

# 4. Funding and resources for education

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This chapter examines the use of financial, material and human resources, focusing on Brazil's overall expenditure levels, the allocation of resources across education levels and recent trends. The analysis looks at two overarching issues: the levels of equity and the efficiency of funding and resource allocation in Brazil's education system.

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## Introduction: setting priorities in education funding and resource use

The context in which this chapter examines education funding is exceptionally challenging. At the time of writing, in the second half of 2020, Brazil is facing a major health and economic crisis, adding to the pressures on an economy that had only recently begun to recover from a long and deep recession (OECD, 2020<sup>[1]</sup>). Many young people have had their education interrupted, and face increasing challenges entering the labour market as a result of the economic and health crisis. Schools and tertiary education providers have had to rapidly adapt to ensure continuity of learning, and now face new challenges to manage re-opening in disrupted institutional settings (Todos Pela Educação, Instituto Unibanco, 2020<sup>[2]</sup>). The education system therefore badly needs additional resources to cope with new pressures at a time in which resources are unusually constrained. Hard decisions on optimising and allocating resources will be needed. At the same time, this crisis may spur new ideas on how to govern, distribute and manage resources more effectively and equitably, and may stimulate difficult but much-needed reforms.

This chapter examines financial, human and material resources, covering how they are governed, used and allocated. Key questions for Brazil, explored in the following sections of this chapter, are:

- Is the overall expenditure on education at the right level to effectively support learning and equity?
- Does the distribution of resources across different regions, localities and institutions support learning and equity?
- Does the allocation of resources between different levels of education – early childhood education and care (ECEC), primary, secondary and tertiary education, and other subsectors, such as adult learning and vocational education and training – support equity?
- Are the mechanisms for raising, spending and distributing funding effectively organised?

## Funding sources and resource allocation in Brazil

### *Funding is divided between three layers of government*

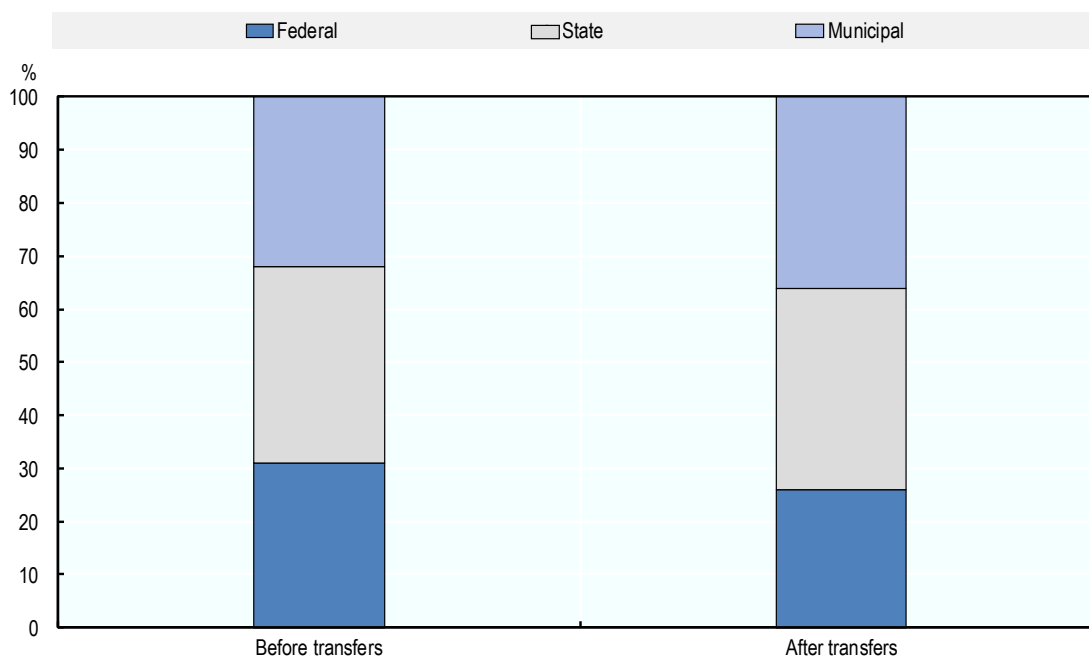
As described in Chapter 1, municipalities are primarily responsible for funding and managing ECEC; municipalities and states share responsibility for primary and lower secondary education; and states are responsible for upper secondary education. The federal government takes primary responsibility for funding and managing postsecondary and tertiary education. The Brazilian Federal Constitution requires states and municipalities to devote at least one-quarter of their tax revenues, and transfers from central government, to the “maintenance and development of education”, including teacher salaries, school buildings and equipment (Presidência da República, Casa Civil, 2020<sup>[3]</sup>). The federal government contributes 25% of public funding devoted to primary through tertiary education, with states contributing 38% and municipalities 37%, after transfers<sup>1</sup> (see Figure 4.1).

Table 4.1 summarises the funding structure of education in Brazil, per type of funding mechanism and per level of government. The structure has not suffered substantial alterations since 2010.

In federal countries, it is relatively common for the federal level to play a large role in tertiary education, either through financial support for tertiary students or through institutional funding. For example in the United States, after transfers, the federal government contributes 53% of public funding for tertiary education, but only 1% of public funding for lower levels of education. Similarly, in Brazil, the federal government has by far the largest role at the tertiary level, contributing 75% of public funding, but a much smaller role in lower levels of education, where federal funding covers only 14% (before transfers) of the overall costs (OECD, 2020<sup>[4]</sup>).


**Figure 4.1. Distribution of sources of total public funds devoted to education by level of government, before and after transfers, 2017**

Percentage of public funding for primary to tertiary education from different public sources



Note: Transfers are net transfers of funds, designated for education, from one level of government to another (usually lower) level of government.

Source: (OECD, 2020<sup>[4]</sup>), *Education at a Glance 2020: OECD Indicators*, <https://doi.org/10.1787/69096873-en>.

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**Table 4.1. Funding structure of Brazil's basic education, per level of government, 2010**

Revenue sources	Federal government	State governments	Municipal governments
Budget revenue	<ul style="list-style-type: none"> <li>• Ordinary budget</li> <li>• 18% of tax revenues to MDE</li> </ul>	<ul style="list-style-type: none"> <li>• 25% of tax revenues to MDE</li> <li>• FUNDEB (sub-funding)</li> </ul>	<ul style="list-style-type: none"> <li>• 25% of tax revenues to MDE</li> <li>• FUNDEB (sub-funding)</li> </ul>
Social contributions	<ul style="list-style-type: none"> <li>• 1/3 of the Educational Allowance (<i>Salário-educação</i>)</li> <li>• Net profit contribution</li> <li>• Social security contribution</li> <li>• Forecasted gross revenue</li> </ul>	<ul style="list-style-type: none"> <li>• 2/3 of the Educational Allowance (<i>Salário-educação</i>)</li> </ul>	
Mixed/transfers	<ul style="list-style-type: none"> <li>• Poverty eradication fund (FECP)</li> </ul>	<ul style="list-style-type: none"> <li>• Federal quote of the Educational Allowance</li> <li>• Federal budget</li> <li>• Federal quota and other FNDE sources of investments of the Educational Allowance</li> </ul>	<ul style="list-style-type: none"> <li>• Federal quote of the Educational Allowance</li> <li>• State quote of the Educational Allowance</li> <li>• Federal budget</li> <li>• State budget</li> <li>• Federal quota and other FNDE sources of investments of the Educational Allowance</li> </ul>

Other revenue	<ul style="list-style-type: none"> <li>• Credit operations</li> <li>• Net revenue of federal lottery</li> <li>• Revenue of autonomous bodies</li> <li>• Federal quota and other FNDE sources of investments of the Educational Allowance</li> <li>• Own-source revenues</li> <li>• Miscellaneous</li> </ul>	<ul style="list-style-type: none"> <li>• Own-source revenues</li> <li>• Credit operations</li> <li>• Miscellaneous</li> </ul>	<ul style="list-style-type: none"> <li>• Own-source revenues</li> <li>• Credit operations</li> <li>• Miscellaneous</li> </ul>
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Notes: Acronyms refer to the following:

FECF: State Fund to Combat and Eradicate Poverty (*Fundo Estadual de Combate e Erradicação à Pobreza*)

FNDE: National Education Development Fund (*Fundo Nacional de Desenvolvimento da Educação*)

FUNDEB: Basic Education Maintenance and Development Fund (*Fundo de Manutenção e Desenvolvimento da Educação Básica*)

MDE: Maintenance and Development of Education (*Manutenção e Desenvolvimento do ensino*)

The educational allowance (*Salário-educação*) is a social contribution extracted from 2.5% of companies' monthly payroll. It was created in 1964 and since then has undergone several reforms. Today, as set in the Law n° 10.832/2003, 10% of the net revenue of the educational allowance goes to FNDE, and 90% is automatically distributed among the three entities, in the proportion of 1/3 to the federal government and 2/3 to state and municipal governments. The 2/3 is shared according to enrolment numbers, with the objective of financing education programmes, projects and actions (art. 212, §6° of the Federal Constitution).

Source: (de Castro, 2011<sup>[5]</sup>), Financiamento da Educação Pública no Brasil: Evolução dos Gastos [Financing of Public Education in Brazil: Evolution of Spending],

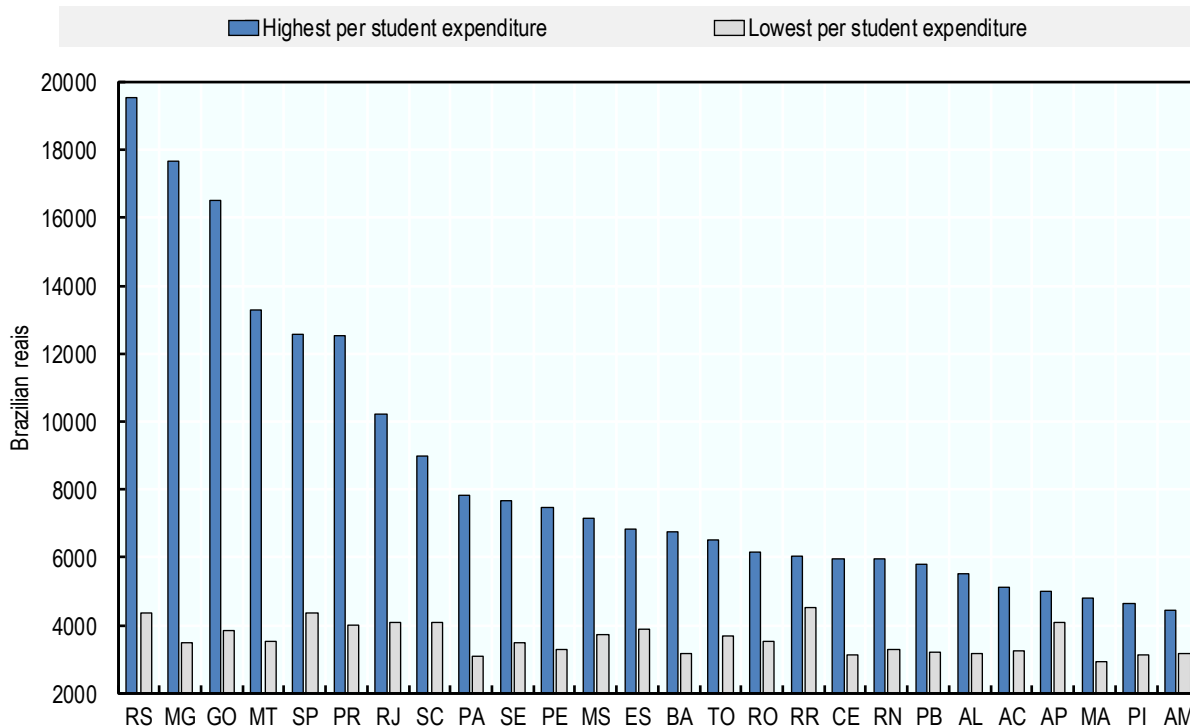
[http://repositorio.ipea.gov.br/bitstream/11058/8437/1/Financiamento%20da%20educa%C3%A7%C3%A3o%20p%C3%BAblica%20no%20Brasil\\_evolu%C3%A7%C3%A3o%20dos%20gastos.pdf](http://repositorio.ipea.gov.br/bitstream/11058/8437/1/Financiamento%20da%20educa%C3%A7%C3%A3o%20p%C3%BAblica%20no%20Brasil_evolu%C3%A7%C3%A3o%20dos%20gastos.pdf) (accessed on 15 January 2021).

