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Inequalities in higher education access and completion in Brazil

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Working Paper 2020-3

Inequalities in Higher Education Access and Completion in Brazil

Tristan McCowan

Julio Bertolin

Prepared for the UNRISD project on
Universities and Social Inequalities in the Global South

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Introduction to Working Papers on Universities and Social Inequalities in the Global South

This paper is part of a project which explores what role universities play in overcoming persistent and rising inequalities. Participation in tertiary education has increased significantly across the globe, in parallel with heightened social aspirations and the expectation of better labour market opportunities stemming from a university degree. However, these assumptions rely on certain economic and social conditions being fulfilled, some of which have worsened in the age of jobless growth. The project asks: What potential does higher education have today to increase social mobility, reduce inequality and contribute to the advancement of society through the production of knowledge and skills? Are institutions of higher education contributing to inequality rather than equality, and if so, through what specific actions and mechanisms? How can the transformative potential of such institutions be fully harnessed for overcoming inequality?

Working Papers on Universities and Social Inequalities in the Global South

Inequalities in Higher Education Access and Completion in Brazil
Tristan McCowan and Julio Bertolin, April 2020

Climbing the Ladder: Determinants of Access to and Returns from Higher Education in Chile and Peru
Anja Gaentzsch and Gabriela Zapata-Román, April 2020

“A Public and a Private University in One”: Equity in University Attendance in Kenya Since the Liberalization Reforms of the 1990s
Rebecca Simson and J. Andrew Harris, March 2020

Contents

List of Acronyms	ii
Abstract.....	iii
Keywords.....	iii
Bios.....	iii
Acknowledgements	iii
Introduction	1
A Framework of Fairness in Access to Higher Education	3
The Higher Education System in Brazil	6
Methods and Data Sources	9
Analysis of Inequalities in the Higher Education System	11
The value of higher education in the labour market.....	11
Expansion of availability	12
Accessibility	15
Horizontality.....	17
Comparison of graduates by institutional type	17
Comparison of social groups by mode of study	18
Comparison of social groups by disciplinary area	20
Learning outcomes	22
Conclusion.....	23
Universities and social mobility	24
Policy implications/recommendations.....	26
International significance	27
Future research needs	28
References	29

List of Figures

Figure 1: Growth of the number (in millions) of enrolled students in Brazilian higher education from 1980-2017.....	13
Figure 2: Increase in students of lower socio-economic level among the completers of Enade cycles 1 and 3	18

List of Tables

Table 1: Proportion of students (completing undergraduate courses) benefiting from loans/grants and affirmative action policies, by disciplinary area, 2009-2017	14
Table 2: Net enrolment ratio by race/colour in Brazil, 2012-2018 (as percentage of total population group by race)	16
Table 3: Average scores for distance and face-to-face modalities on the specific component of Enade (2016), by background characteristics.....	20
Table 4: Proportions of those completing degrees in the last Enade (2015-2016-2017) from non-white backgrounds, low-income families, public secondary schools and mothers with low educational levels, by course.....	21
Table 5: Average of scores for the “general education” component for students completing their studies, by family monthly income (2015 Enade).....	23
Table 6: Percentage improvement in average scores for the “specific component” between entering and completing students, by educational level of mother (2007 Enade).....	23

List of Acronyms

ABED	Brazilian Association for Distance Education (<i>Associação Brasileira de Educação a Distância</i>)
BRL	Brazilian real (currency)
DAAD	German Academic Exchange Service
ENADE	National Assessment of Student Achievement (<i>Exame Nacional de Desempenho dos Estudantes</i>)
ENEM	High School National Exam (<i>Exame Nacional do Ensino Médio</i>)
F2F	Face-to-face learning modality
FIES	Student Financing Fund (<i>Fundo de Financiamento Estudantil</i>)
GER	Gross Enrolment Ratio
HEIs	Higher education institutions
IBGE	Brazilian Institute of Geography and Statistics (<i>Instituto Brasileiro de Geografia e Estatística</i>)
ILO	International Labour Organization
INEP	National Institute for Educational Studies and Research Anísio Teixeira (<i>Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira</i>)
IPEA	Institute for Applied Economic Research (<i>Instituto de Pesquisa Econômica Aplicada</i>)
NER	Net enrolment ratio
OECD	Organisation for Economic Co-operation and Development
PNAD	National Household Sample Survey (<i>Pesquisa Nacional por Amostra de Domicílios</i>)
PROUNI	University for All Programme (<i>Programa Universidade para Todos</i>)
PT	Workers' Party (<i>Partido dos Trabalhadores</i>)
REUNI	Support Programme for the Restructuring and Expansion of Federal Universities (<i>Programa de Apoio a Planos de Reestruturação e Expansão das Universidades Federais</i>)
Semesp	Union of Private Higher Education Institutions in the State of São Paulo (<i>Sindicato das Entidades Mantenedoras de Estabelecimentos de Ensino Superior no Estado de São Paulo</i>)
UIS	UNESCO Institute for Statistics
UNICAMP	University of Campinas (<i>Universidade de Campinas</i>)
USD	United States dollar (currency)
USP	University of São Paulo (<i>Universidade de São Paulo</i>)

Abstract

While there are rapidly increasing enrolments worldwide, higher education systems are still characterized by continuing inequalities in access. Brazil is a case in point in this regard, with highly restricted admissions for those from low-income families, African descendants, and those with low parental level of education, despite the system tripling in size between 2000 and 2018. This study analyses trends in access and completion in higher education in Brazil in this period, assessing variation between federal and for-profit sectors, face-to-face and distance modes, and different degree courses, drawing on three national datasets (Higher Education Census, *Enade* and National Household Sample Survey). The data is analysed using the frame of *availability* (number and distribution of places), *accessibility* (ability of prospective students to take up opportunities) and *horizontality* (non-stratified system, avoiding hierarchies of prestige and quality). Brazil shows evidence of a rapid increase in availability of places since the late 1990s, as well as some improvements in accessibility on account of quota policies in federal universities and loan and grant policies for private universities. Yet there are major challenges to horizontality on account of the preponderance of disadvantaged students in lower quality for-profit institutions, in degree courses with lower value on the employment market and in distance education. Finally, implications are drawn out for higher education policy in Brazil and beyond.

Keywords

Access to higher education; affirmative action; Brazil; inequalities; stratification; widening participation

Bios

Tristan McCowan is Professor of International Education at the Institute of Education, University College London. His work focuses on higher education and international development, particularly in Latin America and sub-Saharan Africa. His latest book is *Higher Education For and Beyond the Sustainable Development Goals* (2019, Palgrave Macmillan).

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Introduction

For the countries of the Global South forming new nation-states in the 19th and 20th centuries, higher education was seen to have a pivotal role. It acted simultaneously as a repository for national culture, language and identity; a means of training the civil service and professional classes; and a symbol of national independence and status. With the rise of human capital theory in the second half of the 20th century, universities also began to be seen as an important spur to national economies, particularly in the context of the knowledge economy, the decline of heavy industry and the rise of information and high-tech sectors.

For individuals, families and communities, higher education has also exercised an increasing pull through this period. It has gone from being the privilege of a tiny intellectual and administrative elite, to being almost an obligation for the middle classes and anyone who aspires to a non-routine job. In almost all societies—whether leaning towards the free market, the social democrat or the socialist points in the spectrum—higher education is the social mobility mechanism *par excellence*, holding the promise of catapulting any bright and dedicated young person into the lofty echelons of professional success.

The reality has been somewhat different. Despite the extraordinary expansion of the global higher education system, now absorbing more than a third of the global cohort into some kind of post-school provision, up from 20 percent at the turn of the millennium, many continue to be excluded. While some upper middle-income countries have joined the OECD countries in what Trow (1974) categorizes as universal provision (above 50 percent net enrolment ratio), many are languishing behind. The average gross enrolment ratio (GER) in low-income countries is as low as 9 percent, and much lower in some countries—only 2 percent in Eritrea for example (UIS 2018). Furthermore, it has not been plain sailing, even for those lucky enough to enter the higher education system. With the expansion of access at all levels of education, there is greater availability of candidates for existing employment opportunities, leading to a form of qualifications inflation in which higher education diplomas are required for jobs that previously would have accepted secondary or even primary leavers.

There have also been challenges to the quality of provision in higher education institutions (HEIs) in the context of rapid expansion. In some cases, government efforts to respond rapidly to demand for higher education has led to intolerable strains on the carrying capacity of public universities. In others, governments have opted for liberalizing the sector for private institutions, leading to a mushrooming of for-profit universities with dubious quality standards. As will be explored in greater detail below, students from disadvantaged groups have disproportionately found themselves in these more precarious circumstances.

