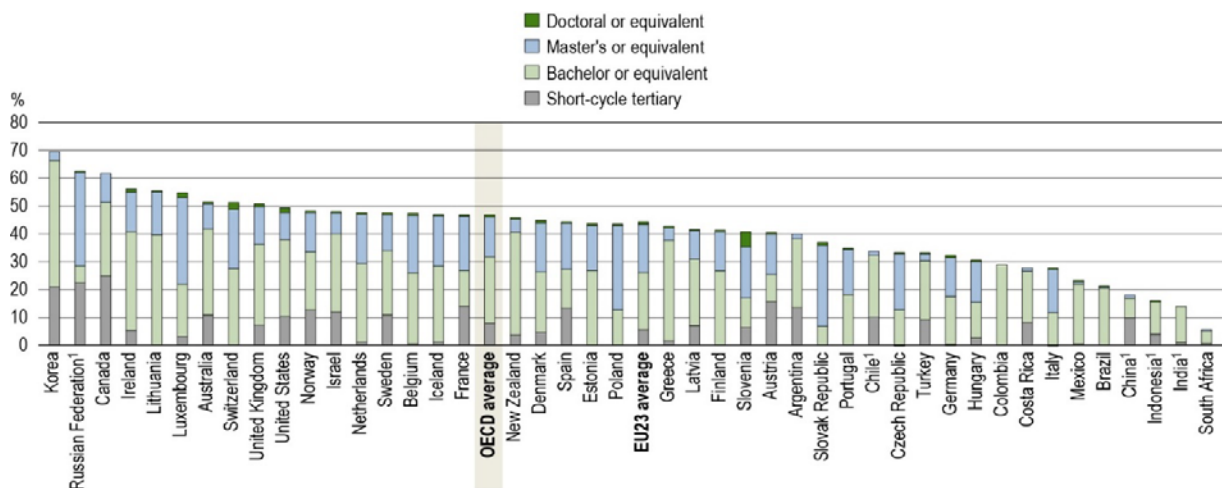


Education at a Glance: OECD Indicators (OECD, 2019^[1]) is the authoritative source for information on the state of education around the world. It provides data on the structure, finances and performance of education systems in OECD and partner countries.

United States

- In 2018, an average of 49% of 25-34 year-olds in the United States had attained tertiary education which was higher than the OECD average of 44% but lower than 9 other OECD countries.
- **The United States spends USD 30 165¹ per student enrolled in tertiary educational institutions each year, the second highest amount after Luxembourg.**
- Average actual salaries (including bonuses and allowances) of teachers in primary and secondary education in the United States are higher than the OECD average. However, U.S. teachers earn less than 70% of the salaries of full-time, full-year workers (25-64 year-olds) with tertiary education in the United States, **some of the lowest relative earnings across all OECD countries.**
- Despite increasing awareness of the importance of high-quality early childhood education and care (ECEC), **enrolment in ECEC at the age of 3 in the United States is 35 percentage points below the OECD average.**

Figure 1. Distribution of 25-34 year-olds with tertiary education, by level of tertiary education (2018)



Note: Some categories might be included in other categories. Please refer to Education at a Glance Database, <http://stats.oecd.org> for details.

1. Year of reference differs from 2018. Refer to Table A1.1 for more details.

Countries are ranked in descending order of the total percentage of tertiary-educated 25-34 year-olds.

Source: OECD (2019), Education at a Glance Database, <http://stats.oecd.org>. See Source section for more information and Annex 3 for notes (<https://doi.org/10.1787/f8d7880d-en>).

¹ Values reported in equivalent US dollars (USD) have been converted using purchasing power parities (PPPs) for GDP.

