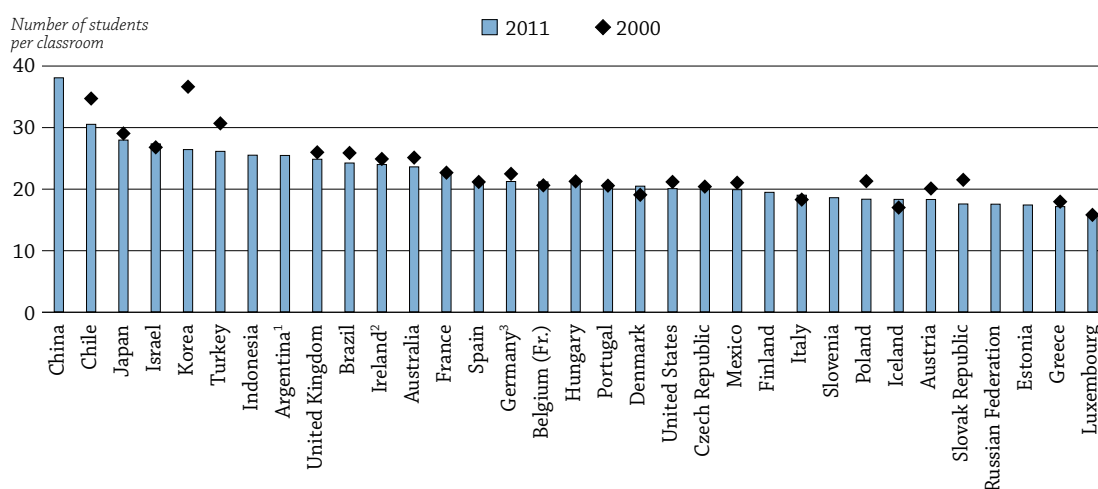


WHAT IS THE STUDENT-TEACHER RATIO AND HOW BIG ARE CLASSES?

- The average primary school class in OECD countries has more than 21 students, but classes are usually larger in G20 countries that are not OECD members.
- Primary school classes have tended to become smaller between 2000 and 2011, especially in countries that had relatively large classes, such as Korea and Turkey.
- On average across OECD countries, the number of students per class grows by two or more students between primary and lower secondary education.

Chart D2.1. Average class size in primary education (2000, 2011)



1. Year of reference 2010 instead of 2011.

2. Public institutions only.

3. Years of reference 2001 instead of 2000.

Countries are ranked in descending order of average class size in primary education in 2011.

Source: OECD. Argentina, China, Indonesia: UNESCO Institute for Statistics (World Education Indicators Programme). 2011 data: Table D2.1. 2000 data: Table D2.4, available on line. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

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Context

Class size and student-teacher ratios are much-discussed aspects of education and, along with students' total instruction time (see Indicator D1), teachers' average working time (see Indicator D4), and the division of teachers' time between teaching and other duties, are among the determinants of the size of countries' teaching force. Together with teachers' salaries (see Indicator D3) and the age distribution of teachers (see Indicator D5, available on line), class size and student-teacher ratios also have a considerable impact on the level of current expenditure on education (see Indicator B6, available on line, and Indicator B7).

Smaller classes are often seen as beneficial because they allow teachers to focus more on the needs of individual students and reduce the amount of class time needed to deal with disruptions. Yet, while there is some evidence that smaller classes may benefit specific groups of students, such as those from disadvantaged backgrounds (Finn, 1998; Krueger, 2002; Piketty, T. and M. Valdenaire, 2006), overall, evidence of the effect of differences in class size on student performance is weak. TALIS does not provide further evidence of a direct and strong relationship between class size and time devoted to teaching and learning (Box D2.1). There is more evidence that suggests a positive relationship between smaller classes and aspects of teachers' working conditions and outcomes, such as allowing for greater flexibility for innovation in the classroom, improved teacher morale and job satisfaction (Hattie, 2009; OECD, 2009).

The ratio of students to teaching staff indicates how resources for education are allocated. Smaller student-teacher ratios often have to be weighed against higher salaries for teachers, investing in their professional development, greater investment in teaching technology, or more widespread use of assistant teachers and other paraprofessionals whose salaries are often considerably lower than those of qualified teachers. As larger numbers of children with special needs are integrated into mainstream classes, more use of specialised personnel and support services may limit the resources available for reducing student-teacher ratios.

INDICATOR D2

■ Other findings

- **In 27 of the 30 countries with available data, the student-teacher ratio decreases between the primary and lower secondary levels, despite a general increase in class size between these levels.** This decrease in the student-teacher ratio reflects differences in annual instruction time for students, which tends to increase with the level of education.
- On average across OECD countries, **the student-teacher ratio in secondary education is slightly more favourable in private than in public institutions.** This is most striking in Mexico where, at the secondary level, there are nearly 17 more students per teacher in public than in private institutions. On average across OECD countries, there is at most one student more per class in public than in private institutions at the primary and lower secondary levels.
- Class size varies significantly within countries. **The difference between the smallest and largest classes is as large as 30 students in Brazil, Iceland, Malaysia, Mexico and Turkey.** This may result partly from differences in the size of the community to which the school belongs or from differences between public and private schools (Box D2.1).

■ Trends

From 2000 to 2011, the average class size in countries with available data for both years decreased by one student at both the primary and lower secondary levels, and the range of class size among OECD countries narrowed. At the lower secondary level, for example, class size ranged from 17.4 students (Iceland) to 38.5 (Korea) in 2000 and from 16.7 students (Estonia) to 34.0 (Korea) in 2011. However, class size has grown in some countries that had relatively small classes in 2000, most notably Denmark and Iceland.

Analysis

Average class size in primary and lower secondary education

The average primary class in OECD countries had more than 21 pupils in 2011. When considering all countries with available data, that number varies widely and ranges from fewer than 16 pupils in Luxembourg to more than 30 in Chile and China. There are fewer than 20 pupils per primary classroom in nearly half of the countries with available data: Austria, the Czech Republic, Estonia, Finland, Greece, Iceland, Italy, Luxembourg, Mexico, Poland, the Russian Federation, the Slovak Republic and Slovenia.

