Ratiostud/teacher}$$

SAL: teachers' salaries (estimated by annual statutory salary after 15 years of experience)

instT: instruction time of students (estimated as the annual intended instruction time, in hours, for students)

teachT: teaching time of teachers (estimated as the annual number of teaching hours for teachers)

ClassSize: a proxy for class size

Ratiostud/teacher: the ratio of students to teaching staff

With the exception of estimated class size, values for these variables can be obtained from the indicators published in *Education at a Glance* (Chapter D). For the purpose of the analysis in this indicator, an “estimated” class size or proxy class size is computed based on the ratio of students to teaching staff and the number of teaching hours and instruction hours. As a proxy, this estimated class size should be interpreted with caution.

Using this mathematical relationship and comparing a country's values for the four factors to the OECD averages makes it possible to measure both the direct and indirect contribution of each of these four factors to the variation in salary cost per student between that country and the OECD average (for more details, see Annex 3). For example, in the case where only two factors interact, if a worker receives a 10% increase in the hourly wage and increases the number of hours of work by 20%, his/her earnings will increase by 32% as a result of the direct contribution of each of these variations (0.1 + 0.2) and the indirect contribution of these variations due to the combination of the two factors (0.1 * 0.2). To account for differences in countries' level of wealth, salary cost per student, as well as teachers' salaries, can be divided by GDP per capita (on the assumption that GDP per capita is an estimate of countries' level of wealth). This makes it possible to compare countries' “relative” salary cost per student (Table B7.1).

As the salary cost of teachers per student is estimated based on values for statutory salaries of teachers after 15 years of experience, theoretical instruction time of students, statutory teaching time of teachers and estimated class size, this measure may differ from the actual salary cost of teachers resulting from the combination of actual average values for these four factors. This also explains part of the differences between this indicator and Indicators B1, B2, B3 and B6, which are based on actual expenditure and student populations at each level of education.

The salary cost of teachers per student is based on the instruction time of students, the teaching time of teachers, teachers' salaries and the number of teachers needed to teach students (which depends on estimated class size) (Box B7.1). As a consequence, differences in these four factors among countries and educational levels may explain differences in expenditure.

Salary costs of teachers per student show a common pattern across OECD countries: they usually rise between primary and lower secondary education (Figure B7.1). The only exceptions are Chile and Mexico, where the higher salary cost per student at primary level is at least in part due to smaller estimated class sizes at that level. On average across OECD countries, the salary cost increases from USD 2 848 per primary student to USD 3 514 per lower secondary student. Although the average salary cost per student also increases in general upper secondary education, to USD 3 700, this is only true in half of the countries with available data.

The general increase in the salary cost of teachers per student as the level of education increases is partly the result of increases in teachers' salaries and in the instruction time of students at higher educational levels. In 2015, the OECD average statutory salary for teachers with 15 years of experience was USD 42 017 at primary level, USD 44 658 at lower secondary level and USD 49 101 in general programmes in upper secondary education. Meanwhile, the OECD average annual instruction time increased from 796 hours at primary level, to 920 hours at lower secondary level and 929 hours at upper secondary level. The increase is also related to the fact that teaching time generally decreases as the level of education increases, implying that more teachers are needed to teach a given number of pupils (the OECD average annual teaching time in 2015 decreases from 788 hours at the primary level to 707 hours at the lower secondary level and 674 hours in general programmes at the upper secondary level). Higher levels of education also tend to have larger classes, which reduces the salary cost per student (the OECD average estimated class size increases from 15 students at primary, to 17 students at lower secondary and 18 students at upper secondary). However, this decrease is generally offset by the increases in the other three factors (Tables B7.4a, B7.4b and B7.4c, available on line).

In some countries there is only minimal variation between levels of education in the salary cost of teachers per student. In 2015, for example, there was a difference of less than USD 100 in Canada, Mexico, and Turkey between primary and lower secondary education. The greatest difference was over USD 1 800 in Finland, Slovenia and Switzerland (Table B7.1).

Variation in the salary cost of teachers per student after accounting for countries' wealth

The level of teachers' salaries and thus the level of the salary cost of teachers per student depend on a country's relative wealth. To control for differences in wealth among countries, the levels of teachers' salaries (and salary cost per student) relative to GDP per capita were analysed. On average, the salary cost of teachers per student represents 7% of GDP per capita at primary level, 8.6% at lower secondary level and 8.7% in general programmes at upper secondary level (Table B7.1).

Comparing countries by their salary cost of teachers per student using this analysis, instead of comparing them by salary cost of teachers per student in USD, changes the ranking of a few countries. For example, because of Luxembourg's high teacher salaries, it has by far the highest salary costs in lower secondary education: USD 11 532 per student, compared to USD 6 515 for the second highest country. However, when differences in countries' wealth are taken into account, Luxembourg falls to tenth position for its salary cost, which is 11.2% of GDP per capita.