Few students will pursue tertiary education beyond a bachelor's degree although the rewards are high in the labour market

- In the United States, the share of young adults (25-34 year-olds) with a tertiary degree increased by 8 percentage points between 2008 and 2018 to reach 49%, compared to the OECD average of 44%. However, the national figure conceals wide variation across states. In 2017, the rate varied within the United States from 32% in Louisiana and West Virginia to 73% in the District of Columbia (OECD, 2019^[2]).
- The most common tertiary qualification among young adults in the United States is a bachelor's degree, which was held by 28% of all 25-34 year-olds in 2017, compared to 24% on average across OECD countries. Short-cycle tertiary degrees were also more common in the United States: 10% of 25-34 year-olds had attained this level, compared to 8% across OECD countries.
- The total share of students completing a bachelor's degree within the theoretical duration of the programme is 38%, about the same as the average among countries with available data (39%). However, a further two years after the theoretical duration, 69% of U.S. students have graduated, slightly above the average of 67% three years after the theoretical duration. Men are more likely to delay completion than women: their completion rate within the theoretical duration of the programme is 10 percentage points lower than that of their female counterparts but after two years, they have narrowed the gap to 6 percentage points.
- Fewer 25- to 34-year-olds in the United States pursue education beyond the bachelor's degree than in many other OECD countries, however. Only 11% of young adults have attained a master's or doctorate compared to 15% on average across OECD countries (Figure 1). Although tuition fees for master programmes in public institutions in the United States are the highest across OECD countries with data, the relative earnings advantage of a higher degree is larger in the United States than in most other countries. On average, adults with a master's or doctoral qualification earn 131% more than those with upper secondary education (OECD average: 91%).
- The United States is very attractive to international students and takes in 26% of all international or foreign students studying at tertiary level in OECD member countries, the largest share among OECD countries. However, this large share still only accounts for 5% of all students in tertiary education in the United States. Students from Asia form the largest group of international students enrolled in the United States. About one-third (33%) of international students studying in the United States come from the People's Republic of China, 14% from India and 6% from Korea. International students make up a small share of students in short-cycle tertiary (2%) and bachelor's or equivalent programmes (4%), but a significant share of students enrolled in master's or equivalent (13%) and doctoral or equivalent programmes (26%).

The United States has both high tuition fees and a large share of students receiving loan and grant assistance

- Among OECD countries, the United States spends the fifth highest proportion of its gross domestic product (GDP) on primary to tertiary educational institutions (6.0% compared to the OECD average of 5.0%), with expenditure at the primary and secondary level about the same as the OECD average (3.5%) but above-average expenditure at the tertiary level (2.5 vs. 1.5 on average across OECD countries).
- Annual expenditure per student on tertiary educational institutions was more than double the spending on primary education (USD 12 184 in primary education against USD 30 165 in tertiary education) and increased by 7% between 2010 and 2016. While most OECD countries allocate a greater share of their tertiary spending to research and development (R&D) than they do to ancillary services, the opposite is true in the United States: 14% of spending on tertiary institutions was devoted to ancillary services and 12% to R&D, compared to 5% and 29% respectively on average across OECD countries.

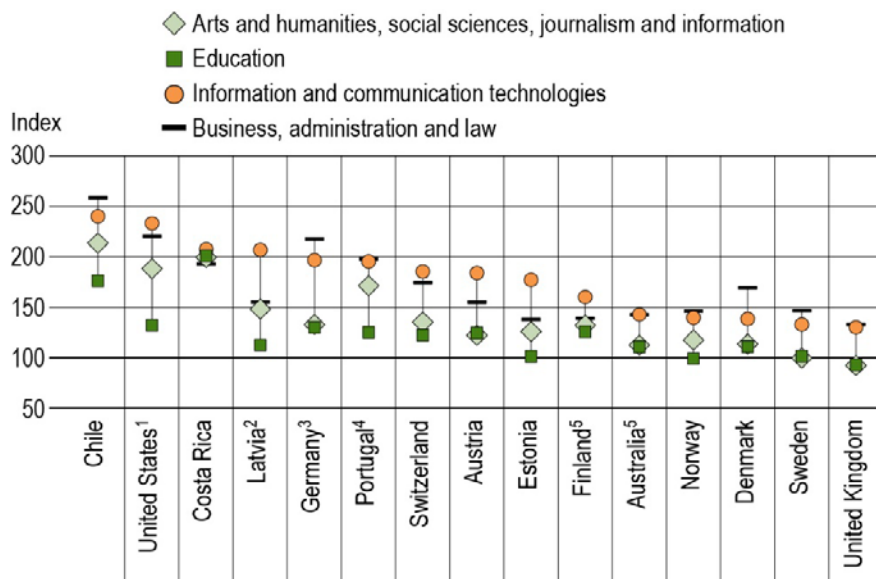
- After transfers between the public and private sectors, private sources account for 65% of the total funding for tertiary educational institutions in the United States, more than double the OECD average. Of this, more than two-thirds is provided by households, mostly in the form of tuition fees, which are among the highest across OECD countries with data. In 2017, U.S. public tertiary institutions charged USD 8 804 a year on average for a bachelor's degree, an increase of about 30% since 2007.
- Tuition fees in the United States differ by type of institution. Independent private institutions charge national students about USD 29 500 per year on average at the bachelor's level, more than three times the average fee in public institutions. The differences in tuition fees between national and out-of-state/foreign students in the United States are also among the largest in the OECD. In 2017, public institutions charged foreign students enrolled at the bachelor's level USD 16 000 more on average than they charged in-state national students.
- Public financial support helps alleviate the financial burden on students. About 89% of bachelor's national students benefit in the United States from public loans, grants or both. An increasing share of student loan repayments are made on income-driven repayment plans.
- Despite the high tuition fees, the returns individuals can expect to receive over the course of their career after completing a tertiary education typically exceed the costs they bear during their studies. Adult workers with a tertiary qualification in the United States earn 72% more than those with upper secondary education, compared to 57% more on average across OECD countries. As a result, the net financial return on a tertiary education is higher in the United States than in most countries: USD 354 800 on average for women and USD 542 600 for men, compared to USD 240 000 and USD 310 300 on average across OECD countries.