### ***FUNDEB is central to addressing large disparities in educational funding across sub-entities***

Brazil's decentralised governance structure, in combination with the country's wide regional disparities (discussed in Chapter 1), are associated with large expenditure differences between and within states. Figure 4.2 shows how wealthier states (and municipalities) – most of which are located in the South, Southeast and Central regions – are able to invest more per student. Expenditure inequalities have been significantly reduced since the introduction of the Primary and Lower Secondary Education Maintenance, Development and Teacher Promotion Fund (*Fundo de Manutenção e Desenvolvimento do Ensino Fundamental e de Valorização do Magistério*, FUNDEF), which was later replaced by the Basic Education Maintenance and Development Fund (*Fundo de Manutenção e Desenvolvimento da Educação Básica*, FUNDEB)<sup>2</sup> (MEC, 2018<sup>[6]</sup>). Some estimates suggest that without FUNDEB, disparities in per-student expenditure across municipalities would be as high as 10 000%, in comparison to 564% with FUNDEB (Todos pela Educação, 2018<sup>[7]</sup>)<sup>3</sup>.


Figure 4.2. Public expenditure per student across states, 2015

Highest and lowest municipal per student public expenditure rates, across states, in Brazilian reais (BRL)



Note: The Federal District is not included in the graph. Abbreviations of Brazilian states: AC=Acre; AL=Alagoas; AP=Amapá; AM=Amazonas; BA=Bahia; CE=Ceará; ES=Espírito Santo; GO=Goiás; MA=Maranhão; MT=Mato Grosso; MS=Mato Grosso do Sul; MG=Minas Gerais; PA=Pará; PB=Paraíba; PR=Paraná; PE=Pernambuco; PI=Piauí; RJ=Rio de Janeiro; RN=Rio Grande do Norte; RS=Rio Grande do Sul; RO=Rondônia; RR=Roraima; SC=Santa Catarina; SP=São Paulo; SE=Sergipe; TO=Tocantins.

Source: Adapted from (Todos pela Educação, 2018<sup>[7]</sup>), *Propostas para Aprimoramento nos Mecanismos de Financiamento da Educação Básica [Proposals for Improvement in Basic Education Financing Mechanisms]*, <https://www.todospelaeducacao.org.br/uploads/posts/258.pdf> (accessed on 15 September 2020).

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As the main financing mechanism for basic (pre-primary, primary and secondary) education, FUNDEB requires each state and municipality to contribute 20% of the revenue they receive from certain taxes<sup>4</sup>, contributions and transfers to a state-managed education fund. The federal government then tops up this fund for states that have not reached the established minimum national level of funding per student (a national threshold calculated annually by the federal government). While this funding and redistribution mechanism allows wealthier states and municipalities to continue spending more than minimum requirements on their education systems, it also provides critical financial support to education systems in poorer regions that would otherwise have more limited funding available. Estimates suggest that in over nine out of ten Brazilian municipalities, FUNDEB resources made up over half of the total amount invested in education (Moderna, 2020<sup>[8]</sup>). Changes to FUNDEB brought by the Constitutional Amendment No. 108 (2020) are expected to further reduce regional disparities, and offer greater support to poorer states, and to poorer municipalities within states (Todos pela Educação, 2020<sup>[9]</sup>; OECD, forthcoming<sup>[10]</sup>).

### ***Mechanisms for allocating resources to schools differ across the country***

Some Brazilian states and municipalities allocate resources to schools using a funding formula based on student enrolment rates. While details of each funding formula vary across the country, OECD research has found that simple per-capita funding models – that do not reflect variations in school types and populations – provide little financial incentive for improving inclusiveness and learning outcomes (OECD, 2017<sup>[11]</sup>). For example, allocation systems that narrowly focus on inputs (e.g. total student enrolment) may dissuade schools from trying to reduce the rate of grade repetition, or channel resources to help the most vulnerable students through to completion. While schools may pursue equity and improvement regardless of incentives, it can be helpful to align financial allocations with policy objectives (OECD, 2017<sup>[11]</sup>). One notable example at the federal level is the Direct Money to School Programme (*Programa Dinheiro Direto na Escola*, PDDE), where schools can apply for additional funding from the federal government to support improvements in a school’s physical and pedagogical infrastructure. The Ministry of Education (*Ministério da Educação*, MEC) is currently rolling out the “Time to Learn” programme (*Tempo de Aprender*), which will offer performance-based financial incentives for teachers and school leaders who promote improvements in student learning outcomes, as measured by the Basic Education Assessment System (*Sistema de Avaliação da Educação Básica*, SAEB) (MEC, n.d.<sup>[12]</sup>).

Some states and municipalities are already pursuing innovative approaches to these challenges. For example, in Sobral, in the state of Ceará, the highest-performing schools are rewarded with additional financial resources. These resources are used to hire specialised teachers and experts to work in schools with the greatest needs. As a result, high-performing schools gain from the status of the reward, while low-performing schools gain more directly from the additional staff (Schleicher, 2019<sup>[13]</sup>). However, not all sub-entities in Brazil have mechanisms in place that encourage school improvement and high levels of performance.

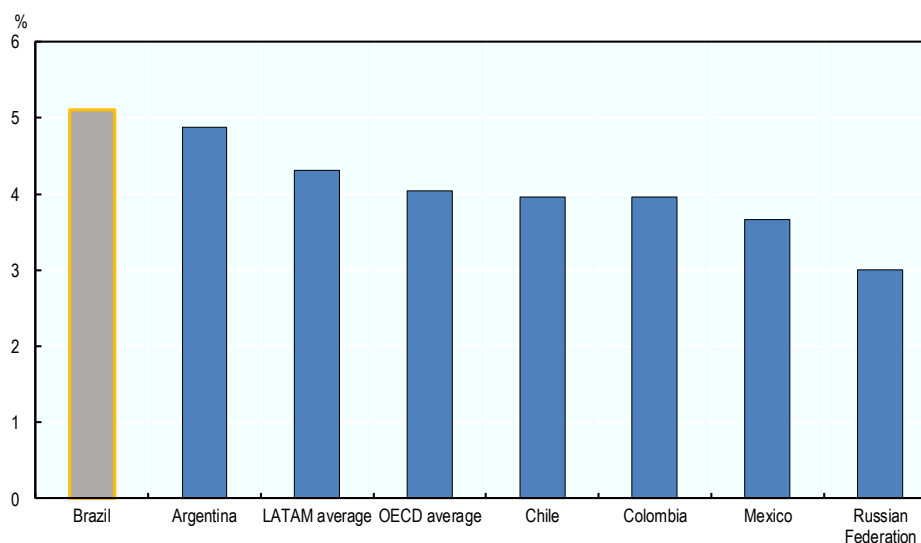
## **Financial resources**

### ***The Brazilian government spends heavily on education***

The Brazilian government spends a large share of the national income on education. In 2017, public spending on education institutions (primary to tertiary education) comprised 5.1% of Brazil’s Gross Domestic Product (GDP), compared with the average of 4.3% in Latin American (LATAM) countries and 4% in OECD countries<sup>5</sup> (see Figure 4.3). Brazil’s National Education Plan (*Plano Nacional da Educação*, PNE) includes a target that government investment in public education should reach 10% of GDP by 2024 (Ministério da Educação, 2014<sup>[14]</sup>). As mentioned earlier, the Federal Constitution mandates minimum levels of education expenditure by states and municipalities. Until 2017, the federal government was also required to invest at least 18% of its revenues in education. While these types of financial goals and requirements have helped raise investment levels in education and other social sectors, Brazil’s focus on expenditure targets, independently of what the expenditure should deliver in terms of learning outcomes, may be contributing to resource inefficiencies.

Between 2000 and 2015, the share of public expenditure on primary to tertiary education, as a percentage of total government expenditure, grew from 9.1% to 14.3% (OECD, n.d.<sup>[15]</sup>). Following an intense debate in the context of an economic crisis, a 2016 constitutional amendment was passed, limiting non-interest spending across the public sector. In addition, a floor was established for expenditure on education<sup>6</sup> and health – equivalent to 2017 spending levels, indexed to inflation, which is expected to stabilise expenditure in the sector in coming years (see Box 4.1). In light of demographic developments, the real value of education expenditure per student will likely increase.

**Figure 4.3. Government expenditure on educational institutions (primary to tertiary) as a percentage of GDP, 2017**



Notes: For this indicator (C.2.2 from EAG, see below), data refer to government expenditure on private and public institutions. Data for Brazil however, refer to government expenditure on public institutions only. Countries are ordered from highest to lowest expenditure.

Source: (OECD, n.d.<sup>[15]</sup>), *Education and Training / Education at a Glance*, <https://stats.oecd.org/> (accessed on 26 November 2020).

StatLink  <https://stat.link/bdvpma>

### Box 4.1. Constitutional amendment Nº 95/2016

In 2016, the Brazilian government introduced a constitutional amendment (also known as EC 95, the expenditure ceiling, or *teto de gastos*) which imposed limits on the primary public spending of all branches of government, excluding interest payments. The amendment aimed to control real public spending, which has grown significantly over the past two decades mostly due to mandatory spending rules, and in turn, to ensure the sustainability of public accounts in light of high public debt.

This expenditure ceiling was meant to force a political discussion about government rules and programmes, with a view towards improving spending efficiency. So far, it has failed to generate the expected political momentum for reform. Nevertheless, it has improved market confidence, leading to lower interest rates and helping to reduce Brazil's interest payments, which had been historically very high, even exceeding public spending on education. This in turn has helped reduce financing costs across the economy.

Looking ahead and against the backdrop of the COVID-19 crisis, there will be a growing need to address budget inflexibilities and review spending to changing priorities both within education, and – even more so – between education and other government functions.

