

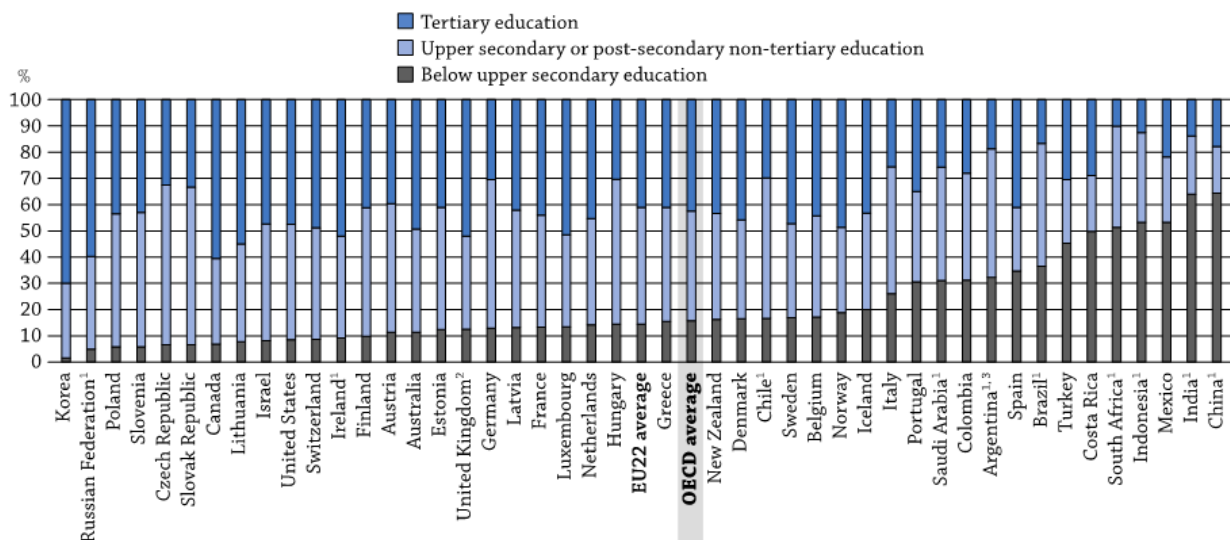
## EDUCATION AT A GLANCE 2017

*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.

### Portugal

- Portugal has a relatively high share of tertiary graduates with degrees in science, technology, engineering and mathematics (STEM) fields. This is mostly driven by graduates in engineering, manufacturing and construction, and this field is becoming even more popular among younger generations.
- Despite below-average expenditure per student in early childhood education, enrolment rates for 3- and 4-year-olds have considerably increased in the past decade, and are above the OECD averages.
- Over half of Portugal's adult population have not attained upper secondary education, and only about 60% of students who enter this level now graduate without excessive delays. Vocational programmes are being developed as a way to improve completion rates and provide better access to the labour market.
- Attainment of tertiary education has increased remarkably, but it remains an important challenge, as only about one-third of young adults in Portugal have attained this level of education.

Figure 1. Educational attainment of 25-34 year-olds (2016)



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

2. Data for upper secondary attainment include completion of a sufficient volume and standard of programmes that would be classified individually as completion of intermediate upper secondary programmes (16% of adults aged 25-64 are in this group).

3. Data should be used with caution. See *Methodology* section for more information.

Countries are ranked in ascending order of the percentage of 25-34 year-olds with below upper secondary education.

Source: OECD / ILO / UIS (2017), Education at a Glance Database, <http://stats.oecd.org/>. See Source section for more information and Annex 3 for notes ([www.oecd.org/education/education-at-a-glance-19991487.htm](http://www.oecd.org/education/education-at-a-glance-19991487.htm)).

