



EDUCATION AT A GLANCE 2015

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 34 OECD countries and a number of partner countries.

Brazil

This Country Note focuses on four major topics covered in the 2015 edition of *Education at a Glance: OECD Indicators*. These topics are: educational attainment, skills and participation in the labour market, equity in education and the labour market, financing of education, and the teaching profession.

The table *Key facts for Brazil in Education at a Glance 2015* presents a summary of figures for Brazil and the OECD average.

Educational attainment, skills and participation in the labour market

Upper secondary attainment has significantly increased across generations in Brazil, and current patterns suggest that this is likely to continue.

One way to observe the rate at which education systems have expanded in countries is to analyse the attainment rates of different generations. In 2013, 54% of adults aged 25-64 had not completed upper secondary education in Brazil, which is considerably above the OECD average of 24%. However, the country displays one of the largest differences between the generations on this measure: while only 28% of 55-64 year-olds have attained upper secondary education, the figure increases to 61% among 25-34 year-olds. Indeed, if current patterns are maintained, over 60% of Brazilian young people can expect to graduate from upper secondary education (general programmes) over their lifetime.

Brazil has also increased the share of its population with a tertiary degree, although this increase has been less steep. There are only a 4 percentage points between the tertiary attainment rates of 55-64 year-olds and 25-34 year-olds. Between 2009 and 2013, the share of 25-64 year-olds who have attained tertiary education increased by 3 percentage points, reaching 14% in 2013. This level of tertiary attainment is well below the OECD average of 34%, as well as below the rates in other Latin American countries such as Chile (21%), Colombia (22%), Costa Rica (18%) and Mexico (19%).

Brazil experienced very low unemployment rates across all levels of educational attainment and while a large share of young people were not in education, most of them were employed instead.

Nearly two-thirds of 15-29 year-olds in Brazil were not in education in 2013. Among 20-24 year-olds, the figure is 76% – the highest of all OECD and partner countries with available data. Although the fact that these individuals are no longer in education may be the source of some concern, it is important to note

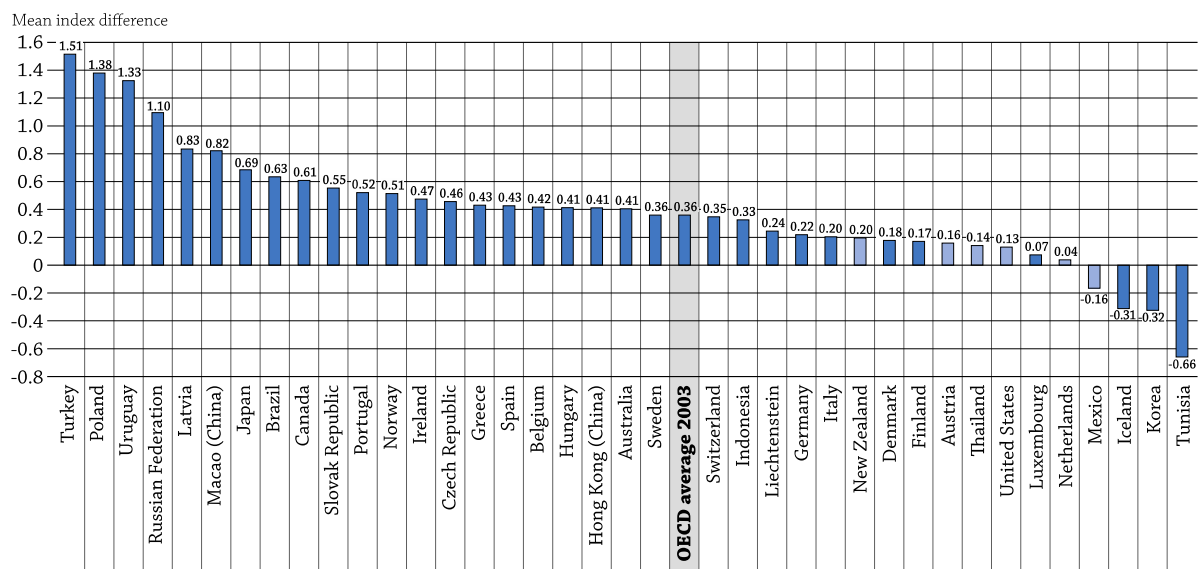
that most of them were employed instead. At 52%, the employment rate among 20-24 year-olds is also the highest across all countries. This is consistent with the fact that in 2013 Brazil had unemployment rates well below the OECD average for all levels of educational attainment.