Nevertheless, these processes are not automatic, and vary considerably between countries depending on the social configurations and policy options. For this reason, it is essential that we deepen our knowledge of the mechanisms through which inequalities are reproduced, exacerbated or ameliorated by higher education systems. In this spirit, this study provides an analysis of the current situation in Brazil, in order to understand the opportunities available to different social groups within and through HEIs, and the impact on social justice more broadly.

The specific objectives of the study are twofold: first, to examine the trends in higher education enrolments and completions from the turn of the millennium until 2018 (the date for which the latest figures are available). This time period covers the administration of the Workers' Party (Partido dos Trabalhadores, PT) government elected under the leadership of Luiz Inácio Lula da Silva, in which a number of new policies for higher education were developed. The aim is to observe patterns in access and completion for relevant social groups, specifically: through income groups (measured in Brazil primarily through family income in multiples of minimum salaries), racial/ethnic groups (self-identification based on census categories), family educational background (using 5th grade or higher level of education of mother as a proxy) and those coming from public or private secondary schools. Higher education is used here according to Brazilian criteria to include traditional academic courses, along with technical and vocational education at the higher level, and short cycle courses.

The second main objective is to draw out implications of these configurations in the higher education system for social justice more broadly, given the positional role of higher education and significant relationship between educational inequalities and socio-economic inequalities. The analysis will be carried out through the lens of the theoretical framework of availability, accessibility and horizontality (McCowan 2016), in particular focusing on the relationship between indicators of access/completion and markers of privilege and future opportunities, residing in the institution attended (its recognition and academic quality), the course studied (its economic and professional status) and mode of study (face-to-face or distance).

The analysis contributes to policy debates within Brazil, currently in considerable flux in the context of the right-wing government of Jair Bolsonaro. A nuanced analysis of the opportunities available within and through the higher education system is essential given controversial claims of the for-profit sector to be acting in the interests of social justice, and the proposed rolling back of state entitlements. Yet the implications of this analysis go beyond the borders of Brazil. Other large middle-income countries are grappling with the conundrum of rapidly expanding but highly unequal systems. Furthermore, Brazil has been at the forefront of a number of international trends in higher education—for example, part-time evening study, the entrance of for-profit companies, and franchise models of expansion, in addition to affirmative action policies—so can put forward lessons for other countries adopting them.

Following this introduction, the report will provide some further reflections on fairness in access to higher education, and outline the theoretical framework utilized in this study. There will then be a consideration of the historical background of higher education in Brazil; an examination of accompanying political, economic and cultural factors; and an outline of relevant policies adopted in recent decades. The report then turns to the main analysis of the trajectories of access over this time period, and the internal characteristics affecting opportunities for disadvantaged groups. Finally, implications are drawn out for higher education policy in Brazil, and for international debates on the topic.

A Framework of Fairness in Access to Higher Education

The question of what constitutes a fair system of admission to university has been hotly debated over the past half century. The historical development of positions on these issue is outlined by Clancy and Goastellec (2007) who identify three historical periods: first, inherited merit, in which higher education was assumed to be only for the small proportion of the population who by virtue of their birth and natural talents were both suited and entitled to its rigours and fruits; second, equality of rights, which did away with official bars to social groups such as women and religious minorities, but nevertheless through their apparently meritocratic admission procedures ended up excluding all except those with privileges in their preceding educational trajectory. The final stage is equity or equality of opportunity, through which affirmative action policies are adopted so as to address these hidden barriers and ensure that all of those with a capacity to study at the higher level are able to do so.

Clancy and Goastellec's account might be criticized for its neat teleology, and for the overly optimistic reading that we are now dwelling firmly in the realm of equity. Furthermore, many express concern at the very notion of equity, which, through the elasticity of its meaning, has in some usages reverted to the equality of rights definition (for a discussion of the World Bank's usage, see McCowan 2004). Yet the account does highlight some essential dimensions of the problem, namely that the challenge of fairness in higher education encompasses both visible and hidden mechanisms of exclusion. This study will address both of these forms in the context of Brazil, but will also focus on a further issue, that of the inequalities that are fostered even when students succeed in entering the higher education system. This final dimension—termed *horizontality*, or rather lack of it—will be outlined further below.

Despite the strong drivers for expansion, higher education systems are still restricted in size in most countries. In the first place, this is because universities carry a high cost, and much higher than basic education, particularly in cases in which institutions carry out research, community engagement and a range of other public services. In cases in which governments saw trade-offs between lower and higher levels of the education system as necessary, emphasis started to be placed on the primary level in the latter decades of the 20th century, bolstered by policy recommendations from the World Bank, drawing on rates of return analysis by Psacharopoulos and colleagues (Psacharopoulos et al. 1986;

Psacharopoulos 1994). While private providers were encouraged, there were natural limits to their expansion in lower income countries on account of the restricted size of the middle classes.

Practical concerns have, therefore, combined with principled arguments to restrict the expansion of higher education systems, even in the context of seemingly insatiable demand from individuals and families. Financial constraints have been accompanied by capacity limitations—most crucially the lack of qualified academic staff to teach the growing undergraduate courses (African Network for International Education 2018). In the globally networked system of higher education, Global South countries have seen many of their most productive academics and researchers snapped up by institutions in the Global North, thereby worsening the conditions of domestic provision. But there have also been principled arguments for limiting public support for higher education. Many are sceptical that higher education is essential for all people, or that access to it constitutes an entitlement. International law provides some specification for rights in higher education, the International Covenant on Economic, Social and Cultural Rights of 1966 stating that “Higher education shall be made equally accessible to all, on the basis of capacity”. While this provision makes non-discrimination in admissions an absolute obligation for nation states, it does not require universalization of access, leaving the door open to systems that provide places for only a restricted portion of the population (McCowan 2012). Furthermore, it must not be forgotten that even in an age in which liberal and egalitarian ideas are common currency, it is still widely believed that most, or at least many, people are incapable of studying at higher level, by virtue of their lack of natural talent or dedication.

These factors have led to the emergence of a configuration of access to higher education that is increasingly unfair, the poorer a country is. Wealthy countries have adopted cost-sharing and loan policies that allow widespread access through deferment of payment, or in a few cases (such as continental European countries) maintained a substantial state entitlement. Low- and middle-income countries have for the most part restricted public support to a small number of targeted scholarships, and allowed expansion of access only for those wealthy enough to self-fund. However, there are exceptions, with Latin American countries such as Argentina, Uruguay, Venezuela, Cuba and Mexico still operating large-scale public systems.

These conditions have meant that expansion has not in most cases translated into an equitable distribution of opportunity to enter higher education. Even for those fortunate enough to find a place in the system, there has not necessarily been an equalization of opportunities. The faith of human capital theory that knowledge and skills acquired through education will translate naturally into increased remuneration through recognition of productivity in the labour market has proved at least partially unfounded, since few sectors operate such an open system of rewards, free from privileges and discriminations (Jacobs 1996). Furthermore, in many cases there has not been a substantial enhancement of knowledge and skills on the part of the university graduates, given the severe quality

challenges faced by many universities in the context of rapid expansion without corresponding infrastructure, or unregulated mushrooming of for-profit institutions (McCowan 2004; Morley and Lugg 2009; Wangenge-Ouma 2007).

Another important brake on the possibility of social mobility through the higher education system is institutional differentiation. Few higher education systems have only one type of institution, whether the traditional university or another form. Theorists (e.g. Brennan and Naidoo 2008; Teichler 2008) have distinguished in this regard between *horizontal* and *vertical* differentiation, the former referring to differences of type, mission or disciplinary area, and the latter to differences of quality, prestige or status. Horizontal differentiation is seen to be desirable in terms of catering for the diversity of interests and goals of students, and also satisfying societies' needs for different professional skills. Yet most systems are characterized by vertical differentiation, otherwise known as stratification: in this case, institutions are distinguished on the basis of greater or lesser quality and recognition, with disadvantaged students disproportionately filling the lecture halls of the lower-prestige institutions.

It is possible, therefore, to identify three dimensions of fair access to higher education (McCowan 2016). First, there is availability, the existence of HEIs with adequate infrastructure and staffing, and places available for students wishing to pursue their studies to this level. Accessibility is the second element, referring to the ability of students to take up the available places in practice. As discussed above, there are a range of barriers that commonly prevent this from happening, most importantly fee charges and competitive entrance exams, but also geographical distance, aspirations and a range of other factors. A system is characterized by accessibility when there are measures in place to address these barriers and ensure substantive, in addition to formal, equality of opportunity to gain admission. Finally, there is horizontality, which is the converse of the pernicious stratification discussed above. A system can be characterized as horizontal when its institutional differentiation is one of orientation, focal area or mission, rather than quality or value on the labour market.