#### **The education sector: built-in enforcement mechanisms and safeguards protect but could also limit increases in spending**

The ceiling amendment exempts the federal government's contribution to FUNDEB and protects the current real value of other education expenditures until 2036 through an education-specific spending floor equivalent to 2017 levels, adjusted for inflation. In light of demographic developments, this implies a real increase in per-student spending, but there may still be a need to raise investment in education even more. Target 20 of the PNE for example, aims to expand public investment in public education to at least 10% of GDP by 2024. However, the expenditure ceiling implies that an increase in education spending beyond the guaranteed floor (plus inflation) would need to be financed through cutting expenditures elsewhere, rather than raising taxes. There is a growing recognition that Brazil has significant room for reducing current expenditures without detriment to legitimate policy objectives, for example in the areas of subsidies and public payroll expenses, as discussed in the 2020 OECD *Economic Survey of Brazil*. That said, building the necessary political consensus for expenditure cuts will be a challenging process, and until it is reached, fiscal challenges are likely to stand in the way of more investment in public education as established by the PNE, threatening the successful achievement of its goals and strategies.

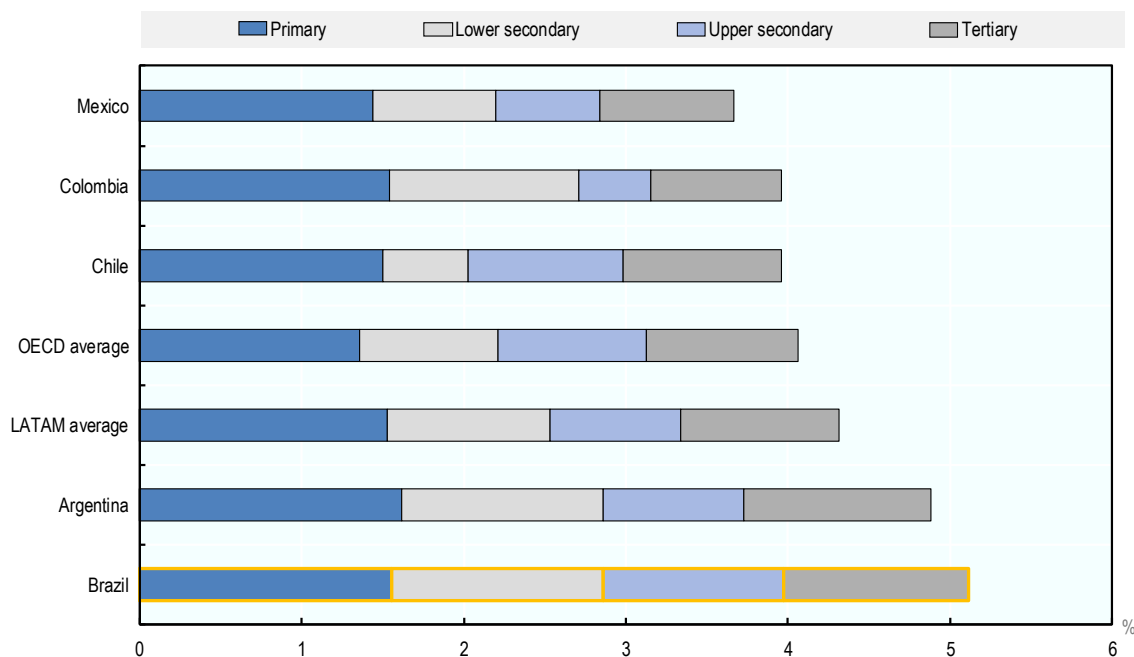
Source: (Senado Federal, 2016<sup>[16]</sup>), *Promulgada Emenda Constitucional do Teto de Gastos Públicos [Enacted Constitutional Amendment of Public Expenditure Ceiling]*, <https://www12.senado.leg.br/noticias/materias/2016/12/15/promulgada-emenda-constitucional-do-teto-de-gastos> (accessed on 10 September 2020); (Amaral, 2017<sup>[17]</sup>), *Com a PEC 241/55 (EC 95) haverá prioridade para cumprir as metas do PNE (2014-2024)? [With PEC 241/55 (EC 95) will there be priority to meet the goals of the PNE (2014-2024)?]*, <http://dx.doi.org/10.1590/S1413-24782017227145>; (Agência Brasil, 2016<sup>[18]</sup>), *Relator da ONU diz que PEC do Teto terá impacto "severo" nos mais pobres [UN rapporteur says that Ceiling PEC will have a "severe" impact on the poorest]*, <https://agenciabrasil.ebc.com.br/politica/noticia/2016-12/relator-da-onu-diz-que-pec-do-teto-tera-impacto-severo-e-recomenda-debate> (accessed on 10 September 2020); (OECD, 2020<sup>[11]</sup>), *OECD Economic Surveys: Brazil 2020*, <https://doi.org/10.1787/250240ad-en>.



### **Brazil's sectoral distribution of education expenditure is similar to many countries**

The allocation of public expenditure in Brazil across different levels of education is similar to other countries (see Figure 4.4). The biggest shares of expenditure go to primary and lower secondary education, the two largest sectors of the education system. National data reveal that between 2000 and 2015, expenditure on every sector of education grew (see Figure 4.5), but growth was concentrated in early childhood (from 0.4% to 0.7% of GDP), upper secondary (0.6% to 1.1%), and tertiary (0.9% to 1.3%) education. These spending trends reflect political priorities of the time and increasing enrolment in these levels of education (see Chapter 2).

**Figure 4.4. Government expenditure per education level as a percentage of GDP, 2017**



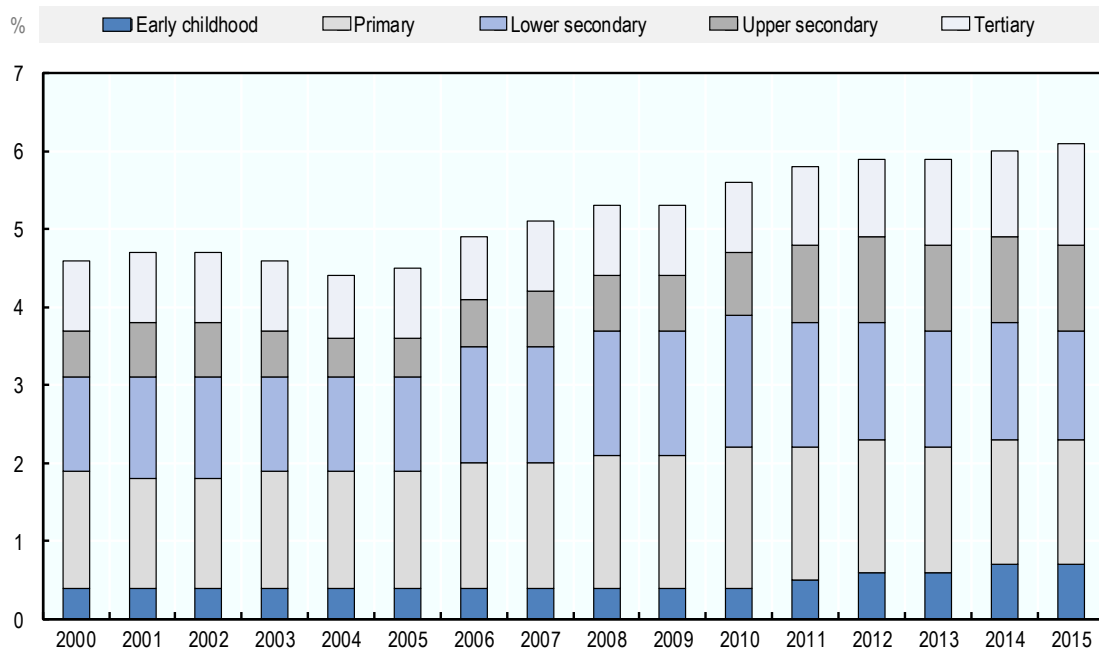
Notes: Accounts for direct expenditure only. Data for pre-primary education are not available. For this indicator data refer to government expenditure on private and public institutions. Data for Brazil however, refer to government expenditure on public institutions only. Countries are ordered by lowest to highest total expenditure on education.

Source: (OECD, n.d.<sup>[15]</sup>), *Education and Training / Education at a Glance*, <https://stats.oecd.org/> (accessed on 26 November 2020).

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Despite the fact that two years of pre-school are mandatory in Brazil, expenditure on ECEC remains relatively low compared to other sectors, such as tertiary education, which is not compulsory and supports a much smaller share of students (see below). If Brazil is to further expand access to early childhood education – and in particular to disadvantaged students to help address inequality, as recommended by the OECD (OECD, 2020<sup>[11]</sup>) – increased spending at this level will be necessary.

**Figure 4.5. Estimated percentage of total public investment in education as a percentage of GDP by level of education, 2000-2015**



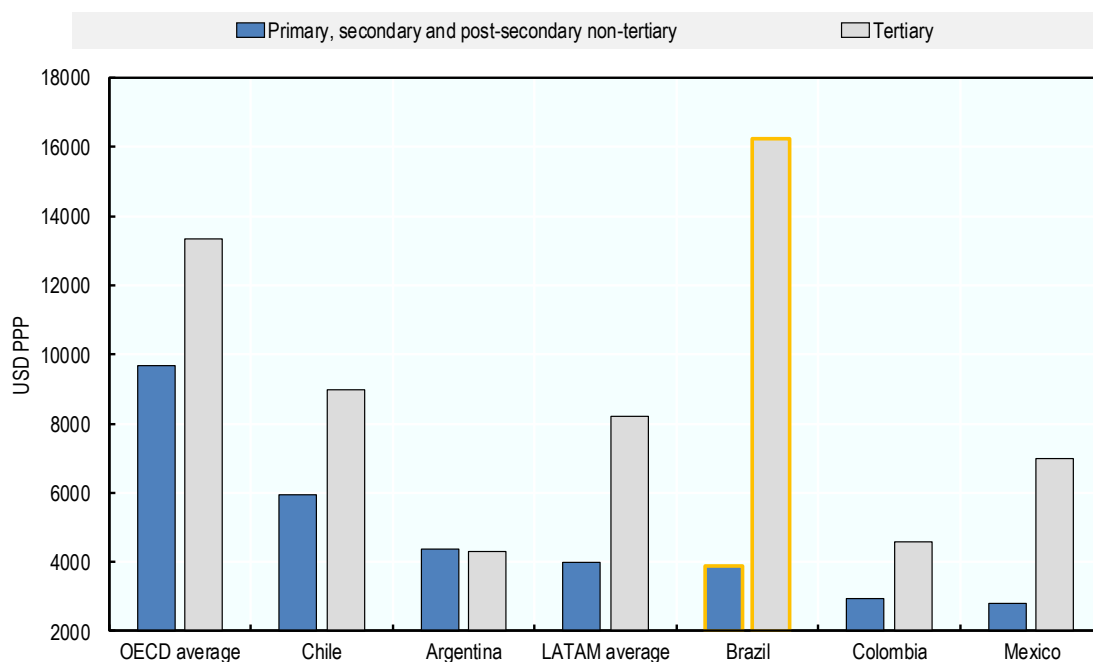
Source: (INEP, 2020<sup>[19]</sup>), *Indicadores Financeiros Educacionais [Educational Financial Indicators]*, <http://inep.gov.br/indicadores-financeiros-educacionais> (accessed on 1 July 2020).