Still, a large share of the Brazilian youth remains neither in education nor in employment or training (NEET): over 20% of 15-29 year-olds were NEET in 2013. This figure is similar to those for other Latin American countries such as Chile (19%), Colombia (21%) and Costa Rica (19%), but is considerably above the OECD average of 16%.

The quality of schools' educational resources has greatly improved in Brazil since 2003, but a shortage of computers in schools may hinder the development of information and communication technology (ICT) skills among the population.

Between 2003 and 2012, Brazil improved its schools' educational resources by 0.63 in PISA's index of quality of schools' educational resources, one of the largest improvements among all countries and economies participating in PISA (see Figure 1). Moreover, it is worth noting that PISA 2012 found 15-year-olds in Brazil tend to perform better in digital reading than in print reading, meaning that those who do have access to a computer are comparatively well equipped to participate in the digital age.

Figure 1: Change between 2003 and 2012 in the index of quality of schools' educational resources (e.g textbooks, computers for instruction, computer software)




Notes: The index of quality of school educational resources was derived from the items measuring school principals' perceptions of potential factors hindering instruction at their school (SC14, from the PISA 2012 school questionnaire). Higher values on this index indicate better quality of educational resources in 2012. Dark blue bars indicate differences that are statistically significant. For comparability over time, PISA 2003 values on the index of schools' educational resources have been rescaled to the PISA 2012 scale of the index.

Countries and economies are ranked in descending order of the change between 2003 and 2012 in the index of quality of schools' educational resources.

Source: OECD. Table D8.2.

See Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).

StatLink  <http://dx.doi.org/10.1787/888933284698> (Education at a Glance, Chart D8.2)

Nevertheless, in 2012 Brazil had 22 students for every computer, compared with an OECD average of 5 students per computer. Although this figure represents a significant improvement on 2003, when there were 34 students per computer, it remains the second highest among participating countries and economies. In addition, about 32% of students in Brazil attended schools whose principals reported that

the school's capacity to provide instruction was hindered to a great extent by a shortage of computers for instruction.

Futhermore, teachers in Brazil feel that they need to be better prepared to utilize technological tools in their teaching. Some 27% of lower secondary teachers indicated a high level need for professional development in teaching with ICT and 37% indicated the need for training in using new technologies in the workplace. Those figures are well above the respective OECD averages of 18% and 15%, and are among the highest of all countries participating in TALIS.

ICT is a major component of economic growth and young people today need to be skilled in using these technologies. However, PISA reports have found that ensuring that children are proficient in reading and mathematics will do more to create equal opportunities in a digital world than simply expanding access to technological devices.

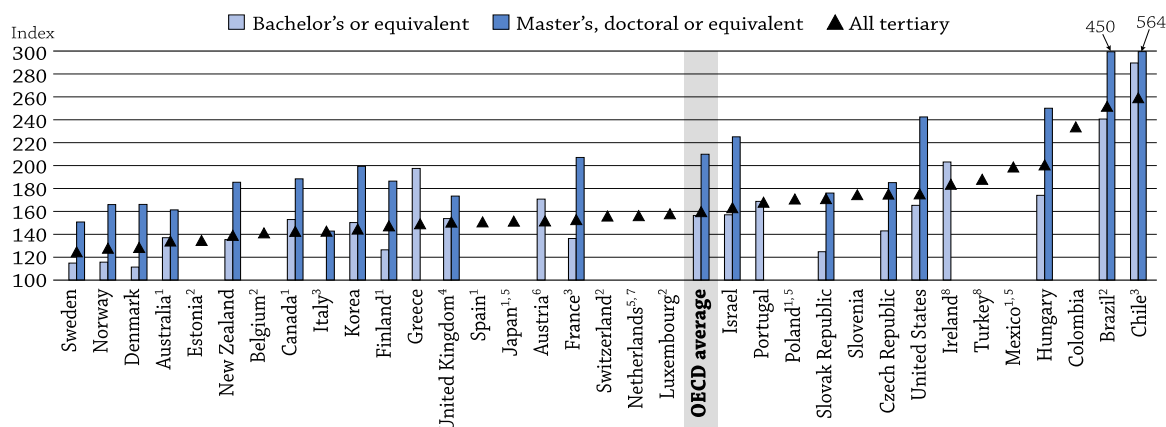
Equity in education and the labour market

