

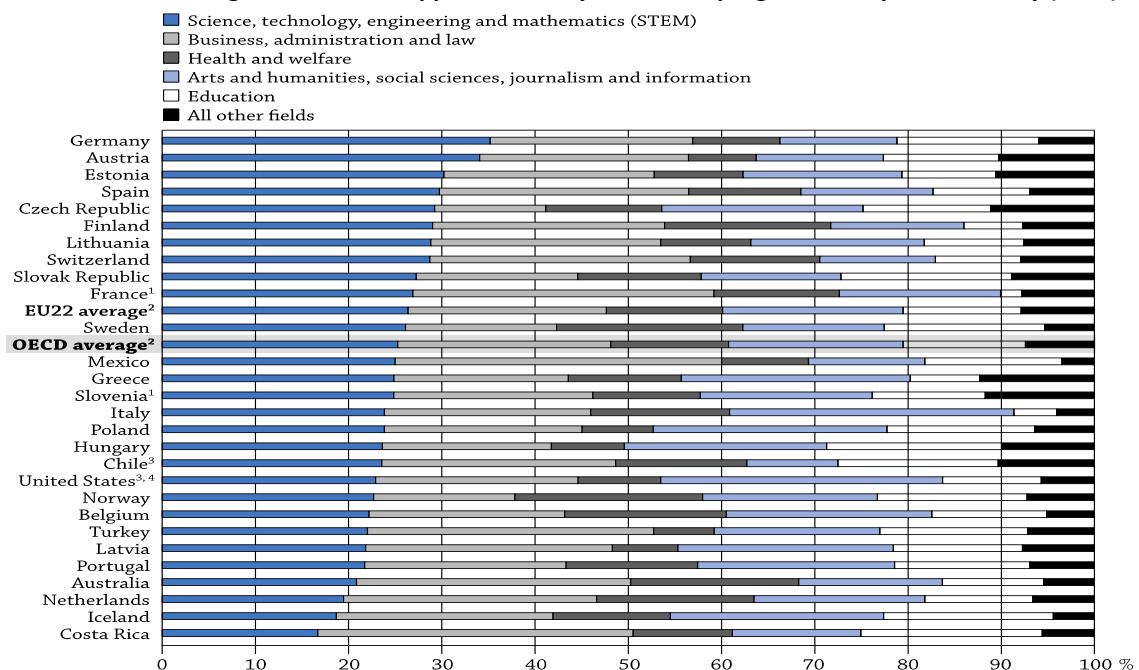
EDUCATION AT A GLANCE 2017

Education at a Glance: OECD Indicators 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 the 35 OECD countries and a number of partner countries.

Czech Republic

- **Arts and humanities, social sciences, information and journalism, followed by engineering** are the most popular fields in the Czech Republic, studied by 22% and 20% of tertiary-educated adults.
- **Expenditure per student for all services in educational institutions** is lower in the Czech Republic than on average across OECD and EU countries. This is mainly due to considerably lower teacher salaries at all levels of education compared to OECD and EU country averages.
- **Achieving upward educational mobility** is challenging in the Czech Republic: adults without tertiary-educated parents are less likely to attain tertiary education themselves than on average in OECD countries.
- **Vocational education and training** is much more prevalent in the Czech Republic than in other OECD and EU countries, with 73% of upper secondary students choosing this pathway over general programmes.

Figure 1: Share of female graduates from upper secondary vocational programmes by field of study (2015)



Note: Science, technology, engineering and mathematics (STEM) comprise the ISCED-F 2013 fields of natural sciences, mathematics and statistics, information and communication technologies, and engineering, manufacturing and construction.

1. The age group refers to 25-34 year-olds.

2. The OECD and EU22 averages exclude France and Slovenia.

3. Year of reference differs from 2016. Refer to the source table for more details.

4. Data refer to bachelor's degree fields, even for those with additional tertiary degrees.

Countries are ranked in descending order of the field of STEM.

Source: OECD (2017), Table A1.3. See Source section for more information and Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).