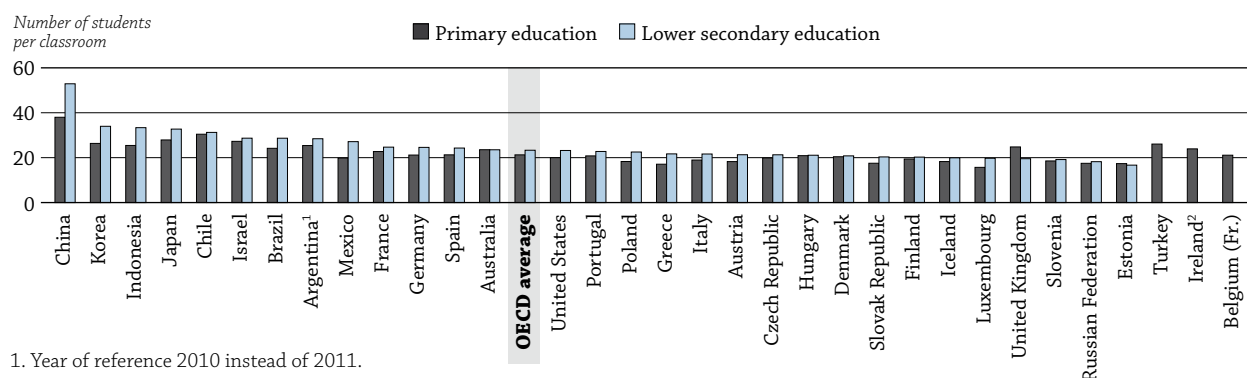
At the lower secondary level, in general programmes, the average class in OECD countries has more than 23 students. Among all countries with available data on this level of education, that number varies from fewer than 20 students in Estonia, Iceland, Luxembourg, the Russian Federation, Slovenia, and the United Kingdom to 34 students per class in Korea and almost 53 students in China (Table D2.1).

The number of students per class tends to increase between primary and lower secondary education. In Brazil, China, Greece, Indonesia, Japan, Korea, Luxembourg, Mexico and Poland, the increase in average class size exceeds four students. Meanwhile, the United Kingdom and, to a lesser extent, Estonia show a drop in the number of students per class between these two levels of education (Chart D2.2).

The size of the average primary school class decreased slightly between 2000 and 2011 in countries with available data in both years (21.4 students per class in 2011 as compared to 22.6 in 2000). Class size is more likely to have declined in countries in which enrolment numbers also declined. However, this is also partly the result of reforms on class size that some countries implemented during the period (see Indicator B7 in *Education at a Glance 2012*). Among countries with comparable data, class size decreased markedly – by more than four students – in countries that had larger classes in 2000, such as Korea and Turkey. Class size increased or was unchanged in countries that had the smallest classes in 2000, such as Denmark, Iceland, Italy and Luxembourg (Chart D2.1). In lower secondary school, the gap between the smallest and largest classes narrowed between 2000 and 2011: among OECD countries with comparable data for both years, class size varied from 17.4 students (Iceland) to 38.5 (Korea) in 2000 and from 16.7 students (Estonia) to 34.0 (Korea) in 2011 (Table D2.1 and Table D2.4, available on line).

The indicator on class size is limited to primary and lower secondary education because class size is difficult to define and compare at higher levels, where students often attend several different classes, depending on the subject area. At the lower secondary level, TALIS data provide more insight on the variation of class size within countries (Box D2.1).

Chart D2.2. Average class size in educational institutions, by level of education (2011)



1. Year of reference 2010 instead of 2011.

2. Public institutions only.

Countries are ranked in descending order of average class size in lower secondary education.

Source: OECD. Argentina, China and Indonesia: UNESCO Institute for Statistics (World Education Indicators Programme). Table D2.1. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

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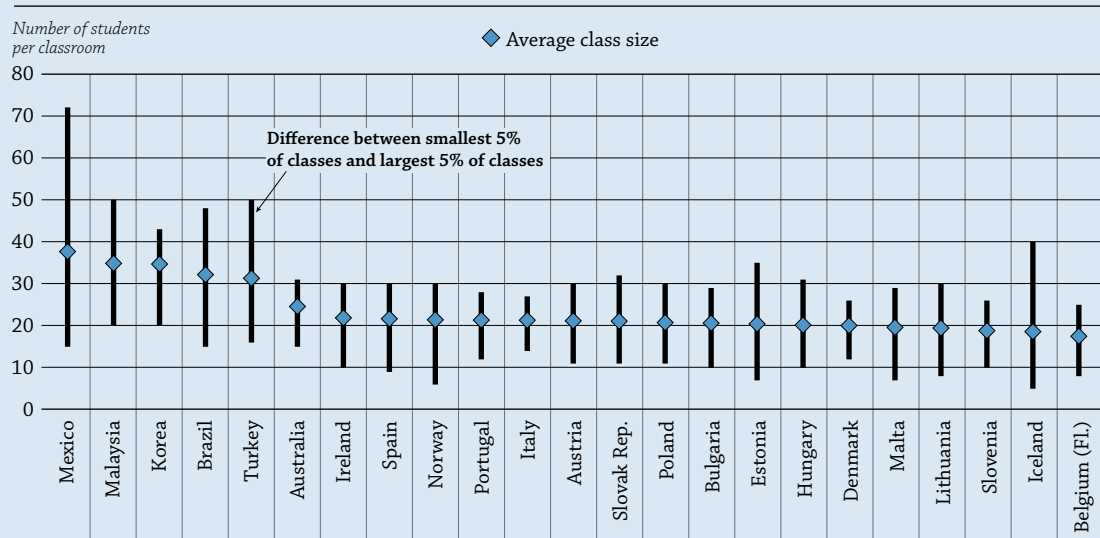
Box D2.1. How class size in lower secondary schools varies within countries (TALIS 2008)

The Teaching and Learning International Survey (TALIS) analysed the conditions needed for effective teaching and learning in lower secondary schools. As part of the contextual information collected, teachers were asked to give the actual number of students in a class that they typically teach in one of their main subjects on a specific day and time of the week.

On average across the 19 OECD and partner countries participating in TALIS and taken into account in *Education at a Glance* (out of the total 23 countries participating in TALIS), there are 23.5 students per classroom, comparable to the OECD average class size reported in this indicator for general lower secondary programmes, despite differences in the methodologies used. The difference between both data sources in average class size for each country is less than 2 students in most of these countries, except Spain and Brazil (difference of nearly 3 students) and Mexico (difference of more than nine students). Moreover, TALIS enriches the analysis of class size by providing some insight on the variation of class size within each participating country.

There are large differences in lower secondary class sizes among TALIS participants. Average class size varies from fewer than 20 students in Belgium (Flemish Community), Iceland, Lithuania, Malta and Slovenia to nearly twice this number in Mexico (37.7).

Chart a. Average class size, lower secondary (2008)
Reported by teachers for main subject taught



Countries are ranked in descending order of average class size reported by lower secondary teachers in the class that they typically teach in one of their main subjects of teaching.