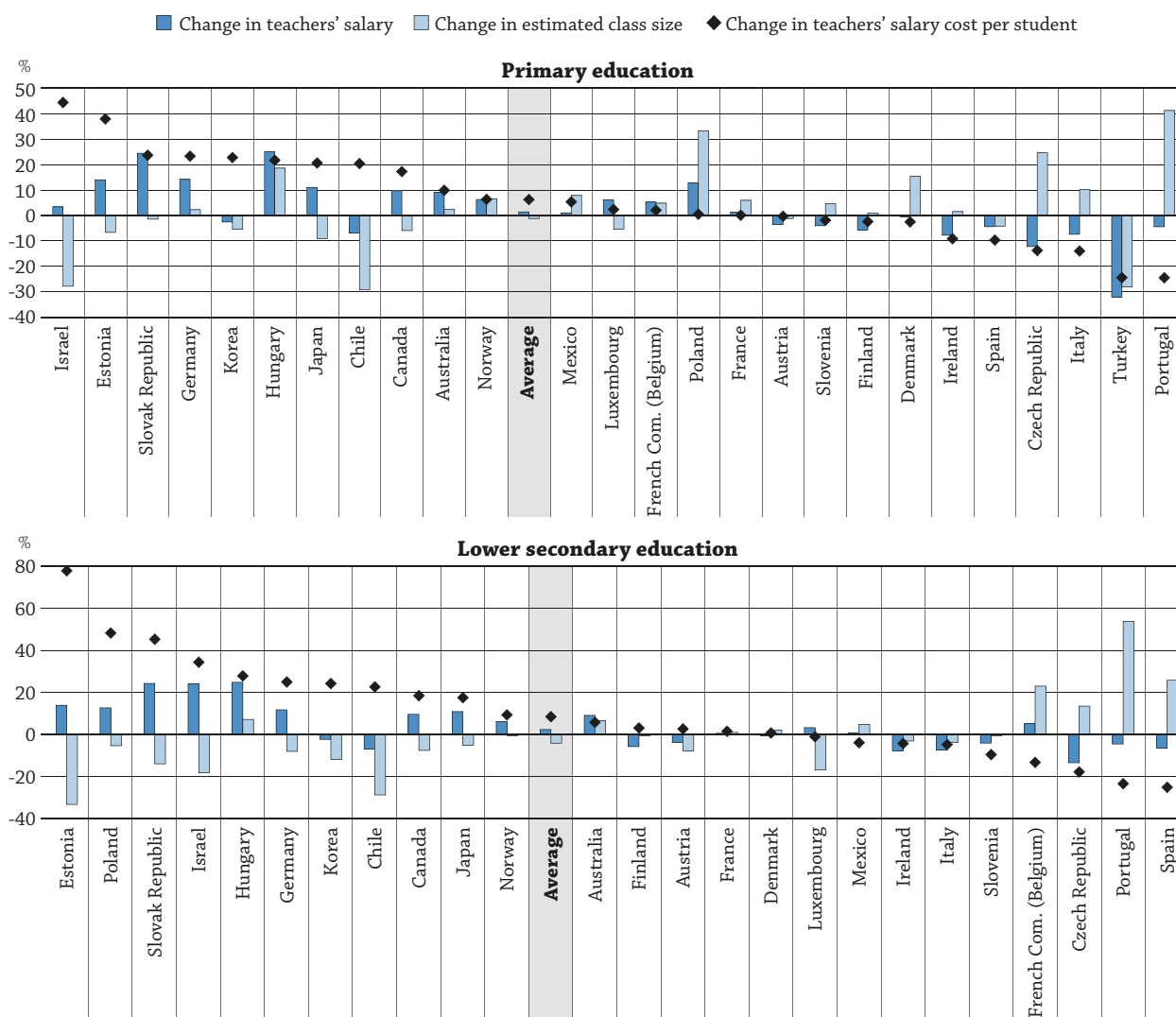
Variations in salary costs of teachers per student between 2010 and 2015

The salary costs of teachers per student also vary over time for each level of education. These changes are only analysed at the primary and lower secondary levels of education because trend data are not available at the upper secondary level. This analysis is also limited to countries with all data available for both 2010 and 2015.

Between 2010 and 2015, the salary cost of teachers per student (expressed in constant prices) increased by 6.3% (from USD 2 628 to USD 2 793) at primary level and by 8.6% (from USD 3 211 to USD 3 487) at lower secondary level, on average across the countries with available data for both years (Tables B7.4a and B7.4b, available on line). Indeed, the salary cost of teachers per student at both levels of education increased in most countries in that period. The increase exceeded 40% in Israel at primary level and 45% in Estonia, Poland and the Slovak Republic at lower secondary level (Figure B7.2).

However, the salary cost of teachers per student also fell between 2010 and 2015 in a considerable number of countries, most notably in Portugal (by over 20% at both levels) and Spain (by around 10% at the primary level and 25% at the lower secondary level). Decreases of at least 10% in the salary cost of teachers per student were also observed at the primary level in the Czech Republic, Italy and Turkey, and at the lower secondary level in the French Community of Belgium and the Czech Republic.

Figure B7.2. Change in the salary cost of teachers per student, teachers' salaries and estimated class size in primary and lower secondary education (2010 and 2015)
 Percentage change between 2010 and 2015, public institutions



Countries and economies are ranked in descending order of the change in the salary cost of teachers per student between 2010 and 2015.

Source: OECD (2017), Tables B7.4a and B7.4b (available on line). See Source section for more information and Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).

StatLink <http://dx.doi.org/10.1787/888933558135>

Variations in the factors influencing the salary cost of teachers between 2010 and 2015

Of the four factors that determine teachers' salary cost per student, two are largely responsible for wide variations in this cost: teachers' salaries and estimated class size. These two factors have opposing effects: an increase in salaries and a decrease in class size both push up the salary cost of teachers per student. Between 2010 and 2015 among countries with available data, average teachers' salaries (expressed in constant prices) increased by 1.4% at primary level and 2.5% at lower secondary level, while estimated class size decreased by 1.2% at primary level and by 4.0% at lower secondary level (Figure B7.2). Together, these two effects contributed to an increase in the average salary cost of teachers per student at both levels during that period.