Unfortunately, none of these three is straightforward to achieve. Availability requires significant investment of resources, whether public or private. Accessibility requires a range of actions from the state, and is particularly challenging when the portion of private funding to ensure availability is high. Horizontality is dependent on a deeply engrained social imaginary about the status of traditional universities, and is under constant threat from institutions' jostling for status competition, fuelled by national and international rankings. Furthermore, the value attached to different careers, knowledge forms and ways of life is also influenced by these social norms and perceptions, meaning that horizontal differentiation can easily slip into vertical differentiation. Nevertheless, efforts to address these elements are not futile, as can be seen from the significant differences between countries in this regard: while no country has fully achieved equality of opportunity in higher education, some are considerably fairer than others.

This theoretical framework will be utilized in this study to analyse the data available on access to and opportunities through higher education in Brazil. It will be argued that while policies in recent decades have been relatively successful in expanding availability (starting from a low base) and there have been some modest improvements in accessibility, the lack of horizontality means that the higher education system as yet does not represent a meaningful mechanism for social mobility and largely reproduces initial socio-economic inequalities.

The Higher Education System in Brazil

Higher education in Brazil was much slower to develop than in the neighbouring Spanish colonies. While there had been colleges of higher education from the early 19th century, the first fully fledged universities only made their appearance in the first decades of the 20th. Through the following years, the public sector grew steadily with the establishment of federal institutions in all of the states, the emergence of state-run institutions and the founding of a number of private universities, the most important of which were run by the Catholic Church. Universities in this period were located predominantly in state capitals and clustered in the wealthier south and southeast of the country.

A major change came in the 1990s, when President Fernando Henrique Cardoso, as part of a raft of neoliberal reforms, liberalized the private sector, making it easier for new private providers to enter the market. For-profit higher education was thus legalized in 1996. Enrolments during this period grew vertiginously, as the expanded offer coincided with demand from the growing number of secondary school leavers. This expansion led Brazil to be one of the leading countries in the world in terms of prominence of the private sector, encompassing approximately $\frac{3}{4}$ of enrolments. A loan system (FIES¹) was adopted to facilitate access to the new fee-charging institutions, many of which operated through evening classes and with the majority of students holding full-time jobs. Nevertheless, enrolment was still low, not only compared to OECD countries but even in relation to Brazil's Latin American neighbours.

When the centre-left Workers' Party took office under Lula da Silva in 2003, the scenario was one of continuing expansion of the higher education system, but with significant difficulties of access still for the majority of the Brazilian population. A series of policies were adopted to address barriers in both public and private sectors. While public institutions were entirely free of charge, places were very limited and guarded by a highly competitive exam known as the *vestibular*. The government undertook a major programme of expansion and reform of the federal system known as REUNI.² This programme increased the number of places in the federal sector through expansion of existing courses and creation of new campuses—usually in smaller towns away from the state capital, a process known as *interiorization*. In this period, most public universities moved from conducting their own *vestibular*, to utilizing the national secondary leaving

¹ Fundo de Financiamento Estudantil

² Reestruturação e Expansão das Universidades Federais

exam ENEM,³ which was seen as being more democratic as less amenable to cramming through preparatory courses. While these were much-needed reforms, the REUNI programme was unpopular among many federal university staff as the investments did not keep pace with the rapid increase in number of students, leading to increased workload.

Despite the party's original socialist principles, the PT higher education strategy did not attempt to dislodge the preeminent place of the private sector in provision of higher education. In fact, the expansion continued, aided by growth in the number of loans available through the FIES programme. With the aim of making the loan programme sustainable and addressing the high levels of non-repayment (which reached almost 50 percent), in recent years FIES has undergone significant changes involving the introduction of a criterion of a minimum score in the ENEM test to qualify for the loan, variable interest rates, the end of a grace period before starting repayments, and new qualifying requirements of maximum family income.

The innovation with the biggest impact on the system, however, was the PROUNI or University for All programme, instituted in 2004. For the government, this was an ingenious solution as it allowed a rapid expansion of opportunity with no apparent upfront cost: private universities which signed up for the scheme were obliged to provide free of charge places to low income students in exchange for tax breaks. Students from families with a family income of less than one minimum salary per capita⁴ were entitled to full grants, and those up to three minimum salaries a ½ grant, allocated on the basis of performance in the ENEM. This initiative has proved highly successful in terms of its impact on enrolment, with just short of 2.5 million students benefiting from the programme from 2005-2018 (Ministério da Educação 2019).

The final major policy of the PT administration (led by president Lula from 2003-2010, and then Dilma Rousseff from 2011 until her impeachment in 2016), was the quota policy for federal institutions. From 2002, specific institutions had implemented their own affirmative action policies to address the significant disparities in access on the basis of race and ethnicity. Brazil had long lived under a myth of racial democracy, whereby the high rates of intermarriage and cultural mixing between its European, indigenous and African populations had hidden continuing socio-economic inequalities. Only 3.1 percent of young African Brazilians were enrolled in higher education in 2001, compared to 14.1 percent for the white population (IPEA n. d.). Concerted action was therefore considered necessary to address this problem focusing on the specifically racial dimension in addition to the constraints caused by economic disadvantage. In 2012, the federal government passed a law making quotas obligatory across all federal institutions. This policy mandated that 50 percent of the intake needed to come from state-run secondary schools (a proxy for lower income students), and within that quota, proportions consonant with the racial makeup of the state in question. The policy was highly controversial on account

³ Exame Nacional do Ensino Médio

⁴ Family income per capita is calculated by adding the gross income of all members of the family group and dividing by the number of members.

of the consequent displacement of many white students from wealthy backgrounds, the perceived challenges to the impartiality of the selection process, and the potential exacerbation of racial divides.

This study focuses on the period 2003-2018, and therefore covers this second wave of reforms under the PT government. Following Dilma's impeachment in 2016, a right-wing caretaker government was put in place under Michel Temer, leading up to the election at the end of 2018 of the far-right president Jair Bolsonaro. This final period is beyond the scope of this paper, but the signs are of a reactionary posture towards expansion of access, progressive curricular content and public financing, leading inevitably to a rolling back of the policy changes of the PT and the solidifying of a more marketized and even more unequal higher education system.

Some other background characteristics of the Brazilian higher education system are important to highlight. The Brazilian state is divided into three fairly autonomous levels—federal, state and municipal—which collect their own taxes and have degrees of autonomy in terms of policy. As regards education, municipalities have primary responsibility for primary education, but control secondary schools as well, and even a small number of HEIs. Most universities, however, are run by the federal government or one of the 26 state governments. While federal universities are generally the most prestigious, some state institutions are very well regarded, particularly in the state of São Paulo, which has two of the premier institutions of the country, the University of São Paulo (USP) and the University of Campinas (UNICAMP).

The private sector also has some markedly different components. The most numerous are the new entrepreneurial institutions. While most of these started as small-scale family-run colleges, they have been increasingly bought up into large conglomerates, with four of these now having a major holding in the Brazilian stock exchange, and substantial foreign investment (Carvalho 2017). Most of these institutions provide pared down, standardized provision, with a limited range of courses, and almost no research or community engagement activity. The Catholic universities, and a small number of other philanthropic or religious institutions, have a very different profile, with high quality teaching, and in some cases, strong research and service activity. Finally, there are the community universities in the south of the country, which are a highly distinctive model, comprising a form of hybrid between public and private sectors, with strong local engagement (Fioreze and McCowan 2018).

HEIs in Brazil are generally categorized in two ways: by administrative and academic organization. The former relates to the distinction outlined above between public and private, with Brazil having 296 public and 2152 private institutions in 2017. Of the public institutions, 42 percent are state-level, 37 percent federal level and 21 percent municipal level. In terms of academic organization, institutions are divided into universities, federal institutes (focusing on technology), university centres (teaching oriented institutions) and faculties (also focusing on teaching, but in specific disciplinary areas). Universities tend

to be larger: in 2017, although only constituting 8 percent of institutions, they held more than 50 percent of the enrolments.

There is a large body of literature on higher education in Brazil. Much of this consists of policy analysis, for example, documentation and critique of neoliberal policies of liberalization of the for-profit sector, diversification of funding sources in the public sector, and transference of state funding to the private sector⁵. There is also a range of recent studies gauging the effectiveness and outcomes of affirmative action policies, including PROUNI⁶, and quotas in public institutions⁷. Another theme amply discussed is evaluation, which gained prominence with the creation of the *Provão* student assessment in the government of Fernando Henrique Cardoso, and later *Sinaes* introduced in 2004 (which has the national student performance test known as *Enade* as one of its principal tools) (Polidori 2009; Sobrinho 2008). There are also broader studies assessing the impact of higher education on national development and the economy⁸.

