



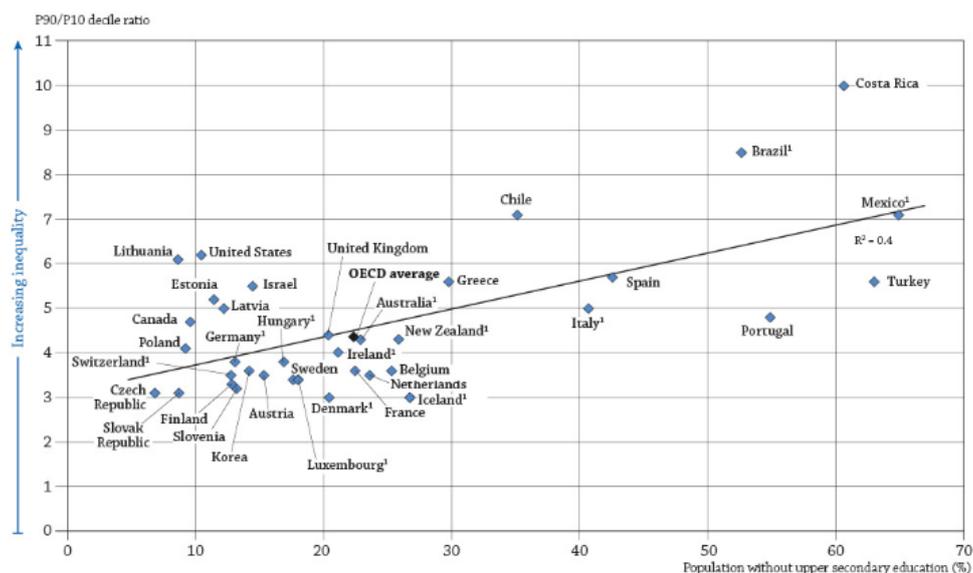
EDUCATION AT A GLANCE 2018

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 OECD and partner countries.

Brazil

- Lower educational attainment tends to be associated with greater income inequality. **Brazil has one of the largest shares of adults without upper secondary education and one of the highest income inequalities of all OECD and partner countries.**
- **Nearly one-quarter of children under the age of 3 are enrolled in early childhood education**, close to the OECD average and above most other Latin American countries with available data.
- Enrolment rates fall sharply after the age of 14 in Brazil: **only 69% of 15-19 year-olds and 29% of 20-24 year-olds are enrolled in education.**
- Brazil invests a relatively high share of both its gross domestic product (GDP) and its total public expenditure on education. However, **expenditure per student still lags behind most OECD and partner countries.**
- **Teachers' salaries in Brazil are relatively low**, and there are wide discrepancies in actual salaries between the different subnational regions of the country.

Figure 1. Percentage of 25-64 year-olds without upper secondary education and income inequality (2015)
Income inequality measured as the P90/P10 decile ratio



Note: The P90/P10 decile ratio is the ratio of the upper bound value of the ninth decile (i.e. the 10% of people with highest income) to that of the upper bound value of the first decile. The income distribution is measured with regard to the disposable income of the population aged 18-65.

1. Year of reference 2014.

Source: OECD (2018), *Education at a Glance Database* and OECD Income Distribution database (IDD), <http://stats.oecd.org/>. See *Source* section for more information and Annex 3 for notes (<http://dx.doi.org/10.1787/eag-2018-36-en>).

