

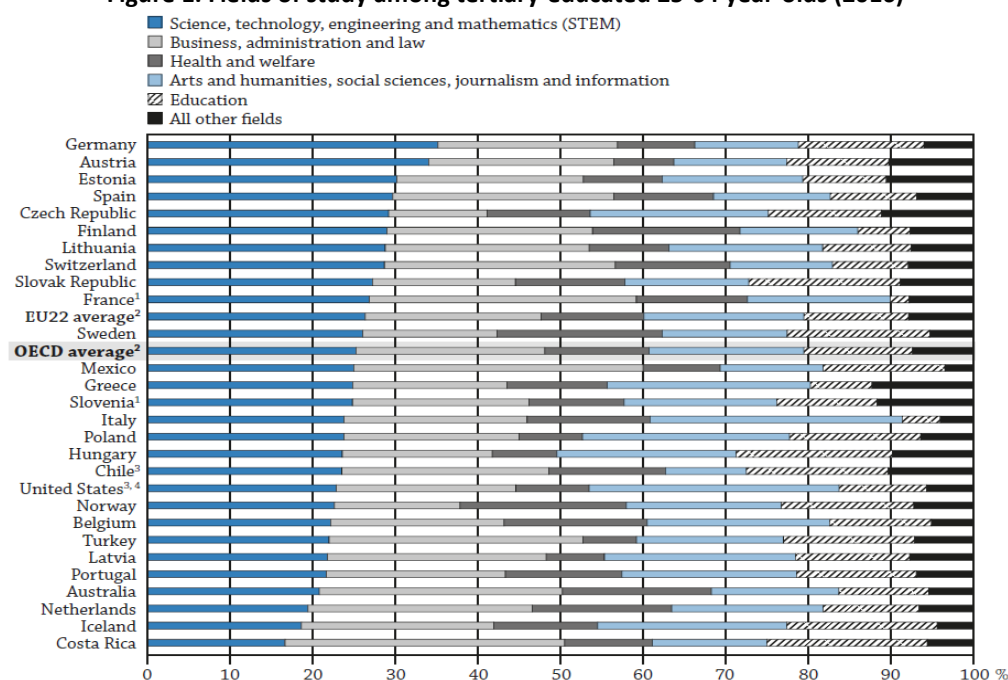
EDUCATION AT A GLANCE 2017

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.

Australia

- **Australia has a comparatively low share of graduates in science-related fields** among tertiary-educated adults, while the opposite is true for business, administration and law.
- **Australia relies relatively heavily on private sources of funds for education at all education levels.** Nevertheless, high shares of public transfers and payments to the non-educational private sector, widespread availability of scholarships and grants, and high employment rates among Australian students improve accessibility.
- Although Australia allocates a comparatively small share of its gross domestic product (GDP) to early childhood education, this is partly driven by the fact that **pre-primary education is only part-time and lasts for just one year before students begin primary education at the age of 5.** A share of children roughly equal to the OECD average participates in early childhood educational development programmes delivered through childcare centres before beginning pre-primary education.
- 15% of Australia's tertiary students are international while **Australians themselves very seldom study abroad.**

Figure 1. Fields of study among tertiary-educated 25-64 year-olds (2016)



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).

StatLink <http://dx.doi.org/10.1787/888933556938>

Australian students are less likely than average to study engineering, despite favourable labour-market outcomes for these graduates

- Australia has a comparatively low share of graduates in engineering, manufacturing and construction among tertiary-educated adults (11% compared to 17% on average), and this share may be decreasing among younger generations as only 8% of graduates in 2015 received a degree in those fields. Graduates from these fields face the highest employment rate across the different fields of study in the country, at 88% compared to a total employment rate of 84%.
- The share of graduates in the other science-related fields of information and communications technologies (ICT) and natural sciences, mathematics and statistics, each at 5%, is close to the respective OECD averages, and has remained relatively constant across the younger generation. The employment rate for adults with a degree in ICT is relatively high (86% compared to an OECD average of 88%) and for those with a degree in natural sciences, mathematics and statistics it equals the OECD average (83%), but is below that of the other science-related fields.
- Compared to national students, international students are disproportionately likely to study information and communication technologies, and engineering, manufacturing and construction. While these patterns are common to most OECD countries, they are more pronounced in Australia.