Source: OECD, TALIS 2008 Database. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

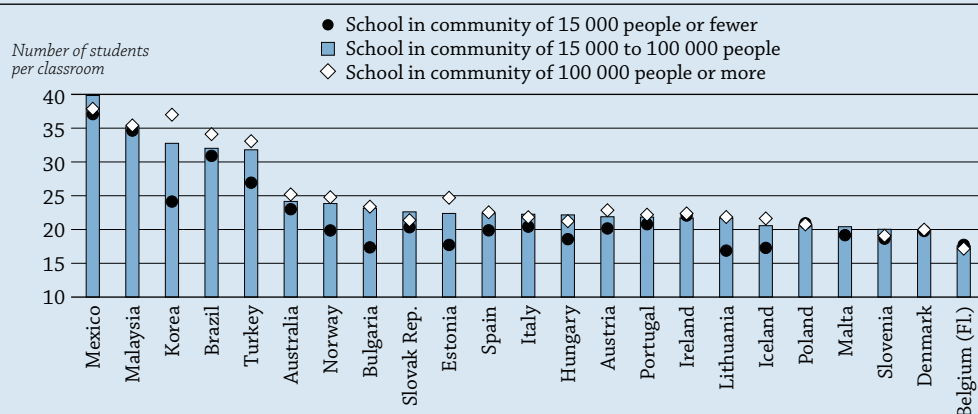
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The distribution of class size within each country also varies greatly (Chart a). In Denmark and Italy, the difference between the smallest 5% and largest 5% of classes is fewer than 15 students, but is at least 30 students in Brazil, Iceland, Malaysia, Mexico and Turkey. Brazil, Mexico and Turkey are among the countries with both the largest average class size and the largest differences in class size between schools. Nevertheless, the variation between the smallest and largest classes in each country is not necessarily linked to average class size. In Iceland, for example, despite the small average class size, the difference between the largest 5% and the smallest 5% of classes is 35 students, the second-largest difference among these countries. By contrast, in Australia, despite relatively large classes (23.5 students), the difference between the smallest 5% and largest 5% of classes is among the smallest (16 students).

...

The differences in class size in each of these countries can also be analysed according to the size of the community to which the school belongs (see chart below). In most countries, class size varies depending on the number of the inhabitants in the communities in which the school is located. In half of the countries with available data, class size increases with the size of the community. The difference in class size between communities is particularly large in some countries whose classes are, on average large. For example, in Korea and Turkey, the average classes in communities of more than 100 000 inhabitants have at least 6 more students per class than average classes in communities of fewer than 15 000 inhabitants. By contrast, the difference in class size between large and small communities is fewer than one student in Belgium (Flemish Community), Denmark, Ireland, Poland and Slovenia.

Chart b. Average class size, lower secondary, by community size (2008)
Reported by teachers for main subject taught



Countries are ranked in descending order of average class size reported by lower secondary teachers in the class that they typically teach in one of their main subjects of teaching.

Source: OECD, TALIS 2008 Database. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

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The subject of class size has gained interest from parents and policy makers due to its perceived potential impact on the performance of students (Ehrenberg, R. et al., 2001). However, evidence of the effects of differences in class size on student performance is rather weak. Results from TALIS shed some light on this issue. Teachers were asked about how their class time is distributed between administrative tasks, keeping order in the classroom, and actual teaching and learning. An indication of the effect of class size on student learning may be seen through a negative relationship between class size and the proportion of class time reported to be devoted to actual teaching and learning, and a positive relationship between class size and the proportion of class time reported to be devoted to keeping order in the classroom. In most TALIS countries, there is a significant positive correlation between class size and the time spent on keeping order in the classroom on the one hand, and a negative correlation between class size and actual teaching and learning time on the other hand. However, these correlations are weak and reveal a rather tenuous relationship between these factors. Moreover, in some countries, the correlations are inverted. In Belgium (Flemish Community), Hungary, Ireland, Malta, Poland and Portugal, the larger the class size, the less time teachers spend keeping order in the classroom and the more time they spend on actual teaching and learning. Thus, results from TALIS do not provide evidence of a direct and strong relationship between class size and time devoted to teaching and learning. Rather, this relationship is likely affected by other factors, such as the support given to teachers to address disciplinary issues in the classroom. For example, TALIS shows that new teachers (teachers with two years or less of teaching experience) are more likely than their more experienced peers to spend more time keeping order in their classroom. They are also more likely to report unmet professional development needs in the areas of classroom management and student discipline and behaviour problems (Jensen et al., 2012). Providing such development opportunities for new teachers may give them the support they need to use their classroom time more efficiently for actual teaching and learning.

Student-teacher ratios

The ratio of students to teaching staff compares the number of students (full-time equivalent) to the number of teachers (full-time equivalent) at a given level of education and in similar types of institutions. However, this ratio does not take into account the amount of instruction time for students compared to the length of a teacher's working day, nor how much time teachers spend teaching. Therefore, it cannot be interpreted in terms of class size (Box D2.2).

At the primary level, there are fewer than 16 students for every teacher, on average across OECD countries. The student-teacher ratio ranges from more than 28 students per teacher in Mexico and more than 23 students per teacher in Chile to fewer than 11 in Hungary, Iceland, Luxembourg and Norway (Chart D2.3).

Student-teacher ratios also vary, and to a larger extent, at the secondary school level, ranging from 30 students per full-time equivalent teacher in Mexico to fewer than 11 in Austria, Belgium, Luxembourg, Norway, Poland, Portugal, Saudi Arabia and Spain. On average across OECD countries, there are about 14 students per teacher at the secondary level (Table D2.2).

Box D2.2. Relationship between class size and student-teacher ratio

The number of students per class is calculated using a number of different elements: the ratio of students to teaching staff, the number of classes or students for which a teacher is responsible, the amount of instruction time compared to the length of teachers' working days, the proportion of time teachers spend teaching, how students are grouped within classes, and team-teaching arrangements.

For example, in a school of 48 full-time students and 8 full-time teachers, the student-teacher ratio is 6 to 1. If teachers' work week is estimated to be 35 hours, including 10 hours teaching, and if instruction time for each student is 40 hours per week, then regardless of how students are grouped in the school, average class size can be estimated as follows:

Estimated class size = 6 students per teacher * (40 hours of instruction time per student/10 hours of teaching per teacher) = 24 students.

Using a different approach, the class size presented in Table D2.1 is defined as the number of students who are following a common course of study, based on the highest number of common courses (usually compulsory studies), and excluding teaching in subgroups. Thus, the estimated class size will be close to the average class size in Table D2.1 where teaching in subgroups is less frequent, such as in primary and lower secondary education.

Because of these definitions, similar student-teacher ratios between countries can result in different class sizes. For example, at the primary level, the Czech Republic and Japan have similar ratios of student to teaching staff (18.7 in the Czech Republic and 18.1 in Japan – Table D2.2), but the average class size differs substantially (19.9 in the Czech Republic and 27.9 in Japan – Table D2.1).