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Brazil faces a high degree of gender and regional inequalities in educational attainment

- More equal societies tend to be able to provide better education opportunities for their population and cultivate the conditions for inclusive economic growth. When comparing income inequality (measured by the ratio of the disposable income of the 90th decile to the 10th decile of the population) with educational attainment across OECD and partner countries, countries with a larger share of the population with upper secondary education tend to enjoy lower levels of income inequality. Brazil has one of the largest shares of adults without upper secondary education of all OECD and partner countries and the second highest income inequality, behind only Costa Rica (Figure 1).
- Brazil also faces significant regional inequities in tertiary attainment. While 33% of young adults have attained tertiary education in Distrito Federal – the subnational region of Brazil’s capital city, with the country’s highest gross domestic product (GDP) per capita – the share is only 8% of young adults in Maranhão, the state with the lowest GDP per capita. The coefficient of variation in tertiary attainment between subnational entities in Brazil is by far the highest of all OECD and partner countries with available data, including other large countries with several subnational entities with different sizes and populations such as the Russian Federation and the United States. Indeed, the coefficient of variation between subnational regions in Brazil is higher than the coefficient of variation between countries in the OECD.
- There are also significant gender disparities in attainment. According to 2015 data, 41% of 25-34 year-old men have not attained upper secondary education, compared to only 32% of women. This 10 percentage-point gap is among the largest of all OECD and partner countries (OECD average: 3 percentage points). This gender gap persists through the educational levels: as in most OECD countries, tertiary attainment of 25-34 year olds in Brazil is also higher among young women (20%) than among young men (14%).

Investment in early childhood education is increasing, and participation at this level is above most other Latin American countries

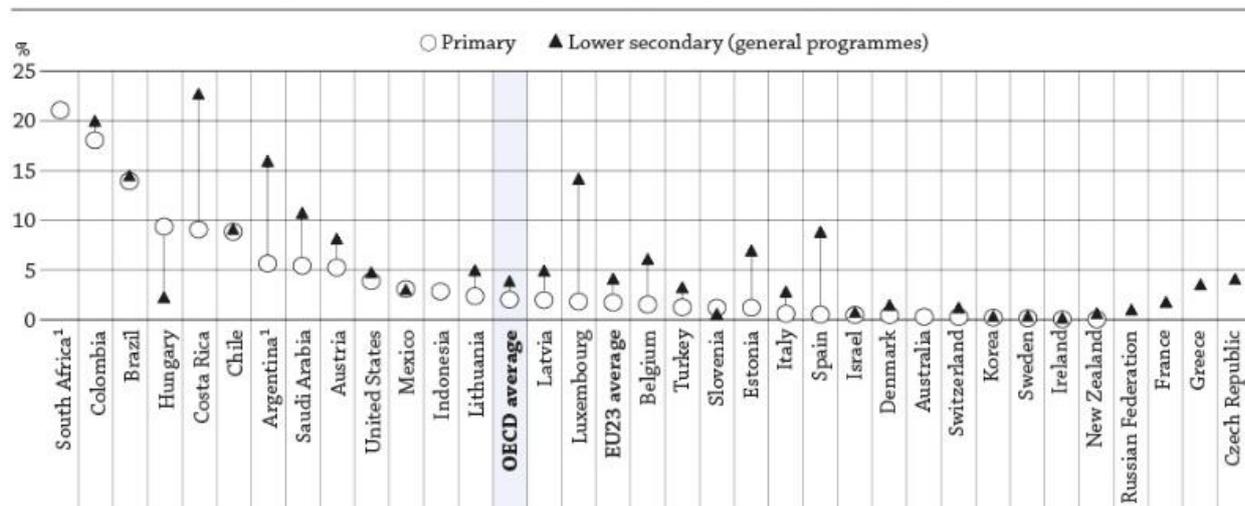
- There is an increasing awareness of the key role that early childhood education and care (ECEC) plays in children’s development, learning and well-being. Research has shown that the development of highly important areas such as emotional control, social skills, language and numeracy, peak in the first 3 years of a child’s life. In Brazil, 22% of children under the age of 3 are enrolled in early childhood education. With the exception of Colombia (49%), this rate is above all other Latin American countries with available data – Argentina (5%), Chile (20%), Costa Rica (2%) and Mexico (2%) – although slightly below the OECD average of 25%. Enrolment rates increase considerably for 3-year-olds (62%) and 4-year-olds (90%), while access to pre-primary or primary education has become largely universal among 5-year-olds (97%) and 6-year-olds (100%).
- There are about 14 children per teacher in early childhood educational development programmes (*creches*) and 21 children per teacher in pre-primary programmes (*pré-escola*), both above the respective OECD averages of 8 and 14. Brazil, however, makes extensive use of teachers’ aides at this level of education and when both teachers and teachers’ aides are considered, the ratio of children to contact staff drops to 8 in early childhood educational development programmes and to 18 in pre-primary education, although the ratio remains above the OECD average for both levels.
- Early childhood education is mostly provided by the public sector. Almost two-thirds of children enrolled in early childhood development programmes and over three-quarters of children enrolled in pre-primary education attend public institutions (OECD averages: 46% and 68% respectively).
- In 2015, the government invested 0.7% of its GDP in early childhood education, up from 0.4% in 2010. This level of expenditure is slightly below the OECD average, but above that of other Latin American countries such as Argentina, Colombia, Costa Rica and Mexico. This measure, however, can be sensitive to changes in countries’ economies and to the duration of pre-primary programmes, which last 2 years in Brazil and range from 1 to 3 years in most OECD