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***Per-student expenditure on compulsory education has been increasing but still lags behind most OECD countries***


Until recently in Brazil, overall education expenditure had been increasing, both as a share of GDP and total public expenditure. This trend, combined with demographic changes (discussed in Chapter 1), contributed to an estimated 10% rise in spending per student – as a percentage of GDP per capita – in primary and lower secondary public schools between 2002 and 2014 (World Bank, 2017<sup>[20]</sup>). Nevertheless, while Brazil's per-student spending on compulsory education (excluding pre-primary) is similar to other LATAM countries, it remains lower than the OECD average (see Figure 4.6). This reflects the fact that Brazil's per capita GDP is lower than OECD countries on average.

**Figure 4.6. Government direct expenditure on public educational institutions per full-time equivalent student in US dollars purchasing power parity (USD PPP) by education level, 2017**



Note: Countries are ordered by highest to lowest per-student spending in primary education.

Source: (OECD, n.d.<sup>[15]</sup>), *Education and Training / Education at a Glance*, <https://stats.oecd.org/> (accessed on 26 November 2020).

StatLink  <https://stat.link/zpk81x>

OECD evidence suggests that without further increases in funding, it will be harder for Brazil to improve educational outcomes. This highlights the importance of protecting the country's existing levels of education investment, especially in times of economic downturn.

### ***There is scope for more effective expenditure and allocation of resources***

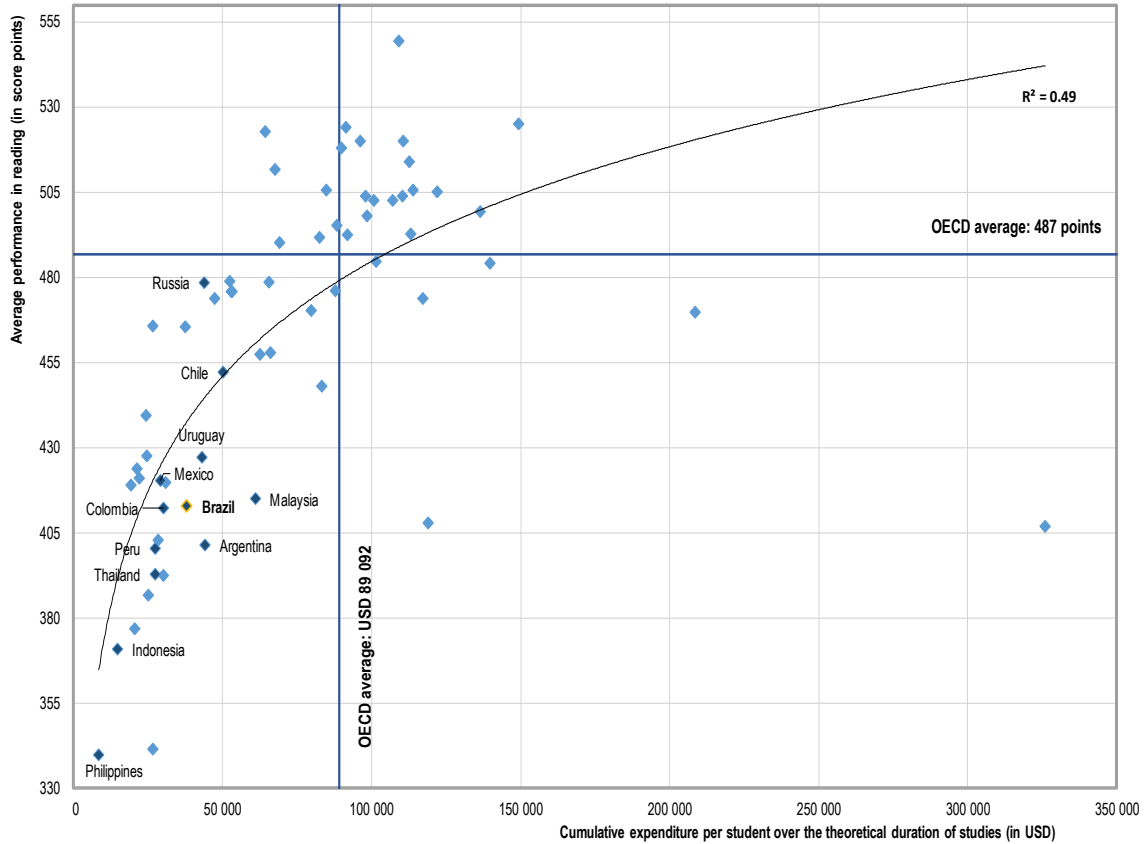
Despite increases in education spending over the years, Brazil has only seen limited improvements in national and international assessments (see Chapter 3), suggesting there are ways in which to achieve better results with resources that are already available. Mexico, for example, obtains higher PISA reading scores than Brazil, with a lower level of educational investment (see Figure 4.7). Even some sub-entities within Brazil are able to attain relatively high scores in the national education quality index (*Index de Desenvolvimento da Educação Básica*, IDEB) despite low spending levels (World Bank, 2017<sup>[20]</sup>). This was the case of the municipality of Mucambo in Ceará, in the Northeast region, which obtained one of the highest IDEB scores in the country in 2019 (9.4 in the initial years) despite having a budget lower than BRL 4 500 (2015) (Saldaña and Palhares, 2020<sup>[21]</sup>).

This is an important consideration since Brazil may not be able to increase per-student spending significantly in the short- or medium-term. Policies designed to introduce more accountability for results and the use of evidence to inform discussions on trade-offs (e.g. funding smaller class sizes versus teacher training or learning/digital resources) could lead to greater resource efficiency in the education sector. The decision to use FUNDEB allocations to incentivise improvements in learning, access and equity is a welcome step, although the details of how this would be carried out have still not been revealed. Box 4.2

describes several factors in the Brazilian system that raise the levels of spending per student, which if addressed could support more effective expenditure.


### Figure 4.7. Mean reading performance and spending on education, PISA 2018

Average performance in reading in PISA 2018 (score points) and cumulative expenditure per student over the theoretical duration of studies, in USD



Note: The names of countries which participated in PISA 2018 but that are not part of the group of benchmarking countries selected for this report are not presented in the graph. For the complete graph, please check figure I.4.4 from PISA 2018 Volume I. Link below.

Source: Adapted from (OECD, 2019<sup>[22]</sup>), *PISA 2018 Results (Volume I): What Students Know and Can Do*, <https://doi.org/10.1787/5f07c754-en>.

StatLink  <https://stat.link/qjfnfo>

#### Box 4.2. Grade repetition and dropout raise the cost of education per student

The average cost of educating one child from school entry age to the completion of upper (or lower) secondary education are higher in Brazil for three reasons:

- **Grade repetition delays graduation.** As described in Chapter 2, grade repetition is very common in Brazil. As a result, in lower secondary education, over 20% of boys and over 10% of girls are at least two years older than the standard age for their grade, well above LATAM and more than four times higher than OECD countries. A graduating student in Brazil will have spent a comparatively long time in education, and therefore consumed more resources than if they had progressed smoothly through education.
- **Dropout is wasteful.** The wastage, when students fail to complete, is not only a human, but also an economic cost, since education resources will have been committed to the education of students who end up dropping out. As described in Chapter 2, in 2018, Brazil's upper secondary completion rate of 67% is similar to the LATAM average of 64%, but lower than countries such as Chile and Peru (86%).
- **Tertiary students often do not graduate on time.** As discussed in Chapter 2, only a third of bachelor students obtain their degrees within the expected time span of four or five years. Not only does this delay their entry into the labour market and therefore yields an opportunity cost in terms of lost wages and output, but it can also directly increase public and private expenditure.

Source: (UNESCO-UIS, n.d.<sup>[23]</sup>), *UIS dataset*, <http://data.uis.unesco.org/> (accessed on 17 November 2020); (OECD, 2019<sup>[24]</sup>) *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, <https://doi.org/10.1787/acd78851-en>.

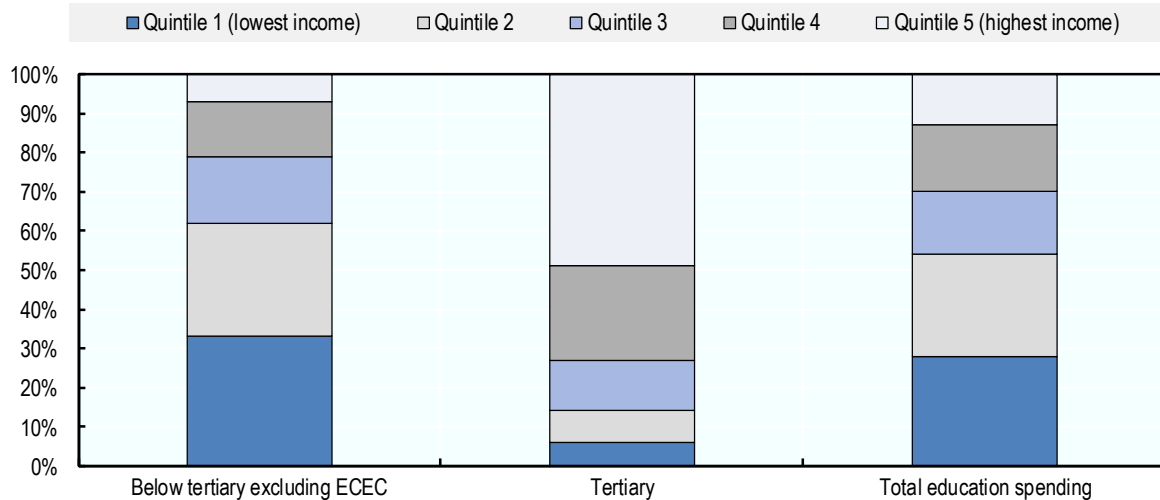
#### ***In tertiary education, per student expenditure is higher than in OECD countries on average, raising questions about effectiveness and equity***

While Brazil's per-student public expenditure in compulsory education was significantly lower than that of OECD countries in 2017, expenditure per tertiary student (USD PPP 16 232) was higher than the OECD average (USD PPP 13 342), and well above most LATAM countries (see Figure 4.6). However, international comparisons need to consider two particularities of the Brazilian context. First, these data refer exclusively to public spending per student in public institutions, as private institutions do not receive direct public subsidies. The figures thus reflect spending levels that affect fewer than 25% of Brazilian students. Second, the data also include expenditure on research and development, which unlike many OECD countries, are concentrated in public higher education institutions. As a result, it is likely that part of Brazil's per-student expenditure at the tertiary level relates to other activities (e.g. research) of the universities that do not benefit students directly.

The large differences between per-student expenditure in compulsory and tertiary education raise important efficiency and equity questions. As discussed in Chapters 1 and 2, students from wealthier backgrounds are more likely to progress to more advanced levels of education and better able to gain entry into fully-subsidised public higher education institutions (see Table 2.1 in Chapter 2). As a result, nearly half of tertiary funding goes to individuals from the highest income quintile, and less than 10% benefits those from the lowest income quintile (see Figure 4.8). The Quota Law of 2012, (see Box 2.6 in Chapter 2) which imposes quotas on federal universities for the recruitment of students from disadvantaged backgrounds may help address these disparities to a certain extent. However, students from disadvantaged backgrounds will only be able to make effective use of tertiary education opportunities if they have received a strong basic and upper secondary education. It follows that in terms of improving the knowledge and skills of Brazil's youth, it would be more cost-effective and equitable for the Brazilian


government to prioritise investments in earlier years of schooling, where resources can benefit the most disadvantaged students most directly.