StatLink  <http://dx.doi.org/10.1787/888933556957>

## **STEM fields are attracting more tertiary students, especially engineering, manufacturing and construction.**

- Many OECD governments have placed particular emphasis on improving the quality and attractiveness of education in the science, technology, engineering and mathematics (STEM) fields, reflecting the importance of these disciplines for modern society. Portugal recently launched the "Portugal INCoDe 2030", which aims to increase access to technology and promote digital competencies within its population by 2030. In 2015, 28% of tertiary graduates in Portugal gained a degree in the STEM fields, above the OECD average of 23%. This is mostly driven by the large share of graduates with a degree in engineering, construction and manufacturing (see below); in contrast, just 1% of graduates in Portugal studied information and communication technologies (ICT), one of the lowest shares of all the OECD countries (OECD average, 4%).
- Although STEM fields tend to attract more men than women in nearly all OECD and partner countries, the gender gap is less pronounced in Portugal. Some 23% of ICT tertiary entrants and 28% of engineering, manufacturing and construction entrants are women, compared to the OECD averages of 19% and 24% respectively. Women make up the majority (59%) of tertiary entrants into natural sciences, mathematics and statistics, compared with the OECD average of 50%.
- Portugal is experiencing a generational shift in students' choice of tertiary field of study, particularly towards engineering, manufacturing and construction, as well as health and welfare. While only 15% of tertiary-educated 25-64 year-olds in Portugal have a degree in engineering, manufacturing and construction, this field accounted for the greatest share of tertiary graduates in Portugal in 2015 (21% compared to the OECD average of 14%). Similarly, while only 14% of tertiary-educated adults have attained a degree in health and welfare, the field accounted for 19% of tertiary graduates in 2015.

## **Enrolment in early childhood education has considerably increased, but expenditure per child remains below average.**

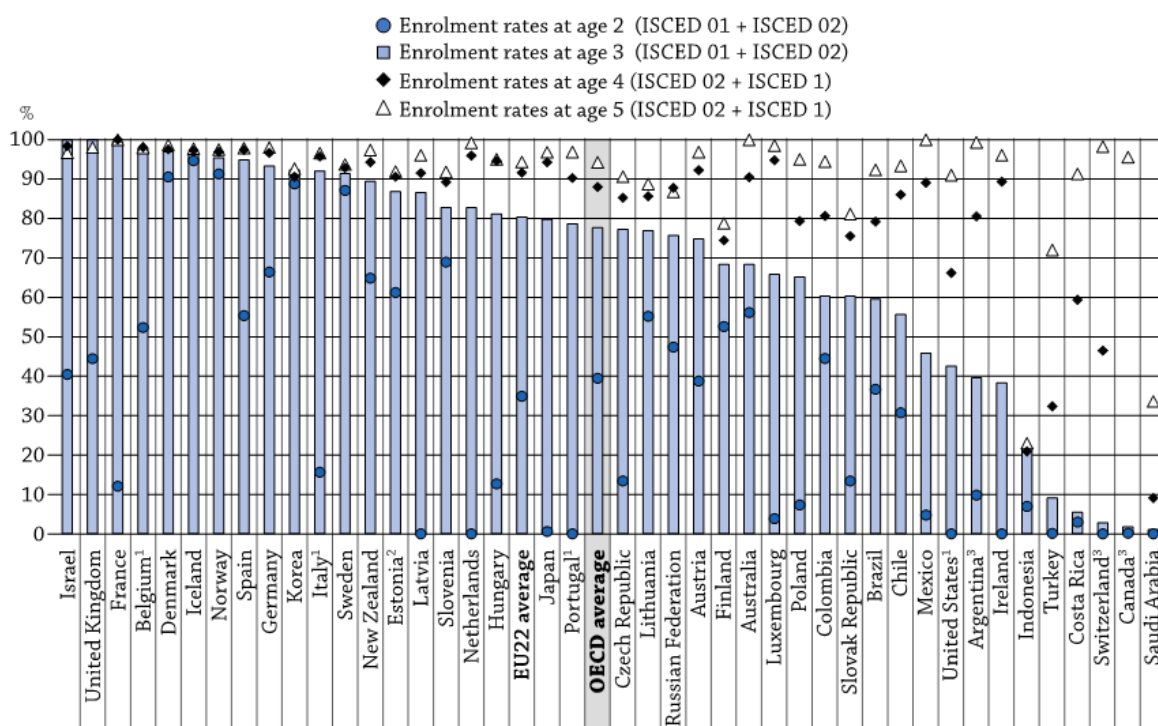
- Portugal has increased participation in early childhood education considerably in the last decade. Between 2005 and 2015, the enrolment rate of 3-year-olds in pre-primary education increased from 61% to 79% and that of 4-year-olds from 84% to 90%, meaning both rates are above the OECD averages (Figure 2). This is a step in the right direction towards achieving the country's goal to make early childhood education universal for 3-5 year-olds by 2020. Such universalisation has already been achieved for 5- and 6-year-olds, with enrolment rates of 97% and 98% respectively.
- Nearly half (47%) of the children enrolled in pre-primary education in Portugal attend private institutions, most of which are government-dependent. This is considerably above the OECD average of 34%, but there is wide variation across countries. Portugal also has one of the lowest shares of total expenditure from public sources at this level – 66% compared to the OECD average of 83%.
- Total expenditure on pre-primary educational institutions amounts to 0.6% of Portugal's gross domestic product (GDP), the same as the OECD average. However, this measure of expenditure is influenced by the relatively long duration of pre-primary programmes in Portugal (3 years, whereas most countries' programmes vary from 1 to 3 years). Portugal's annual expenditure per student is below average: USD 6 300<sup>1</sup> compared to the OECD average of USD 8 700.