In Brazil, both gender and educational attainment significantly affect workers' earnings.

Similarly educated men and women face very high earnings disparities in the Brazilian labour market. On average, a tertiary-educated woman earns only 62% of what a man with the same education level earns. This is, together with Chile, the largest earnings gender gap among all OECD and partner countries with available data. Indeed, whereas 72% of tertiary-educated men earn more than twice the national median, the same is true for only 51% of tertiary-educated women. There are equally large income gender gaps for men and women whose highest level of educational attainment was either upper secondary or post-secondary non-tertiary.

Earnings disparities are also high between workers with different levels of educational attainment. Individuals between the ages of 25 and 64 who have attained a bachelor's or equivalent degree earn on average 141% more than workers with only upper secondary education. This is more than double the average earnings premium of 57% among OECD countries. The gap is even larger between upper secondary educated workers and those who hold a master's, doctoral or equivalent degree: the latter earn 350% more than the former. Of all the countries with available data, only Chile has a larger gap (see Figure 2).

Figure 2: Relative earnings of tertiary-educated workers, by level of tertiary education (2013)
 25-64 year-olds with income from employment; upper secondary education=100



Note: Tertiary education includes short cycle tertiary, bachelor's, master's, doctoral or equivalent degrees.

1. Australia, Canada, Finland, Japan, Mexico, Poland, Spain: Year of reference 2012.

2. Belgium, Brazil, Estonia, Luxembourg, Switzerland: Index 100 refers to the combined ISCED levels 3 and 4 of the educational attainment levels in the ISCED 2011 classification.

3. Chile, France, Italy: Year of reference 2011.

4. The United Kingdom: Data for upper secondary attainment includes completion of a sufficient volume and standard of programmes that would be classified individually as completion of intermediate upper secondary programmes (18% of the adults are under this group).

5. Japan, Mexico, the Netherlands, Poland: Index 100 refers to the combined ISCED levels 3 and 4 of the educational attainment levels in the ISCED-97 classification.

6. Austria: Master's, doctoral or equivalent are included in bachelor's or equivalent.

7. The Netherlands: Year of reference 2010.

8. Ireland, Turkey: Earnings net of income tax.

Countries are ranked in ascending order of the relative earnings of 25-64 year-olds with tertiary education.

Source: OECD, Table A6.1a.

See Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).

StatLink  <http://dx.doi.org/10.1787/888933283686> (Education at a Glance, Chart A6.1)

Brazil has a relatively extensive early childhood education system, however the enrolment rates of 3-5 year-olds still lag behind that of most countries.

In the new International Standard Classification of Education (ISCED 2011), ISCED level 0 has been expanded to include early childhood educational development programmes designed for children under the age of 3. In 2013, nearly one in three 2-year-olds in Brazil were enrolled in early childhood educational development programmes, which is close to the OECD average of 33% and above that of Chile (27%) and Mexico (5%). However, enrolment rates do not increase as quickly with age in Brazil as in most OECD countries with available data. In 2013 the enrolment rates were 53% for 3-year-olds, 70% for 4-year-olds, 88% for 5-year-olds and 95% for 6-year-olds. These figures are all below the OECD averages of 74%, 88%, 95% and 97% respectively.

Total public expenditure on this level of education represents 0.6% of the country's gross domestic product (GDP), which is below the OECD average of 0.8%. In 2013 the Brazilian government passed a federal law that establishes compulsory education for ages 4 through 17 (previously education was compulsory only for primary through lower secondary, which roughly corresponds to ages 6 through 14).