Teachers' salaries decreased most notably (by 10% or more) in the Czech Republic, Greece and Turkey at both the primary and lower secondary levels over the same period. Portugal also experienced an increase in the estimated class size at both levels, which together with the lower salaries led to a considerable decrease in salary costs of teachers per student (Figure B7.2).

Among countries with data for both 2010 and 2015, the change in average estimated class size at primary and lower secondary levels resulted from decreases and increases in a similar number of countries. At the primary and lower secondary levels, the largest reductions were observed in countries that had relatively large estimated classes in 2010 (Chile, Turkey and Israel at primary level, and Chile and Estonia at lower secondary level). The reduction in the estimated class size led to an increase in the per-student salary cost of teachers in both Chile and Israel, despite the decrease in teachers' salaries in Chile.

Changes in instruction time and teaching time, the two other factors influencing the salary cost of teachers, tend to be smaller, with teaching time varying the least of all four factors. In the majority of countries, teaching time varied by less than 2% between 2010 and 2015 at both levels of education. The fact that these factors tend to vary less over time may reflect the political sensitivity of implementing reforms in these areas (OECD, 2012).

Nevertheless, in a small number of countries, instruction time and/or teaching time did change significantly. For example in Norway, Poland and Portugal, reforms have been introduced to increase instruction time in reading and mathematics. Between 2010 and 2015, instruction time in these three countries increased by 6% to 7% at the primary level and continued to increase by above-average rates at the lower secondary level. The country that experienced the largest change in instruction time during this period was Denmark, where it increased by over 36% in primary education and 24% in lower secondary education. This increase was the result of a reform of the Danish primary and lower secondary school system in 2014/2015 which gave students a longer and more varied school day and led to a considerable increase in teaching time as well – over 20% at both levels. In the period between 2010 and 2015, teaching time changed most significantly in England (United Kingdom) – which saw an increase from 684 to 942 hours at primary level – and in Greece, where the increase was from 415 to 528 hours at lower secondary level.

Relationship between expenditure on education and policy choices

Higher levels of expenditure on education cannot automatically be equated with better performance by education systems. This is not surprising, as countries spending similar amounts on education do not necessarily have similar education policies and practices. For example, Australia and Slovenia had similar levels of salary cost of teachers per student in 2015 in their lower secondary general programmes, in both cases above the OECD average. In Slovenia, this was the result of below-average teachers' salaries and instruction time pushing the cost down, and below-average teaching time and estimated class size pushing the cost up. In Australia, teachers' salaries and instruction time are above average, but the salary cost per student is pushed down by the above-average teaching time.

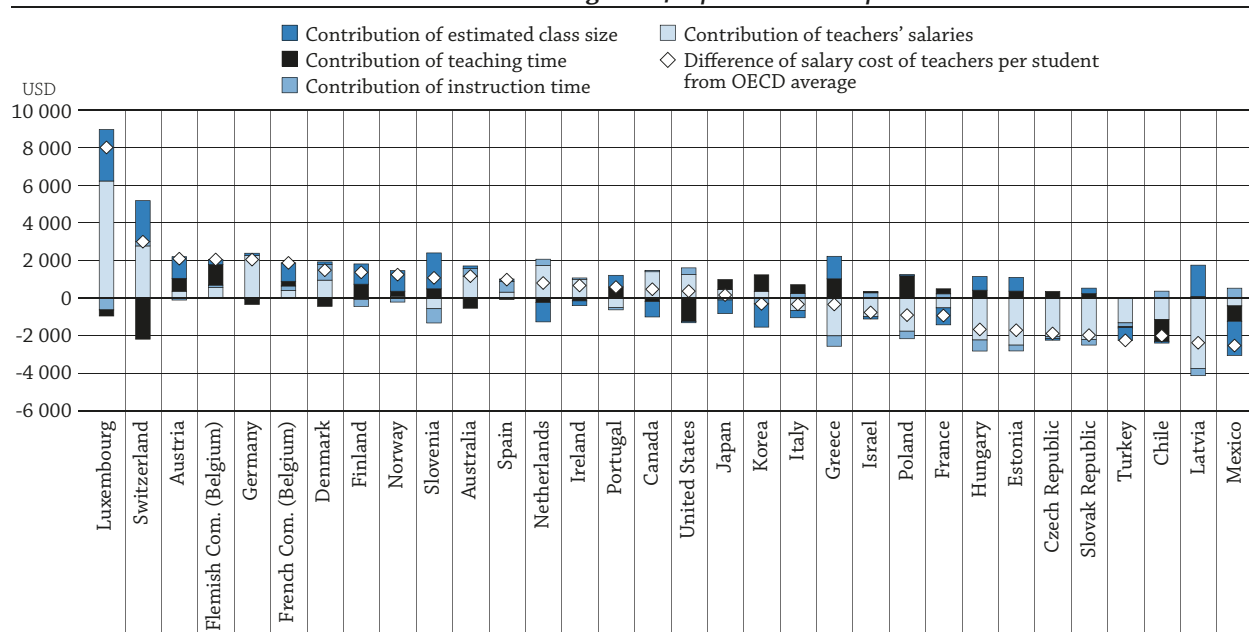
In addition, even though countries may make similar policy choices, those choices can result in different levels of salary costs of teachers per student. For example, both Finland and Hungary have below-average teaching time, estimated class sizes, teachers' salaries and instruction time in lower secondary education. However, the salary cost of teachers per student resulting from this combination is very different for each country: USD 1 372 above the OECD average in Finland and USD 1 668 below the OECD average in Hungary (Table B7.3 and Figure B7.3).