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

**Figure 2. Enrolment rates at ages 2 to 5 in early childhood and primary education (2015)**

Early childhood educational development programmes = ISCED 01, pre-primary education = ISCED 02, primary education = ISCED 1



1. Includes only pre-primary education at the ages of 2 and 3 (ISCED 02).  
 2. Includes early childhood development programmes at the ages of 4 and 5 (ISCED 01).  
 3. Year of reference 2014.

Countries are ranked in descending order of the enrolment rates of 3-year-olds.

Source: OECD (2017), Table C2.1. See Annex 3 for notes ([www.oecd.org/education/education-at-a-glance-19991487.htm](http://www.oecd.org/education/education-at-a-glance-19991487.htm)).

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## Vocational programmes may help improve Portugal's low upper secondary attainment rate

- Some 31% of 25-34 year-olds in Portugal have not attained upper secondary education, almost double the OECD average and one of the highest rates among OECD countries (Figure 1). Nevertheless, this represents a considerable improvement compared to the educational attainment of older generations: over half (53%) of 25-64 year-olds have not attained this level. If current patterns continue, almost 90% of today's young people in Portugal are expected to graduate from upper secondary education at some point in their lifetime.
- Increasing upper secondary attainment requires overcoming two challenges: ensuring access in the first place, and then completion once students have entered. In Portugal, over 96% of 15-17 year-olds – the age group that theoretically corresponds to upper secondary education – are enrolled in secondary education. Completion, however, remains a significant challenge. Only half of the students who enter upper secondary education graduate within three years, the expected duration of the programme, compared to an average of 68% across countries with available data. Within five years, or two years after the end of the theoretical duration, completion increases to 61%, which is still considerably below the average of 75%. Of all countries with available data, Portugal has the highest share of students who leave the education system without graduating by the theoretical duration plus two years: 35%, compared to an average of 21%.
- As a way to increase upper secondary completion and provide young people with more direct pathways into the labour market, Portugal has been focusing on developing and promoting vocational education and training. In 2015, 45% of Portuguese students enrolled in upper secondary education participated in vocational programmes.
- Unlike most countries with available data, vocational programmes in Portugal are more successful at retaining upper secondary students until graduation than general programmes. While only 59% of entrants to general programmes graduate within five years, the figure is 64% for vocational programmes.