The great majority of students in early childhood to upper secondary education attend public institutions in Brazil. However, the picture is reversed at the tertiary level, where three out of four students are enrolled in an independent private institution.

The majority of the children in early childhood education in Brazil attend public institutions: 63% in early childhood development programmes and 75% at the pre-primary level. Both of these proportions are above the OECD average for each level. At primary level, 84% of students are enrolled in public institutions in Brazil. The same is true for 88% of students in lower secondary and 86% in upper secondary, both of which are higher than the respective OECD averages of 86% and 81%. However, only 26% of full-time tertiary students in bachelor's, master's, doctoral or equivalent programmes are enrolled in public institutions, in contrast to most OECD countries where, on average, nearly 70% of full-time students are enrolled in public institutions.

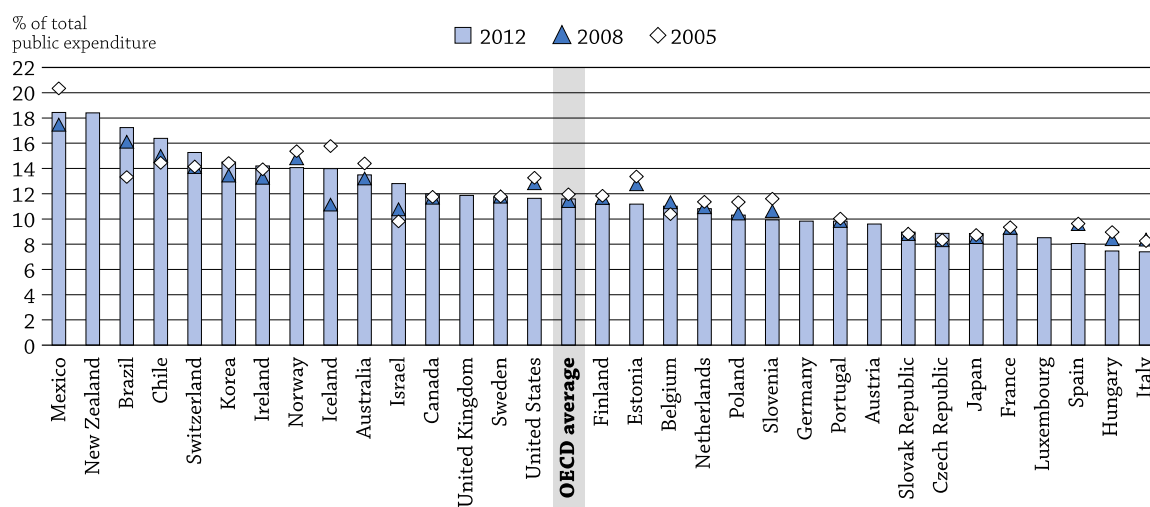
This high proportion of private provision at the tertiary level may raise equity concerns, especially given that public tertiary institutions in Brazil don't just exempt students from tuition fees, but are also often renowned for their academic excellence. The Brazilian government has recently taken steps to improve the equity of access to these public tertiary institutions. In 2012 it passed a law that reserves 50% of the places in federal universities and federal institutions of higher education for students who completed their upper secondary education in public schools. Of these, half are reserved for students who also have a family per capita income of less than 1.5 times the minimum salary. The law also reserves a number of vacancies for black (*pretos*), brown (*pardos*), and indigenous (*indígenas*) students, in accordance with the proportions of these groups in the population of each federal state.

Financing of education

Public expenditure on education has been increasing in Brazil, and it devotes a higher share of its total expenditure on education than almost all OECD and partner countries.

Brazil allocates 17.2% of its public expenditure to education, from primary to tertiary levels. Only Mexico and New Zealand – both on 18.4% – devote a higher share of public expenditure to educational institutions. Moreover, public investment in tertiary education institutions as share of total public expenditure increased 49% between 2005 and 2012, which is well above the OECD average increase of 33%. The increase was even sharper for primary, secondary and post-secondary non-tertiary institutions. The proportion of public expenditure on those levels increased 82% in the same period, the highest increase across all OECD and partner countries with available data.