countries. Brazil spends about USD 3 800 per child in pre-primary public institutions, one of the lowest levels among OECD and partner countries.¹

Upper secondary enrolment and attainment rates are among the lowest of all OECD and partner countries, but there has been considerable improvement

- Although Brazil has succeeded in making participation in education universal for children aged 5 to 14, enrolment falls sharply among older children and young adults. Only 69% of 15-19 year-olds and 29% of 20-24 year-olds are enrolled in any level of education, well below the OECD averages of 85% and 42% respectively. One potential risk factor that can be associated with the considerable drop in enrolment, particularly at the ages at which students would be expected to attend upper secondary education, is Brazil's high incidence of over-age attendance. Students are considered to be over age when they are at least 2 years older than the intended age for the grade, mostly as a result of late entry or grade repetition. Some 14% of students in the last grade of primary education in Brazil are considered over age, compared to only 2% on average across OECD countries. The share slightly increases to 15% at the end of lower secondary education, again considerably above the OECD average of 4% (Figure 2).

Figure 2. Share of over-age students in the last grade of primary and lower secondary education (2016)



1. Year of reference 2015.

Countries are ranked in descending order of their share of over-age students in primary education.

Source: OECD (2018), Table B1.3 and data available on line. See Source section at the end of this indicator for more information and Annex 3 for notes (<http://dx.doi.org/10.1787/eag-2018-36-en>).

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- In total, over half of Brazil's adult population (25-64 year-olds) have not completed upper secondary education, more than double the OECD average. This share is below that of some Latin American countries such as Costa Rica (60%) and Mexico (62%), but above that of Argentina (39%), Chile (35%) and Colombia (46%). Attainment rates have been drastically changing for the younger generations, however. The share of young adults (25-34 year-olds) who have attained upper secondary education increased from 47% in 2007 to 64% in 2015. This is one of the largest increases of all OECD and partner countries, although upper secondary attainment is still below the OECD average of 85%.
- Like several OECD countries, Brazil has been focusing on developing and promoting vocational education and training as a way to increase upper secondary completion rates and provide young people with more direct pathways into the labour market. In its national education plan, the government established the goal of tripling the number of enrolments in vocational education between 2014 and 2024 (MEC/SASE, 2014). In 2016, only 9% of upper secondary students in Brazil were enrolled in vocational education, considerably below the OECD average of 44%. Brazil also offers a variety of second-chance and adult learning vocational programmes and around 28% of the students enrolled in vocational education are over 20 years old, in line with the OECD average.