Main factors influencing the salary cost of teachers per student, by level of education

Comparing the salary cost of teachers per student to the OECD average and the relative contribution of the four factors gives a deeper insight into how each factor affects country and level differences in education expenditures. At each level of education, teachers' salaries generally have the largest impact on the degree to which the average salary cost of teachers per student diverges from the OECD average. Among countries with available data in 2015, teachers' salaries were the primary factor in 23 of 31 countries at the primary level, in 19 of 32 countries at the lower secondary level, and in 12 of 17 countries at the upper secondary level (Table B7.a).

Estimated class size is the second most influential factor on the difference in salary cost of teachers per student at each level of education (for 5 of 31 countries and economies at the primary level, 9 of 33 countries and economies at the lower secondary level, and 3 of 17 countries and economies at the upper secondary level).

When taking into account differences in countries' wealth (i.e. analysing salaries over GDP per capita), however, teachers' salaries are less often the primary factor in the divergence from the average salary cost of teachers per student. Nevertheless, teachers' salaries and estimated class size continue to be the main factors influencing variations from the average salary cost of teachers per student at each level of education (Table B7.b, available on line).

Figure B7.3. Contribution of various factors to salary cost of teachers per student in public institutions, lower secondary education (2015)
In USD converted using PPPs for private consumption

How to read this figure

This figure shows the contribution (in USD) of the factors influencing the difference between salary cost of teachers per student in the country and the OECD average. For example, in Slovenia, the salary cost of teachers per student is USD 1 028 higher than the OECD average. Slovenia has below-average teachers' salaries (- USD 661) and below-average instruction time (- USD 781), both of which push the salary cost of teachers down. However, this is more than compensated for by a lower estimated class size (+ USD 1973) and lower teaching time (+ USD 497) than the OECD average.

Countries and economies are ranked in descending order of the difference between the salary cost of teachers per student and the OECD average.

Source: OECD (2017), Table B7.3. See Source section for more information and Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).

StatLink <http://dx.doi.org/10.1787/888933558154>

Table B7.a. Main factors influencing salary cost of teacher per student in USD, by level of education (2015)

	Primary education	Lower secondary education	Upper secondary education
Salary	23 countries AUS (+), BFL (+), BFR (+), CAN (+), CHL (-), CZE (-), DNK (+), LVA (-), EST (-), DEU (+), GRC (-), HUN (-), IRL (+), ISR (-), ITA (-), JPN (+), LUX (+), NLD (+), POL (-), PRT (-), SVK (-), CHE (+), TUR (-)	19 countries AUS (+), CAN (+), CZE (-), DNK (+), LVA (-), EST (-), DEU (+), GRC (-), HUN (-), IRL (+), ISR (-), ITA (-), LUX (+), NLD (+), POL (-), SVK (-), CHE (+), TUR (-), USA (+)	12 countries BFL (+), CAN (+), CHL (-), FRA (-), HUN (-), IRL (+), ISR (-), ITA (-), LUX (+), NLD (+), SVK (-), TUR (-)
Instruction time	2 countries FIN (-), KOR (-)	1 country ESP (+)	0 country
Teaching time	1 country SVN (+)	2 countries BFL (+), CHL (-)	2 countries AUT (+), DNK (+)
Estimated class size	5 countries AUT (+), FRA (+), MEX (-), NOR (+), ESP (+)	10 countries AUT (+), BFR (+), FIN (+), FRA (-), JPN (-), KOR (-), MEX (-), NOR (+), PRT (+), SVN (+)	3 countries BFR (+), MEX (-), PRT (+)

Note: For each level of education, countries are included in the cell corresponding to the factor which has the largest impact (measured in USD) on the salary cost of teachers' per student. The positive or negative signs show whether the factor increases or decreases the salary cost of teacher per student.

Sources: OECD (2017), Tables B7.2, B7.3 and B7.5 (available on line). See Source section for more information and Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).