Percentage of U.S. graduates completing science-related fields is similar to the OECD average

- The science, technology, engineering and mathematics (STEM) fields – which encompass natural sciences, mathematics and statistics; information and communication technologies (ICT); and engineering, manufacturing and construction – are seen as especially important for fostering innovation and economic growth. In the United States, about 25% of tertiary-educated adults had studied STEM fields in 2018, a similar proportion to the OECD average. Among STEM fields, the fields that attract the largest shares in the United States are natural sciences, mathematics and statistics and engineering, manufacturing and construction. Each of these fields represented about 10% of the degrees held by tertiary-educated adults. While this was higher than the average across OECD countries for natural sciences, mathematics and statistics (5%), a lower share of U.S. tertiary-educated adults held a degree in engineering, manufacturing and construction than the OECD average (16%).
- In many countries, the broad field of business, administration and law is the most popular field of study at tertiary level but in the United States, the most common bachelors field is arts and humanities, social sciences and journalism and information. The United States has the largest share of tertiary-educated adults who studied this field during their bachelors (30%), much higher than the OECD average of 19%.
- In the United States, 82% of tertiary-educated adults are employed, slightly below the OECD average of 85%. The employment rate varies across states, ranging from 77% to 90%. It also varies by bachelor's degree field of study: in the United States, those who studied education have the lowest employment rate (80%) while those who studied engineering, manufacturing and construction have the highest (88%).
- Individuals with a bachelors degree in the fields of education or of arts and humanities, social sciences, journalism, and information earn less, on average, than adults with a tertiary degree in STEM or in business, administration and law (Figure 2). Although ICT is one of the highest-paying field of study in the United States, only 4% of 25-64 year-olds hold a bachelors degree in this field.

Figure 2. Relative earnings of tertiary-educated adults, by field of study (2017)

25-64 year-old tertiary-educated workers (full- and part-time workers); upper secondary education (all fields) = 100



1. Data refer to the field of study at the bachelor's level.

2. Earnings net of income tax.

3. Earnings refer to academic programmes only.

4. Arts and humanities, social sciences, journalism and information does not include the subfield of Languages.

5. Year of reference differs from 2017. Refer to the source table for details.

Countries are ranked in descending order of the relative earnings of 25-64 year-olds with a tertiary degree in information and communication technologies.

Source: OECD (2019), Table A4.4. See Source section for more information and Annex 3 for notes (<https://doi.org/10.1787/f8d7880d-en>).