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

- The most popular fields of study among graduates of upper secondary vocational programmes in Brazil are business, administration and law, studied by 25% of graduates (OECD average: 19%). In contrast, most OECD or partner countries have engineering, manufacturing and construction as the most popular subjects at this level. Although there are gender imbalances in the choice of fields, they are generally less pronounced in Brazil than on average across OECD countries. For example, 32% of graduates from engineering, manufacturing and construction programmes in Brazil are female, nearly three times the OECD average.
- Although vocational education represents a small share of all upper secondary education in Brazil, the country devotes considerable resources to these programmes. There are, for example, only 13 students per teacher in vocational programmes compared to 26 students per teacher in general programmes (the OECD average is 13 for vocational programmes and 12 for general programmes). This gap in the student-teacher ratio is wider in Brazil and also in the opposite direction to most OECD countries, where the student-teacher ratio tends to be smaller in general programmes.

Tertiary attainment is low, and relatively few students graduate with a degree in the STEM fields

- Ensuring that people have opportunities to attain adequate levels of education is a critical challenge. Tertiary attainment has been increasing in Brazil, but it still has one of the lowest rates across OECD and partner countries, and below that of all other Latin American countries with available data (Argentina, Chile, Colombia, Costa Rica and Mexico). In 2015, 17% of young adults (24-34 year-olds) had attained tertiary education, up from 10% in 2007, but still around 27 percentage points below the OECD average.
- To improve the transition from education to work, regardless of the economic climate, education systems must ensure that individuals have the skills required in the labour market. As in most OECD and partner countries, the most popular fields of study for tertiary graduates in Brazil are business, administration and law, which account for 36% of graduates (OECD average: 24%). Unlike most OECD countries, however, the second most popular field of study in Brazil is education, with 20% of graduates (OECD average: 10%). In recent years, many OECD countries have placed particular emphasis on attracting more students to the science, technology, engineering and mathematics (STEM) fields, reflecting the importance of these disciplines in modern society. Brazil has one of the lowest shares of graduates in STEM fields: 17% compared to an OECD average of 24%.
- International student mobility in tertiary education has been receiving increased policy attention, including in Brazil, thanks to the potential benefits it can bring to students and society. Nevertheless, Brazil's tertiary education system continues to be relatively closed, with few Brazilian students going abroad and even fewer foreign students going to Brazil. In 2016, only 20 000 students in the country were foreign, less than 0.25% of the total tertiary student body (OECD total: 6%). Meanwhile, only 0.5% of national students are enrolled abroad, again considerably below the OECD total of 2%.

Despite investing a large share of its GDP in education, expenditure per student in Brazil is low