**Figure 4.8. Percentage of public spending that goes to each quintile of per-capita income, by education level, 2015**



Note: World Bank estimates based on the National Household Survey (*Pesquisa Nacional por Amostra de Domicílios*, PNAD).

Source: (World Bank, 2017<sup>[20]</sup>), *A Fair Adjustment: Analysis of the efficiency and equity of public spending in Brazil*, <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/643471520429223428/volume-1-overview> (accessed on 1 September 2020).

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***Despite the existence of tools that support transparency and accountability, widespread corruption hampers the quality of education and is costly for the system***

Financial resources in education can be misused, or become the target of corruption (UNESCO, 2000<sup>[25]</sup>; Hallak and Poisson, 2007<sup>[26]</sup>). Education is not only a large element in public expenditure, but it also involves devolved provision through multiple local agencies, sometimes with limited or inadequate financial accountability and transparency mechanisms (Burns and Köster, 2016<sup>[27]</sup>; OECD, 2018<sup>[28]</sup>).

In Brazil, there are a number of tools and processes that record and disseminate information on the planning, allocation and execution of public funding of education. This includes the Monitoring Council and Social Control consultation platform (*Conselho de Acompanhamento e Controle Social*) and the Information System on Public Funds for Education (*Sistema de Informações sobre Orçamentos Públicos em Educação*, SIOPE). Nevertheless, reports from the Brazilian General Comptroller's Office (*Controladoria Geral da União*) and the Brazilian Federal Court of Accounts (*Tribunal de Contas da União*) reveal that education remains a frequent target of corruption, with around 60% of corruption cases in the country being linked to the education and health sectors (Ferraz, Finan and Moreira, 2008<sup>[29]</sup>; 2012<sup>[30]</sup>). Corruption in education can manifest itself in various forms, such as misappropriation of funds for personal advantage, fraud in procurement, or favouritism in public employment decisions. In Brazil, corruption ranges from highly-publicised scandals involving well-known politicians to small-scale schemes in school leaders' appointments.

In addition to wasting public resources, corruption damages the quality of teaching and learning (Ferraz, Finan and Moreira, 2012<sup>[30]</sup>). The diversion of school funds takes away from a school's infrastructure and educational material, and impacts the provision of school meals and teacher training. Delays or cuts in school staff salaries may also lower teacher motivation and impact school running.

National research has revealed that corruption is higher in municipalities with lower Human Development Index (HDI) levels, with more restricted access to information, or that receive a high proportion of federal funds in relation to their own budget. Since the early 2000s, Brazil has been introducing measures to monitor and prevent corruption, including regular and random fiscal accounting, and platforms to make public servants' salaries information available. However, as discussed in Chapter 1, there are concerns that threats to the independence and capacity of anti-corruption agencies will jeopardise Brazil's efforts to fight corruption. Not only is it important the Brazil avoid backsliding on progress achieved, changes to FUNDEB are an opportunity to strengthen oversight and public sector integrity in education (Campos and Castelar, 2014<sup>[32]</sup>; Ferraz and Finan, 2011<sup>[33]</sup>; Albuquerque and Ramos, 2006<sup>[34]</sup>).

### Box 4.3. The OECD's anti-corruption efforts: the CleanGovBiz initiative and the Toolkit

#### The CleanGovBiz initiative

The OECD has a long history of helping governments fight corruption, and has developed the CleanGovBiz initiative under the umbrella of the Declaration on Propriety, Integrity and Transparency in the Conduct of International Business and Finance (PIT Declaration), which was adopted by OECD countries, Brazil and the Russian Federation at the 2010 OECD Ministerial Meeting chaired by Italy. The CleanGovBiz initiative helps governments fight corruption and engage with civil society and the private sector to this end.

#### The CleanGovBiz Toolkit

Using a systematic approach, the CleanGovBiz Toolkit for Integrity draws together numerous anti-corruption tools under a single umbrella. It brings together not only all of OECD tools but also those of the other most important organisations involved in the fight against corruption: the United Nations, the World Bank, the Financial Action Task Force, Transparency International, the Extractive Industries Transparency Initiative and the World Economic Forum. Each of these organisations has valuable expertise in specific areas and help make CleanGovBiz a truly comprehensive and inclusive initiative. In particular, the Toolkit contains information that could assist states in implementing some provisions of the United Nations Convention against Corruption.

The Toolkit covers four key elements:

- **Healthy governance:** Putting in place healthy systems of laws, rules and institutions to ensure functioning markets and good governance. Such well-designed systems satisfy the needs of citizens and consumers and thus curb incentives for corruption.
- **Effective prevention:** Effective prevention by establishing safeguards, integrity frameworks and scrutiny in risk areas of corruption.
- **Sharp detection:** Strong systems of detection to spot and prevent corruption.
- **Robust prosecution:** Mechanisms of prosecution and recovery to make sure corruption does not pay.

Source: (OECD, n.d.<sup>[31]</sup>), *Boosting Integrity, Fighting Corruption*, <https://www.oecd.org/daf/anti-bribery/50350066.pdf> (accessed on 9 December 2020).

## Material and human resources

### ***Relatively few principals complain about lack of teaching staff, despite high student-teacher ratios***

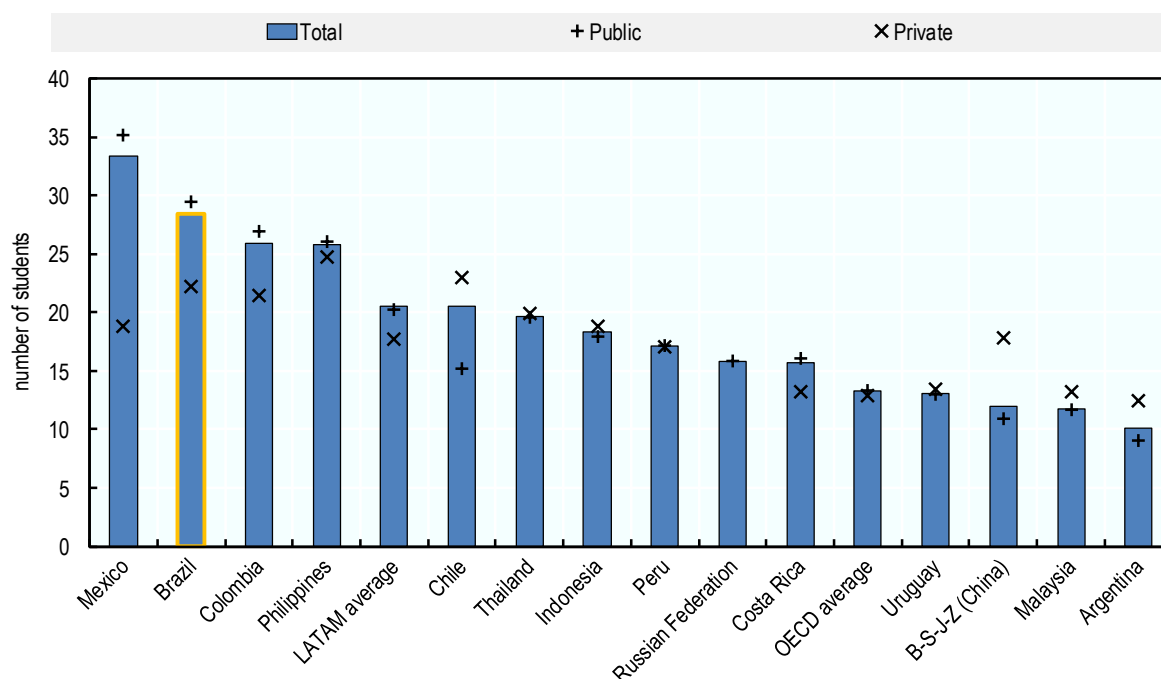
Teachers are the key learning resource, and are discussed in depth in Chapter 5. Evidence on the impact of student-teacher ratios (and class sizes) on learning outcomes is mixed. For example, a study of Argentina where more teachers were recruited between 2000 and 2012, and teacher-student ratios fell markedly, reports no impact on learning outcomes (de Hoyos, Holland and Troiano, 2015<sup>[35]</sup>). Conversely, in a more targeted intervention in Kenya, a randomised controlled trial showed that locally recruited contract teachers introduced into schools to reduce overcrowding significantly improved learning outcomes (Duflo, Dupas and Kremer, 2014<sup>[36]</sup>). A simple conclusion would be that the value of additional teaching staff depends very much on their qualities and how they are used.

In Brazil, the ratio of 15-year-old students to teachers in public schools was, at 29.5, more than twice the level of OECD countries (13), and well above the LATAM average of 20 (see Figure 4.9). While lower in private schools where the student-teacher ratio is 22, this remains much higher than in benchmark countries. These ratios are national averages and may mask significant differences depending on school location (i.e. urban or rural, state), and resource level. For example, the student-teacher ratio for public and private schools in rural areas is 24.5, compared to a ratio of 28 in urban areas. Among OECD countries, the gap is slightly smaller, at 12.5 and 13.5, respectively. Across states, there are also important disparities. In Rio Grande do Sul, in the South, in the last years of elementary education, the average student-teacher ratio is 21, the lowest in the country, while Alagoas, in the Northeast, has a ratio of 32, the highest in Brazil (INEP, 2020<sup>[37]</sup>).



**Figure 4.9. Student-teacher ratio, in the public and private sectors, PISA 2018**

The average number of 15-year-old students per teacher, based on principals' reports



Notes: Data regarding private schools are not available for the Russian Federation. Countries are ordered from highest to lowest student-teacher ratio.

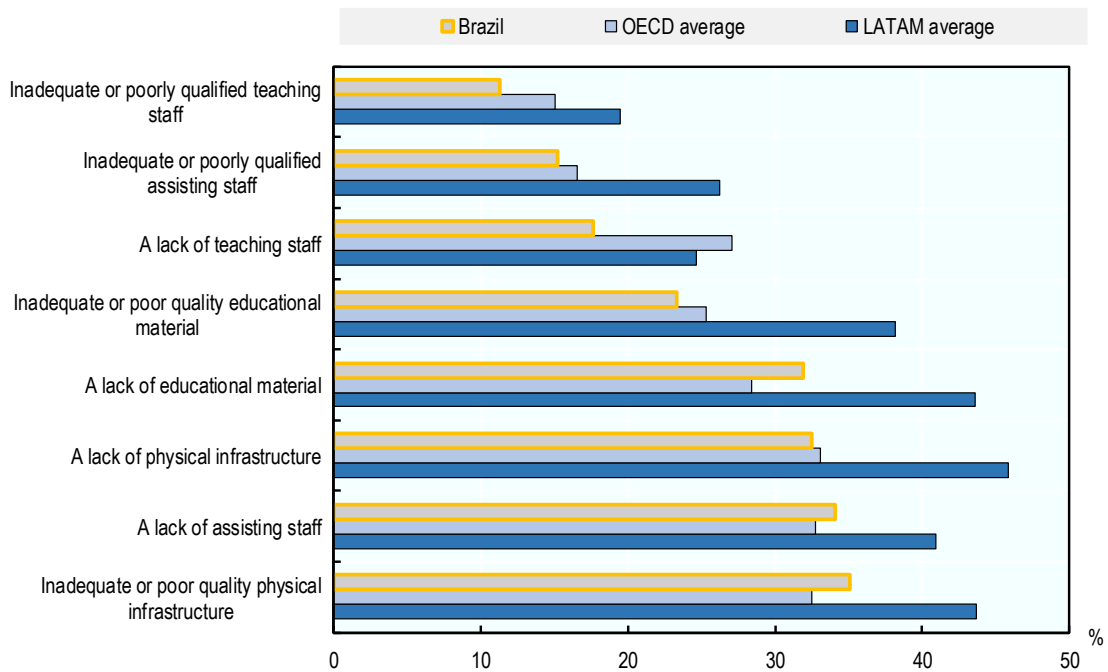
Source: (OECD, 2020<sup>[38]</sup>), *PISA 2018 Results (Volume V): Effective Policies, Successful Schools*, <https://doi.org/10.1787/ca768d40-en>.