Households account for a high share of overall education expenditure, though public grants and transfers are widespread at the tertiary level

- Australia relies relatively heavily on private sources of funding for education; for primary to post-secondary non-tertiary education, just 81% of expenditure came from public sources, with households accounting for 16%. Among OECD countries, only Chile and Mexico had greater shares of expenditure coming from households, and on average 91% of expenditure comes from public sources. At the tertiary level, Australian households and international students contribute 48% of expenditure on educational institutions, compared to an OECD average of 22%. Only in Chile (55%) and Japan (51%) do households account for a greater share of tertiary expenditure.
- Government spending on education increased by 6% from 2010 to 2014, but because total government expenditure for all services increased by 18%, the relative importance of public expenditure on educational institutions from primary to tertiary levels diminished over the same period. Despite the increase, total government expenditure in Australia is the seventh-lowest in the OECD, at 35% of GDP, compared to an OECD average of 43%.
- Nevertheless, certain features of Australia's education system support students' ability to finance their education. Australia has the highest share of public education expenditure outside institutions (including income support), at 17.8% of government expenditure on primary to tertiary education.¹ While public expenditure on educational institutions amounts to 3.9% of GDP (less than the OECD average of 4.4%), total public expenditure for education, which includes transfers not attributable to educational institutions, amounts to 4.8% of GDP for both Australia and the OECD average.
- At the tertiary level, scholarships, grants and public loans are widespread: 59% of Australian undergraduate students receive some combination of public loans and scholarships or grants, and just 12% receive neither. Moreover, 46% of students aged 15-24 also work in Australia, compared to 38% on average in OECD countries.
- When both public and private sources are taken into account, overall spending on educational institutions is above average in Australia, amounting to 5.8% of GDP from primary to tertiary levels and exceeding the OECD average of 5.2%. Average expenditure per full-time equivalent student by educational institutions amounts to USD 11 100² for primary to tertiary education, compared to USD 10 800 on average for OECD countries.

¹ Public transfers and payments to the non-educational private sector comprise public transfers that are attributable to educational institutions as well as public subsidies to households for living costs, including public student loans, grants, scholarships and subsidies to private student loans.

² All dollar values are adjusted for purchasing power parity (PPP).

The low share of GDP dedicated to Australia's pre-primary programmes is explained by the early starting age for primary education