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Czechs favour engineering over the arts as a field of study

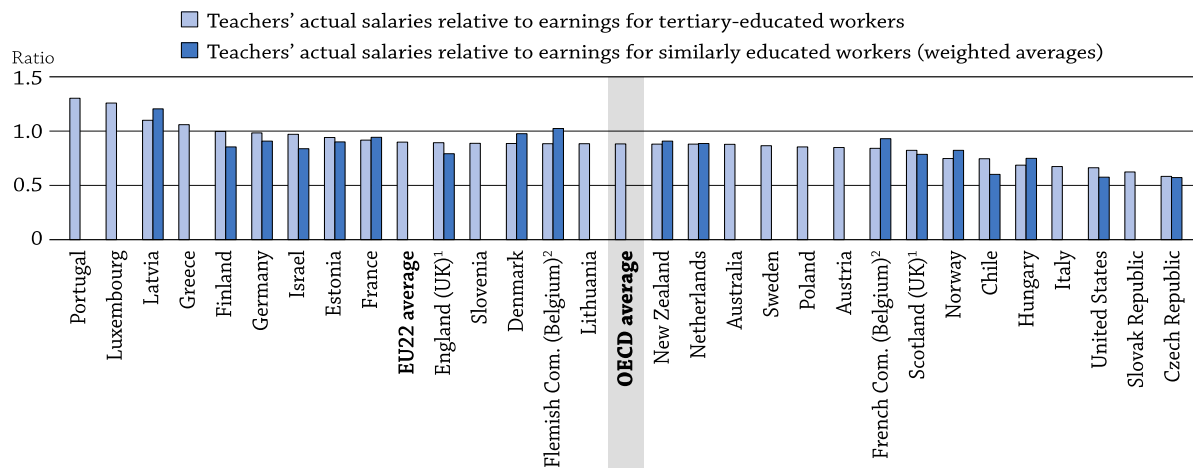
- In 2016, 29% of tertiary-educated 25-64 year-olds in the Czech Republic had attained a degree in one of the STEM fields. This more than the corresponding OECD and EU22 averages of 25% and 26% respectively. The popularity of STEM degrees is driven largely by the popularity of engineering, which far outstrips the fields of natural sciences and information and communication technologies (ICT). At 20%, a larger proportion of tertiary-educated Czech adults were engineers than the average of 17% for OECD and 18% for EU22 countries (Figure 1).
- A similar trend is observed in upper secondary vocational programmes, where 39% of those graduating in 2015 studied engineering, construction and manufacturing, making it the largest field by share of graduates at this level.
- Better employment prospects for engineers help explain its attraction as a field of study. In 2016, the employment rate in the Czech Republic was 92% for those with a tertiary degree in ICT and 91% for those with one in engineering, manufacturing and construction. These are higher than the OECD averages of 88% for ICT degrees and 87% respectively for engineering, manufacturing and construction.
- However, engineering as a field of study is still strongly dominated by men, particularly in vocational programmes. A gender analysis reveals a similar picture in the Czech Republic as in other OECD and EU22 countries. Only 12% of those graduating at upper secondary level in the field of engineering, construction and manufacturing are women in the Czech Republic, similar to the OECD average. On the other hand, 90% of the upper secondary graduates in health and welfare in the Czech Republic were women, more than the OECD and EU22 averages of 82%.

Czech teachers are among the lowest paid in the OECD

- The public sector funds a large share of education expenditure in the Czech Republic: public expenditure accounts for 93% of total funding at primary and lower secondary level and 88% at upper secondary. These numbers are nearly the same as the OECD and EU22 averages.
- In 2014, the Czech Republic's annual expenditure per student by educational institutions for all services was lower than the OECD and EU22 averages at all levels of education from primary through to tertiary. The difference was most stark in tertiary education where the amount spent annually per Czech student was USD 10 521 compared to the OECD average of USD 16 143.
- The Czech Republic spends 3.9% of its gross domestic product (GDP) on primary to tertiary educational institutions while public spending on education was 7.8% of total public expenditure. These figures are both lower than the average OECD figures of 5.2% and 11.3% respectively, although they are similar to neighbouring Hungary and the Slovak Republic.
- The low share of expenditure devoted to teaching staff may partly explain the lower level of expenditure on educational institutions. At primary and lower secondary levels, just 45% of current expenditure goes towards staff compensation (44% in upper secondary), one of the lowest shares of all OECD countries and far below the OECD and EU22 averages of 62% in primary, and the OECD average of 63% in lower secondary.
- Teachers in the Czech Republic get paid less than their counterparts in OECD and EU22 countries on average at all levels of education from pre-primary to upper secondary. An upper secondary teacher with 15 years' experience in earns USD 19 403 in the Czech Republic, less than half the OECD average of USD 46 631.
- Average teacher salaries also lag far behind the average wages for a full-time tertiary-educated worker in the Czech Republic. In 2015, lower secondary teachers working in public institutions earned only 58% of the average salary of a full-time full-wage worker with tertiary education, much less than the OECD and EU22 averages of 88% and 90% respectively which is the lowest among the OECD countries, as is illustrated in Figure 2.
- Teaching time alone does not explain the lower wages received by teachers in the Czech Republic. At the lower and upper secondary levels, Czech teachers have less teaching time than the average for OECD and EU22 countries, but at primary and pre-primary levels they teach longer hours.