In terms of the specific question addressed by this study—the role of the higher education system in relation to socioeconomic inequalities—there is some existing empirical research. An early study by Schwartzman (2004) showed the process of expansion in the period prior to the PT government, in which the private sector had been liberalized. Despite the number of enrolments more than doubling between 1999 and 2002, the gains for disadvantaged students were sparse: while the percentage of these students from the top income decile dropped slightly from 43.9 percent to 41.4 percent, the percentage from the lower half of the income distribution also dropped, from the already low 8.6 percent to 7.5 percent. This early period of expansion, therefore, benefited almost entirely the middle classes. In more recent studies, Ristoff (2014) uses data from the first cycle of *Enade* to analyse the changing nature of the student body, concluding that the new affirmative action policies had actually been successful in diversifying the student body, and enabling increased access for marginalized groups, though it was somewhat early to gauge the impact of the quotas. Oliveira's (2019) study uses data from the Brazilian Institute of Geography and Statistics (IBGE) to assess widening of access for social groups based on race, income and region, concluding again that there had been a democratization of access. Yet research is still urgently needed to provide more detailed empirical assessments underpinned by cogent theories of fairness and social justice.

Methods and Data Sources

Given the objective of analysing the performance of Brazilian higher education in relation to justice, equity, sustainability and reduction of inequalities, this study bases itself on inferences constructed through a dialogue between the theoretical framework of McCowan (2016) and empirical data consisting of socio-economic and educational indicators on undergraduate students. Descriptive statistics are employed relating to

⁵ For example, Amaral (2003), Chaves et al. (2018) and Nascimento and Verhine (2017).

⁶ For example, Carvalho (2006), Chaves and Amaral (2016), Fioreze et al. (2015) and Oliveira et al. 2012.

⁷ See Childs and Stromquist (2015), Lemos (2017) and Norões and Costa (2012).

⁸ For example, Corbucci (2007), Moraes (2018), Schwartzman (2008, 2017) and Vieira (2017).

enrolled and completing students, disaggregated by family income, race/colour, mother's education and public/private secondary education. Institutional factors of quality and prestige are explored on the basis of the academic recognition of the institutions, the social and economic status of degree courses and mode of study (distance or face-to-face).

The study made use of existing data sources rather than collecting new empirical data. The data utilized are from the following Brazilian government databases:

- 1) *The Census of Higher Education*: The most complete data available nationally, collected by the Anísio Teixeira National Institute of Educational Research and Studies (INEP) (a quasi-autonomous body linked to the Ministry of Education). The census brings together information on institutions of higher education, their face-to-face and distance undergraduate courses, short cycle tertiary education, places available, candidates, enrolments, students admitted and completing, and information on teaching staff in the different forms of institution. For this study the findings for the censuses carried out in the period 2000-2017 were utilized.
- 2) *Microdata of the National Test of Student Performance (Enade)*: This constitutes the most detailed disaggregation of data available. The Enade test is taken every year by students completing undergraduate courses in specific disciplinary areas. It evaluates the performance of students via a two-part test: the "specific component" with content on the degree course studied; and "general education" which covers general knowledge and topics outside of the particular professional or academic area of the student. Enade also has a questionnaire about the experience of the test itself, a socio-economic questionnaire for students, and a questionnaire for course coordinators. The student socio-economic questionnaire has more than 50 items including diverse questions about the socio-economic and educational background of the students: skin colour, life conditions, family income, study conditions, basic education, parental education level, as well as subjective opinions on university infrastructure (laboratories and library) and quality of courses. For this study, the results of the period 2009-2017 were analysed, a total of three cycles of the test.
- 3) The National Household Survey (PNAD⁹) carried out by the Brazilian Institute of Geography and Statistics (IBGE). The original PNAD operated as an annual survey of Brazilian households to determine general characteristics of the population, including data on education, work, income and habitation, as well as other themes, depending on the period. More recently, PNAD Contínua has taken its place, collecting similar information, but with greater frequency: at a national level on a monthly basis, and at subnational levels on a quarterly basis.

⁹ Pesquisa Nacional por Amostra de Domicílios.

This study focuses primarily on initial access and completion of courses, but also includes some data on learning outcomes. However, the data is partial in this regard: it is possible to identify correlations between background characteristics and performance in the test, but not to show with confidence the value-added of different forms of institution and experiences. The study focuses on undergraduate students in full degree courses, along with higher technical courses of two or three years¹⁰; it does not include data on postgraduate studies.

The national household survey (PNAD) provides information on educational level and employment status from which broad trends can be observed. However, it is not possible from this survey to make inferences about the differing impacts of type of institution, course undertaken or mode of study. There is no national graduate destinations survey from which to derive this information, and institutional tracer studies are rare. So we have to rely on some assumptions about the labour market value of various degrees. In the context of Brazil, these assumptions are fairly reliable as there is a high level of correspondence between degree course and intentions of work (even if in many areas, such as law, there are insufficient places available to accommodate all of the graduates).

Analysis of Inequalities in the Higher Education System

The value of higher education in the labour market

In Brazil, the gaining of a higher education diploma means significant advantage in social and economic terms. Diverse studies provide evidence that university is a strong conditioner of higher rewards from work and greater professional status (for example, IBGE 2018; Souza et al. 2010). 18.5 percent of the workforce in Brazil has a higher education diploma, a rapid increase from 13.7 percent in 2012, although many of these are not working in jobs seen to require this level of qualification (Lameiras and Vasconcelos 2018). While the average for OECD countries is that university graduates earn 1.6 times more than secondary graduates, in Brazil this figure is nearly 3 times (OECD 2018). In 2017, a worker who had only completed primary education received on average BRL 1,829 (USD 457) per month, one with secondary received BRL 2,141 (USD 535), and one with higher education BRL 6,072 (USD 1,518) (Semesp 2019).

Having a university diploma also increases the security of holding onto a job in moments of difficulty. The recent economic crisis which has affected the country increased unemployment rates from 6.9 percent in 2014 to 12.5 percent of 2017, corresponding to an extra 6.2 million people unemployed. In 2017, the unemployment rate for those educated up to primary level was as high as 14.7 percent for white and 19.7 percent for black and mixed-race Brazilians. For those with a higher education diploma, the rate was only 6.3 percent for white and 7.4 percent for black and mixed-race Brazilians (IBGE 2018).

¹⁰ Cursos Superiores de Tecnologia

It is important to acknowledge that the figures presented above indicate associations between variables, and not necessarily causal relationships, as there might be factors of family privilege and wealth that might drive both increased higher education enrolment and better employment opportunities (for example networks of contacts). Nevertheless, these figures are indicative of the correspondence of inequalities in both of these areas, and there are plausible grounds for claiming some causality.

This pronounced difference of remuneration and job security between levels of education is a characteristic of unequal societies, and a factor of intergenerational reproduction of privileges. In fact, a study carried out by IBGE (2017) on educational mobility showed that in 2014 in Brazil, only 5 percent of people whose parents had no education managed to complete a higher education course, compared to 70 percent among those whose parents were university educated. The cyclical nature of these inequalities will be explored further below.

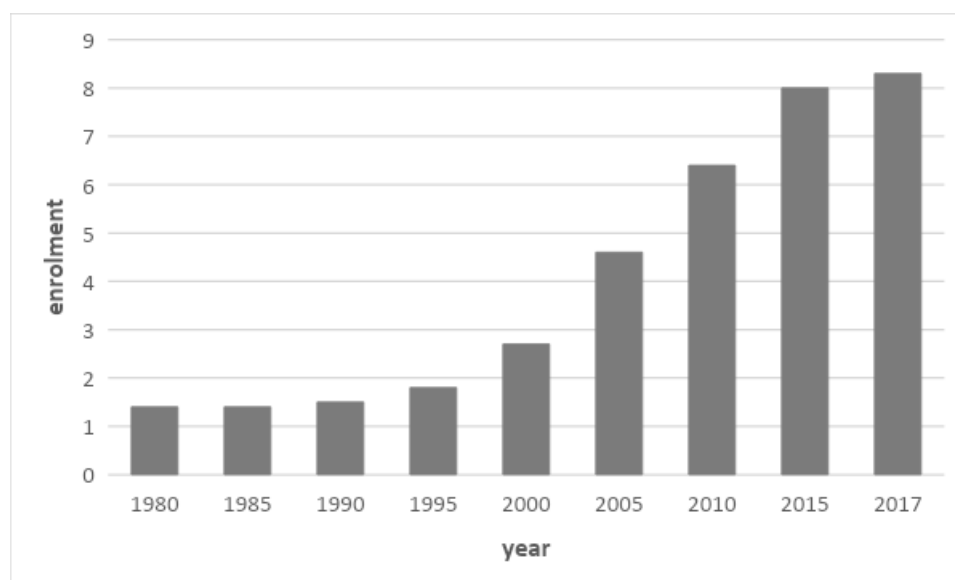
Expansion of availability

In recent times, in an attempt to widen participation of disadvantaged groups and achieve greater equality of opportunity in the country, governments have made efforts to expand access at the higher education level. As discussed in the previous section, various programmes have been created to expand or democratize access to higher education in federal institutions (for example quotas) and private institutions (for example liberalization of the for-profit sector, loans and PROUNI grants). In 2014, the National Education Plan¹¹ established the ambitious target of 33 percent net enrolment ratio (NER) of 18-24-year-olds, to be achieved by 2024.