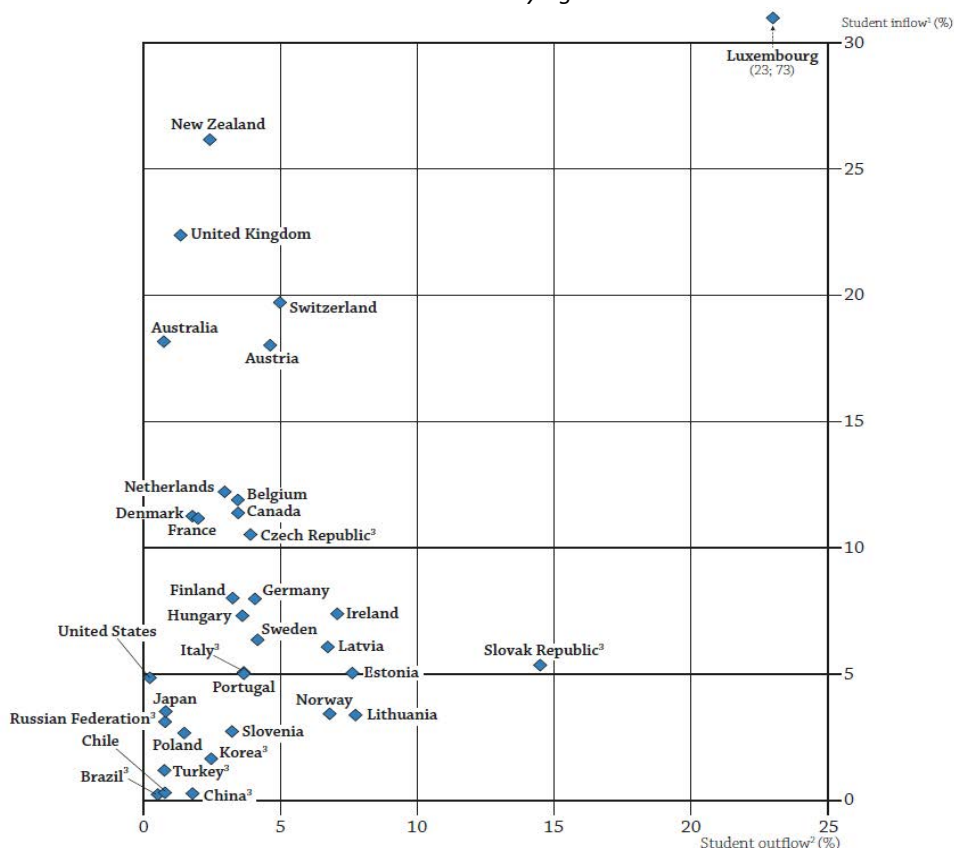
- Although Australia allocates a comparatively small percentage of GDP to early childhood education (ECE), this is partly driven by the fact that pre-primary education is only part-time, and lasts for just one year before students begin primary education at the age of 5. Australia spends just 0.2% of GDP on pre-primary educational institutions, but annual expenditure per full-time equivalent student is USD 12 600 compared to an OECD average of USD 8 700. Overall expenditure on early childhood education is USD 12 500 per full-time equivalent, versus USD 8 900 on average for OECD countries.
- Nevertheless, early childhood education is disproportionately privately funded compared to most OECD countries. With 28% of funding for pre-primary education coming from private sources, and 37% for early childhood educational development, Australia is relatively unusual; only Japan, Portugal and the United Kingdom see greater shares of private expenditure on pre-primary education among OECD member countries.
- Most students in pre-primary education attend government-dependent private institutions (79%), with the rest attending public ones. While on average 67% of students attend public institutions in OECD countries, there are other countries which also rely heavily on private institutions, including, Ireland (98%), Korea (79%) and New Zealand (99%). In these three countries, however, the proportion of total expenditure on ECE educational institutions from public sources is at least 83%, while it is 72% in Australia.
- Some 56% of 2-year-olds in Australia are enrolled in early childhood educational education, above the OECD average of 39%. However, participation among 3-year-olds lags behind: total enrolment is 68%, below the OECD average of 78%.
- Enrolment rates for 4-year-olds in pre-primary and primary education jumped significantly between 2005 and 2015, from 53% overall to 90%. This was driven entirely by increased enrolment in pre-primary education, as a tiny percentage (2%) of children attend primary school by the age of 4. Boosting enrolment was an aim of Australia's National Partnership Agreement on Universal Access to Early Childhood Education, implemented in 2008. The OECD average also jumped significantly, so that while Australia was approximately 20 percentage points behind the OECD average in 2005, they are roughly equal now (the current OECD average is 87%).

Australia has high tertiary attainment and attracts large numbers of international students

- Nearly 50% of young adults (25-34 year-olds) in Australia have attained tertiary education, one of the highest shares across OECD countries and considerably above the OECD average of 43%. As in all OECD countries, tertiary graduates in Australia face more favourable conditions in the labour market than individuals with lower educational attainment, enjoying lower unemployment rates and a higher earnings premium, though these advantages are less pronounced in Australia than in other countries. Tertiary-educated adults in Australia earn 40% more than those with no attainment beyond upper secondary education, which is below the OECD average of 56%. This lower pay gap can be explained in part by the comparatively high earnings of those with upper secondary education and the relatively high proportion of the population with tertiary attainment.
- In 2015, Australia had 294 000 international students enrolled in tertiary education, surpassed only by the United Kingdom and the United States in absolute numbers. These international students represented 15% of Australia's tertiary students, one of the highest shares across OECD countries and over 2.5 times more than the OECD average. The greatest shares of international students in Australia are at the master's and doctoral levels, where they comprise 43% and 34% of all students respectively. In comparison, the OECD average is for international students to make up just 6% of all tertiary students in a given country, rising to just 12% at the master's level and 26% at the doctoral level.
- At the same time, Australians themselves very seldom study abroad: only 1% of national students were enrolled abroad in 2015, meaning that Australia was over 24 times more likely to accept a foreign student than to send a national one abroad. Among OECD countries, only the United States has a smaller percentage of its student population enrolled abroad (Figure 2).