- The low pay and difficult teaching conditions may contribute to the unattractiveness of the teaching profession: 39% of teachers are aged over 50 in Czech primary schools and 50% in upper secondary, higher than the OECD average of 32% in primary and 40% in upper secondary.

Figure 2. Lower secondary teachers' salaries relative to earnings for tertiary-educated workers (2015)
Actual salaries of lower secondary teachers teaching general programmes in public institutions



Note: For further details on the different metrics used to calculate these ratios, please refer to the *Methodology* section.

1. Data on earnings for full-time, full-year workers with tertiary education refer to the United Kingdom.

2. Data on earnings for full-time, full-year workers with tertiary education refer to Belgium.

Countries and economies are ranked in descending order of the ratio of teachers' salaries to earnings for full-time, full-year tertiary-educated workers aged 25-64.

Source: OECD (2017), Table D3.2a. 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/10.1787/888933558762>

Is education leading to social convergence?

- Upward mobility in education is proving more challenging in the Czech Republic than in other countries: 85% of 30-44 year-olds without tertiary-educated parents did not attain a tertiary education themselves, compared to 69% on average across OECD countries.
- Czech adults are also more likely to attain a tertiary education if one of their parents did too, although less so than in other OECD countries on average: 61% of 30-44 year-olds with a tertiary-educated parent had achieved a tertiary degree in 2012 compared to 70% on average across OECD countries
- Among tertiary-educated adults (25-64 year-olds) 3% of men and 1% of women report having depression in Czech Republic, compared to 5% of men and 6% of women on average across OECD countries. This lies in contrast with 6% of Czech men and 7% of Czech women with below secondary education who have reported depression. The corresponding OECD average is 10% men and 15% women. Thus higher education seems to lead to better mental health across the OECD and Czech Republic alike but for all levels of education, Czech Republic has less cases of depression than the OECD average for both men and women.

Vocational programmes make up a strong component of the educational landscape

- Almost three-quarters of upper secondary students pursue vocational pathways in the Czech Republic, the highest share among all OECD countries, and first-time graduation rates for vocational programmes are double the rates of general programmes. In contrast, only 46% of upper secondary students are enrolled in vocational programmes on average across OECD countries.
- In spite of the high take up of vocational programmes, combined school- and work-based programmes are still less prevalent in the Czech Republic than in other countries with a strong vocational system, such as Austria or Switzerland. While the share of upper secondary students pursuing vocational paths is similar in all three countries, only 6% of Czech upper secondary students followed combined school- and work-based programmes compared to 33% in Austria and 59% in Switzerland.
- The small difference of 3 percentage points between the upper secondary vocational graduation rates of all students and those below the age of 25 reveals that the vast majority of graduates from these programmes complete their qualifications young in the Czech Republic. This demonstrates the strong focus of its vocational programmes on young adults. This is in contrast to other countries such as Australia, Finland or New Zealand, where larger differences in graduation rates between age groups suggest such programmes offer lifelong learning opportunities.

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Note regarding data from Israel

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.

References

OECD (2017), *Education at a Glance 2017: OECD Indicators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/eag-2017-en>.

For more information on **Education at a Glance 2017** 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. <http://dx.doi.org/10.1787/eag-data-en>.

Explore, compare and visualise more data and analysis using:  **EducationGPS**
<http://gpseducation.oecd.org/CountryProfile?primaryCountry=CZE&treshold=10&topic=EO>.