Gender gaps in education and employment persist

- On average across OECD countries, the gender gap in employment rates decreases with educational attainment. This trend also holds in the United States, where the gender gap in employment is particularly high among 25-34 year-olds with below upper secondary education. For this age group, the employment rate is 73% for men and 41% for women, a difference of 32 percentage points, compared to the average difference of 28 percentage points across OECD countries. The gap shrinks to 14 percentage points among U.S. adults with upper secondary or post-secondary non-tertiary education and to 7 percentage points among those with tertiary education.
- The earnings gender gap extends across all levels of educational attainment. Although women generally have higher educational attainment, there is a large gender gap in earnings between male and female full-time tertiary-educated workers. In the United States, tertiary-educated 25-64 year-old women earn only 71% of what their male peers earn. This gender gap is wider than for all other OECD countries except for Chile, the Czech Republic, Hungary, Israel, Italy, Mexico, Poland and the Slovak Republic.
- In the United States, a significantly larger share of men than women studied STEM fields at the bachelors level of education (about 14% of women compared to 34% of men). These differences may contribute to the overall lower earnings of women compared to men: Adults who studied STEM fields earn over twice the earnings of a worker with an upper secondary education, whereas those who studied education, a large share of which are women, are the lowest-paid in the country (Figure 2).
- Women tend to be under-represented at the doctoral level even in fields that are more balanced at master's level. In the United States, while 50% of those graduating in natural science, mathematics and statistics at master's level were women in 2017, women made up only 42% of doctoral graduates in this field.

Enrolment in early childhood education and care in the U.S. is lower than the OECD despite increasing awareness of its importance

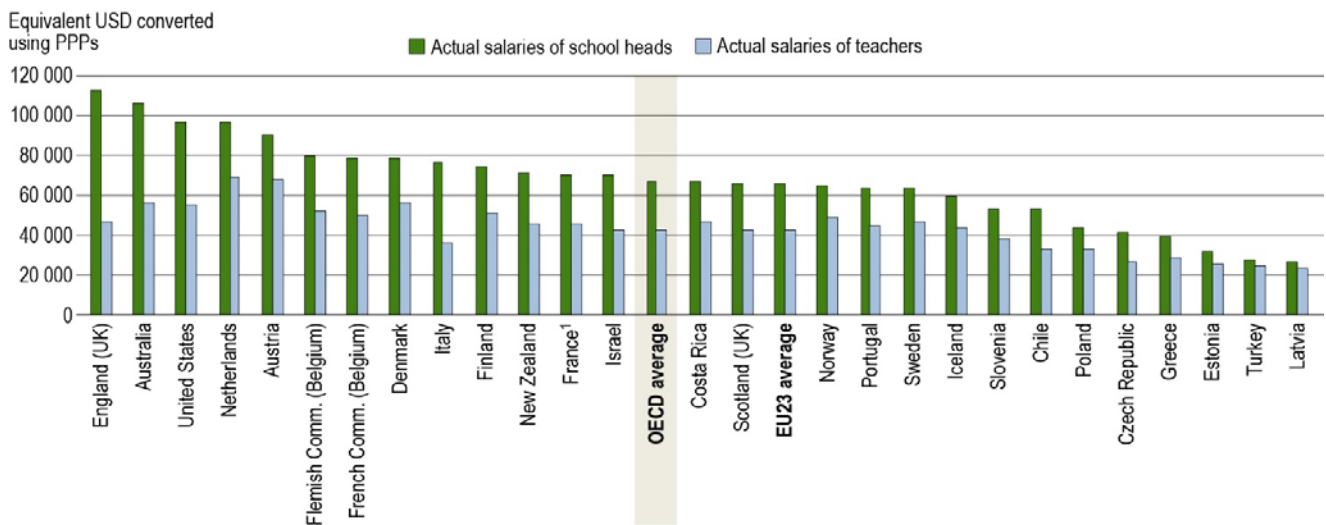
- Enrolment in early childhood education and care (ECEC) has experienced a surge of policy attention in OECD countries in recent decades. Universal or near-universal participation in at least one year of early childhood education and care is now the norm in OECD countries, which represents significant progress towards one of the education targets of the United Nations' Sustainable Development Goals (SDG 4.2.2). The enrolment rate for 5-year-olds in pre-primary or primary education is 90% in the United States, slightly below the OECD average of 94%.
- Enrolment in ECEC before the age of 5 is less widespread in the United States than in most OECD countries. On average, 88% of 4-year-olds in OECD countries are enrolled in pre-primary and primary education while in the United States the share is 66%. Among 3-year-olds the gap is even wider. Enrolment rates for 3-year-olds in ECEC (ISCED 0) is 42%, well below the OECD average of 77%.
- Between 2005 and 2017, average enrolment rates for 3-5 year-olds across OECD countries have gradually increased from 76% to 86%. In the United States, however, enrolment rates have remained stable at 66% over this period. This national average also conceals strong subnational differences. For instance, more than 70% of 3-5 year-olds were enrolled in ECEC and primary education in Connecticut, the District of Columbia, and New Jersey, compared to less than 50% in Idaho, North Dakota, and Wyoming (OECD, 2019^[2]).
- The United States spends more in total for each child aged 3 to 5 enrolled in ECEC and primary education than the OECD average (USD 9 213 per year compared to USD 8 141). However, expenditure on children in this age group amounts to 0.4% of GDP, lower than the average across OECD countries (0.6%). In the United States, 26% of total spending on pre-primary education (ISCED 02) is privately funded, compared to 17% on average across OECD countries.