Figure 2. International student circulation in total tertiary education (2015)

International or foreign students studying in the country and national students studying abroad as a percentage of total national students studying home and abroad



1. Student inflow represents the number of international students on a country's soil for every 100 national students studying home or abroad in the OECD area (y-axis).

2. Student outflow represents the percentage of national students studying abroad (x-axis).

3. Data refer to foreign students instead of international students.

Source: OECD (2017), Table C4.3. See Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).

StatLink <http://dx.doi.org/10.1787/888933558420>

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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 **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: **Education GPS**
<http://gpseducation.oecd.org/CountryProfile?primaryCountry=AUS&treshold=10&topic=EO>.

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Key Facts for Australia in Education at a Glance 2017

Source	Main topics in <i>Education at a Glance</i>	Australia		OECD average	
Fields of study					
	Graduates in upper secondary vocational programmes	2015			
		%	% Women	%	% Women
Table A2.1	Business, administration and law	26%	49%	20%	66%
	Engineering, manufacturing and construction	27%	10%	34%	12%
	Health and welfare	26%	85%	12%	82%
	Services	11%	61%	17%	60%
	New entrants to tertiary education	2015			
		%	% Women	%	% Women
Table C3.1	Education	**	**	9%	78%
	Business, administration and law	**	**	23%	54%
	Engineering, manufacturing and construction	**	**	16%	24%
	Tertiary students enrolled, by mobility status	2015			
		International students ¹	National students	International students ¹	National students
Table C4.2.	Education	2%	11%	3%	8%
	Business, administration and law	51%	30%	27%	23%
	Engineering, manufacturing and construction	13%	8%	17%	12%
	Tertiary-educated 25-64 year-olds	2016			
		11%		13%	
Table A1.3	Education	11%		13%	
	Business, administration and law	29%		23%	
	Engineering, manufacturing and construction	11%		17%	
	Employment rate of tertiary-educated 25-64 year-olds	2016			
		82%		83%	
Table A5.3	Education	82%		83%	
	Business, administration and law	85%		85%	
	Engineering, manufacturing and construction	88%		87%	
Early childhood education					
	Enrolment rates in early childhood education at age 3	2015			
Table C2.1	ISCED 01 and 02	68%		78%	
	Expenditure on all early childhood educational institutions	2014			
Table C2.3	As a percentage of GDP	0.5%		0.8%	
	Proportions of total expenditure from public sources	67%		82%	
Vocational education and training (VET)					
	Enrolment in upper secondary education, by programme orientation	2015			
		General	Vocational	General	Vocational
Table C1.3	Enrolment rate among population aged 15-19 year-olds	35%	9%	37%	25%
	Graduation rates, by programme orientation	2015			
		General	Vocational	General	Vocational
Table A2.2	Upper secondary education - All ages	77%	53%	54%	44%
	Employment rate, by programme orientation	2016			
		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	75%	83%	70%	80%
Tertiary education					
	Share of international or foreign students, by level of tertiary education	2015			
		13%		4%	
Table C4.1.	Bachelor's or equivalent	13%		4%	
	Master's or equivalent	43%		12%	
	Doctoral or equivalent	34%		26%	
	All tertiary levels of education	15%		6%	
	Educational attainment of 25-64 year-olds	2016			
		12%		8%	
Table A1.1	Short-cycle tertiary	12%		8%	
	Bachelor's or equivalent	25%		16%	
	Master's or equivalent	6%		12%	
	Doctoral or equivalent	1%		1%	
	Employment rate of 25-64 year-olds, by educational attainment	2016			
		81%		81%	
Table A5.1	Short-cycle tertiary	81%		81%	
	Bachelor's or equivalent	84%		83%	
	Master's or equivalent	84%		87%	
	Doctoral or equivalent	90%		91%	
	All tertiary levels of education	84%		84%	
	Relative earnings of full-time full-year 25-64 year-old workers, by educational attainment (upper secondary education = 100)	2015			
		108		122	
Table A6.1	Short-cycle tertiary	108		122	
	Bachelor's or equivalent	143		146	
	Master's, doctoral or equivalent	179		198	
	All tertiary levels of education	140		156	