## Access to tertiary education remains limited and expenditure at this level has been falling since 2010.

- In 2016, 24% of Portugal's adult population (25-64 year-olds) had attained tertiary education, below the OECD average of 37%. However, tertiary attainment has increased considerably in Portugal: 35% of the younger generation (25-34 year-olds) have attained tertiary education (Figure 1), an increase of 16 percentage points since 2005. In Portugal about 15% of the students who graduate from tertiary education for the first time attain a long first degree (*Mestrado Integrado*) – an integrated bachelor's and master's degree that lasts at least five years. As a result, although only 6% of adults have attained a bachelor's degree (OECD average, 16%), a comparatively large share of the population has attained a master's degree: 18% compared with the OECD average of 12%.
- Although annual expenditure per student by educational institutions in Portugal is below the OECD average for all levels of education, the difference is most significant at the tertiary level. In Portugal, educational institutions spend USD 11 800 per student in bachelor's master's or doctoral programmes, which is about USD 4 000 less than the OECD average. This lower expenditure is mostly driven by lower spending on educational core services, as the expenditure on research and development is slightly above the OECD average. Moreover, while expenditure on primary to post-secondary non-tertiary education increased by 12% between 2010 and 2014, expenditure on tertiary education decreased by 9% over the same period. As the number of tertiary students also fell during that time, the resulting decrease in expenditure per student was only 3%, but this was against an average increase of 6% across OECD countries.
- Less than 4% of Portuguese tertiary students are enrolled abroad, whereas international students make up 5% of the total tertiary students in the country. Portugal thus has 1.4 international students for every national student abroad, meaning the country has benefitted from some "brain gain" among tertiary students. As in most OECD countries, the large majority of international students in Portugal choose the fields of business administration and law (25%) or engineering, manufacturing and construction (19%).

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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](http://www.oecd.org/education/education-at-a-glance-19991487.htm).

Updated data can be found on line at **OECD.Stat** as well as 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=PRT&treshold=10&topic=EO>.

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## Key Facts for Portugal in Education at a Glance 2017

Source	Main topics in <i>Education at a Glance</i>	Portugal		OECD average		EU22 average	
<b>Fields of study</b>							
<b>Graduates in upper secondary vocational programmes</b>							
<b>2015</b>							
		<b>%</b>	<b>% Women</b>	<b>%</b>	<b>% Women</b>	<b>%</b>	<b>% Women</b>
Table A2.1	Business, administration and law	15%	64%	20%	66%	19%	66%
	Engineering, manufacturing and construction	19%	17%	34%	12%	33%	11%
	Health and welfare	13%	86%	12%	82%	12%	82%
	Services	25%	50%	17%	60%	19%	59%
<b>New entrants to tertiary education</b>							
<b>2015</b>							
		<b>%</b>	<b>% Women</b>	<b>%</b>	<b>% Women</b>	<b>%</b>	<b>% Women</b>
Table C3.1	Education	6%	79%	9%	78%	9%	79%
	Business, administration and law	24%	57%	23%	54%	23%	57%