Teachers' salaries are relatively low in comparison to salaries of tertiary-educated workers, but there are stronger financial incentives for school heads

- Compared to other OECD countries where the teaching profession is clearly ageing, the United States has a smaller share of teachers approaching retirement age. Some 29% of primary and lower secondary teachers and 34% of upper secondary teachers are aged 50 or over, below the OECD averages of 33% for primary teachers, 37% for lower secondary teachers and 40% for upper secondary teachers.
- Teachers from pre-primary to secondary level are expected work, on average, about 2 000 hours a year in the United States, compared to approximately 1 600 hours on average across OECD countries. Along with Chile and Switzerland, these are the longest statutory working hours across OECD countries. Teaching time represents around half of teachers' total working time in the United States at all levels of education. In contrast, on average across OECD countries, teaching time represents about 60% at pre-primary, 50% at primary and 40% at secondary levels.
- A typical U.S. student will attend school for a total of 8 884 hours over nine years to complete primary and lower secondary education, 1 293 hours more than the OECD average. In contrast to the majority of countries, where decisions on instruction time are made by central government, instruction time is the responsibility of state and local authorities in the United States (OECD, 2018^[3]).
- In the United States, the statutory salaries of teachers with the most prevalent qualifications are higher than on average across OECD countries. For example, the statutory starting salary of a teacher is USD 40 067 at the primary level, compared to USD 33 058 on average across OECD countries. The difference between starting salaries and those after 15 years of experience is also larger for primary teachers in the United States (USD 22 337) than on average across OECD countries (USD 12 889). Similar patterns hold true for lower and upper secondary education.

Figure 3. Actual salaries of lower secondary teachers and school heads (2017)

Annual actual salaries of teachers and school heads in public institutions, in equivalent USD converted using PPPs



1. Year of reference differs from 2016. See Table D3.4 for more information.

Countries and economies are ranked in descending order of actual salaries of school heads.


Source: OECD (2019), Table D3.4. See Source section for more information and Annex 3 for notes (<https://doi.org/10.1787/f8d7880d-en>).

- Average actual salaries (including bonuses and allowances) of teachers in primary and secondary education in the United States are higher than the OECD average. In spite of above-average salaries compared to other OECD countries, teachers' actual salaries remain below the average salaries of tertiary-educated full-time, full-year workers in the United States. Depending on the level of education taught, teachers' salaries are between 62% and 68% of the average salaries of tertiary-educated workers. These relative earnings are among the lowest across all OECD countries and economies.
- However, teachers in the United States have strong financial incentives to become school leaders: head teachers' actual salaries are also among the highest across OECD countries at all levels of education. At the lower secondary level for example, school heads in the United States earn USD 96 518 compared to USD 66 534 on average across OECD countries. U.S. school head actual salaries at this level are USD 41 525 higher than U.S. teacher actual salaries at the same level. (Figure 3).

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- OECD (2019), *Education at a Glance 2019: OECD indicators*, OECD Publishing, Paris, [1]
<https://doi.org/10.1787/f8d7880d-en>.
- OECD (2019), *OECD Regional Statistics (database)*, <http://dx.doi.org/10.1787/region-data-en>. [2]
- OECD (2018), *Education at a Glance 2018: OECD Indicators*, OECD Publishing, Paris, [3]
<https://dx.doi.org/10.1787/eag-2018-en>.