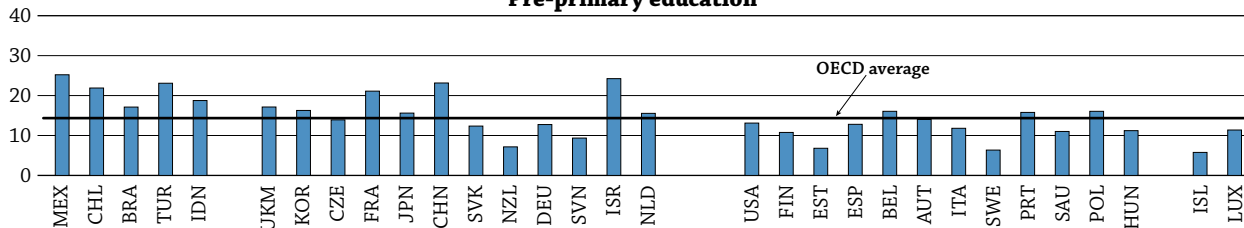
As the differences in student-teacher ratios indicate, there are fewer full-time equivalent students per full-time equivalent teacher at the secondary level than at the primary level of education. In most countries, the student-teacher ratio decreases between primary and lower secondary school, despite an increase in class size. This is true in all but three OECD countries: Chile, Iceland and Mexico.

This reduction in the student-teacher ratio reflects differences in annual instruction time, which tends to increase with the level of education (see Indicator D1). It may also result from delays in matching the teaching force to demographic changes, or from differences in teaching hours for teachers at different levels of education (the number of teaching hours tends to decrease with the level of education, as teacher specialisation increases). The general trend is consistent among countries, but evidence is mixed as to whether smaller student-teacher ratios are more desirable, from an education perspective, at higher levels of education.

Chart D2.3. Ratio of students to teaching staff in educational institutions, by level of education (2011)

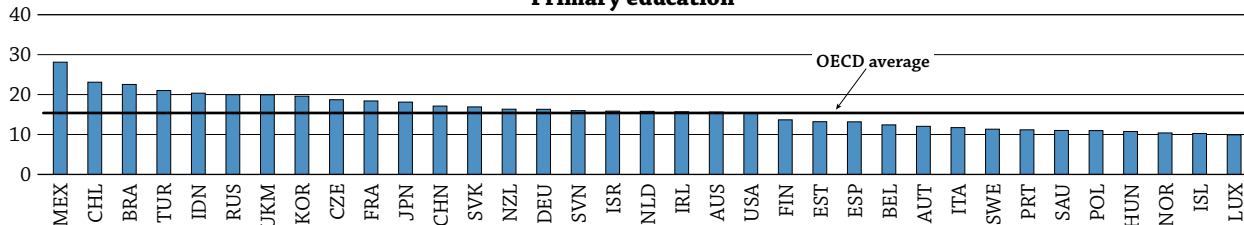
Number of students per teacher
in full-time equivalents

Pre-primary education



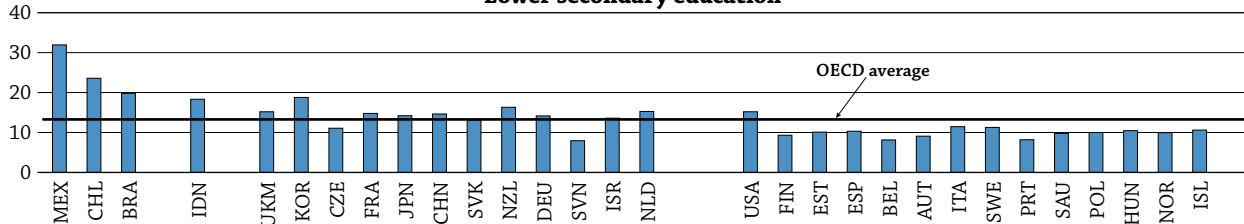
Number of students per teacher
in full-time equivalents

Primary education



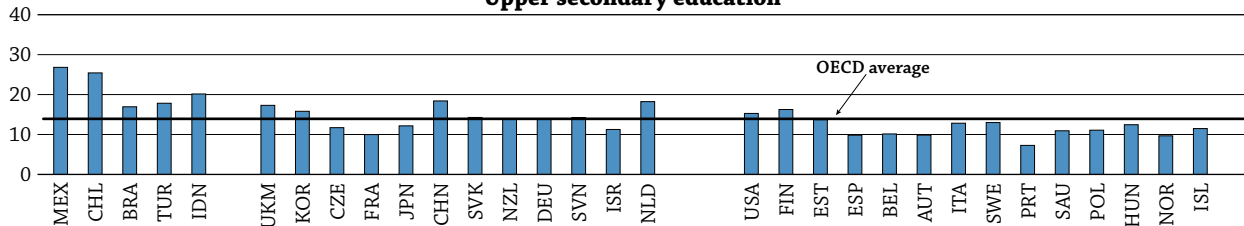
Number of students per teacher
in full-time equivalents

Lower secondary education



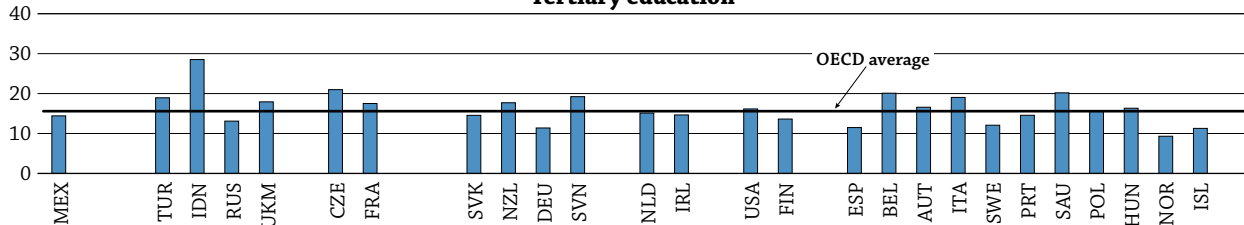
Number of students per teacher
in full-time equivalents

Upper secondary education



Number of students per teacher
in full-time equivalents

Tertiary education



Countries are ranked in descending order of students to teaching staff ratios in primary education.

Source: OECD. China, Indonesia and Saudi Arabia: UNESCO Institute for Statistics (World Education Indicators Programme). Table D2.2. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

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

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For the pre-primary level (see also Indicator C2), Table D2.2 shows the ratio of student to teaching staff and also the ratio of students to contact staff (teachers and teachers' aides). Some countries make extensive use of teachers' aides at the pre-primary level. Twelve countries reported smaller ratios of students to contact staff (Column 1 of Table D2.2) than of students to teaching staff. However, few countries have large numbers of teachers' aides. As a result, the ratios of students to contact staff are substantially lower than the ratios of students to teaching staff (at least two fewer pupils) in Austria, Brazil, China, Chile, France, Germany, Israel, the United Kingdom and the United States. The difference is particularly large in Chile and Israel, where there are at least 10 fewer pupils per contact staff than per teaching staff.