StatLink <http://dx.doi.org/10.1787/888933560757>

Box B7.2. Salary cost of teachers per child in pre-primary education

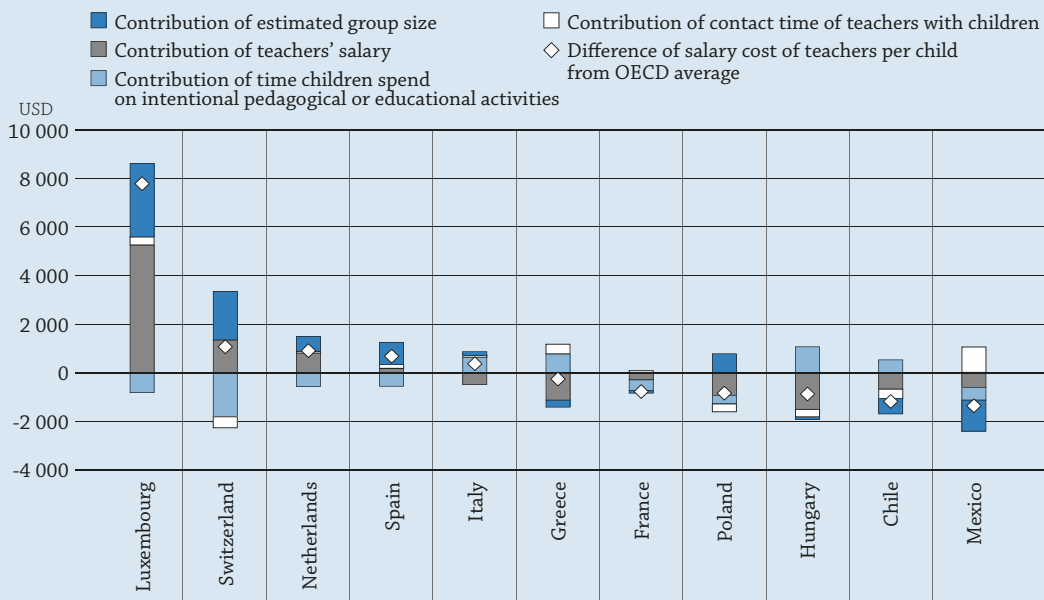
The tables and figures in this indicator present the salary cost of teachers per student for primary, lower secondary and upper secondary education – levels which are generally considered to be compulsory in OECD countries. However, how countries choose to allocate their education budget for pre-primary education may also be particularly interesting, as this level has been rapidly evolving in many countries.

The analysis at the pre-primary level uses similar factors to other education levels, but they require some specifications. Instruction time is the time children spend on intentional pedagogical or educational activity in the last year of pre-primary education; teaching time is described as the contact time of teachers with children, while estimated class size is described as estimated group size (OECD, 2017a). Because the estimated group size depends on the countries' definition of full-time equivalent students and teachers, which may vary considerably across countries at this level of education, the results should be interpreted with some caution.

In most countries with available data, the salary cost of teachers per child in pre-primary education is smaller than the salary cost per student at higher levels of education. This is mostly due to lower teacher salaries at this level. However, in some countries, the salary cost of teachers per child in pre-primary education is similar to or even higher than the salary cost per student in primary education. This is the case in Italy, Mexico and the Netherlands – all countries where teachers' salaries are the same for the two education levels.

Figure B7.a. Contribution of various factors to salary cost of teachers per child in public institutions, pre-primary education (2015)

In USD converted using PPPs for private consumption

**How to read this figure**

This figure shows the contribution (in USD) of the factors influencing the difference between salary cost of teachers per student in the country and the OECD average. For example, in Switzerland, the salary cost of teachers per student is USD 1 055 higher than the OECD average. Children in Switzerland spend a below-average amount of time on intentional pedagogical or educational activities (- USD 1 831) and have above-average contact time with teachers (- USD 454), both of which push the salary cost of teachers down. However, this is more than compensated for by above-average teachers' salaries (+ USD 1 337) and below-average estimated group size (+ USD 2 003).

Note: Data on time children spend on intentional pedagogical or educational activities for pre-primary education come from the Early Childhood Education and Care (ECEC) network data collection on transitions.

Countries are ranked in descending order of the difference between the salary cost of teachers per child and the OECD average.

Source: OECD (2017), Table B7.3. See *Source* section for more information and Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).


StatLink  <http://dx.doi.org/10.1787/888933558173>

Figure B7.a shows how each factor (teachers' salaries, estimated group size, time children spend on intentional pedagogical or educational activity and contact time of teachers with children) contributes to the difference between the country's teacher salary cost per child and the OECD average at the pre-primary level. As is the case at other education levels, it is clear that countries make very different policy choices, even if the total level of expenditure is similar. For example, Poland and Hungary have similar teachers' salary costs per child, both below the OECD average. In Poland, this is the result of the combination of below-average teachers' salaries, time children spend on intentional pedagogical or educational activity and estimated group size, and above-average contact time of teachers with children. In Hungary, teachers' salaries are also below average, but the estimated group size is similar to the average and the time children spend on intentional pedagogical or educational activity is longer than the OECD average.

Definitions

Instruction time refers to the time a public school is expected to provide instruction to students on all the subjects integrated into the compulsory and non-compulsory curriculum, on school premises or in before- or after-school activities that are formal parts of the compulsory programme.

Teachers' teaching time is the annual average number of hours that full-time teachers teach a group or class of students including all extra hours, such as overtime.

Methodology

Salary cost of teachers per student is calculated based on teachers' salaries, the number of hours of instruction for students, the number of hours of teaching for teachers, and the estimated class size (a proxy for class size). In most cases, the values for these variables are derived from *Education at a Glance* (see below). Annual teachers' salaries in national currencies are converted into equivalent USD by dividing the national currency figure by the purchasing power parity (PPP) index for private consumption (following the methodology used in Indicator D3 on teachers' salaries), which results in the salary cost per student expressed in equivalent USD. Further details on the analysis of these factors are available in Annex 3 at www.oecd.org/education/education-at-a-glance-19991487.htm.

Source

Data referring to the 2015 school year, as well as 2010 data relating to salaries of teachers and teaching time, are based on the UOE data collection on education statistics and on the Survey on Teachers and the Curriculum, which were both administered by the OECD in 2015. Teachers' salary refers to the statutory salary of teachers after 15 years of experience, converted to USD using PPPs for private consumption. Other data referring to the 2010 school year are based on the UOE data collection on education statistics, and on the Survey on Teachers and the Curriculum, which were both administered by the OECD and published in the 2007 and 2015 editions of *Education at a Glance* (data on ratio of student to teaching staff and instruction time). Data for 2015 instruction time refer to 2015 data from the 2015 edition of *Education at a Glance*. The consistency of 2010 and 2015 data has been validated (for details, see Annex 3 at www.oecd.org/education/education-at-a-glance-19991487.htm).