For more information on **Education at a Glance 2019** and to access the full set of Indicators, visit www.oecd.org/education/education-at-a-glance-19991487.htm.

Updated data can be found on line at <http://dx.doi.org/10.1787/eag-data-en> and by following the **StatLinks**  under the tables and charts in the publication.

Explore, compare and visualise more data and analysis using:  **Education GPS**

<http://gpseducation.oecd.org/CountryProfile?primaryCountry=USA&treshold=10&topic=EO>.

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On 25 May 2018, the OECD Council invited Colombia to become a Member. While Colombia is included in the OECD averages reported in this note, at the time of its preparation, Colombia was in the process of completing its domestic procedures for ratification and the deposit of Colombia's instrument of accession to the OECD Convention was pending.

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.

Key Facts for the United States in Education at a Glance 2019

Source	Main topics in <i>Education at a Glance</i>	United States		OECD average	
Tertiary education					
Educational attainment of 25-64 year-olds					
		2018			
Table A1.1	Short-cycle tertiary	11%		7%	
	Bachelor's or equivalent	24%		17%	
	Master's or equivalent	11%		13%	
	Doctoral or equivalent	2%		1%	
Tertiary attainment of 25-34 year-olds, by gender		2008	2018	2008	2018
Table A1.2	Men	37%	45%	31%	38%
	Women	46%	54%	40%	51%
	Total	42%	49%	35%	44%
Distribution of first-time tertiary entrants by education level		2017			
Table B4.1	Short-cycle tertiary	47%		17%	
	Bachelor's or equivalent	53%		76%	
	Master's or equivalent	**		7%	
Share of international or foreign students, by education level¹		2017			
Table B6.1	Bachelor's or equivalent	4%		4%	
	Master's or equivalent	13%		13%	
	Doctoral or equivalent	26%		22%	
	All tertiary levels of education	5%		6%	
Employment rate of 25-64 year-olds, by educational attainment		2018			
Table A3.1	Short-cycle tertiary	78%		82%	
	Bachelor's or equivalent	82%		84%	
	Master's or equivalent	85%		88%	
	Doctoral or equivalent	88%		92%	
	All tertiary levels of education	82%		85%	
Employment rate of tertiary-educated 25-64 year-olds, by field of study		2018			
Table A3.4	Education	80%		84%	
	Business and administration and law	86%		86%	
	Engineering, manufacturing and construction	88%		89%	
	Health and welfare	85%		87%	
Relative earnings of full-time full-year 25-64 year-old workers, by educational attainment (upper secondary education = 100)		2017			
Table A4.1	Short-cycle tertiary	113		120	
	Bachelor's or equivalent	164		144	
	Master's, doctoral or equivalent	231		191	
	All tertiary levels of education	172		157	
Upper secondary and vocational education and training (VET)					
Upper secondary or post-secondary non-tertiary attainment rate		2018			
Table A1.2	Share of 25-34 year-olds with upper secondary or post-secondary non-tertiary as their highest attainment	43%		41%	
Percentage of first-time upper secondary graduates with a vocational qualification		2017			
Table B3.1	Vocational programmes	**		40%	
Age at graduation from upper secondary education, by programme orientation		2017			
Figure B3.1	General programmes	**		18	
	Vocational programmes	**		21	
Share of women among upper secondary graduates, by programme orientation		2017			
Figure B3.2	General programmes	50%		55%	
	Vocational programmes	**		46%	
Employment, unemployment and inactivity rates of 25-34 year-olds, with upper secondary or post-secondary non-tertiary education		2018			
Table A3.3	Employment rate	73%		78%	
	Unemployment rate	6%		7%	
	Inactivity rate	22%		16%	
Total expenditure on upper secondary educational institutions, in USD² per full-time equivalent student, by programme orientation		2016			
Table C1.1	General programmes	**		USD 9 397	
	Vocational programmes	**		USD 10 922	
Early childhood education and care (ECEC)					
Enrolment rate of 3-5 year-olds in education		2017			
Table B2.2	ECEC and primary education	66%		87%	
Share of children enrolled in private institutions		2017			
Table B2.3	Pre-primary level (ISCED 02)	41%		34%	
Ratio of children to teaching staff		2017			
Table B2.3	Pre-primary level (ISCED 02)	**		16	
Expenditure on children aged 3-5 enrolled in education		2016			
Table B2.4	Annual expenditure per child, in USD ² per child	USD 9 213		USD 8 141	