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The PISA school background questionnaire asked school principals to indicate the availability of resources at their schools. These data need to be interpreted carefully, as they tell us as much about expectations as they do about actual resource levels. When considering only public schools, relatively few principals in Brazil appear concerned by a lack of teaching staff, or with teacher quality — a finding which is surprising given the relatively high student-teacher ratios in Brazil. For example only 21% of public school principals in Brazil felt that a lack of teaching staff held back student performance, compared to 29% of their counterparts in OECD countries and 37% in Costa Rica. (see Figure 4.10). One possibility is that school principals in Brazil are responding in part to falling school enrolment, and expectations that they will continue to fall in the future. While school leaders in Brazil do not seem concerned about staff numbers, they are concerned by teacher absences, with 38% of principals reporting that such absences make the school routine more difficult (INEP, 2020<sup>[39]</sup>).

**Figure 4.10. Adequacy and availability of material and instructional resources hindering learning, PISA 2018**

Share of students in schools whose principals report that school instruction is hindered “a lot” or “to some extent” by different factors, in public and private schools



Source: (OECD, 2019<sup>[40]</sup>), *PISA 2018 Database*, <https://www.oecd.org/pisa/data/2018database/> (accessed 2 September 2020).

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***School leaders in general do not report concern with the inadequacy or lack of material resources and infrastructure, despite indications that many schools face poor conditions***

Despite improvements in the availability of resources in recent years, many schools still lack access to basic material resources and infrastructure (UNESCO, 2019<sup>[41]</sup>). Between 3% and 6% of schools lacked water, electricity or sewage services, and over 65% did not have a canteen in 2017. An even larger share reported having poor infrastructure – around 10% of schools said they have ceilings, floors, doors, classrooms and bathrooms in inadequate condition. Only a quarter have green spaces and playgrounds for students. National data from the school census also show that school infrastructure varies between different states, with fewer resources in the North and Northeast, and with weaker infrastructure in the public than in the private sector (INEP, 2020<sup>[42]</sup>).

Physical infrastructure will be particularly important as students return to schools while the COVID-19 pandemic continues, and social distancing and personal hygiene will be important in avoiding cross-infection. In this context, the federal government, through the PDDE, has transferred resources directly to schools to help prepare them for face-to-face classes. These resources should help ensure appropriate hygiene measures for teachers, students and staff.

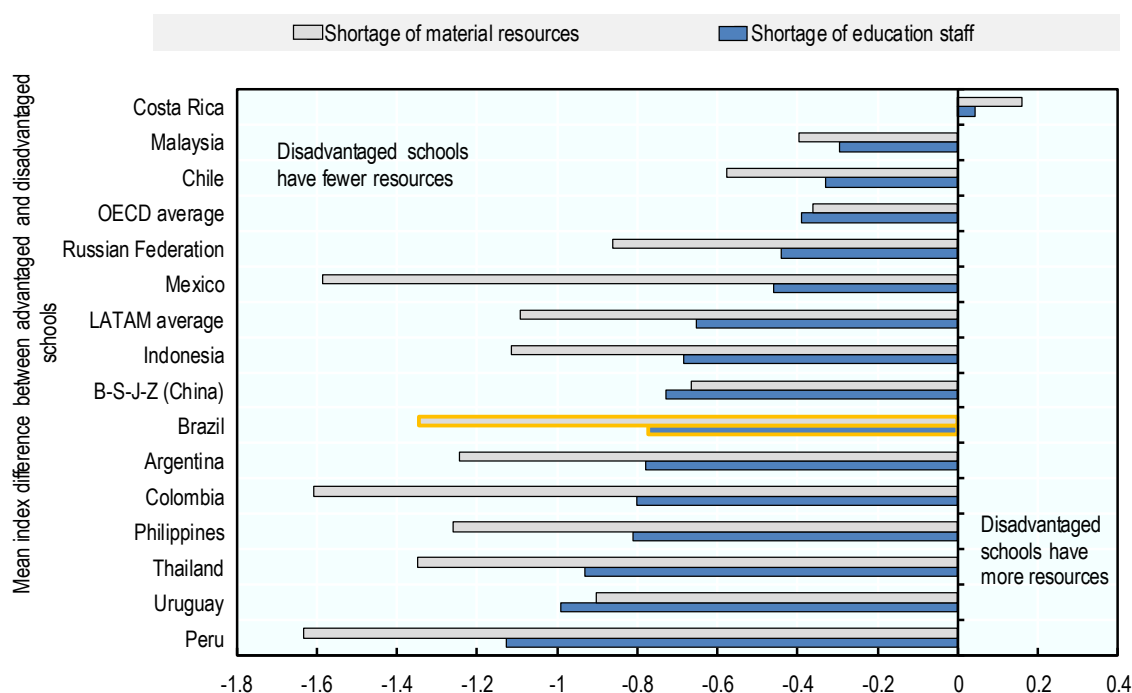
Despite these issues, in Brazil, school leaders from secondary schools voiced around the same level of concern about infrastructure and educational materials as counterparts in OECD countries. Almost a third (32.5%) of secondary school leaders in Brazil felt that instruction was hindered by lack of physical

infrastructure, compared with 33% in OECD countries, but much less than the average for LATAM countries (46%). In addition, 35% of Brazilian school leaders felt that poor quality infrastructure hindered instruction, slightly higher than across the OECD (32.5%), but behind the LATAM average (44%) (see Figure 4.10). One explanation is that Brazilian school leaders may have lower expectations of infrastructure and materials than in OECD and other LATAM countries.

There are large variations in the quality of school infrastructure across the country. For example, while 42% of schools leaders in rural, and 37% in public schools feel that instruction is hindered by the lack of physical infrastructure (OECD average 34% and 25%), only 22% in urban and 7% of school leaders in private schools say the same (OECD average 36% and 22%, respectively) (OECD, 2019<sup>[40]</sup>). Disadvantaged schools are also more likely to face shortages of educational resources (e.g. material or education staff) than advantaged schools, as reported by school leaders. While this is also the case across OECD countries, the disparities are particularly large in Brazil and other Latin American countries (see Figure 4.11). PISA results indicate that such shortages are associated with lower student performance, even after taking into account students' and schools' socio-economic profile (OECD, 2020<sup>[38]</sup>).

**Figure 4.11. Educational resources in advantaged and disadvantaged schools, PISA 2018**

Difference between the mean index of shortage of material resources and education staff in advantaged and disadvantaged schools. Results reported by school leaders in public and private schools



Notes: For the index of shortage of education staff, the difference between advantaged and disadvantaged schools is not significant for Chile, Costa Rica and Malaysia. For the index of shortage of material resources, the difference between advantaged and disadvantaged schools is not significant for Costa Rica.

Source: (OECD, 2020<sup>[38]</sup>), *PISA 2018 Results (Volume V): Effective Policies, Successful Schools*, <https://doi.org/10.1787/ca768d40-en>.

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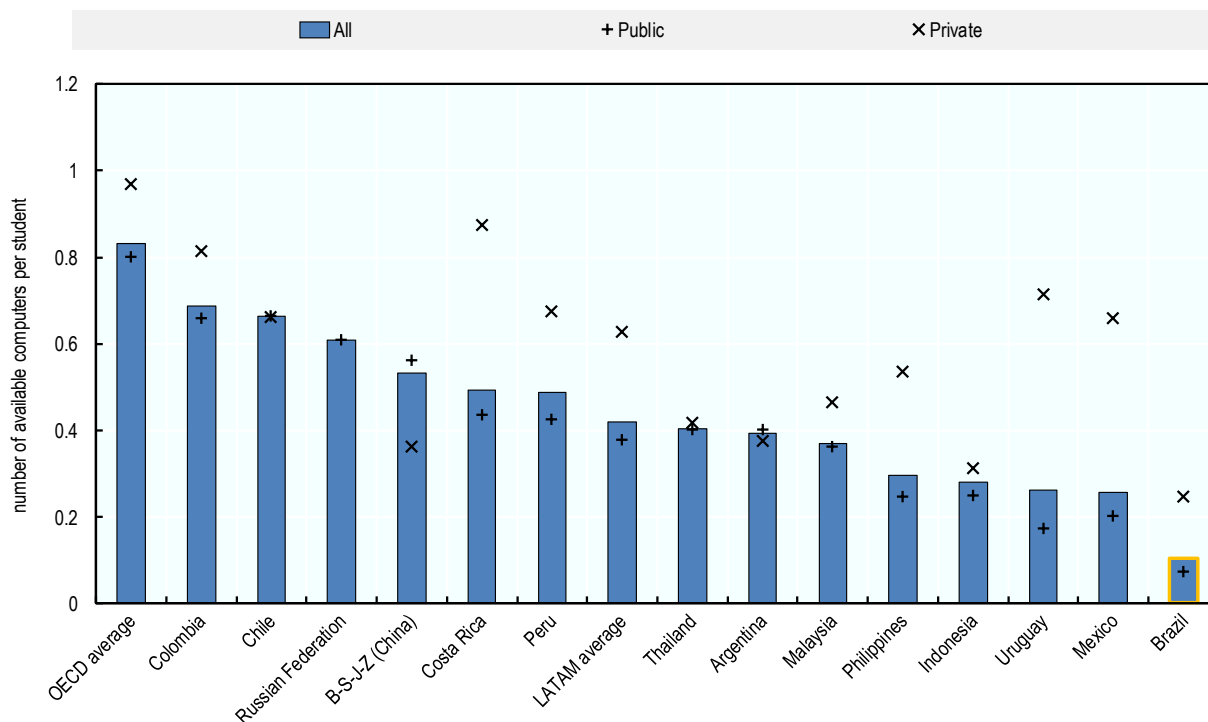
### ***Brazil lags behind OECD and many other LATAM countries in terms of digital resource availability***

In recent years, Brazil has invested heavily in computers, Internet connections, software, and other tools of information and communications technology (ICT) in education (Trucano, 2011<sup>[43]</sup>). However the availability and access of digital resources remains comparatively low. According to PISA data, there are around ten students for every computer in Brazilian secondary schools (public and private), much higher than the ratios found in OECD (1.2) and LATAM countries (2.4) (see Figure 4.12). Moreover, inadequate Internet bandwidth and speed are widely reported. In Brazilian public schools, only 15% of principals say that Internet bandwidth and speed are sufficient, compared to 23% on average in LATAM countries and 64% in OECD countries. In rural Brazilian schools, only 10% of school principals report adequate Internet, compared with 16% in LATAM and 20% in OECD countries (see Figure 4.13). As expected, private schools in Brazil are better-resourced, with four students for every computer. But even in the presumably well-resourced private school sector in Brazil, computer availability is much lower than in many comparable countries (see Figure 4.12).