For more information please see the *OECD Handbook for Internationally Comparative Education Statistics: Concepts, Standards, Definitions and Classifications* (OECD, 2017b) and Annex 3 for country-specific notes (www.oecd.org/education/education-at-a-glance-19991487.htm).

Note regarding data from Israel

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

References

- OECD (2017a), *Starting Strong 2017: Key OECD Indicators of Early Childhood Education and Care*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264276116-en>.
- OECD (2017b), *OECD Handbook for Internationally Comparative Education Statistics: Concepts, Standards, Definitions and Classifications*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/9789264279889-en>.

OECD (2012), *Education at a Glance 2012: OECD Indicators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/888933398071>.

Quebec Ministry of Education, Recreation and Sports (2003), “Le coût salarial des enseignants par élève pour l’enseignement primaire et secondaire en 2000-2001”, *Education Statistics Bulletin*, No. 29, Ministère de l’Éducation, du Loisir et du Sport, Direction de la recherche, des statistiques et de l’information, Quebec, www.education.gouv.qc.ca/fileadmin/site_web/documents/PSG/statistiques_info_decisionnelle/bulletin_29.pdf.

B7

Indicator B7 Tables


StatLink  <http://dx.doi.org/10.1787/888933560795>

	Table B7.1	Salary cost of teachers per student, by level of education (2010 and 2015)
	Table B7.2	Contribution of various factors to salary cost of teachers per student in primary education (2015)
	Table B7.3	Contribution of various factors to salary cost of teachers per student in lower secondary education (2015)
WEB	Table B7.4a	Factors used to compute the salary cost of teachers per student in public institutions, in primary education (2010 and 2015)
WEB	Table B7.4b	Factors used to compute the salary cost of teachers per student in public institutions, in lower secondary education (2010 and 2015)
WEB	Table B7.4c	Factors used to compute the salary cost of teachers per student in public institutions, in general programmes of upper secondary education (2015)
WEB	Table B7.5	Contribution of various factors to salary cost of teachers per student in general programmes of upper secondary education (2015)
	Table B7.a	Main factors influencing salary cost of teacher per student, by level of education (2015)
WEB	Table B7.b	Main factors influencing salary cost of teachers per student as a percentage of per capita GDP, by level of education (2015)

Cut-off date for the data: 19 July 2017. Any updates on data can be found on line at <http://dx.doi.org/10.1787/eag-data-en>.

Table B7.1. Salary cost of teachers per student, by level of education (2010 and 2015)
Annual salary cost of teachers per student in public institutions, in equivalent USD, converted using PPPs for private consumption, and in percentage of per capita GDP

	Salary cost of teachers per student (in USD, 2015 constant prices)				Salary cost of teachers per student (in percentage of GDP per capita)	
	Primary		Lower secondary		Primary	Lower secondary
	2015	2010	2015	2010	2015	2015
	(1)	(2)	(3)	(4)	(5)	(6)
OECD Countries						
Australia	3 877	3 527	4 684	4 423	8.1	9.8
Austria	3 813	3 824	5 612	5 460	7.7	11.3
Canada	3 930	3 351	3 985	3 360	8.8	8.9
Chile	1 646	1 367	1 509	1 228	7.1	6.5
Czech Republic	1 014	1 175	1 630	1 981	3.0	4.8
Denmark	4 765	4 888	5 000	4 958	9.7	10.2
Estonia	1 280	928	1 803	1 012	4.4	6.2
Finland	2 985	3 059	4 886	4 734	7.1	11.5
France	1 865	1 862	2 584	2 542	4.5	6.3
Germany	4 369	3 543	5 561	4 444	9.0	11.5
Greece	2 671	m	3 174	m	10.2	12.1
Hungary	1 732	1 423	1 846	1 442	6.6	7.0
Iceland	m	3 444	m	3 444	m	m
Ireland	3 545	3 900	4 184	4 366	5.2	6.1
Israel	2 017	1 397	2 750	2 043	5.5	7.4
Italy	2 766	3 214	3 180	3 336	7.4	8.6
Japan	2 992	2 480	3 676	3 123	7.8	9.6
Korea	2 970	2 419	3 206	2 577	8.7	9.3
Latvia	753	m	1 136	m	3.0	4.6
Luxembourg	10 391	10 150	11 532	11 642	10.1	11.2
Mexico	1 040	987	987	1 026	5.8	5.5
Netherlands	3 331	m	4 317	m	6.7	8.7
New Zealand	m	m	m	m	m	m
Norway	4 381	4 119	4 762	4 350	8.4	9.1
Poland	2 241	2 229	2 609	1 757	8.4	9.7
Portugal	2 917	3 859	4 100	5 348	9.8	13.8
Slovak Republic	1 042	843	1 541	1 059	3.5	5.2
Slovenia	2 450	2 495	4 592	5 072	7.7	14.4
Spain	3 453	3 821	4 497	6 000	10.0	13.0
Sweden	m	m	m	m	m	m
Switzerland	4 376	3 989	6 515	5 736	7.0	10.4
Turkey	1 206	1 595	1 261	m	5.0	5.2
United States	m	m	3 883	m	m	6.9
Economies						
Flemish Com. (Belgium)	4 161	m	5 569	m	9.1	12.2
French Com. (Belgium)	4 027	3 945	5 389	6 208	8.8	11.8
England (UK)	m	2 190	m	6 037	m	m
Scotland (UK)	m	2 052	m	5 061	m	m
OECD average¹	2 848	2 648	3 514	3 217	7.0	8.6

Note: The teachers' salaries used in the calculation of this indicator refer to the statutory salary of teachers with typical qualifications and 15 years of experience (Indicator D3). Instruction time refers to the average number of hours per year of compulsory instruction time (Indicator D1) and teaching time (Indicator D4) refers to the statutory net teaching hours over the school year.