Source	Main topics in <i>Education at a Glance</i>	United States		OECD average	
Social outcomes and adult learning					
	Participation in formal and/or non-formal education, by educational attainment	2016			
Table A7.1	Below upper secondary	28%		n.a.	
	Upper secondary or post-secondary non-tertiary	50%		n.a.	
	Tertiary	79%		n.a.	
	Participation in cultural or sporting activities in the last 12 months, by educational attainment	2015			
Table A6.1	Below upper secondary	**		n.a.	
	Upper secondary or post-secondary non-tertiary	**		n.a.	
	Tertiary	**		n.a.	
Financial resources invested in education					
	Total expenditure on educational institutions, by level of education²	2016			
		USD/student	% GDP	USD/student	% GDP
Table C1.1 and C2.1	Primary	USD 12 184	1.7%	USD 8 470	1.5%
	Lower secondary	USD 13 153	0.9%	USD 9 884	0.9%
	Upper secondary	USD 14 566	1%	USD 10 368	1.1%
	Tertiary (including R&D)	USD 30 165	2.5%	USD 15 556	1.5%
	Share of expenditure on educational institutions, by final source of funds	2016			
		Public	Private	Public	Private
Table C3.1	Primary, secondary and post-secondary non-tertiary	91%	9%	90%	10%
	Tertiary (including R&D)	35%	65%	66%	32%
	Total public expenditure on primary to tertiary education	2016			
Table C4.1	As a percentage of total government expenditure	11.4%		10.8%	
Teachers, the learning environment and the organisation of schools					
	Actual salaries of teachers and school heads in public institutions relative to earnings of full-time, full-year workers with tertiary education	2017			
		Teachers	School heads	Teachers	School heads
Table D3.2a	Pre-primary	0.62	1.09	0.78	**
	Primary	0.63	1.11	0.84	1.25
	Lower secondary (general programmes)	0.65	1.15	0.88	1.34
	Upper secondary (general programmes)	0.68	1.17	0.93	1.43
	Annual statutory salaries of teachers in public institutions, based on most prevalent qualifications, at different points in teachers' careers²	2018			
		Starting salary	Salary after 15 years of experience	Starting salary	Salary after 15 years of experience
Table D3.1a	Pre-primary	USD 39 506	USD 65 728	USD 31 276	USD 42 078
	Primary	USD 40 067	USD 62 404	USD 33 058	USD 45 947
	Lower secondary (general programmes)	USD 40 602	USD 64 467	USD 34 230	USD 47 675
	Upper secondary (general programmes)	USD 41 430	USD 64 426	USD 35 859	USD 49 804
	Organisation of teachers' working time in public institutions over the school year	2018			
		Net teaching time	Total statutory working time	Net teaching time	Total statutory working time
Tables D4.1a and D4.1b	Pre-primary	1 011 hours	1 980 hours	1 024 hours	1 613 hours
	Primary	1 004 hours	2 016 hours	783 hours	1 612 hours
	Lower secondary (general programmes)	966 hours	2 032 hours	709 hours	1 634 hours
	Upper secondary (general programmes)	966 hours	2 047 hours	667 hours	1 629 hours
	Percentage of teachers who are 50 years old or over	2017			
Table D5.1	Primary to upper secondary	30%		36%	
	Share of female teachers, in public and private institutions	2017			
Table D5.2	Primary	87%		83%	
	Lower secondary	67%		69%	
	Total number of compulsory instruction time, by level of education	2019			
Table D1.1	Primary	5 824 hours		4 568 hours	
	Lower secondary	3 059 hours		3 022 hours	
	Upper secondary	3 109 hours		**	
	Average class size by level of education	2017			
Table D2.1	Primary	21		21	
	Lower secondary	26		23	

The reference year is the year cited or the latest year for which data are available.

1. For some countries, data on foreign students are provided instead of international students.

2. Values reported in equivalent US dollars (USD) have been converted using purchasing power parities (PPPs) for GDP

** Please refer to the source table for details on these data.

Cut-off date for the data: 19 July 2019. Any updates on data can be found on line at <http://dx.doi.org/10.1787/eag-data-en>.