	Engineering, manufacturing and construction	17%	28%	16%	24%	15%	25%
<b>Tertiary students enrolled, by mobility status</b>							
<b>2015</b>							
		<b>International students<sup>1</sup></b>	<b>National students</b>	<b>International students<sup>1</sup></b>	<b>National students</b>	<b>International students<sup>1</sup></b>	<b>National students</b>
Table C4.2.	Education	7%	4%	3%	8%	3%	8%
	Business, administration and law	25%	21%	27%	23%	26%	22%
	Engineering, manufacturing and construction	19%	22%	17%	12%	17%	15%
<b>Tertiary-educated 25-64 year-olds</b>							
<b>2016</b>							
Table A1.3	Education	15%		13%		13%	
	Business, administration and law	22%		23%		21%	
	Engineering, manufacturing and construction	15%		17%		18%	
<b>Employment rate of tertiary-educated 25-64 year-olds</b>							
<b>2016</b>							
Table A5.3	Education	83%		83%		83%	
	Business, administration and law	87%		85%		85%	
	Engineering, manufacturing and construction	84%		87%		86%	
<b>Early childhood education</b>							
<b>Enrolment rates in early childhood education at age 3</b>							
<b>2015</b>							
Table C2.1	ISCED 01 and 02	**		78%		80%	
<b>Expenditure on all early childhood educational institutions</b>							
<b>2014</b>							
Table C2.3	As a percentage of GDP	0.6%		0.8%		0.8%	
	Proportions of total expenditure from public sources	66%		82%		85%	
<b>Vocational education and training (VET)</b>							
<b>Enrolment in upper secondary education, by programme orientation</b>							
<b>2015</b>							
		<b>General</b>	<b>Vocational</b>	<b>General</b>	<b>Vocational</b>	<b>General</b>	<b>Vocational</b>
Table C1.3	Enrolment rate among 15-19 year-olds	37%	23%	37%	25%	35%	29%
<b>Graduation rates, by programme orientation</b>							
<b>2015</b>							
		<b>General</b>	<b>Vocational</b>	<b>General</b>	<b>Vocational</b>	<b>General</b>	<b>Vocational</b>
Table A2.2	Upper secondary education - all ages	45%	44%	54%	44%	50%	49%
<b>Employment rate, by programme orientation</b>							
<b>2016</b>							
		<b>General</b>	<b>Vocational</b>	<b>General</b>	<b>Vocational</b>	<b>General</b>	<b>Vocational</b>
Figure A5.3.	25-34 year-olds with upper secondary or post-secondary non-tertiary education as their highest educational attainment level	78%	78%	70%	80%	69%	79%
<b>Tertiary education</b>							
<b>Share of international or foreign students, by level of tertiary education</b>							
<b>2015</b>							
Table C4.1.	Bachelor's or equivalent	3%		4%		6%	
	Master's or equivalent	6%		12%		12%	
	Doctoral or equivalent	21%		26%		22%	
	All tertiary levels of education	5%		6%		8%	
<b>Educational attainment of 25-64 year-olds</b>							
<b>2016</b>							
Table A1.1	Short-cycle tertiary	**		8%		6%	
	Bachelor's or equivalent	6%		16%		13%	
	Master's or equivalent	18%		12%		14%	
	Doctoral or equivalent	1%		1%		1%	
<b>Employment rate of 25-64 year-olds, by educational attainment</b>							
<b>2016</b>							
Table A5.1	Short-cycle tertiary	**		81%		81%	
	Bachelor's or equivalent	78%		83%		82%	
	Master's or equivalent	87%		87%		87%	
	Doctoral or equivalent	88%		91%		91%	
	All tertiary levels of education	85%		84%		84%	
<b>Relative earnings of full-time full-year 25-64 year-old workers, by educational attainment (upper secondary education = 100)</b>							
<b>2015</b>							
Table A6.1	Short-cycle tertiary	165		122		124	
	Bachelor's or equivalent	169		146		138	
	Master's, doctoral or equivalent	**		198		177	
	All tertiary levels of education	169		156		153	