The quantitative impact of these policies of expansion is already evident. As can be seen in Figure 1, in the last three decades, enrolments grew from approximately 1.5 million to more than 8 million students (INEP 2017).

¹¹ The National Education Plan is a law approved on 26 June 2014 by the Brazilian Congress. It establishes guidelines and strategies to regulate initiatives in the area of education with the aim of directing efforts and investments towards the improvement of quality and achieving goals within a timeframe of 10 years to 2024.

Figure 1: Growth of the number (in millions) of enrolled students in Brazilian higher education from 1980-2017



Source: Authors' elaboration, based on INEP (2017).

In terms of the proportion of the age cohort, the NER grew from 7.4 percent in 2000 (Corbucci 2014) to 20 percent in 2017 (Todos Pela Educação 2019a), though still a long way off the NER figure set in the National Education Plan. In the same period, the number of students completing undergraduate courses tripled, reaching almost 1.2 million per year (INEP 2017). This expansion has led to higher proportions of young people with higher education diplomas than their older counterparts: 20 percent of those aged from 20-34, compared to 14 percent of 55-64-year-olds (IBGE 2018).

Among those completing, the proportion that participated in the Enade¹² who receive loans or grants in private institutions or quotas in public institutions has increased (see Table 1).

¹² The Enade test is carried out on a three yearly cycle divided into broad disciplinary areas, so only a third of the students in any one given year take the test.

Table 1: Proportion of students (completing undergraduate courses) benefiting from loans/grants and affirmative action policies, by disciplinary area, 2009-2017

		2009	2012	2015
Applied social sciences	PROUNI + Fies + other loans/grants	10%	14%	26%
	Affirmative action	10%	17%	18%
		2010	2013	2016
Health and agriculture	PROUNI + Fies + other loan/grant	11%	19%	37%
	Affirmative action	12%	15%	21%
		2011	2014	2017
Engineering and teacher education	PROUNI + Fies + other loan/grant	8%	16%	22%
	Affirmative action	16%	19%	22%

Source: Authors' elaboration, based on the microdata of INEP (2019).

Note: The groupings of disciplinary areas above are those of the three cycles of the Enade test.

The expansion of enrolments took place in both federal and private sectors, although it was more substantial in the private institutions, especially the for-profit ones. This tendency can be observed in the increase in the proportion of students enrolled in private institutions from 58 percent in 1995 to more than 75 percent in 2017.

In more recent years, expansion has been largely via distance education, especially through for-profit institutions. Between 2009 and 2017, the number of face-to-face courses in Brazil grew 19.4 percent, increasing from 28,100 to 33,600. In distance education, the growth was more astounding: the country gained more than 1,200 new courses, an expansion of 148.8 percent. This expansion was mainly in the private institutions, which saw an increase of 267 percent (increasing from 449 to 2,100 distance courses), compared to just 16 percent in the public sector (Semesp 2019). While in 2005 less than 2 percent of enrolments in the private sector were in distance courses, by 2017 the figure had risen to 25 percent (INEP 2017).

In the system as a whole, there have generally been more places available than prospective students. In 2017, for example, there were 10.7 million places (face-to-face and distance) offered by institutions, 9.9 million in the private sector and 800,000 in the public sector. Only 36 percent of these were filled (INEP 2018). In the same year, for more than 10 million places available, less than 2 million students completed upper secondary education. Due to demographic shifts, there has been a decline of 7.5 percent in the number of enrolments in upper secondary education in the last decade, falling from 8.3 million in 2009 to 7.7 million in 2018. This imbalance between places available in undergraduate courses and prospective students is mainly the result of the expansion of for-profit private institutions in recent years, and in particular the market incentives for creation of many new distance modality courses.

Yet the question of availability has different nuances depending on the sector. More than 90 percent of the new places offered in federal institutions were filled, compared to only 32 percent of those in the private sector (INEP 2018). In general, admission to the federal institutions is much more competitive than private institutions, particularly for certain highly desirable courses. If not able to access a free of charge public institution on account of the competitive entrance exams, those from disadvantaged families are left with the option of entering a course in a private institution. In this case, access may then be restricted by lack of resources, as explored further in the section that follows.

Despite these steps forward in access, Brazil's indicators are unimpressive by international standards. The proportion of people between 25 and 34 with a university diploma in 2017 was 18 percent in Brazil, which is close to that of China (19 percent) and greater than India (14 percent), but well below that of Chile (30 percent), and under half of the OECD average of 43 percent (OECD 2018).

Beyond international comparisons of access rates, it is also important to consider the nature of these national systems. Processes of expansion, especially in extremely unequal countries, must be assessed in terms of their propensity for democratization and equity. The question is raised: has the expansion of Brazilian higher education led to social mobility or simply reproduced inequalities? This interrogation is important because, in spite of the general importance of higher education diplomas as a conditioning factor of social mobility in Brazil, within the system there are significant differences in terms of academic values between the sectors, of income rewards and social status between the courses, and of quality between face-to-face and distance modes of instruction.

Using McCowan's (2016) theoretical framework, the following sections will assess accessibility and horizontality, through an analysis of figures on students enrolled and completing higher education courses, in particular in relation to background features, and the quality and opportunity they are provided with in the system.

Accessibility

The most obvious barrier to accessibility relates to income. Brazil is one of the most unequal countries in the world in terms of income distribution (currently 9th worst of all countries in Gini coefficient (World Bank 2019), despite some improvements during the Workers' Party administration). Average monthly income in Brazil is BRL 2,112 (USD 525). The lower half of the income distribution earn on average BRL 754 (USD 187), while the top 1 percent earns BRL 27,213 (USD 6,765), 36.1 times more (IBGE 2019). In 2017, there were 54.8 million Brazilians living in poverty, with up to USD5.50 a day (as defined by the World Bank). This figure represented 26.5 percent of the country's population (IBGE 2018).

The expansion of the higher education system in Brazil, although occurring principally in private institutions that charge fees, has opened some opportunities for lower income groups. For example, in 2002, there were no students from the lowest quintile of income, and only 4 percent from the lowest two quintiles in fee-charging private institutions. In 2015, the figure for the lowest two quintiles had risen to approximately 15 percent (World Bank 2017).

Nevertheless, the process of expansion of access has not managed to overcome the levels of inequality existing at the start of the century. The NER figures for race/colour¹³ for the period 2012-2018, show that, despite a lessening of disparities, there are still marked differences. According to IBGE, in 2015, 45.22 percent of Brazilians declared themselves to be white, 45.06 percent as *pardo*¹⁴ (mixed race), 8.86 percent as black, 0.47 percent as Asian (*amarelo*) and 0.38 percent as indigenous. While 30.7 percent of the young white population was enrolled in higher education in 2014 (almost reaching the goal of 33 percent of the National Education Plan), black students were falling significantly short with only 15.1 percent enrolled (see Table 2). Of those completing secondary education, only 33 percent of black and mixed-race students go on to university compared to 52 percent of white students (IBGE 2018). Despite increases in *availability*, *accessibility* is still highly unequal.

Table 2: Net enrolment ratio by race/colour in Brazil, 2012-2018 (as percentage of total population group by race)

	2012	2013	2014	2015	2016	2017	2018
White	24.1	25	25.7	27.1	28.4	27.9	30.7
Black	9.4	9.2	10.6	12.3	13.8	14.3	15.1
Mixed-race	10.6	11.3	12.6	13.7	15.2	14.6	16.3

Source: Authors' elaboration, based on Todos Pela Educação (2019a).

Differences of accessibility between racial/colour groups in Brazil are therefore significant and are strongly linked to historical social and economic inequalities in the country, the last in the Americas to abolish slavery. The illiteracy rate for black and mixed-race Brazilians over the age of 15 is 9.1 percent, well over double the rate for white Brazilians at 3.9 percent (IBGE 2019). Nevertheless, the figures in Table 2 provide some encouragement, showing a significant increase in access (over 50 percent) for African Brazilians in a period of six years, and would seem to vindicate the affirmative action policies put in place since the millennium.