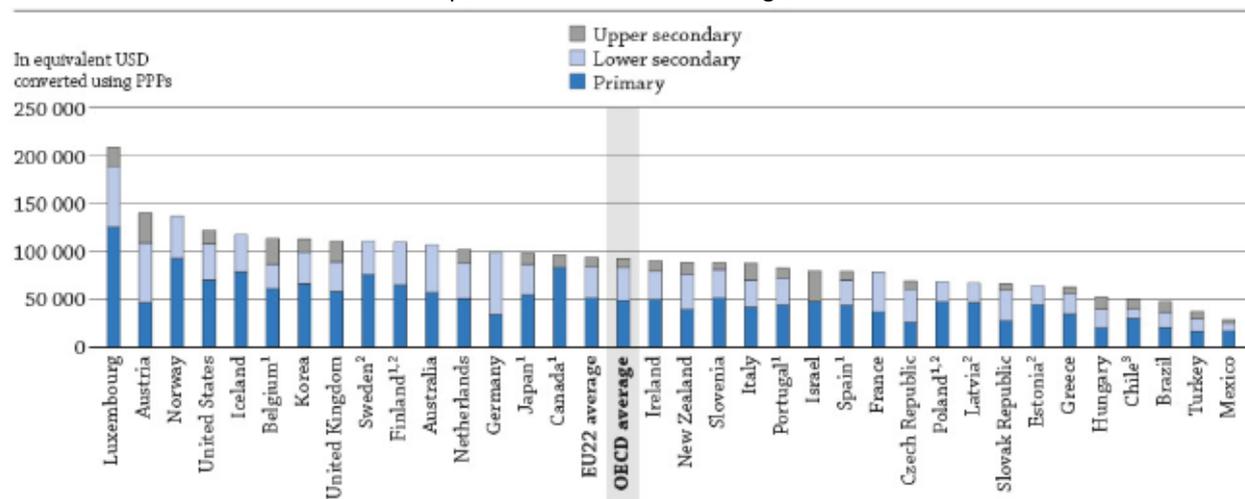
- In 2015, the Brazilian government spent 5.5% of its GDP on primary to tertiary education (OECD average is 4.5%). This expenditure includes both direct expenditure on educational institutions (such as the operating costs of public schools), which accounts for about 5% of GDP, and transfers to households or other non-education private actors (such as public student loans, grants, scholarships and subsidies to private student loans), which account for about 0.5% of GDP. Direct public expenditure on educational institutions increased by nearly 70% between 2005 and 2011, but has remained largely stable since then. Although Brazil's educational spending as a percentage of GDP is among the highest of all OECD and partner countries, the country's comparatively lower GDP per capita makes it so that expenditure per student is one of the lowest.
- The annual expenditure per student on educational institutions provides an assessment of the investment made in each student. The Brazilian government spends about USD 3 800 per student per year in primary, secondary, and post-secondary non-tertiary public institutions, less than half the OECD average. The cumulative expenditure per student between the ages of 6 and 15 in Brazil is about USD 47 300, above Mexico, but below Chile (Figure 3). In tertiary education, however, the government spends nearly four times more per student in public institutions

(USD 14 300), just below the OECD average of USD 15 500. The difference in expenditure per student between tertiary and earlier levels of education in Brazil is the highest of all OECD and partner countries.

- Another indicator of public investment in education, which sheds light on the government’s budget allocation, is the share of total government expenditure invested in education. In 2015, Brazil allocated 17.3% of its total expenditure to primary to tertiary education, up from 14.7% in 2005, but slightly below the 2011 level of 17.7%. This is one of the highest shares among all OECD and partner countries, and well above the OECD average of 11%.

Figure 3. Cumulative expenditure per student on educational institutions between the age of 6 and 15 (2015)

Annual expenditure on educational institutions per student multiplied by the theoretical duration of studies in equivalent USD converted using PPPs



Note: Cumulative expenditure per student on educational institutions is calculated using expected years in education.

1. Some levels of education are included with others. Refer to 'x' code in Table C1.1 for details.

2. Includes one year of pre-primary education as part of core education.

3. Year of reference 2016.

Countries are ranked in descending order of the total expenditure on educational institutions per student over the theoretical duration of primary and secondary studies between the age of 6 and 15.

Source: OECD/UIS/Eurostat (2018), Table C1.6. See *Source* section for more information and Annex 3 for notes (<http://dx.doi.org/10.1787/eag-2018-36-en>).