At the tertiary level, the student-teacher ratio ranges from 20 or more students per teacher in Belgium, the Czech Republic, Indonesia, Saudi Arabia and South Africa to fewer than 10 in Norway (Table D2.2). However, comparisons at this level should be made with caution since it is difficult to calculate full-time equivalent students and teachers on a comparable basis. In 6 of the 13 countries with comparable data at the tertiary level, the ratio of students to teaching staff is lower in more vocationally oriented programmes (tertiary-type B) than in academic (tertiary-type A) and advanced research programmes. Turkey is the only country with a significantly higher student-teacher ratio in vocational programmes at the tertiary level (53 to 1) than in academic (tertiary-type A) and advanced research programmes (15 to 1) (Table D2.2).

Class size in public and private institutions

Class size is one factor that parents may consider when deciding on a school for their children; and the difference in average class size between public and private schools (and between different type of private institutions) could influence enrolment.

Among OECD and G20 countries for which data are available, average class size generally does not differ between public and private institutions by more than one student per class in both primary and lower secondary education (Chart D2.4 and Table D2.1). However, there are marked differences among countries. For example, in Brazil, the Czech Republic, Israel, Poland, the Russian Federation, Turkey and the United Kingdom, the average primary school class size in public institutions is larger by four or more students per class than the average class size in a private school. However, with the exception of Brazil and Israel, the private sector is relatively small in all of these countries, representing at most 5% of students at the primary level (see Table C1.4). In contrast, in China, Luxembourg and Spain (where more than 30% of pupils are enrolled in private institutions), the average class size in private institutions is larger than that in public institutions by four or more students.

The comparison of class size between public and private institutions shows a mixed picture at the lower secondary level, where private institutions are more prevalent. The average class size in lower secondary schools is larger in private institutions than in public institutions in 13 countries, although the differences tend to be smaller than in primary education.

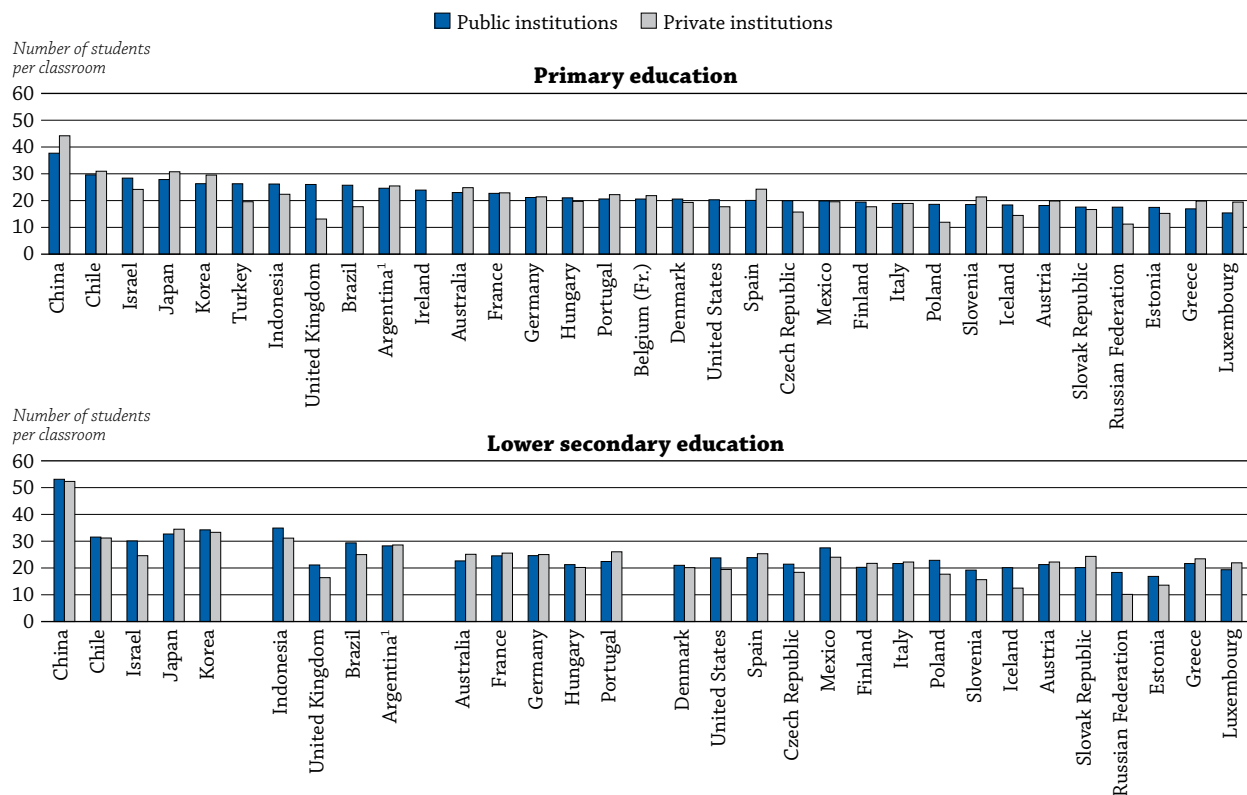
In countries where private institutions are more prevalent at the primary and lower secondary levels (i.e. countries where more than 10% of students at these levels are enrolled in private institutions), such as Argentina, Australia, Belgium (French Community), Brazil, Chile, Denmark, France, Indonesia, Portugal and Spain, there may be large differences in class size between public and private institutions. However, in Spain, one of the two countries where differences are large (a difference of four students or more at both levels in Brazil, and at the primary level only in Spain), private institutions tend to have more students per class than public schools (see Tables C1.4 and D2.1). This suggests that in countries in which a substantial proportion of students and families choose private schools, class size is not a determining factor in their decision.

Comparing the number of student to teaching staff shows a similar picture. On average across countries for which data are available, ratios of students to teaching staff are slightly lower in private institutions than in public institutions at the lower secondary and upper secondary levels (Table D2.3). The largest differences between public and private institutions are in Brazil and Mexico where, at the lower secondary level, there are at least eight more students per teacher in public institutions than in private institutions. At the upper

secondary level in Mexico, the difference in student-teacher ratios between public and private institutions (a difference of more than 17 students per teacher) is even larger than that at the lower secondary level (15 students per teacher).

However, in some countries, the student-teacher ratio is lower in public institutions than in private institutions. This is most pronounced at the lower secondary level in Spain, which has some 15 students per teacher in private institutions, compared to fewer than 9 students per teacher in public institutions.

Chart D2.4. Average class size in public and private institutions, by level of education (2011)



1. Year of reference 2010 instead of 2011.

Countries are ranked in descending order of average class size in public institutions in primary education.