These PISA data may be compared with national sources. For example, primary schools run by Brazilian states (representing less than 20% of all primary schools in Brazil) are generally much better-resourced than those run by municipalities. In 2019, 75% of state schools reported that they had desktop computers available for students, compared with only 34% of municipal schools; 57% of state schools reported that they had access to the Internet for students, compared with only 21% of their municipal counterparts (INEP, 2020<sup>[42]</sup>). Most probably these figures reflect the better resource base of state primary schools, rather than a different approach to ICT.

**Figure 4.12. Number of available computers in schools per 15-year-old student, by type of institution, PISA 2018**

In public and private schools, as reported by school leaders



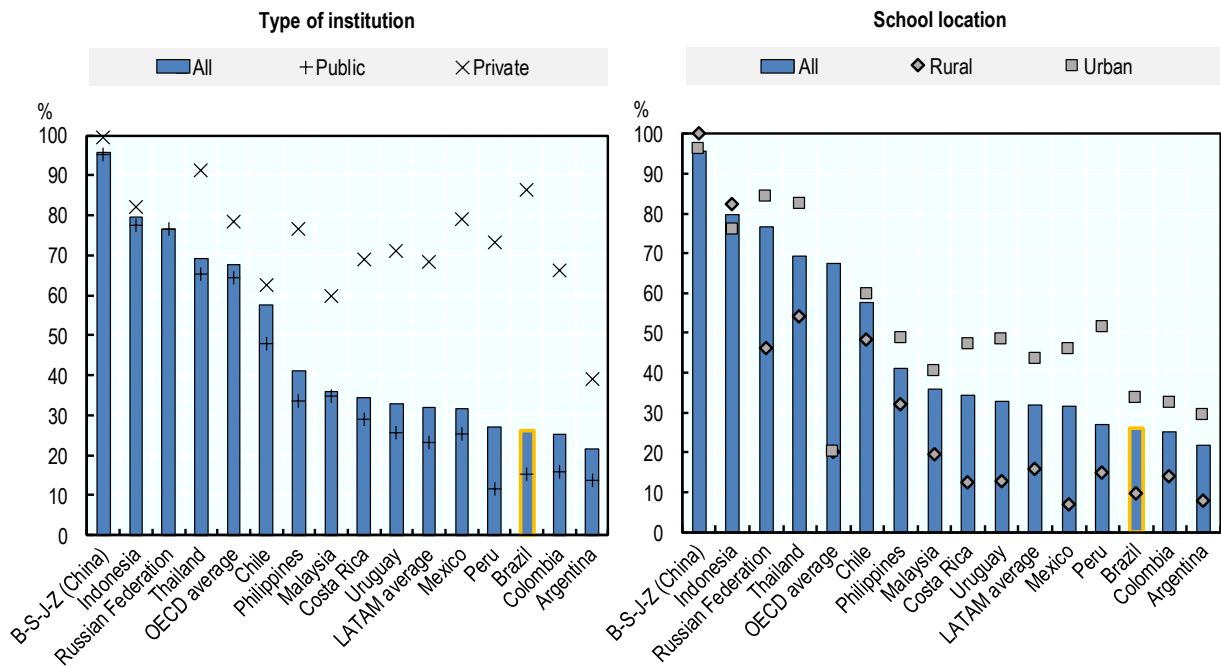
Notes: Data regarding private schools are not available for the Russian Federation. Countries are ordered from highest to lowest number of available computers per student.

Source: (OECD, 2019<sup>[40]</sup>), PISA 2018 Database, <https://www.oecd.org/pisa/data/2018database/> (accessed 2 September 2020).

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**Figure 4.13. School Internet connections, by type and location, PISA 2018**

Share of students in schools whose principals agree or strongly agree that the school's Internet bandwidth or speed is sufficient, by type of institution and school location



Notes: Data regarding private schools are not available for the Russian Federation. Countries are ordered by highest to lowest share of students in schools whose principals agree or strongly agree that the school's Internet bandwidth or speed is sufficient.

Source: (OECD, 2019<sup>[40]</sup>), *PISA 2018 Database*, <https://www.oecd.org/pisa/data/2018database/> (accessed 2 September 2020).

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International comparisons point to Brazil's need for greater investment in ICT. However, international experience also points to some of the challenges in doing this well. Many countries have invested in hardware that is difficult to integrate and maintain. Others, including Brazil with the "One Laptop Per Child" programme (*Um Computador por Aluno*) have, since 2008, focused on increasing access. Evidence from Latin American countries however shows no significant improvements in learning outcomes as a result of this investment (Santiago et al., 2010<sup>[44]</sup>). Data from PISA also show that the relationship between more ICT resources and better learning outcomes is inconclusive. ICT infrastructure needs to be supplemented by investments to support teachers, implement curricula, and pursue other measures to improve teaching and learning. Brazil's Programme of Innovation Connected Education (*Programa de Inovação Educação Conectada*) from 2017 is based on a more holistic approach, focused on expanding access to digital resources and developing the capacity to use them. While this has potential to lead to better outcomes, it is still too early to assess the impacts of this policy (Ministério da Educação, n.d.<sup>[45]</sup>).

## Conclusion

A range of global and national developments – including the COVID-19 pandemic and a long economic recession – have increased attention to the use and allocation of resources in education. Ensuring that resources are effectively used to support learning and equitably distributed to meet the different needs of sub-entities and students will require attention to three key issues:

- **First, the current allocation of funding is not as equitable and efficient as it might be.** At present, Brazil invests more in tertiary education than in ECEC, despite evidence that access to high-quality ECEC not only contributes to better learning outcomes but can also help reduce inequalities. Even within tertiary education, funding arrangements tend to disproportionately benefit students from advantaged backgrounds, who are more likely to enter free public schools. The World Bank and the International Monetary Fund (IMF) have both argued for introducing fees for public universities – in combination with widely available loans and waivers for students from more modest backgrounds – as a way to improve equity and lower public expenditure (World Bank, 2017<sup>[20]</sup>; Karpowicz, 2017<sup>[46]</sup>). In addition, despite important improvements, there is still scope to improve equity through more effective distribution of resources across municipalities and states. Changes to FUNDEB are a step in the right direction, but more is needed to tackle this issue.
- **Second, education expenditure is insufficiently linked to expected outcomes, and a challenging fiscal situation will impose limits on additional education spending.** Brazil's difficult economic and budgetary context places education expenditure at risk, although until recently it had been steadily increasing. To sustain improvements to teaching and learning, Brazil will need to retain current levels of education resources. However, there is also significant scope to use resources more effectively and introduce greater accountability in education spending. For example, international data suggest that countries with similar expenditure levels are obtaining much better scores in PISA than Brazil. High rates of grade repetition in Brazil are also very wasteful of resources.
- **Third, data on funding for Brazil are limited.** There are few internationally comparable data on private expenditure on education, and on capital expenditure. Many of the data points are from 2015 and 2016. The comparability, reliability and accessibility of state and municipal level funding data also remain limited. Such gaps severely limit international benchmarking and more fine-grained analysis of funding in Brazil. Better data and greater transparency would be key to inform allocation systems and funding reforms, and fight corruption. Amendments to FUNDEB, which aim to strengthen transparency in funding data, are a step in the right direction.

## References

- Agência Brasil (2016), *Relator da ONU diz que PEC do Teto terá impacto “severo” nos mais pobres [UN rapporteur says that Ceiling PEC will have a “severe” impact on the poorest]*, <https://agenciabrasil.ebc.com.br/politica/noticia/2016-12/relator-da-onu-diz-que-pec-do-teto-tera-impacto-severo-e-recomenda-debate> (accessed on 10 September 2020). [18]
- Amaral, N. (2017), *Com a PEC 241/55 (EC 95) haverá prioridade para cumprir as metas do PNE (2014-2024)? [With PEC 241/55 (EC 95) will there be priority to meet the goals of the PNE (2014-2024)?]*, <http://dx.doi.org/10.1590/S1413-24782017227145>. [17]
- Burns, T. and F. Köster (2016), *Governing Education in a Complex World*, OECD Publishing, Paris, <https://doi.org/10.1787/9789264255364-en>. [27]
- de Castro, J. (2011), *Financiamento da Educação Pública no Brasil: Evolução dos Gastos [Financing of Public Education in Brazil: Evolution of Spending]*, IPEA, Brasília, <http://repositorio.ipea.gov.br/bitstream/11058/8437/1/Financiamento%20da%20educa%C3%A7%C3%A3o%20p%C3%BAblica%20no%20Brasil%20evolu%C3%A7%C3%A3o%20dos%20gastos.pdf> (accessed on 15 January 2021). [5]
- de Hoyos, R., P. Holland and S. Troiano (2015), *Understanding the Trends in Learning Outcomes in Argentina, 2000-2012*, <http://documents1.worldbank.org/curated/en/993331467992515270/pdf/WPS7518.pdf>. [35]
- Duflo, E., P. Dupas and M. Kremer (2014), “School Governance, Teacher Incentives, and Pupil-Teacher Ratios: Experimental Evidence from Kenyan Primary Schools”, *Journal of Public Economics*, <https://doi.org/10.1016/j.jpubeco.2014.11.008>. [36]
- Economics], A. (ed.) (2006), *Análise Teórica E Empírica Dos Determinantes De Corrupção Na Gestão Pública Municipal [Theoretical and Empirical Analysis of the Determinants of Corruption in Municipal Public Management]*, ANPEC - Associação Nacional dos Centros de Pós-Graduação em Economia [Brazilian Association of Graduate Programs in Economics], <https://ideas.repec.org/p/anp/en2006/30.html> (accessed on 14 October 2020). [34]
- Ferraz, C. and F. Finan (2011), “Electoral Accountability and Corruption: Evidence from the Audits of Local Governments”, *American Economic Review*, Vol. 101/4, pp. 1274-1311, <http://doi.org/10.1257/aer.101.4.1274>. [33]
- Ferraz, C., F. Finan and D. Moreira (2012), “Corrupting Learning: Evidence from Missing Federal Education Funds in Brazil”, *Journal of Public Economics*, Vol. 96/9-10, pp. 712-726, <https://doi.org/10.1016/j.jpubeco.2012.05.012>. [30]
- Hallak, J. and M. Poisson (2007), *Corrupt schools, corrupt universities : what can be done?*, UNESCO, IIEP, Paris, <https://unesdoc.unesco.org/ark:/48223/pf0000150259/PDF/150259eng.pdf.multi> (accessed on 9 December 2020). [26]
- INEP (2020), *Censo da Educação Básica 2019: Notas Estatísticas [Basic Education Census 2019: Statistical Notes]*, Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira, Brasília, <http://portal.inep.gov.br/documents/186968/0/Notas+Estat%C3%ADsticas+-+Censo+da+Educa%C3%A7%C3%A3o+B%C3%A1sica+2019/43bf4c5b-b478-4c5d-ae17-7d55ced4c37d?version=1.0> (accessed on 25 May 2020). [42]