Figure 3: Total public expenditure on primary to tertiary education as a percentage of total public expenditure (2005, 2008, 2012)



Countries are ranked in descending order of total public expenditure on primary to tertiary education as a percentage of total public expenditure in 2012.

Source: OECD, Table B4.2.

See Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).

StatLink  <http://dx.doi.org/10.1787/888933284022> (Education at a Glance, Chart B4.1)

Although public expenditure in public institutions increased at all levels of education in Brazil between 2005 and 2012, the annual expenditure per student rose 110% for primary, secondary and post-secondary non-tertiary levels, but fell 7% for tertiary education. These contrasting figures reflect a 13% decrease in the number of students in primary, secondary and post-secondary non-tertiary levels and a 60% increase in the number of tertiary students. Combined, the average annual public expenditure per student in public institutions from primary to tertiary levels is USD 3 441,¹ USD 5,876 less than the OECD average.

In 2012, Brazil's public expenditure on educational institutions from primary to tertiary levels amounted to 5.6% of GDP. This proportion is considerably above the OECD average of 4.7%, and is the fifth highest among all OECD and partner countries with available data.

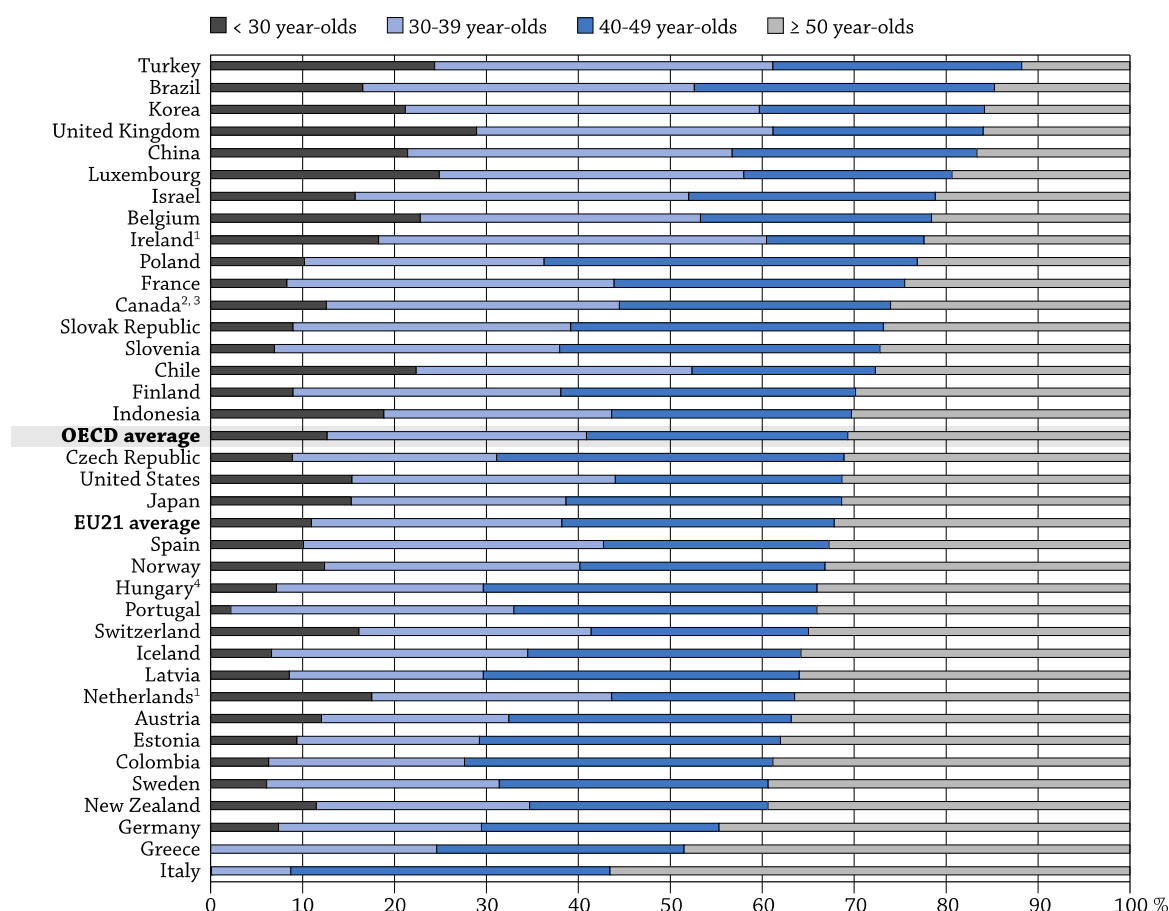
The teaching profession

Brazil has one of the youngest teaching workforces among all OECD and partner countries with available data.