Source: OECD. Argentina, China, Indonesia: UNESCO Institute for Statistics (World Education Indicators Programme). Table D2.1. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

StatLink <http://dx.doi.org/10.1787/888932851725>

Definitions

Instructional personnel (teaching staff) includes two categories:

- **Teachers' aides and teaching/research assistants** include non-professional personnel or students who support teachers in providing instruction to students.
- **Teaching staff** refers to professional personnel directly involved in teaching students. The classification includes classroom teachers, special-education teachers and other teachers who work with a whole class of students in a classroom, in small groups in a resource room, or in one-to-one teaching situations inside or outside a regular class. Teaching staff also includes department chairpersons whose duties include some teaching, but excludes non-professional personnel who support teachers in providing instruction to students, such as teachers' aides and other paraprofessional personnel.

Methodology

Data refer to the academic year 2010-11 and are based on the UOE data collection on education statistics administered by the OECD in 2012 (for details see Annex 3 at www.oecd.org/edu/eag.htm).

Calculations cover expenditure by public institutions or, where available, by both public and private institutions.

Class size is calculated by dividing the number of students enrolled by the number of classes. In order to ensure comparability among countries, special-needs programmes are excluded. Data include only regular programmes at primary and lower secondary levels of education, and exclude teaching in sub-groups outside the regular classroom setting.

The ratio of students to teaching staff is obtained by dividing the number of full-time equivalent students at a given level of education by the number of full-time equivalent teachers at that level and in similar types of institutions.

Notes on definitions and methodologies regarding this indicator for each country are presented in Annex 3 at www.oecd.org/edu/eag.htm.

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

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Indicator D2 Tables





Table D2.1	Average class size, by type of institution and level of education (2011) StatLink  http://dx.doi.org/10.1787/888932851592
Table D2.2	Ratio of students to teaching staff in educational institutions (2011) StatLink  http://dx.doi.org/10.1787/888932851611
Table D2.3	Ratio of students to teaching staff by type of institution (2011) StatLink  http://dx.doi.org/10.1787/888932851630
WEB Table D2.4	Average class size, by type of institution and level of education (2000) StatLink  http://dx.doi.org/10.1787/888932851649

Table D2.1. **Average class size, by type of institution and level of education (2011)**

Calculations based on number of students and number of classes

		Primary education					Lower secondary education (general programmes)					
		Public institutions	Private institutions			Total Public and private institutions	Public institutions	Private institutions			Total Public and private institutions	
			Total private institutions	Government- dependent private institutions	Independent private institutions			Total private institutions	Government- dependent private institutions	Independent private institutions		
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	
OECD	Australia	23.0	24.8	24.8	a	23.5	22.6	25.0	25.0	a	23.5	
	Austria	18.2	19.8	x(2)	x(2)	18.2	21.2	22.2	x(7)	x(7)	21.3	
	Belgium	m	m	m	a	m	m	m	m	a	m	
	Belgium (Fr.)	20.6	21.8	21.8	m	21.1	m	m	m	m	m	
	Canada	m	m	m	m	m	m	m	m	m	m	
	Chile	29.6	31.0	32.4	23.8	30.4	31.5	31.1	32.4	24.7	31.3	
	Czech Republic	19.9	15.7	15.7	a	19.9	21.4	18.3	18.3	a	21.3	
	Denmark	20.6	19.3	19.3	a	20.4	20.9	20.1	20.1	a	20.8	
	Estonia	17.5	15.2	a	15.2	17.4	16.8	13.6	a	13.6	16.7	
	Finland	19.4	17.7	17.7	a	19.4	20.2	21.7	21.7	a	20.3	
	France	22.7	22.9	x(2)	x(2)	22.7	24.5	25.5	25.7	14.0	24.7	
	Germany	21.2	21.4	21.4	x(3)	21.2	24.5	24.9	24.9	x(8)	24.6	
	Greece	16.9	19.8	a	19.8	17.1	21.6	23.4	a	23.4	21.7	
	Hungary	21.0	19.7	19.7	a	20.9	21.2	20.1	20.1	a	21.1	
	Iceland	18.4	14.5	14.5	a	18.3	20.1	12.5	12.5	a	19.9	
	Ireland	23.9	m	a	m	m	m	m	m	m	m	
	Israel	28.4	24.2	24.0	a	27.3	30.0	24.5	23.4	a	28.7	
	Italy	18.9	18.9	a	18.9	18.9	21.6	22.2	a	22.2	21.6	
	Japan	27.9	30.8	a	30.8	27.9	32.6	34.4	a	34.4	32.7	
	Korea	26.3	29.5	a	29.5	26.3	34.1	33.2	33.2	a	34.0	
	Luxembourg	15.4	19.4	18.1	19.5	15.7	19.3	21.9	19.6	25.6	19.7	
	Mexico	19.9	19.6	a	19.6	19.8	27.4	24.0	a	24.0	27.1	
	Netherlands	m	m	m	m	m	m	m	m	m	m	
	New Zealand	m	m	m	m	m	m	m	m	m	m	
	Norway	a	a	a	a	a	a	a	a	a	a	
	Poland	18.6	11.9	11.1	12.2	18.3	22.8	17.6	23.8	15.8	22.5	
	Portugal	20.6	22.2	24.2	21.5	20.8	22.4	26.0	25.7	26.4	22.8	
	Slovak Republic	17.6	16.7	16.7	n	17.5	20.1	24.3	24.3	n	20.3	
	Slovenia	18.5	21.4	21.4	n	18.5	19.2	15.6	15.6	n	19.2	
	Spain	20.1	24.3	24.6	22.2	21.3	23.8	25.3	25.7	21.8	24.3	
	Sweden	m	m	m	m	m	m	m	m	m	m	
	Switzerland	m	m	m	m	m	m	m	m	m	m	
	Turkey	26.3	19.6	a	19.6	26.1	a	a	a	a	a	
	United Kingdom	26.0	13.1	29.0	12.4	24.8	21.1	16.4	19.2	10.1	19.5	
	United States	20.3	17.7	a	17.7	20.0	23.7	19.4	a	19.4	23.2	
	OECD average		21.3	20.5	21.0	20.2	21.2	23.4	22.5	22.8	21.2	23.3
	EU21 average		19.9	19.0	20.0	18.1	19.9	21.8	22.0	22.4	19.9	21.8
Other G20	Argentina ¹	24.6	25.5	29.5	24.1	25.4	28.2	28.5	30.1	26.9	28.4	
	Brazil	25.7	17.7	a	17.7	24.2	29.3	24.9	a	24.9	28.7	
	China	37.7	44.2	x(2)	x(2)	38.0	53.0	52.2	x(7)	x(7)	52.9	
	India	m	m	m	m	m	m	m	m	m	m	
	Indonesia	26.2	22.4	a	22.4	25.4	34.8	31.1	a	31.1	33.4	
	Russian Federation	17.5	11.2	a	11.2	17.5	18.3	10.1	a	10.1	18.2	
	Saudi Arabia	m	m	m	m	m	m	m	m	m	m	
	South Africa	m	m	m	m	m	m	m	m	m	m	
	G20 average		24.3	22.6	~	~	24.1	26.4	24.8	~	~	26.2

1. Year of reference 2010.

Source: OECD. Argentina, China, Indonesia: UNESCO Institute for Statistics (World Education Indicators Programme).