1. The OECD average for salary costs is calculated as the average teachers' salary for OECD countries divided by the average student-teacher ratio. It only includes countries and economies with information for all factors used to calculate salary cost and does not correspond to the average of the salary costs presented in the table. Source: OECD (2017). See Source section for more information and Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).

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


StatLink  <http://dx.doi.org/10.1787/888933560624>

Table B7.2. Contribution of various factors to salary cost of teachers per student in primary education (2015)*In equivalent USD, converted using PPPs for private consumption***B7**

	Salary cost of teachers per student (2015)	Difference (in USD) from the 2015 OECD average of USD 2 848	Contribution of the underlying factors to the difference from the OECD average			
			Effect (in USD) of teachers' salary below/above the 2015 OECD average of USD 42 017	Effect (in USD) of instruction time (for students) below/above the 2015 OECD average of 796 hours	Effect (in USD) of teaching time (for teachers) below/above the 2015 OECD average of 788 hours	Effect (in USD) of estimated class size below/above the 2015 OECD average of 15 students per class
			(1)	(2) = (3)+(4)+(5)+(6)	(3)	(4)
OECD Countries						
Australia	3 877	1 029	1 164	803	- 319	- 619
Austria	3 813	965	213	- 408	38	1 122
Canada	3 930	1 081	1 516	493	- 38	- 890
Chile	1 646	-1 202	- 927	609	- 854	- 30
Czech Republic	1 014	-1 835	-1 353	- 272	- 79	- 130
Denmark	4 765	1 917	1 004	676	21	216
Estonia ¹	1 280	-1 568	-1 763	- 388	516	67
Finland	2 985	137	- 106	- 678	449	473
France	1 865	- 983	- 428	192	- 308	- 439
Germany	4 369	1 521	1 732	- 451	- 50	290
Greece	2 671	- 177	-1 465	- 37	639	685
Hungary	1 732	-1 116	-1 804	- 496	626	559
Iceland	m	m	m	m	m	m
Ireland	3 545	697	1 002	447	- 481	- 271
Israel	2 017	- 831	- 838	490	- 222	- 260
Italy	2 766	- 82	- 618	318	132	86
Japan	2 992	144	547	- 126	178	- 455
Korea	2 970	122	487	- 607	531	- 289
Latvia	753	-2 095	-2 572	- 548	275	749
Luxembourg	10 391	7 543	5 414	922	- 167	1 374
Mexico	1 040	-1 808	- 706	235	- 28	-1 309
Netherlands	3 331	483	845	517	- 516	- 363
New Zealand	m	m	m	m	m	m
Norway	4 381	1 533	307	- 226	223	1 230
Poland	2 241	- 607	-1 311	- 593	842	455
Portugal	2 917	69	- 205	36	173	65
Slovak Republic	1 042	-1 806	-1 518	- 316	- 103	131
Slovenia	2 450	- 398	- 202	- 481	613	- 328
Spain	3 453	605	95	- 13	- 348	872
Sweden	m	m	m	m	m	m
Switzerland ²	4 376	1 528	1 762	102	-1 144	807
Turkey	1 206	-1 642	-1 032	- 196	- 258	- 156
United States	m	m	m	m	m	m
Economies						
Flemish Com. (Belgium)	4 161	1 313	646	108	183	376
French Com. (Belgium)	4 027	1 179	524	220	271	163
England (UK)	m	m	m	m	m	m
Scotland (UK)	m	m	m	m	m	m

Note: The teachers' salaries used in the calculation of this indicator refer to the statutory salary of teachers with typical qualifications and 15 years of experience (Indicator D3). Instruction time refers to the average number of hours per year of compulsory instruction time (Indicator D1) and teaching time (Indicator D4) refers to the statutory net teaching hours over the school year.

1. Teachers' statutory salaries at the start of the career instead of after 15 years of experience.

2. Teachers' statutory salaries after 10 years of experience instead of 15 years.

Source: OECD (2017). See Source section for more information and Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).

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


StatLink  <http://dx.doi.org/10.1787/888933560643>

Table B7.3. **Contribution of various factors to salary cost of teachers per student in lower secondary education (2015)***In equivalent USD, converted using PPPs for private consumption*