## Portugal - Country Note - Education at a Glance 2017: OECD Indicators

Source	Main topics in <i>Education at a Glance</i>	Portugal		OECD average		EU22 average	
<b>Adult education and learning</b>							
<b>Participation of 25-64 year-olds in adult education<sup>2</sup></b>							
Table C6.1a		<b>2012</b>		<b>2012<sup>3</sup></b>		<b>2012</b>	
	Participation in formal education only	**		4%		n.a.	
	Participation in non-formal education only	**		39%		n.a.	
	Participation in both formal and non-formal education	**		7%		n.a.	
	No participation in adult education	**		50%		n.a.	
<b>Financial investment in education</b>							
<b>Annual expenditure per student, by level of education (in equivalent USD, using PPPs)</b>							
Table B1.1		<b>2014</b>					
	Primary education	USD 6 474		USD 8 733		USD 8 803	
	Secondary education	USD 8 821		USD 10 106		USD 10 360	
	Tertiary (including R&D activities)	USD 11 813		USD 16 143		USD 16 164	
<b>Total expenditure on primary to tertiary educational institutions</b>							
Table B2.1		<b>2014</b>					
	As a percentage of GDP	5.8%		5.2%		4.9%	
<b>Total public expenditure on primary to tertiary education</b>							
Table B4.1		<b>2014</b>					
	As a percentage of total public expenditure	8.9%		11.3%		9.9%	
<b>Teachers</b>							
<b>Actual salaries of teachers in public institutions relative to wages of full-time, full-year workers with tertiary education</b>							
Table D3.2a		<b>2015</b>					
	Pre-primary school teachers	1.46		0.78		0.79	
	Primary school teachers	1.33		0.85		0.86	
	Lower secondary school teachers (general programmes)	1.30		0.88		0.90	
	Upper secondary school teachers (general programmes)	1.42		0.94		0.96	
<b>Annual statutory salaries of teachers in public institutions, based on typical qualifications, at different points in teachers' careers (in equivalent USD, using PPPs)</b>							
Table D3.1a		<b>2015</b>					
		<b>Starting salary</b>	<b>Salary after 15 years of experience</b>	<b>Starting salary</b>	<b>Salary after 15 years of experience</b>	<b>Starting salary</b>	<b>Salary after 15 years of experience</b>
	Pre-primary school teachers	USD 32 644	USD 39 129	USD 29 636	USD 39 227	USD 28 726	USD 38 487
	Primary school teachers	USD 32 644	USD 39 129	USD 30 838	USD 42 864	USD 30 080	USD 42 049
	Lower secondary school teachers (general programmes)	USD 32 644	USD 39 129	USD 32 202	USD 44 623	USD 31 498	USD 43 989
Upper secondary school teachers (general programmes)	USD 32 644	USD 39 129	USD 33 824	USD 46 631	USD 32 503	USD 46 151	
<b>Organisation of teachers' working time in public institutions over the school year</b>							
Table D4.1		<b>2015</b>					
		<b>Net teaching time</b>	<b>Total statutory working time</b>	<b>Net teaching time</b>	<b>Total statutory working time</b>	<b>Net teaching time</b>	<b>Total statutory working time</b>
	Pre-primary school teachers	955 hours	1602 hours	1001 hours	1608 hours	1034 hours	1564 hours
	Primary school teachers	743 hours	1442 hours	794 hours	1611 hours	767 hours	1557 hours
	Lower secondary school teachers (general programmes)	605 hours	1442 hours	712 hours	1634 hours	663 hours	1593 hours
Upper secondary school teachers (general programmes)	605 hours	1442 hours	662 hours	1620 hours	629 hours	1580 hours	
<b>Percentage of teachers who are 50 years old or over</b>							
Table D5.1		<b>2015</b>					
	Primary education	37%		32%		33%	
	Upper secondary education	38%		40%		42%	
<b>Share of female teachers in public and private institutions</b>							
Table D5.2		<b>2015</b>					
	Primary education	80%		83%		86%	
	Upper secondary education	65%		59%		61%	
	Tertiary education	44%		43%		44%	
<b>Ratio of students to teaching staff</b>							
Table D2.2		<b>2015</b>					
	Primary education	14		15		14	
	Secondary education	10		13		12	
	Tertiary education	14		16		16	
<b>Equity</b>							
<b>Intergenerational mobility in education<sup>2</sup></b>							
Tables A4.1 and A4.2		<b>2012</b>		<b>2012<sup>3</sup></b>		<b>2012</b>	
		<b>Both parents have less than tertiary</b>	<b>At least one parent attained tertiary</b>	<b>Both parents have less than tertiary</b>	<b>At least one parent attained tertiary</b>	<b>Both parents have less than tertiary</b>	<b>At least one parent attained tertiary</b>
	Less than tertiary education (30-44 year-olds' own educational attainment)	**	**	69%	31%	n.a.	
Tertiary-type B (30-44 year-olds' own educational attainment)	**	**	12%	16%	n.a.		
Tertiary-type A and advanced research programmes (30-44 year-olds' own educational attainment)	**	**	20%	55%	n.a.		
<b>Transition from school to work</b>							
<b>Percentage of people not in employment, nor in education or training (NEET)</b>							
Table C5.1	18-24 year-olds	18%		15%		15%	
<b>Education and social outcomes</b>							
<b>Percentage of adults who report having depression</b>							
Table A8.1		<b>2014</b>					
		<b>Men</b>	<b>Women</b>	<b>Men</b>	<b>Women</b>	<b>Men</b>	<b>Women</b>
	Below upper secondary	7%	22%	10%	15%	10%	14%
	Upper secondary or post-secondary non-tertiary	2%	13%	6%	10%	6%	10%
	Tertiary	4%	9%	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](http://www.oecd.org/education/education-at-a-glance-19991487.htm)).

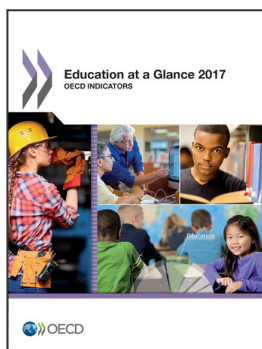
1. For some countries foreign students are provided instead of international students.

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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