See Annex 3 for notes (www.oecd.org/edu/eag.htm).

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


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Table D2.2. **Ratio of students to teaching staff in educational institutions (2011)**

By level of education, calculations based on full-time equivalents

		Pre-primary education		Primary education	Secondary education			Post-secondary non-tertiary education	Tertiary education			
		Students to contact staff (teachers and teachers' aides)	Students to teaching staff		Lower secondary education	Upper secondary education	All secondary education		Tertiary-type B	Tertiary-type A and advanced research programmes	All tertiary education	
												(1)
OECD	Australia ^{1, 2}	m	m	15.6	x(6)	x(6)	12.0	m	m	14.7	m	
	Austria	9.7	14.0	12.1	9.1	9.8	9.4	10.4	n	16.6	16.6	
	Belgium ³	16.1	16.1	12.4	8.1	10.1	9.4	x(5)	x(10)	x(10)	20.1	
	Canada ^{2, 4}	m	x(4)	x(4)	15.9	14.2	15.3	m	m	17.7	m	
	Chile	10.7	21.9	23.1	23.6	25.4	24.8	a	m	m	m	
	Czech Republic	13.6	13.9	18.7	11.1	11.7	11.4	18.2	17.8	21.3	21.0	
	Denmark	m	m	x(4)	11.8	m	m	m	m	m	m	
	Estonia	m	6.8	13.2	10.1	13.7	11.9	16.4	m	m	m	
	Finland	m	10.8	13.7	9.3	16.3	13.1	x(5)	n	13.6	13.6	
	France ³	14.1	21.1	18.4	14.8	10.0	12.3	x(8)	20.9	16.7	17.5	
	Germany	10.0	12.7	16.3	14.2	13.8	14.0	14.5	14.1	10.9	11.4	
	Greece	m	m	m	m	m	m	m	m	m	m	
	Hungary	m	11.2	10.7	10.5	12.4	11.5	13.5	20.4	15.9	16.3	
	Iceland	5.8	5.8	10.2	10.6	11.5	11.1	x(5, 10)	x(10)	x(10)	11.3	
	Ireland ²	m	m	15.7	x(6)	x(6)	14.4	x(6)	x(10)	x(10)	14.6	
	Israel ²	11.5	24.2	15.9	13.6	11.3	12.2	m	m	m	m	
	Italy ²	m	11.8	11.7	11.5	12.8	12.2	m	7.5	19.1	19.0	
	Japan	14.8	15.6	18.1	14.2	12.2	13.1	x(5, 10)	m	m	m	
	Korea	16.3	16.3	19.6	18.8	15.8	17.2	a	m	m	m	
	Luxembourg	m	11.4	9.9	x(6)	x(6)	9.6	m	m	m	m	
	Mexico	25.2	25.2	28.1	31.9	26.8	29.9	a	15.8	14.4	14.4	
	Netherlands	14.3	15.5	15.8	15.3	18.2	16.7	19.5	16.2	15.1	15.1	
	New Zealand	7.2	7.2	16.3	16.3	13.9	15.1	22.6	18.0	17.6	17.7	
	Norway ²	m	m	10.4	10.0	9.7	9.8	x(5)	x(10)	x(10)	9.3	
	Poland	m	16.1	11.0	10.0	11.1	10.6	15.0	9.0	15.7	15.6	
	Portugal ⁵	m	15.8	11.2	8.2	7.3	7.7	x(5, 10)	x(10)	x(10)	14.6	
	Slovak Republic	12.3	12.4	16.9	13.1	14.3	13.7	14.1	10.0	14.6	14.5	
	Slovenia	9.4	9.4	16.0	7.9	14.3	11.0	x(5)	x(10)	x(10)	19.2	
	Spain	m	12.8	13.2	10.3	9.8	10.1	a	9.8	12.0	11.5	
	Sweden	6.3	6.3	11.3	11.3	13.0	12.2	24.2	x(10)	x(10)	12.1	
	Switzerland	m	m	m	m	m	m	m	m	m	m	
	Turkey	m	23.1	21.0	a	17.8	17.8	a	53.0	15.0	18.9	
	United Kingdom	12.2	17.1	19.9	15.2	17.3	16.3	a	x(10)	x(10)	17.9	
	United States	10.9	13.1	15.3	15.2	15.3	15.2	17.8	x(10)	x(10)	16.2	
	OECD average		12.2	14.4	15.4	13.3	13.9	13.6	16.9	15.2	15.7	15.6
	EU21 average		11.8	13.1	14.1	11.2	12.7	12.0	16.2	14.0	15.6	15.9
Other G20	Argentina	m	m	m	m	m	m	a	m	m	m	
	Brazil	12.6	17.1	22.5	19.8	16.9	18.5	a	m	m	m	
	China	20.6	23.2	17.1	14.6	18.4	16.3	m	m	m	m	
	India	m	m	m	m	m	m	m	m	m	m	
	Indonesia	17.3	18.8	20.3	18.3	20.1	19.1	a	x(10)	x(10)	28.5	
	Russian Federation ²	m	m	20.0	x(6)	x(6)	8.7	x(6)	10.5	13.9	13.1	
	Saudi Arabia	m	11.0	11.0	9.8	10.9	10.3	a	x(10)	x(10)	20.2	
	South Africa ⁴	m	m	m	m	m	m	a	x(10)	x(10)	27.6	
	G20 average		15.4	17.4	18.3	15.3	15.9	15.5	~	~	~	~

1. Includes only general programmes in upper secondary education.

2. Public institutions only (for Australia, at tertiary-type A and advanced research programmes only; for Canada, at the tertiary level only; for Ireland, at tertiary level only; for Italy, from pre-primary to secondary level; for the Russian Federation, at primary and secondary levels only).