Further evidence of the inequitable nature of the expansion can be seen in relation to prior schooling. The vast majority of upper secondary school students in Brazil study in state-run schools (88 percent) (IBGE 2018), and have considerably worse outcomes than their counterparts in the private sector. In 2017, only 36 percent of those in state-run schools managed to go on to university, on account of various barriers including fees in the private

¹³ Racial categorizations in Brazil are determined through self-declaration, primarily on the basis of colour/skin tone.

¹⁴ The literal meaning of "pardo" is brown, but is used in Brazil to describe those who have mixed European, African and indigenous heritage.

sector and competitive exams for the public institutions. For private schools, the figure was 79 percent—signifying significantly higher rates of access for students from higher income families.

In relation to gender, there is a substantial predominance of women enrolled in higher education institutions. A proportion of 55.4 percent of students in face-to-face courses are women (with a similar proportion in distance courses, 55.7 percent [ABED 2018]), and the proportion of those successfully completing courses is even higher at 60.5 percent (INEP 2019). Nevertheless, as in most countries, there are significant differences between men and women in the degree course studied, a factor which is likely to bring lower returns for women in the employment market (ILO 2018). While the proportion of female students in education is 75 percent, the figure falls to 37.4 percent for engineering, production and construction, and 13.8 percent for information and communications technology and computing (INEP 2019).

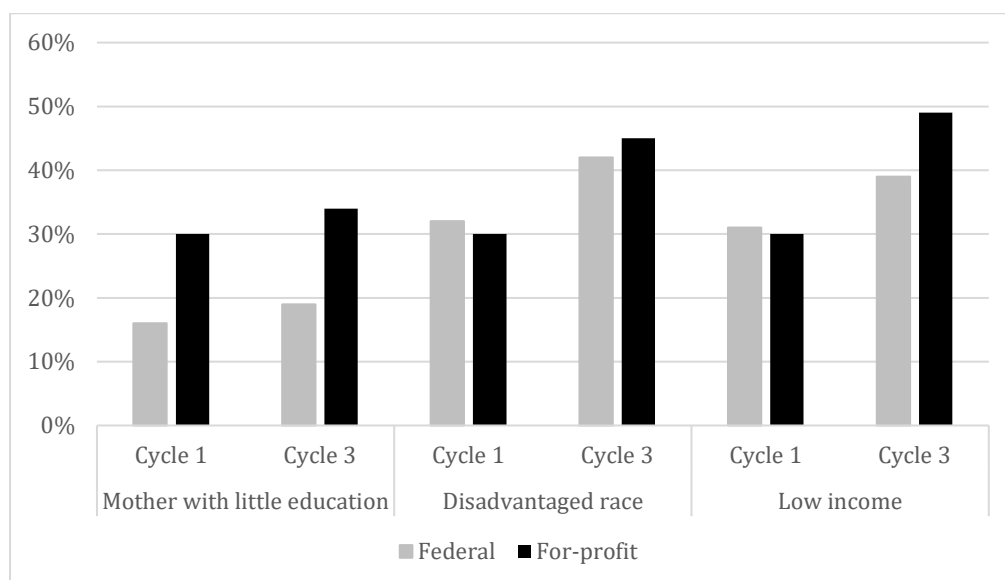
Horizontality

In Brazil, differences between public and private HEIs are highly significant. Public institutions concentrate almost all scientific production in the country, while the private institutions, with the exception of non-profit ones, rarely conduct academic research. For these and many other reasons, public institutions are recognized by society, by the media and by the state itself as the holders of quality and academic values. In a recent study carried out by the World Bank (2017), it was shown that graduates of for-profit institutions had on average worse outcomes on the Enade test. Consequently, young people and their families generally aspire to go to public institutions. Yet the free of charge spaces available in the public sector very often go to those who could afford to pay fees, while large numbers who cannot afford them fail to find a place. In this way, the existence of disparities in participation of groups of different socio-economic level in public institutions constitutes a strong marker of inequality of opportunity and tendency for reproduction of inequalities. In the private sector, on the other hand, fee levels are strongly associated with quality, meaning that poorer students are mostly confined to the less well-regarded of the private institutions.

Comparison of graduates by institutional type

Analysis of the profiles of students completing undergraduate courses in the two sectors with the highest number of enrolments (federal and for-profit) allows us to identify key tendencies in the process of expansion with stratification. In the period 2009-2017, despite the increase in the proportion of students of lower socio-economic level among those completing in both sectors, this group was much more prominent in the for-profit institutions (see Figure 2).

Figure 2: Increase in students of lower socio-economic level among the completers of Enade cycles 1 and 3



Source: Authors' elaboration, based on microdata of INEP (2019).

Note: Cycle 1: Enade of 2009, 2010 and 2011; Cycle 3: Enade of 2015, 2016 and 2017; Mother with little education: up to 5th grade; Disadvantaged race: student self-declaring as "negro", "pardo", "mulato" or indigenous; Low income: student with monthly family income up to 3 minimum salaries per capita.

While in the federal institutions the percentage of completers with mother educated to 5th grade (a proxy of low family educational background) increased from 16 percent in the first cycle of Enade to 19 percent in the third cycle, in the for-profits this increase was from 30 percent to 35 percent. Taking an economic indicator, while in the federal sector the proportion of completers with a family income of up to three minimum salaries increased from 31 percent to 39 percent within this period, in the for-profits the increase was much larger, from 30 percent to 49 percent (INEP 2019). That is to say, despite much-needed improvements in the federal sector, the increase in the proportions of disadvantaged groups has been less than in the for-profit sector.

A recent study has indicated that in free-of-charge federal institutions only 20 percent of the students come from the lower two wealth quintiles of the population, while 65 percent are from the upper two quintiles (World Bank 2017). Ultimately, the fact that access to public institutions is regulated by a highly competitive admission exam enables wealthier families whose children have been through private primary and secondary schools, and expensive preparatory courses, to have easier access to these institutions. Students of poorer families, on the other hand, have much lower chances, and therefore are disproportionately confined to institutions of lower quality or prestige. Nevertheless, this scenario is slowly changing on account of the quota policies outlined above, allowing increasing opportunities for lower-income students.

Comparison of social groups by mode of study

Another important factor of diversity in Brazilian higher education is the contrast between face-to-face and distance modes, in terms of the sectors that offer them and the students

that enrol. As outlined above, the most sought-after courses are in the public sector. The distance mode, however, has been offered primarily through private institutions. Even within this sector, there are differences of social recognition between face-to-face and distance modes, with distance education widely understood as a “second-class” option. This distinction is made evident by the difference in the average fee level of courses, which is much higher in the face-to-face mode, despite lack of evidence for a difference in actual costs. According to a study by Semesp (2019), in the first semester of 2019, a face-to-face student paid an average of BRL 1,200 (USD 300) per month, while a distance education student paid only BRL 450 (USD 112). The profile of students who access this mode is consequently different. In 2017, while approximately 68 percent of students on face-to-face courses came from the public secondary sector, in distance mode this figure was more than 80 percent (Semesp 2019). In this way, the distance education mode makes courses much more accessible to lower-income students, but also marks their lower prestige.

There is some research evidence of qualitative differences between distance and face-to-face modalities. A comparative study carried out by *Todos Pela Educação*, indicated that a distance graduate has a greater probability of being in the group with worse performance on Enade—30.2 percent as opposed to 21.6 percent in the face-to-face group (Todos Pela Educação 2019b). Figures from the Enade test for the three courses with the largest number of graduates (business studies, social work and pedagogy) for the 2015-2016-2017 cycle, show the inferior learning conditions for those on the distance courses, as shown in Table 3.

Table 3: Average scores for distance and face-to-face modalities on the specific component of Enade (2016), by background characteristics.

COLOUR			
White		Black/mixed race	
F2F	Distance	F2F	Distance
49.5	39.6	48.3	38.1
FAMILY INCOME			
>4.5 minimum salaries		<3 minimum salaries	
F2F	Distance	F2F	Distance
50.9	42.4	47.1	36.6
MOTHER'S EDUCATION			
Higher education		None	
F2F	Distance	F2F	Distance
49.5	38.2	44.8	36.6
SECONDARY SCHOOL			
Private		Public	
F2F	Distance	F2F	Distance
50.8	40.6	47.9	37.8
WORK STATUS			
Only studying		Studying and working	
F2F	Distance	F2F	Distance
48.3	37.0	48.3	38.7

Source: Authors' elaboration, based on microdata of INEP (2019)

Note: F2F- face-to-face mode.