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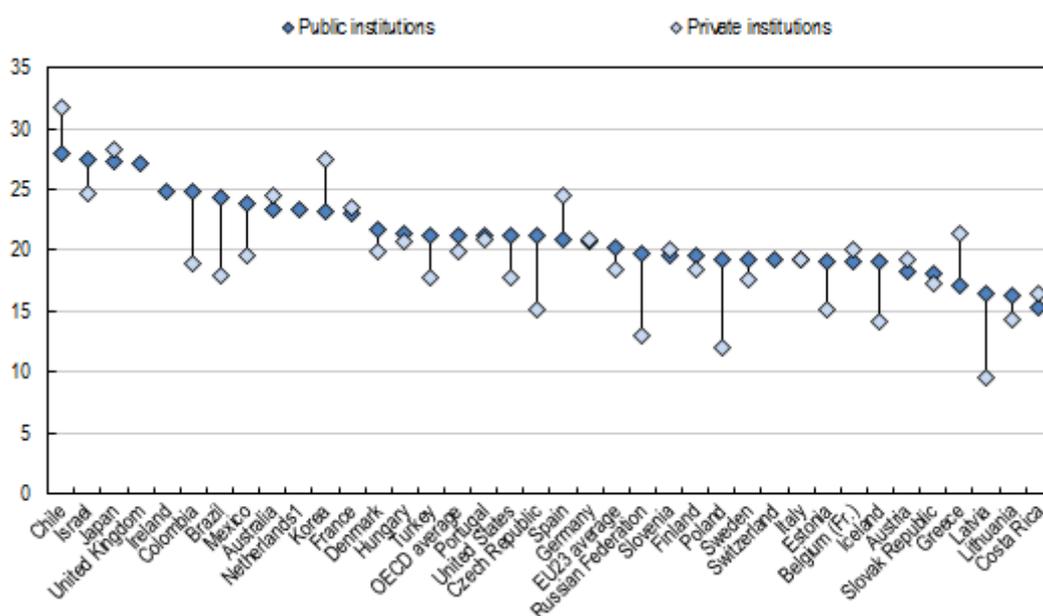
Class size has been decreasing, but teacher salaries remain relatively low

- Compensation and working conditions are important for attracting, developing and retaining skilled and high-quality teachers. The Brazilian legislation establishes a minimum statutory salary for teachers in all levels from pre-primary to upper secondary education. In 2017, this salary was USD 14 000, compared to over USD 30 000 on average across OECD countries for each of these levels of education. Statutory salaries do not take into account bonuses and allowances, so actual salaries can vary depending on experience, qualifications, the type of institution and even the geographical area in Brazil. Nevertheless, statutory minimum salaries can shed light on the attractiveness of the profession, and in Brazil they are also considerably below those in other Latin American countries such as Chile (around USD 24 000), Costa Rica (around USD 24 900) and Mexico (ranging from around USD 20 000 in pre-primary and primary to USD 49 300 in upper secondary).
- Teachers’ average actual salaries, which take into account the characteristics of the teaching workforce and all the bonuses and allowances, are considerably higher than the minimum statutory salaries, but remain one of the lowest of all OECD and partner countries. The average salary for 25-64 year-old teachers in Brazil ranges from USD 22 000 in pre-primary education to USD 24 100 in upper secondary education. In comparison, the OECD average ranges from USD 36 900 to USD 45 900. These ranges also show that salaries in Brazil tend to vary less across levels of education than in OECD countries, where upper secondary teachers earn on average around 25% more than pre-primary teachers.
- There is, however, a wide variation in salaries across the regions of Brazil. Average actual salaries for upper secondary teachers in Pará, the region with the highest salaries, are 5.6 times higher than those in Mato Grosso, the region with the lowest average salaries. In other countries with available data, the variation between

subnational regions is considerably smaller. Once again, the coefficient of variation between subnational regions in Brazil is higher than the coefficient of variation between countries in the OECD.

- Given tightening public budgets, several countries face a trade-off between increasing teacher salaries and hiring more teachers in order to reduce class sizes. In Brazil, class sizes in primary and lower secondary education have been decreasing over the past decade. Between 2005 and 2016, class sizes in primary education fell by 8% (OECD average: 1%) and in lower secondary education by 15% (OECD average: 7%). However, classes remain comparatively large with 23 students per class in primary education and 27 in lower secondary education, both above the respective OECD averages of 21 and 23. As in several OECD countries, class sizes in Brazil differ by type of institution. There are about 24 students per class in public primary schools, above the OECD average of 21, but only 18 students per class in private schools, below the OECD average of 20 (Figure 4).

Figure 4. Average class size in primary education, by type of institution (2016)



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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.

References

MEC/SASE (2014), *Planejando a Próxima Década: Conhecendo as 20 Metas do Plano Nacional de Educação (Planning the next decade: Getting to know the 20 goals of the National Education Plan)*, Ministério da Educação/Secretaria de Articulação com os Sistemas de Ensino, http://pne.mec.gov.br/images/pdf/pne_conhecendo_20_metas.pdf.