	Salary cost of teacher per student (2015)	Difference (in USD) from the 2015 OECD average of USD 3 514	Contribution of the underlying factors to the difference from the OECD average			
			Effect (in USD) of teachers' salary below/above the 2015 OECD average of USD 44 658	Effect (in USD) of instruction time (for students) below/above the 2015 OECD average of 920 hours	Effect (in USD) of teaching time (for teachers) below/above the 2015 OECD average of 707 hours	Effect (in USD) of estimated class size below/above the 2015 OECD average of 17 students per class
			(1)	(2) = (3) + (4) + (5) + (6)	(3)	(4)
OECD Countries						
Australia	4 684	1 170	1 166	402	- 540	142
Austria	5 612	2 098	364	- 104	688	1 150
Canada	3 985	472	1 459	17	- 183	- 821
Chile	1 509	-2 005	-1 143	369	-1 176	- 55
Czech Republic	1 630	-1 884	-2 057	- 94	356	- 89
Denmark	5 000	1 486	955	830	- 440	141
Estonia ¹	1 803	-1 710	-2 504	- 310	371	732
Finland	4 886	1 372	- 84	- 362	741	1 077
France	2 584	- 930	- 521	227	267	- 904
Germany	5 561	2 048	2 262	- 70	- 270	125
Greece	3 174	- 340	-2 010	- 554	1 025	1 199
Hungary	1 846	-1 668	-2 231	- 589	420	732
Iceland	m	m	m	m	m	m
Ireland	4 184	671	1 009	63	- 149	- 252
Israel	2 750	- 764	- 992	335	15	- 121
Italy	3 180	- 334	- 652	246	467	- 394
Japan	3 676	162	454	- 102	534	- 725
Korea	3 206	- 307	363	- 305	876	-1 241
Latvia	1 136	-2 378	-3 744	- 388	86	1 667
Luxembourg	11 532	8 018	6 232	- 628	- 327	2 741
Mexico	987	-2 527	- 415	527	- 818	-1 820
Netherlands	4 317	803	1 738	332	- 236	-1 031
New Zealand	m	m	m	m	m	m
Norway	4 762	1 248	102	- 213	265	1 095
Poland	2 609	- 905	-1 762	- 402	1 196	64
Portugal	4 100	587	- 506	- 120	594	618
Slovak Republic	1 541	-1 972	-2 205	- 296	236	293
Slovenia	4 592	1 078	- 565	- 760	494	1 909
Spain	4 497	983	316	558	- 33	142
Sweden	m	m	m	m	m	m
Switzerland ²	6 515	3 001	2 776	232	-2 187	2 181
Turkey	1 261	-2 253	-1 318	- 207	- 41	- 687
United States	3 883	369	1 254	354	-1 237	- 3
Economies						
Flemish Com. (Belgium)	5 569	2 055	563	127	1 093	272
French Com. (Belgium)	5 389	1 875	409	235	250	981
England (UK)	m	m	m	m	m	m
Scotland (UK)	m	m	m	m	m	m


Note: The teachers' salaries used in the calculation of this indicator refer to the statutory salary of teachers with typical qualifications and 15 years of experience (Indicator D3). Instruction time refers to the average number of hours per year of compulsory instruction time (Indicator D1) and teaching time (Indicator D4) refers to the statutory net teaching hours over the school year.

1. Teachers' statutory salaries at the start of the career instead of after 15 years of experience.

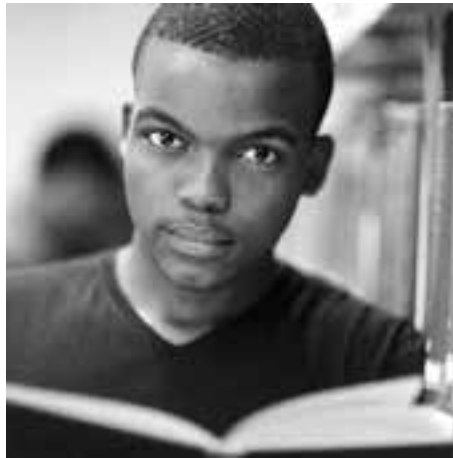
2. Teachers' statutory salaries after 10 years of experience instead of 15 years.

Source: OECD (2017). See Source section for more information and Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).

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

StatLink  <http://dx.doi.org/10.1787/888933560662>

ACCESS TO EDUCATION, PARTICIPATION AND PROGRESSION




Indicator C1 Who participates in education?

StatLink  <http://dx.doi.org/10.1787/888933560871>

Indicator C2 How do early childhood education systems differ around the world?

StatLink  <http://dx.doi.org/10.1787/888933560985>

Indicator C3 Who is expected to enter tertiary education?

StatLink  <http://dx.doi.org/10.1787/888933561061>


Indicator C4 What is the profile of internationally mobile students?

StatLink  <http://dx.doi.org/10.1787/888933561137>

Indicator C5 Transition from school to work: Where are the 15-29 year-olds?

StatLink  <http://dx.doi.org/10.1787/888933561194>

Indicator C6 How many adults participate in education and learning?

StatLink  <http://dx.doi.org/10.1787/888933561422>



From:
Education at a Glance 2017
OECD Indicators

Access the complete publication at:
<https://doi.org/10.1787/eag-2017-en>

Please cite this chapter as:

OECD (2017), "Indicator B7 Which factors influence the level of expenditure on education?", in *Education at a Glance 2017: OECD Indicators*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/eag-2017-22-en>

This work is published under the responsibility of the Secretary-General of the OECD. The opinions expressed and arguments employed herein do not necessarily reflect the official views of OECD member countries.

This document and any map included herein are without prejudice to the status of or sovereignty over any territory, to the delimitation of international frontiers and boundaries and to the name of any territory, city or area.

You can copy, download or print OECD content for your own use, and you can include excerpts from OECD publications, databases and multimedia products in your own documents, presentations, blogs, websites and teaching materials, provided that suitable acknowledgment of OECD as source and copyright owner is given. All requests for public or commercial use and translation rights should be submitted to rights@oecd.org. Requests for permission to photocopy portions of this material for public or commercial use shall be addressed directly to the Copyright Clearance Center (CCC) at info@copyright.com or the Centre français d'exploitation du droit de copie (CFC) at contact@cfcopies.com.