These figures show clearly the lower performance of students in distance mode across various categories. In this way, given that the profile of students in distance education is generally of lower socio-economic level, the mechanisms of reproduction of inequality become clear. For those who have faced economic difficulties in childhood, who have attended poor quality schools and lived in family situations with limited development of cultural capital, access is available largely through the distance mode in for-profit private universities. These institutions rarely have research or community engagement programmes, lack even important elements of human interaction in the teaching and learning process, and therefore provide an inferior learning experience overall (Bielschowsky 2018).

Comparison of social groups by disciplinary area

Considering the significant difference of income and social status between different professions in Brazil, the completion of a particular degree course can be a strong conditioner of opportunities for social mobility. The differentiation between professions is shown both in the competition for admissions and average salaries. The courses in

medicine which forms professionals with the highest average salaries in the country are generally the most competitive in terms of entrance exams in public institutions, with approximately 100 candidates per place. The fees for medicine in private institutions can be more than BRL 8,000 (USD 2,000) per month, but medical doctors once graduated can expect to receive a salary of on average BRL 16,000 (USD 4,000) per month, and potentially much more in private practice. In courses that form professionals with lower salaries there is an excess of places, even in free of charge public institutions. This situation is common, for example, in teacher education courses in Portuguese, which form school teachers who will receive on average only BRL 3,600 (USD 900) as salary per month.

Given such disparities in professional outcomes, it is important to analyse the socio-economic background of those completing Enade in their access to different degree courses. In the last editions of Enade there were significant differences in participation of disadvantaged students. While in medicine, only 4 percent of students in all types of institution had a mother with education of up to 5th grade, in social work the figure was more than 50 percent. In the courses of medicine and law, only 13 percent and 29 percent respectively were from low-income families, compared to the courses of teacher education in Portuguese and social work with rates of 67 percent and 71 percent respectively (see Table 4).

Table 4: Proportions of those completing degrees in the last Enade (2015-2016-2017) from non-white backgrounds, low-income families, public secondary schools and mothers with low educational levels, by course

Course	Disadvantaged racial group	Low-income	Public secondary education	Mother with low educational level
Business administration	39%	38%	70%	32%
Law	37%	29%	48%	21%
Medicine	26%	13%	15%	4%
Social work	63%	71%	80%	51%
Civil engineering	35%	36%	53%	17%
Portuguese	56%	67%	78%	43%

Source: Authors' elaboration, based on microdata of INEP (2019).

As can be seen in the above figure, there are subtle differences between the forms of disadvantage and their impact, with low educational level of mother showing more extreme disparities than race, for example. It might be a surprise to see that law has much higher proportions of disadvantaged students than medicine: yet despite being a prestigious professional area, it is a widely offered degree course even in private universities with less stringent entrance requirements, with the result that many graduates do not find work as official lawyers.

The stratification of courses intersects with stratification by institution. In the period 2009-2017, it is possible to observe that despite the increase in the number of lower income

students in all courses, the increase was more significant in courses of lower social status, ones which do not generate positional goods and have a lower remuneration (INEP 2019):

- While in medicine the percentage of graduates with mother's education up to 5th grade rose from 3 percent to 5 percent in federal institutions and remained at 3 percent in private institutions, in social work it increased from 21 percent to 28 percent in federal institutions and from 27 percent to 51 percent in for-profits.
- In civil engineering the percentage of non-white students increased from 27 percent to 33 percent in the federal institutions and from 26 percent to 41 percent in the for-profits. In teacher education in Portuguese, the figures were from 52 percent to 60 percent in the federals and from 43 percent to 50 percent in the for-profits.

To have a low-status degree course from a low-status institution provides an even greater barrier to adequate remuneration in the employment market.

Overall, analysis of the results of Enade from 2009-2017 demonstrate that degree courses with higher social status and which confer greater earning possibilities for its graduates, like medicine, have proportionally fewer students from disadvantaged races, lower-income families, prior public secondary schooling and mothers with lower educational level. In this way, it is compelling to argue that disadvantaged students are systematically confined to disciplinary areas with less value in the employment market.

Learning outcomes

Finally, it is important to assess as far as is possible the learning outcomes of students of different backgrounds. While the Enade test does provide this data, it is still hard to disentangle the influence of the educational experience of students from their background characteristics. Furthermore, it is no longer possible to compare results from entrance and leaving exams and therefore attempt to derive value added, since the entrance test of Enade was discontinued in 2011. These figures, therefore, should be taken with a "pinch of salt," as an indication of the quality of institutions. But they do give strong evidence of reproduction of inequalities through a combination of factors.

Table 5 below shows the clear relationship between income level of students and learning outcomes.

Table 5: Average of scores for the “general education” component for students completing their studies, by family monthly income (2015 Enade)

Family income (multiples of minimum monthly salaries)	Number of students	Average score
Up to 1.5	45,975	51.16
1.5 - 3	110,544	52.55
3 - 4.5	93,765	53.82
4.5 - 6	64,114	55.07
6 - 10	62,122	56.89
10 - 30	49,160	59.71
More than 30	11,875	60.61

Source: Bertolin et al. 2019

What is particularly worrying for Brazilian higher education, however, is that the lower-income groups on average are not catching up with the wealthier groups through higher education. On the contrary, they are falling further behind, as the lower the educational level of a student’s parents, the smaller the improvement they make during their time at university, as shown in Table 6.

Table 6: Percentage improvement in average scores for the “specific component” between entering and completing students, by educational level of mother (2007 Enade).

Mother’s educational level	Private institutions			Federal institutions		
	Entering	Completing	Improvement percent	Entering	Completing	Improvement percent
No education	31.24	36.27	16	33.07	40.12	21
4th grade	32.98	40.61	23	35.29	45.53	29
8th grade	32.45	42.69	32	36.56	46.57	27
Upper secondary	32.02	44.05	38	35.24	48.72	38
Higher education	31.91	46.17	45	35.75	53.14	49

Source: Bertolin et al. 2019

Conclusion

An old Irish joke has a traveller ask a bystander the way to Dublin: “Well if you want to go to Dublin I wouldn’t start from here” comes the reply. In higher education, we may well have a similar sentiment. The conditions are so unpropitious that we might give up all hope that a fair outcome might be reached, such are the socio-economic inequalities in society, the inequalities in primary and secondary education, and the consequent disparities in preparation of students once they arrive at the point of admission to university. Yet, action in relation to fairness in higher education needs to take the here and now as its starting point, much as we would like to create ideal systems from scratch. This here and now has a number of intractable barriers to meaningful change, not least of which the inequalities already generated at the lower levels of the education system, but there is still much that can and should be done.

This report has aimed to address the central question of the potential of higher education in promoting social mobility in countries in the Global South, with associated questions of the mechanisms that lead to inequalities and the ways in which the transformative potential of higher education can be harnessed. This conclusion will summarize some responses to these questions generated from the preceding analysis, before drawing out implications for policy in Brazil and beyond, and identifying future research needs.

Universities and social mobility

In answering the central question of the potential of higher education for social mobility, it is important to highlight from the outset that not all of the evidence that would be needed to answer this question is available. In fact, few countries possess data that can attend to all of the diverse impacts of higher education on individuals and society. Higher education changes individuals' lives through providing them with knowledge and skills that can help them achieve their goals, of a professional, civic and personal nature, and it also provides certification that opens doors to employment and further study. Yet the experience of going to university also changes people's mindsets, and shapes the goals that they are aiming for. Beyond the direct experience of being a student, the ideas and technologies generated within universities also have a profound impact on the development of societies, influencing the configurations through which social mobility may or may not be possible.

So the complexity is such that research can only provide partial accounts of the impact of higher education. Furthermore, there are more concrete barriers such as incomplete data and inadequate tracing of students after completion of their studies. Brazil has extensive data on enrolments and completions through its Census of Higher Education and Enade test, but suffers from a lack of data in this way in relation to graduate destinations, other than the general labour force information in the PNAD and some institution-level attempts to trace graduates (Paul 2015). Nevertheless, there is much that can be meaningfully derived from the existing data, and through the use of proxies and suppositions about the functioning of degrees in the labour market, conclusions can be drawn about the role of higher education and social mobility.

The disheartening headline is that higher education is not currently promoting social mobility in Brazil. There have been some significant steps forward since the 1990s, at the time when Brazil had a purely elite system, in Trow's (1974) terms. Since that time, *availability* has improved considerably, with a rapid expansion of places available, for the most part in the private sector, although with some growth in federal and state universities too. A much greater proportion of school leavers can now go to university, and large numbers of "mature" students have also returned to their studies. Accessibility has also improved, through a series of measures taken since the millennium to overcome barriers of fees in the private sector (loans and PROUNI) and competitive entrance exams in the public sector (through quotas). Geographical barriers have now been largely overcome through processes of "interiorization" (establishing campuses in smaller towns away from

state capitals) and growth of distance education. Nevertheless, low-income students, African Brazilians and indigenous students, those from public secondary schools, and those with parents of low educational level are still underrepresented across the system.