OECD (2018), *Education at a Glance 2018: OECD Indicators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/eag-2018-en>.

OECD/NCES (2018), *Education at a Glance Subnational Supplement*, OECD/National Center for Education Statistics, Paris and Washington, DC, <https://nces.ed.gov/surveys/annualreports/oecd/>.

For more information on Education at a Glance 2018 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.

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

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Key Facts for Brazil in Education at a Glance 2018

Source	Main topics in <i>Education at a Glance</i>	Brazil		OECD average	
	Equity				
	Educational attainment of 25-34 year-olds by gender	2017			
		% Men	% Women	% Men	% Women
Table A1.2	Below upper secondary	41%	32%	17%	14%
	Upper secondary or post-secondary non-tertiary	45%	49%	46%	37%
	Tertiary	14%	20%	38%	50%
	Percentage of native- and foreign-born NEETs	2017			
		Native-born	Foreign-born	Native-born	Foreign-born
Table A2.3	15-29 year-olds	**	**	13%	18%
	Employment rates of native- and foreign-born 25-64 year-olds, by educational attainment	2017			
		Native-born	Foreign-born	Native-born	Foreign-born
Table A3.4	Below upper secondary	**	**	57%	60%
	Upper secondary or post-secondary non-tertiary	**	74%	76%	76%
	Tertiary	**	83%	86%	85%
	Earnings of 25-64 women relative to men, by educational attainment	2016			
Table A4.3	Below upper secondary	69%		78%	
	Upper secondary or post-secondary non-tertiary	65%		78%	
	Tertiary	65%		74%	
	Share of repeaters in secondary education who are female	2016			
Table B1.3	Lower secondary general programmes	**		40%	
	Upper secondary general programmes	**		42%	
	Share of women and men among first-time new entrants to doctoral programmes	2016			
		% Men	% Women	% Men	% Women
Table B4.1	Natural sciences, mathematics and statistics	**	**	22%	19%
	Engineering, manufacturing and construction	**	**	22%	10%
	Health and welfare	**	**	12%	19%
	First-time tertiary graduates	2016			
Table B5.1	Share of female first-time tertiary graduates	**		57%	
	Participation of 25-64 year-olds in formal and/or non-formal education¹	2012		2012 ²	
Table A7.1	Participation of native-born adults and foreign-born adults who arrived in the country by the age of 25	**		50%	
	Participation of foreign-born adults who arrived in the country at 26 or	**		48%	
	Early childhood education				
	Enrolment rates in early childhood education at age 3	2016			
Table B2.1a	ISCED 01 and 02	62%		76%	
	Share of children enrolled in pre-primary education (ISCED 02)	2016			
		Public	Private	Public	Private
Table B2.2	By type of institution	76%	24%	67%	33%
	Expenditure on pre-primary level (ISCED 02)	2015			
Table B2.3a	Annual expenditure per child in USD (converted to PPPs)	USD 2 714		USD 8 528	
	Vocational education and training (VET)				
	Enrolment in upper secondary education, by programme orientation	2016			
		Vocational	Work-based	Vocational	Work-based
Table B1.3	Percentage of upper secondary students enrolled in vocational	9%	**	44%	11%
	Upper secondary graduates, by programmes orientation	2016			
		General	Vocational	General	Vocational
Figure B3.1	Share of women	56%	58%	55%	46%
	Total expenditure on upper secondary educational institutions per full-time equivalent student	2015			
		General	Vocational	General	Vocational
Table C1.1	By programme orientation	**	**	USD 9 119	USD 11 037
	Tertiary education				
	Share of international or foreign students, by education level³	2016			
Table B6.1	Bachelor's or equivalent	0%		4%	
	Master's or equivalent	1%		12%	
	Doctoral or equivalent	2%		26%	
	All tertiary levels of education	0%		6%	
	Share of first-time tertiary graduates by education level	2016			
Table B5.1	Short-cycle tertiary	**		15%	
	Bachelor's or equivalent	**		75%	
	Master's or equivalent	**		11%	
	Employment rate of 25-64 year-olds, by educational attainment	2017			
Table A3.1	Short-cycle tertiary	**		81%	
	Bachelor's or equivalent	**		84%	
	Master's or equivalent	**		88%	
	Doctoral or equivalent	**		92%	
	All tertiary levels of education	83%		85%	
	Relative earnings of full-time full-year 25-64 year-old workers, by educational attainment (upper secondary education = 100)	2016			
Table A4.1	Short-cycle tertiary	**		123	
	Bachelor's or equivalent	235		144	
	Master's, doctoral or equivalent	449		191	
	All tertiary levels of education	249		154	