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Key Facts for the Czech Republic in Education at a Glance 2017

Source	Main topics in <i>Education at a Glance</i>	Czech Republic		OECD average		EU22 average	
Fields of study							
Graduates in upper secondary vocational programmes							
2015							
		%	% Women	%	% Women	%	% Women
Table A2.1	Business, administration and law	19%	67%	20%	66%	19%	66%
	Engineering, manufacturing and construction	39%	12%	34%	12%	33%	11%
	Health and welfare	7%	90%	12%	82%	12%	82%
	Services	20%	65%	17%	60%	19%	59%
New entrants to tertiary education							
2015							
		%	% Women	%	% Women	%	% Women
Table C3.1	Education	9%	82%	9%	78%	9%	79%
	Business, administration and law	20%	63%	23%	54%	23%	57%
	Engineering, manufacturing and construction	18%	31%	16%	24%	15%	25%
Tertiary students enrolled, by mobility status							
2015							
		International students¹	National students	International students¹	National students	International students¹	National students
Table C4.2	Education	2%	11%	3%	8%	3%	8%
	Business, administration and law	22%	20%	27%	23%	26%	22%
	Engineering, manufacturing and construction	14%	16%	17%	12%	17%	15%
Tertiary-educated 25-64 year-olds							
2016							
Table A1.3	Education	14%		13%		13%	
	Business, administration and law	12%		23%		21%	
	Engineering, manufacturing and construction	20%		17%		18%	
Employment rate of tertiary-educated 25-64 year-olds							
2016							
Table A5.3	Education	83%		83%		83%	
	Business, administration and law	85%		85%		85%	
	Engineering, manufacturing and construction	91%		87%		86%	
Early childhood education							
Enrolment rates in early childhood education at age 3							
2015							
Table C2.1	ISCED 01 and 02	77%		78%		80%	
Expenditure on all early childhood educational institutions							
2014							
Table C2.3	As a percentage of GDP	0.5%		0.8%		0.8%	
	Proportions of total expenditure from public sources	92%		82%		85%	
Vocational education and training (VET)							
Enrolment in upper secondary education, by programme orientation							
2015							
		General	Vocational	General	Vocational	General	Vocational
Table C1.3	Enrolment rate among 15-19 year-olds	22%	52%	37%	25%	35%	29%
Graduation rates, by programme orientation							
2015							
		General	Vocational	General	Vocational	General	Vocational
Table A2.2	Upper secondary education - all ages	24%	57%	54%	44%	50%	49%
Employment rate, by programme orientation							
2016							
		General	Vocational	General	Vocational	General	Vocational
Figure A5.3.	25-34 year-olds with upper secondary or post-secondary non-tertiary education as their highest educational attainment level	**	**	70%	80%	69%	79%
Tertiary education							
Share of international or foreign students, by level of tertiary education							
2015							
Table C4.1.	Bachelor's or equivalent	9%		4%		6%	
	Master's or equivalent	12%		12%		12%	
	Doctoral or equivalent	15%		26%		22%	
	All tertiary levels of education	11%		6%		8%	
Educational attainment of 25-64 year-olds							
2016							
Table A1.1	Short-cycle tertiary	0%		8%		6%	
	Bachelor's or equivalent	5%		16%		13%	
	Master's or equivalent	17%		12%		14%	
	Doctoral or equivalent	1%		1%		1%	
Employment rate of 25-64 year-olds, by educational attainment							
2016							
Table A5.1	Short-cycle tertiary	84%		81%		81%	
	Bachelor's or equivalent	80%		83%		82%	
	Master's or equivalent	87%		87%		87%	
	Doctoral or equivalent	94%		91%		91%	
	All tertiary levels of education	86%		84%		84%	
Relative earnings of full-time full-year 25-64 year-old workers, by educational attainment (upper secondary education = 100)							
2015							
Table A6.1	Short-cycle tertiary	112		122		124	
	Bachelor's or equivalent	142		146		138	
	Master's, doctoral or equivalent	180		198		177	
	All tertiary levels of education	169		156		153	