Over half of the primary teachers in Brazil are below the age of 40 and only 15% of them are over 50. In fact, Brazil has the second lowest proportion of primary teachers over the age of 50 among all OECD and partner countries (see Figure 4). The pattern is similar for lower and upper secondary education, with more than half of all teachers aged under 40 while the proportion aged over 50 remains below 20%. The comparative youth of Brazil's teachers stands in contrast to most OECD countries, where the ageing of the teaching workforce raises important concerns over the costs of salaries and the supply of teachers.

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

Figure 4: Age distribution of teachers in primary education (2013)



1. Public institutions only.

2. Year of reference 2012.

3. Primary includes pre-primary and lower secondary.

4. Includes data on management personnel.

Countries are ranked in ascending order of the percentage of teachers aged 50 years or older at the primary level.

Source: OECD, Table D5.1.

See Annex 3 for notes (www.oecd.org/education/education-at-a-glance-19991487.htm).

StatLink  <http://dx.doi.org/10.1787/888933284530> (Education at a Glance, Chart D5.1)

Educational institutions in Brazil spend a comparatively low share of total expenditure on paying staff, which may reflect high student-teacher ratios and low starting salaries.

Non-tertiary educational institutions in Brazil spend a below average percentage of their expenditure on staff compensation. At the primary level, they spend about 73% of current expenditure on staff compensation, well below the OECD average of 79% and a similar pattern is repeated at the secondary level.

Although there's no direct relationship, these figures may reflect the levels of teachers' salaries at these levels of education in Brazil. Starting salaries for teachers with the minimum qualifications are the same for each level from pre-primary to upper secondary education, and are among the lowest for all OECD and partner countries with available data. The average starting salary for pre-primary teachers among OECD countries is more than double that of teachers in Brazil, and the difference increases at higher levels of education. Teachers' starting salaries in Brazil are also lower than in other Latin American countries such as Chile, Colombia, and Mexico across all levels from pre-primary to upper secondary. It is important to

note, however, that these salaries refer to the minimum salary established by federal law – the actual salaries may vary widely across different states and municipalities.

In addition to low salaries, the low share of expenditure on staff compensation may also reflect the fact that Brazil has comparatively high numbers of students per teacher across all levels of education. At 21 students per teaching staff in primary education, 17 in secondary, 17 in post-secondary non-tertiary and 27 in tertiary education, the ratios in Brazil are all considerably above the respective OECD averages.

Sub-national comparisons

Education at a Glance provides an authoritative compilation of international comparisons of key education statistics. While countries attain specific values in these comparisons, readers should not assume that countries themselves are homogeneous. The country averages include significant variations among sub-national jurisdictions.

Regional policy makers can benefit most from the comparisons presented in *Education at a Glance* when they can compare the results from their own sub-national areas with national and sub-national data from other countries. To this end, the OECD, with support from the U.S. National Center for Education Statistics, is, for the first time, releasing select sub-national data for six *Education at a Glance* Indicators in this edition (see <http://nces.ed.gov/surveys/annualreports/oecd/index.asp>). These include data on educational attainment by selected age groups (Indicator A1), employment rates by educational attainment (Indicator A5), annual expenditure per student (Indicator B1), enrolment rates by age (Indicator C1), enrolment rates in early childhood and primary education (Indicator C2), and enrolment rates and work status of 15-29 year-olds (Indicator C5).

Ten countries participated in this pilot compilation of sub-national estimates by providing information for some or all of the Indicators included: Belgium, Brazil, Canada, Germany, Ireland, the Russian Federation, Slovenia, Spain, Sweden and the United States. Sub-national estimates were provided by countries using national data sources or were calculated by Eurostat using NUTS2 data.