- INEP (2020), *Indicadores educacionais [Educational indicators]*, [37]  
<http://portal.inep.gov.br/indicadores-educacionais> (accessed on 2 September 2020).
- INEP (2020), *Indicadores Financeiros Educacionais [Educational Financial Indicators]*. [19]
- INEP (2020), *Microdados do Saeb 2017 [Microdata from Saeb 2017]*, <https://www.gov.br/inep/pt-br/acesso-a-informacao/dados-abertos/microdados/saeb> (accessed on 30 November 2020). [39]
- Karpowicz, C. (2017), *Inequality in Brazil: a Regional Perspective*, IMF, [46]  
<https://www.imf.org/en/Publications/WP/Issues/2017/10/31/Inequality-in-Brazil-A-Regional-Perspective-45331>.
- MEC (2018), *Fundeb*, <http://portal.mec.gov.br/fundeb-sp-1090794249> (accessed on [6]  
 31 August 2020).
- MEC (n.d.), *PNA: Política Nacional de Alfabetização [PNA: National Literacy Policy]*, [12]  
<http://alfabetizacao.mec.gov.br/tempo-de-aprender> (accessed on 17 November 2020).
- Meeting], A. (ed.) (2014), *Avaliação Da Corrupção Municipal a Partir de Microdados [Assessing [32]  
 Municipal Corruption through Microdata]*, ANPEC - Associação Nacional dos Centros de Pós-  
 Graduação em Economia [Brazilian Association of Graduate Programs in Economics],  
<https://ideas.repec.org/p/anp/en2013/075.html> (accessed on 14 October 2020).
- Meeting], A. (ed.) (2008), *Corrupção, Má Gestão, e Desempenho Educacional: Evidências a [29]  
 Partir da Fiscalização dos Municípios [Corruption, Mismanagement, and Educational  
 Performance: Evidence from the Inspection of Municipalities]*, ANPEC - Associação Nacional  
 dos Centros de Pós-Graduação em Economia [Brazilian Association of Graduate Programs in  
 Economics], <https://ideas.repec.org/p/anp/en2008/200807211421560.html> (accessed on  
 14 October 2020).
- Ministério da Educação (2014), *Plano Nacional de Educação - Lei N° 13.005/2014 [National [14]  
 Education Plan - N° 13.005/2014]*, <http://pne.mec.gov.br/18-planos-subnacionais-de-educacao/543-plano-nacional-de-educacao-lei-n-13-005-2014>.
- Ministério da Educação (n.d.), *Educação Conectada [Connected Education]*, [45]  
<http://educacaoconectada.mec.gov.br/index.php#ancora> (accessed on 12 April 2021).
- Moderna (2020), *Financiamento, Metas do PNE [Financing, PNE's Goals]*, [8]  
<https://www.moderna.com.br/anuario-educacao-basica/2020/financiamento.html#distribuicao-dos-municipios-de-acordo-com-a-participacao-do-fundeb-no-vaatotal-receitas-vinculadas-a-educacao-por-alunoano-2015> (accessed on 27 November 2020).
- OECD (2020), *Education at a Glance 2020: OECD Indicators*, OECD Publishing, Paris, [4]  
<https://dx.doi.org/10.1787/69096873-en>.
- OECD (2020), *OECD Economic Surveys: Brazil 2020*, OECD Publishing, Paris, [1]  
<https://doi.org/10.1787/250240ad-en>.
- OECD (2020), *PISA 2018 Results (Volume V): Effective Policies, Successful Schools*, PISA, [38]  
 OECD Publishing, Paris, <https://dx.doi.org/10.1787/ca768d40-en>.
- OECD (2019), *PISA 2018 Database*, <https://www.oecd.org/pisa/data/2018database/> (accessed [40]  
 on 2 September 2020).

- OECD (2019), *PISA 2018 Results (Volume I): What Students Know and Can Do*, PISA, OECD Publishing, Paris, <https://dx.doi.org/10.1787/5f07c754-en>. [22]
- OECD (2019), *PISA 2018 Results (Volume III): What School Life Means for Students' Lives*, OECD Publishing, Paris, <https://doi.org/10.1787/acd78851-en>. [24]
- OECD (2018), *Integrity of Education Systems: A Methodology for Sector Assessment*, OECD Publishing, Paris, <http://www.oecd.org/corruption/acn/OECD-ACN-Integrity-of-Education-Systems-ENG.pdf> (accessed on 9 December 2020). [28]
- OECD (2017), "The funding of school education: Main findings and policy pointers", in *The Funding of School Education: Connecting Resources and Learning*, OECD Publishing, Paris, <https://dx.doi.org/10.1787/9789264276147-4-en>. [11]
- OECD (n.d.), *Boosting Integrity, Fighting Corruption*, OECD Publishing, Paris, <https://www.oecd.org/daf/anti-bribery/50350066.pdf> (accessed on 9 December 2020). [31]
- OECD (n.d.), *Education and Training / Education at a Glance*, <https://stats.oecd.org/> (accessed on 26 November 2020). [15]
- OECD (forthcoming), *Education Policy Outlook: Brazil*, OECD Publishing, Paris. [10]
- Presidência da República, Casa Civil (2020), *Constituição da República Federativa do Brasil de 1988 [1988 Constitution of the Federative Republic of Brazil]*, [http://www.planalto.gov.br/ccivil\\_03/constituicao/constituicao.htm](http://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm) (accessed on 19 August 2020). [3]
- Saldaña, P. and I. Palhares (2020), *Dados mostram que municípios que investem mais em educação vão melhor no Ideb [Data show that municipalities that invest more in education do better in Ideb]*, <https://www1.folha.uol.com.br/educacao/2020/09/media-de-gasto-por-aluno-faz-ideb-de-municipios-variara-ate-14-ponto.shtml> (accessed on 30 November 2020). [21]
- Santiago, A. et al. (2010), *Experimental Assessment of the Program "One Laptop per Child"*, IDB, <http://idbdocs.iadb.org/wsdocs/getdocument.aspx?docnum=35422036> (accessed on 10 September 2020). [44]
- Schleicher, A. (2019), *PISA 2018: Insights and Interpretations*, OECD Publishing, Paris, <https://www.oecd.org/pisa/PISA%202018%20Insights%20and%20Interpretations%20FINAL%20PDF.pdf>. [13]
- Senado Federal (2016), *Promulgada Emenda Constitucional do Teto de Gastos Públicos [Enacted Constitutional Amendment of Public Expenditure Ceiling]*, <https://www12.senado.leg.br/noticias/materias/2016/12/15/promulgada-emenda-constitucional-do-teto-de-gastos> (accessed on 10 September 2020). [16]
- Todos pela Educação (2020), *Novo FUNDEB aprovado no Congresso Nacional [New FUNDEB approved by the National Congress]*, <https://todospelaeducacao.org.br/noticias/Novo-Fundeb-aprovado-no-Congresso-Nacional/> (accessed on 17 November 2020). [9]
- Todos pela Educação (2018), *Propostas para Aprimoramento nos Mecanismos de Financiamento da Educação Básica [Proposals for Improvement in Basic Education Financing Mechanisms]*, Todos pela Educação, <https://www.todospelaeducacao.org.br/uploads/posts/258.pdf> (accessed on 10 September 2020). [7]

- Todos Pela Educação, Instituto Unibanco (2020), *Covid-19 Impacto Fiscal na Educação Básica [Covid-19 Fiscal Impact on Basic Education]*, Todos Pela Educação, Instituto Unibanco, [https://www.todospelaeducacao.org.br/uploads/posts/449.pdf?181895214=&utm\\_source=site-content&utm\\_campaign=lancamento](https://www.todospelaeducacao.org.br/uploads/posts/449.pdf?181895214=&utm_source=site-content&utm_campaign=lancamento) (accessed on 29 July 2020). [2]
- Trucano, M. (2011), *Surveying ICT use in education in Brazil*, <https://blogs.worldbank.org/edutech/TIC-Educacao-2010> (accessed on 1 September 2020). [43]
- UNESCO (2019), *Qualidade da infraestrutura das escolas públicas do ensino fundamental no Brasil: indicadores com dados públicos e tendências de 2013, 2015 e 2017 [Infrastructure quality of public elementary schools in Brazil: indicators with public data and trends from]*, UNESCO, Brasília, <https://unesdoc.unesco.org/ark:/48223/pf0000368757?posInSet=1&queryId=7990941a-c4d6-47cc-94a7-f163404e5ce8> (accessed on 2 September 2020). [41]
- UNESCO (2000), *The Dakar Framework for Action*, UNESCO, Paris, <https://sustainabledevelopment.un.org/content/documents/1681Dakar%20Framework%20for%20Action.pdf> (accessed on 9 December 2020). [25]
- UNESCO-UIS (n.d.), *UIS dataset*, <http://data.uis.unesco.org/> (accessed on 29 June 2020). [23]
- World Bank (2017), *A Fair Adjustment: Analysis of the efficiency and equity of public spending in Brazil*, World Bank, <https://documents.worldbank.org/en/publication/documents-reports/documentdetail/643471520429223428/volume-1-overview> (accessed on 1 September 2020). [20]

## Notes

<sup>1</sup> Transfers are net transfers of funds, designated for education, from one level of government to another (usually lower) level of government

<sup>2</sup> FUNDEB was established in 2007, replacing FUNDEF, which only covered primary and lower secondary education (ISCED 1 and 2). In 2020, FUNDEB's mandate was renewed and has now become a permanent feature of Brazil's education funding system. Moreover, changes to its functioning are expected to help further reduce disparities.

<sup>3</sup> These estimates take into account the functioning of FUNDEB before the 2020 amendments, which are expected to further reduce regional disparities in the future.

<sup>4</sup> Income from the tax over services (Imposto Sobre Serviços de Qualquer Natureza, ISS) or the tax on private urban real state (Imposto Predial e Territorial Urbano, IPTU) are not taken into account by FUNDEB.

<sup>5</sup> The data refer exclusively to public expenditure in education, and do not capture private spending or public spending on tertiary student support schemes (as opposed to institutional subsidies). As discussed in Chapters 1 and 2, at least 20% of Brazilian students in compulsory education, and 75% of those in tertiary education, are enrolled in private institutions, many of whom receive assistance to cover tuition fees. If these expenditures were accounted for, these figures would be even higher.

<sup>6</sup> This does not take into consideration expenditure under FUNDEB.



**From:**  
**Education in Brazil**  
An International Perspective

**Access the complete publication at:**  
<https://doi.org/10.1787/60a667f7-en>

**Please cite this chapter as:**

OECD (2021), “Funding and resources for education”, in *Education in Brazil: An International Perspective*, OECD Publishing, Paris.

DOI: <https://doi.org/10.1787/5719cfb2-en>

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