Social mobility, therefore, is constrained by the continuing barriers that prevent students from certain social groups from attending higher education institutions. Yet the problems go far beyond initial access. The most influential mechanism in preventing social mobility and reproducing inequalities is not in fact barriers to entering the higher education system, but disparities within it. Over the past 20 years, increasing numbers of students have gone to university, and to some extent from more diverse social groups, yet the possibility of a democratization of outcomes is hindered by the stratified nature of the system. This is the element of *horizontality*. The disparities of quality and prestige within the system—on account of institutional type (in particular between federal/state and for-profit institutions), disciplinary area and mode of delivery (face-to-face or distance)—have meant that most disadvantaged students entering the system have ended up with worse outcomes than their more advantaged peers. What we have, therefore, is a kind of qualifications inflation but with no improvement in the positioning of those from marginalized groups in society. It is not that disadvantage students gain no benefit from attending higher education—they do, even from low prestige institutions—but that their positional disadvantage remains little altered.

These processes are not inevitable. Higher education is not condemned always to reproduce inequalities in this way, independent of the policy environment and institutional manifestations. We can therefore provide a more encouraging answer to the final question of how the transformative potential of higher education can be harnessed. For many people around the world, the experience of going to university is indeed transformative, opening new horizons of an intellectual, cultural and social nature, enhancing their political involvement and providing new professional and economic opportunities. It can be particularly transformative in this way for those from low-income families who may have had less exposure to learning opportunities and travel in their earlier lives. The challenge is to ensure that all people, no matter their background, have the opportunity to enjoy this experience. It is a challenge that involves a delicate balance between state involvement in order to prevent a “law of the jungle” through which the wealthy monopolize high quality higher education provision, and institutional autonomy to ensure academic freedom and an open learning environment.

Fair higher education systems require sufficient places for all those wishing to study at the higher education level (*availability*): involving a high proportion of school leavers, but also with space for returning “mature” students. Not all students will necessarily want to continue their studies through university, or may wish to do so at a later period in life, and a full range of non-university educational options should also be available.

States and institutions must also ensure that measures are in place to ensure that students can take up the places available (*accessibility*). The question of higher education funding

is highly complex and cannot be resolved adequately within this report. What is clear from the perspective of fairness of access is that upfront fees can be a significant barrier to low-income students, and concerted action must be taken to avoid exclusion of the poor. Universities and higher education systems are justified in having entrance tests that are criterion-based, in order to gauge adequate preparation, but there must be care taken that these tests do not become a veiled mechanism for exclusion, as in the case of the Brazilian *vestibular*. It is not possible therefore to separate considerations of fairness at the higher education level from the lower levels, and all children need to be attending schools that can prepare them adequately to fulfil these entrance requirements. For those who are returning to study later in life, further study opportunities should be available for acquiring the relevant preparation. Policies must also be put in place to provide information, raise aspirations, and ensure inclusion of those with disabilities and those from minority ethnic or linguistic groups.

Horizontality is the most challenging of the three to regulate on the part of the state. What is required here is differentiation of ethos, mission and disciplinary area (to ensure positive diversity), but without stratification of quality and prestige. It is highly challenging to prevent the former slipping into the latter. Steps can be taken, however, to prevent differential fees and other selected mechanisms from siphoning lower-income students into lower prestige institutions and creating a vicious cycle. Quota policies can be an effective short-term measure to address these issues, though ultimately should be unnecessary in a fair system with adequate places (McCowan 2016).

Policy implications/recommendations

The general principles outlined in the previous section can be translated into a set of specific recommendations for Brazil:

1. Public universities: The process of expansion of federal universities started in the 2000s needs to be continued, along with affirmative action policies, to ensure that high quality, free of charge provision in the public interest is not confined to the elites.
2. For-profit sector: For-profit private provision poses a significant risk to equality of opportunity on account of the trade-offs between profit margin and quality of provision (as well as research and community engagement in the public interest), and the strong link between the price tag and value of the diploma on the labour market. The operation of market forces within higher education tends to exacerbate inequalities, and reproduce disparities in the external society. For-profit higher education should be phased out in the medium term. Non-profit private higher education institutions should be allowed to operate if they are contributing to public benefit and ensuring fair access to students from diverse backgrounds.
3. Distance education: Distance education can make an important contribution to the higher education system in extending access to those with mobility constraints, caring responsibilities and in remote geographical locations (Alves 2017).

Nevertheless, it can reinforce inequalities if it is not of an equivalent quality and recognition as face-to-face provision. Measures should be taken to ensure consistently high quality provision and prevent exploitation of marginalized communities for commercial gain.

It goes without saying that these reforms need to be seen in conjunction with quality improvements and reduction of inequalities at the primary and secondary levels, as well as broader actions to address injustices across the society.

International significance

What relevance do these findings have to other countries? Clearly, Brazil has a number of specificities in being a very large country (with the sixth largest population in the world), covering a huge landmass, with substantial ethnic and racial diversity (though mostly united by the Portuguese language), and with particular political and economic characteristics. The most obvious relevance is to other large, diverse and highly unequal middle-income countries, such as China, India and South Africa. All of these countries are struggling with the challenge of expanding their systems affordably and equitably, and have put in place distinct policies to address it. Brazil's preferred policy option—of maintaining two strongly insulated sectors, an elite public sector in which knowledge production and high-quality teaching are concentrated, and a demand-absorbing private sector—has not been without its successes. Brazil dominates Latin America in terms of scientific production and publications, and fares well in regional university rankings (although not in international ones). Yet this model has not fulfilled its aims in terms of equality of opportunity, and the dual sector model has conspired to exclude rather than include disadvantaged students.

Brazil has been bold in its affirmative action policies in the public sector, in setting aside half of all places in the sought-after federal institutions. While the policy has unsurprisingly been surrounded by significant controversy, the outcomes have been positive in terms of the changing demographic of the federal institutions and the progress of students entering through the quotas (although, as shown above, insufficient on its own to transform the sector). The evidence on learning progress and achievement is inconclusive as yet, but some studies (for example Bezerra 2011) show those entering through the quotas as attaining scores equal to their non-quota peers. All commentators agree, however, that this form of affirmative action is only successful if positive discrimination in admissions is accompanied by ongoing pedagogical and financial support for disadvantaged students. Other countries can certainly take note of the cautiously positive experience of affirmative action in Brazil.

While in some ways we might see Brazil as a recipient of influence from the international sphere—for example, in the recent discussions around the introduction of fees in public institutions, a dominant global trend—in others it is a pioneer. Many countries may be looking towards Brazil as a forerunner in the for-profit sector, as private provision grows

globally, and there is increasing consolidation in the sector forming larger companies with international operations. The signs from Brazil are clear: for-profit higher education is an extremely successful business, and provides lucrative opportunities for investors, but it holds negative prospects for the higher education sector. While for-profit institutions have allowed a rapid expansion, they have done so at the cost of quality of provision, and of research and community engagement in the public interest.

Some aspects of private operations have been positive, however, particularly the flexibility of study, and the provision of evening classes, aspects which the public sector has begun to adopt, and which are important for ensuring inclusion of working adults, and these can also provide important lessons for other countries.

Future research needs

As stated above, Brazil has extensive data on enrolments, but a lack of information about the post-graduation destinations of students. Within the Brazilian context, it is important to generate new research on the employment and earnings of graduates, exploring links to background factors and institutional factors. Beyond employment, in-depth qualitative work on life trajectories and the influences of universities on them will also be highly illuminating. Furthermore, more extensive gauging of learning outcomes is necessary, in particular to determine the value-added of different forms of institution, different degree courses and different modes of learning. This will be particularly important in constructing policies that provide support for disadvantaged students and ensure that they are bridging the gap with their more privileged peers. Nevertheless, lack of data on learning outcomes is a global phenomenon in higher education, and by no means one restricted to Brazil.

The policies implemented since the 2000s have started to bring changes in the higher education system, with previously excluded groups starting to enter the most elite public institutions. It is unclear as yet exactly what impact these changes will have on the institutions in question, on their practices and on their social recognition. One possibility, for example, is that a part of the elite retreats from the public sector (fearful of its devaluing through social mixing) and moves into a new set of elite private institutions. It will be important for research to monitor these possible developments.

This report also highlights a significant gap of research attention globally in terms of the dimension of horizontality. While policymakers focus on the headline figures of GER or proportion of age cohort going on to university, or in more progressive moments disaggregation of those rates by different social groups, in order to understand the fairness of the system it is essential also to look within the system to disparities in opportunity.

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