Although the variation between the highest- and lowest-ranked countries for a given Indicator, on average, was larger than the variation within most countries, variations within both federal and non-federal pilot countries were substantial. For example, for the Indicator on tertiary attainment, the ratio of the highest-ranked jurisdictions to the lowest-ranked, within countries, was nearly 2:1 or more in many of the participating countries.

References

OECD (2015), *Education at a Glance 2015: OECD Indicators*, OECD Publishing, Paris, <http://dx.doi.org/10.1787/eag-2015-en>.


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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.

For more information on *Education at a Glance 2015* and to access the full set of Indicators, visit www.oecd.org/education/education-at-a-glance-19991487.htm.

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

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

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

Questions can be directed to:

Camila de Moraes and Corinne Heckmann
Directorate for Education and Skills
camila.demoraes@oecd.org
corinne.heckmann@oecd.org

Country Note authors:

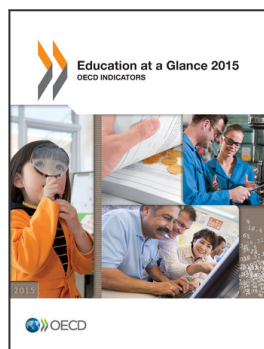
Camila de Moraes and João Mariano Collet
Directorate for Education and Skills
camila.demoraes@oecd.org
joao.collet@oecd.org

Key Facts for Brazil in Education at a Glance 2015

Table	Indicator	Brazil	OECD average
Educational Access and Output			
	Enrolment rates	2013	2013
C2.1	3-year-olds (in early childhood education)	53%	74%
	Highest educational attainment level of 25-64 year-olds	2014	2014
A1.4a	Below upper secondary	54%	24%
	Upper secondary or post-secondary non-tertiary	33%	43%
	Tertiary	14%	34%
	Highest educational attainment level of 25-64 year-olds (disaggregation at tertiary level)	2014	2014
A1.1a	Short cycle tertiary	**	8%
	Bachelor's or equivalent	14%	16%
	Master's or equivalent	**	11%
	Doctoral or equivalent	**	1%
	Entry and graduation rates	2013	2013
C3.1	Percentage of today's young people expected to enter tertiary education at least once during their lifetime	**	67%
A3.1	Percentage of today's young people expected to graduate with a bachelor's or equivalent degree in their lifetime	**	36%
Economic and Labour Market Outcomes			
	Unemployment rate of 25-64 year-olds	2014	2014
A5.4a	Below upper secondary	4.5%	12.8%
	Upper secondary and post-secondary non-tertiary	5.6%	7.7%
	Tertiary	2.9%	5.1%
	Average earnings premium for tertiary-educated 25-64 year-olds (upper secondary = 100)	2013	2013
A6.1a	Short cycle tertiary	**	125
	Bachelor's or equivalent	241	157
	Master's, Doctoral or equivalent	450	214
	All tertiary	252	160
	Percentage of people not in employment, education or training (NEET) for 15-29 year-olds	2014	2014
C5.2b	Men	12.7%	13.2%
	Women	27.9%	17.9%
Financial Investment in Education			
	Annual expenditure per student (in equivalent USD, using PPPs)	2012	2012
B1.1a	Primary education	3095 USD	8247 USD
	Secondary education	3020 USD	9518 USD
	Tertiary (including R&D activities)	10455 USD	15028 USD
	Total expenditure on primary to tertiary educational institutions	2012	2012
B2.2	As a percentage of GDP	5.6%	5.2%
	Total public expenditure on primary to tertiary education	2012	2012
B4.2	As a percentage of total public expenditure	17.2%	11.6%
Schools and Teachers			
	Ratio of students to teaching staff	2013	2013
D2.2	Primary education	21 students per teacher	15 students per teacher
	Secondary education	17 students per teacher	13 students per teacher
	Average actual teachers' salaries	2013	2013
D3.4	Pre-primary school teachers	**	37798 USD
	Primary school teachers	**	41248 USD
	Lower secondary school teachers (general programmes)	**	43626 USD
	Upper secondary school teachers (general programmes)	**	47702 USD

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

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



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