Source	Main topics in <i>Education at a Glance</i>	Australia		OECD average	
Adult education and learning					
	Participation of 25-64 year-olds in adult education ²	2012		2012 ³	
Table C6.1a	Participation in formal education only	5%		4%	
	Participation in non-formal education only	39%		39%	
	Participation in both formal and non-formal education	12%		7%	
	No participation in adult education	44%		50%	
Financial investment in education					
	Annual expenditure per student, by level of education (in equivalent USD, using PPPs)	2014			
Table B1.1	Primary education	USD 8 251		USD 8 733	
	Secondary education	USD 11 023		USD 10 106	
	Tertiary (including R&D activities)	USD 18 038		USD 16 143	
	Total expenditure on primary to tertiary educational institutions	2014			
Table B2.1	As a percentage of GDP	5.8%		5.2%	
	Total public expenditure on primary to tertiary education	2014			
Table B4.1	As a percentage of total public expenditure	13.4%		11.3%	
Teachers					
	Actual salaries of teachers in public institutions relative to wages of full-time, full-year workers with tertiary education	2015			
Table D3.2a	Pre-primary school teachers	**		0.78	
	Primary school teachers	0.87		0.85	
	Lower secondary school teachers (general programmes)	0.88		0.88	
	Upper secondary school teachers (general programmes)	0.88		0.94	
	Annual statutory salaries of teachers in public institutions, based on typical qualifications, at different points in teachers' careers (in equivalent USD, using PPPs)	Starting salary	Salary after 15 years of experience	Starting salary	Salary after 15 years of experience
Table D3.1a	Pre-primary school teachers	USD 41 267	USD 59 029	USD 29 636	USD 39 227
	Primary school teachers	USD 40 902	USD 59 361	USD 30 838	USD 42 864
	Lower secondary school teachers (general programmes)	USD 40 874	USD 59 425	USD 32 202	USD 44 623
	Upper secondary school teachers (general programmes)	USD 40 874	USD 59 425	USD 33 824	USD 46 631
	Organisation of teachers' working time in public institutions over the school year	2015			
		Net teaching time	Total statutory working time	Net teaching time	Total statutory working time
Table D4.1	Pre-primary school teachers	882 hours	**	1001 hours	1608 hours
	Primary school teachers	866 hours	**	794 hours	1611 hours
	Lower secondary school teachers (general programmes)	806 hours	**	712 hours	1634 hours
	Upper secondary school teachers (general programmes)	804 hours	**	662 hours	1620 hours
	Percentage of teachers who are 50 years old or over	2015			
Table D5.1	Primary education	**		32%	
	Upper secondary education	**		40%	
	Share of female teachers in public and private institutions	2015			
Table D5.2	Primary education	**		83%	
	Upper secondary education	**		59%	
	Tertiary education	**		43%	
	Ratio of students to teaching staff	2015			
Table D2.2	Primary education	15		15	
	Secondary education	**		13	
	Tertiary education	**		16	
Equity					
	Intergenerational mobility in education ²	2012		2012 ³	
		Both parents have less than tertiary	At least one parent attained tertiary	Both parents have less than tertiary	At least one parent attained tertiary
Tables A4.1 and A4.2	Less than tertiary education (30-44 year-olds' own educational attainment)	67%	30%	69%	31%
	Tertiary-type B (30-44 year-olds' own educational attainment)	10%	11%	12%	16%
	Tertiary-type A and advanced research programmes (30-44 year-olds' own educational attainment)	24%	59%	20%	55%
Transition from school to work					
	Percentage of people not in employment, nor in education or training (NEET)	2016			
Table C5.1	18-24 year-olds	11%		15%	
Education and social outcomes					
	Percentage of adults who report having depression	2014			
		Men	Women	Men	Women
Table A8.1	Below upper secondary	17%	20%	10%	15%
	Upper secondary or post-secondary non-tertiary	10%	15%	6%	10%
	Tertiary	7%	11%	5%	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>



From:

Education at a Glance 2017

OECD Indicators

Access the complete publication at:

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

Please cite this chapter as:

OECD (2017), "Australia", in *Education at a Glance 2017: OECD Indicators*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/eag-2017-38-en>

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