Brazil - Country Note - Education at a Glance 2018: OECD Indicators

Source	Main topics in <i>Education at a Glance</i>	Brazil		OECD average	
Financial resources invested in education					
Total expenditure on educational institutions per full-time equivalent student, by level of education (in equivalent USD, using PPPs)		2015			
Table C1.1	Primary education	USD 3 110		USD 8 631	
	Secondary education	USD 3 259		USD 10 010	
	Tertiary (excluding R&D activities)	**		USD 11 249	
Total expenditure on primary to tertiary educational institutions		2015			
Table C2.1	As a percentage of GDP	5%		5%	
Share of expenditure on tertiary educational institutions by source of funds⁴		2015			
Figure C3.1	Public expenditure	**		72%	
	Private expenditure	**		21%	
	Public to private expenditure	**		5%	
Total public expenditure on primary to tertiary education		2015			
Table C4.1	As a percentage of total government expenditure	17%		11%	
Teachers, the learning environment and the organisation of schools					
Actual salaries of teachers and school heads in public institutions relative to wages of full-time, full-year workers with tertiary		2016			
		Teachers	School heads	Teachers	School heads
Table D3.2a	Pre-primary	**	**	0.81	**
	Primary	**	**	0.86	1.21
	Lower secondary (general programmes)	**	**	0.91	1.34
	Upper secondary (general programmes)	**	**	0.96	1.42
Annual statutory salaries of teachers in public institutions, based on most relevant qualifications, at different points in teachers' careers (in equivalent USD, using PPPs)		2017			
		Starting salary	Salary after 15 years of experience	Starting salary	Salary after 15 years of experience
Table D3.1a	Pre-primary	USD 13 971	**	USD 30 817	USD 41 386
	Primary	USD 13 971	**	USD 32 258	USD 45 004
	Lower secondary (general programmes)	USD 13 971	**	USD 33 498	USD 46 780
	Upper secondary (general programmes)	USD 13 971	**	USD 34 943	USD 48 697
Organisation of teachers' working time in public institutions over the school year		2017			
		Net teaching time	Total statutory working time	Net teaching time	Total statutory working time
Table D4.1	Pre-primary	**	**	1 044 hours	1 630 hours
	Primary	**	**	784 hours	1 622 hours
	Lower secondary (general programmes)	**	**	703 hours	1 645 hours
	Upper secondary (general programmes)	**	**	657 hours	1 640 hours
Percentage of teachers who are 50 years old or over		2016			
Table D5.1	Primary to upper secondary education	34%		34%	
Share of female teachers in public and private institutions		2016			
Table D5.2	Primary education	89%		83%	
	Upper secondary education	59%		59%	
	Tertiary education	46%		43%	
Average class size by level of education		2016			
Table D2.1	Primary education	23		21	
	Secondary education	27		23	

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

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

2. OECD average includes some countries with 2015 data.

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

4. International expenditure is aggregated with public expenditure

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

Cut-off date for the data: 18 July 2018. Any updates on data can be found on line at <http://dx.doi.org/10.1787/eag-data-en>.