Czech Republic - Country Note - Education at a Glance 2017: OECD Indicators

Source	Main topics in <i>Education at a Glance</i>	Czech Republic		OECD average		EU22 average	
Adult education and learning							
Participation of 25-64 year-olds in adult education²							
Table C6.1a	Participation in formal education only	2012		2012 ³		2012	
	Participation in non-formal education only	2%		4%		n.a.	
	Participation in both formal and non-formal education	44%		39%		n.a.	
	No participation in adult education	4%		7%		n.a.	
Financial investment in education							
Annual expenditure per student, by level of education (in equivalent USD, using PPPs)							
Table B1.1	Primary education	2014		2014		2014	
	Secondary education	USD 5 101		USD 8 733		USD 8 803	
	Tertiary (including R&D activities)	USD 8 191		USD 10 106		USD 10 360	
Total expenditure on primary to tertiary educational institutions							
Table B2.1	As a percentage of GDP	3.9%		5.2%		4.9%	
Total public expenditure on primary to tertiary education							
Table B4.1	As a percentage of total public expenditure	7.8%		11.3%		9.9%	
Teachers							
Actual salaries of teachers in public institutions relative to wages of full-time, full-year workers with tertiary education							
Table D3.2a	Pre-primary school teachers	2015		2015		2015	
	Primary school teachers	0.50		0.78		0.79	
	Lower secondary school teachers (general programmes)	0.58		0.85		0.86	
	Upper secondary school teachers (general programmes)	0.58		0.88		0.90	
Annual statutory salaries of teachers in public institutions, based on typical qualifications, at different points in teachers' careers (in equivalent USD, using PPPs)							
Table D3.1a		Starting salary	Salary after 15 years of experience	Starting salary	Salary after 15 years of experience	Starting salary	Salary after 15 years of experience
	Pre-primary school teachers	USD 17 250	USD 17 903	USD 29 636	USD 39 227	USD 28 726	USD 38 487
	Primary school teachers	USD 17 906	USD 19 403	USD 30 838	USD 42 864	USD 30 080	USD 42 049
	Lower secondary school teachers (general programmes)	USD 17 906	USD 19 403	USD 32 202	USD 44 623	USD 31 498	USD 43 989
Organisation of teachers' working time in public institutions over the school year							
Table D4.1		Net teaching time	Total statutory working time	Net teaching time	Total statutory working time	Net teaching time	Total statutory working time
	Pre-primary school teachers	1159 hours	1760 hours	1001 hours	1608 hours	1034 hours	1564 hours
	Primary school teachers	823 hours	1760 hours	794 hours	1611 hours	767 hours	1557 hours
	Lower secondary school teachers (general programmes)	617 hours	1760 hours	712 hours	1634 hours	663 hours	1593 hours
Percentage of teachers who are 50 years old or over							
Table D5.1	Primary education	2015		2015		2015	
	Upper secondary education	39%		32%		33%	
Share of female teachers in public and private institutions							
Table D5.2	Primary education	2015		2015		2015	
	Upper secondary education	94%		83%		86%	
	Tertiary education	59%		59%		61%	
Ratio of students to teaching staff							
Table D2.2	Primary education	2015		2015		2015	
	Secondary education	19		15		14	
	Tertiary education	11		13		12	
Equity							
Intergenerational mobility in education²							
Tables A4.1 and A4.2	Less than tertiary education (30-44 year-olds' own educational attainment)	2012		2012 ³		2012	
	Tertiary-type B (30-44 year-olds' own educational attainment)	Both parents have less than tertiary		At least one parent attained tertiary		Both parents have less than tertiary	
	Tertiary-type A and advanced research programmes (30-44 year-olds' own educational attainment)	85%		39%		69%	
Transition from school to work							
Percentage of people not in employment, nor in education or training (NEET)							
Table C5.1	18-24 year-olds	2016		2016		2016	
Education and social outcomes							
Percentage of adults who report having depression							
Table A8.1		2014		2014		2014	
	Below upper secondary	Men	Women	Men	Women	Men	Women
	Upper secondary or post-secondary non-tertiary	6%	7%	10%	15%	10%	14%
Tertiary							
3%							
1%							
5%							
6%							
4%							
6%							

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

Refer to Annex 3 for country-specific notes and for more information on data presented in this key facts table (www.oecd.org/education/education-at-a-glance-19991487.htm).

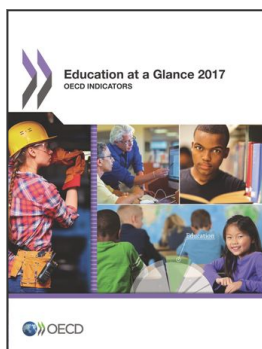
1. For some countries foreign students are provided instead of international students.

2. Data refer to ISCED-97 instead of ISCED-A 2011.

3. OECD average includes some countries with 2015 data.

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

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>



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