3. Excludes independent private institutions.

4. Year of reference 2010.

5. Data refer to teachers (head count) in primary, secondary and post-secondary non-tertiary education.

Source: OECD. China: UNESCO Institute for Statistics (World Education Indicators Programme). Saudi Arabia: UNESCO Institute for Statistics and Observatory on Higher Education; South Africa: UNESCO Institute for Statistics. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

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


StatLink  <http://dx.doi.org/10.1787/888932851611>

Table D2.3. **Ratio of students to teaching staff by type of institution (2011)***By level of education, calculations based on full-time equivalents*

		Lower secondary education				Upper secondary education				All secondary education				
		Public	Private			Public	Private			Public	Private			
			Total private institutions	Government-dependent private institutions	Independent private institutions		Total private institutions	Government-dependent private institutions	Independent private institutions		Total private institutions	Government-dependent private institutions	Independent private institutions	
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	
OECD	Australia ¹	x(9)	x(10)	x(11)	a	x(9)	x(10)	x(11)	a	12.2	11.6	11.6	a	
	Austria	9.0	10.4	x(2)	x(2)	10.1	8.2	x(6)	x(6)	9.4	9.2	x(10)	x(10)	
	Belgium ²	7.5	m	8.6	m	10.7	m	9.8	m	9.5	m	9.4	m	
	Canada ^{3, 4, 5}	16.0	14.2	x(2)	x(2)	14.5	11.4	x(6)	x(6)	15.4	13.2	x(10)	x(10)	
	Chile	22.7	24.4	25.7	18.3	25.9	25.1	27.2	15.9	24.7	24.9	26.7	16.6	
	Czech Republic	11.1	10.2	10.2	a	11.5	12.9	12.9	a	11.3	12.5	12.5	a	
	Denmark ⁴	11.7	12.7	12.7	m	m	m	m	m	m	m	m	m	
	Estonia	10.2	8.3	a	8.3	13.9	11.7	a	11.7	12.0	9.8	a	9.8	
	Finland ⁶	9.3	9.5	9.5	a	15.5	21.0	21.0	a	12.5	18.5	18.5	a	
	France	14.2	m	17.2	m	9.6	m	11.6	m	11.9	m	14.3	m	
	Germany	14.2	13.7	13.7	x(3)	13.9	12.9	12.9	x(7)	14.1	13.4	13.4	x(11)	
	Greece	m	m	m	m	m	m	m	m	m	m	m	m	
	Hungary	10.5	10.0	10.0	a	12.5	12.2	12.2	a	11.5	11.5	11.5	a	
	Iceland ⁶	10.8	4.3	4.3	n	11.4	11.9	11.9	n	11.1	11.3	11.3	n	
	Ireland ²	x(9)	m	a	m	x(9)	m	a	m	14.5	m	a	m	
	Israel	13.6	m	m	a	11.3	m	m	a	12.2	m	m	a	
	Italy	11.5	m	a	m	12.8	m	a	m	12.2	m	a	m	
	Japan ⁶	14.4	12.5	a	12.5	11.5	13.9	a	13.9	13.0	13.6	a	13.6	
	Korea	18.6	19.5	19.5	a	15.1	16.8	16.8	a	17.0	17.5	17.5	a	
	Luxembourg	9.4	x(10)	x(11)	x(12)	9.5	x(10)	x(11)	x(12)	9.4	10.6	11.9	9.5	
	Mexico	34.8	19.5	a	19.5	32.4	14.6	a	14.6	33.9	16.9	a	16.9	
	Netherlands	15.3	14.7	a	14.7	18.1	20.2	a	20.2	16.6	18.1	a	18.1	
	New Zealand	16.5	12.9	a	12.9	14.0	13.3	20.7	10.0	15.3	13.2	20.7	11.0	
	Norway	10.0	m	m	m	9.7	m	m	m	9.8	m	m	m	
	Poland	10.1	9.0	11.7	8.2	11.1	11.2	11.7	11.1	10.6	10.4	11.7	10.1	
	Portugal ⁷	7.9	10.7	9.6	12.4	7.6	6.4	10.7	5.5	7.8	7.5	10.0	6.6	
	Slovak Republic	13.2	12.5	12.5	n	14.6	12.5	12.5	n	13.8	12.5	12.5	n	
	Slovenia ²	7.9	6.5	6.5	n	14.3	12.4	11.6	14.5	10.9	12.1	11.2	14.5	
	Spain	8.9	14.8	14.8	15.1	9.0	14.1	14.6	13.5	8.9	14.6	14.7	14.1	
	Sweden	11.2	11.9	11.9	n	12.7	14.3	14.3	n	12.0	13.5	13.5	n	
	Switzerland	m	m	m	m	m	m	m	m	m	m	m	m	
	Turkey	a	a	a	a	18.7	7.6	a	7.6	18.7	7.6	a	7.6	
	United Kingdom	15.4	14.7	19.4	8.0	14.4	21.6	24.9	10.3	14.9	19.1	23.3	9.1	
	United States	15.9	10.4	a	10.4	15.9	10.4	a	10.4	15.9	10.4	a	10.4	
	OECD average		13.2	12.5	12.8	9.3	13.9	13.8	15.1	10.0	13.6	13.3	14.5	9.9
	EU21 average		11.0	11.3	12.6	11.1	12.3	13.7	13.9	12.4	11.8	12.9	13.5	11.5
Other G20	Argentina	m	m	m	m	m	m	m	m	m	m	m	m	
	Brazil	21.4	12.6	a	12.6	18.4	11.9	a	11.9	20.1	12.2	a	12.2	
	China	14.5	16.5	x(2)	x(2)	18.5	17.4	x(6)	x(6)	16.2	17.0	x(10)	x(10)	
	India	m	m	m	m	m	m	m	m	m	m	m	m	
	Indonesia	17.7	19.6	a	19.6	16.9	25.2	a	25.2	17.4	22.0	a	22.0	
	Russian Federation	x(9)	x(10)	a	x(12)	x(9)	x(10)	a	x(12)	8.7	m	a	m	
	Saudi Arabia	9.7	10.0	x(2)	x(2)	10.5	13.5	x(6)	x(6)	10.1	12.1	x(10)	x(10)	
	South Africa	m	m	m	m	m	m	m	m	m	m	m	m	
	G20 average		14.1	13.8	~	~	14.2	15.2	~	~	13.8	14.3	~	~

1. Includes only general programmes in lower and upper secondary education.

2. Upper secondary includes post-secondary non-tertiary education.

3. Year of reference 2010.

4. Lower secondary includes primary education.


5. Lower secondary includes pre-primary education.

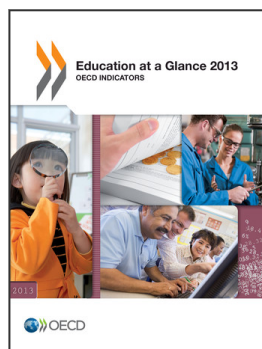
6. Upper secondary education includes programmes from post-secondary education.

7. Data refer to teachers (head count) in primary, secondary and post-secondary non-tertiary education.

Source: OECD. China: UNESCO Institute for Statistics (World Education Indicators Programme). Saudi Arabia, South Africa: UNESCO Institute for Statistics. See Annex 3 for notes (www.oecd.org/edu/eag.htm).

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