

Higher education challenges in Brazil

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ABSTRACT

Following the international trend, higher education in Brazil is going through important transformations, including the widening of access and the growth of enrollment numbers. From the beginning of the century the number of enrollments tripled, reaching more than eight million students in 2015. Here we discuss some factors that converged to cause this expansion, and we try to indicate the main challenges of the Brazilian higher education system. We begin with a brief analysis of the federal program of loans for students enrolled in private institutions, and the program for increasing the number of places in public institutions. We then point out, in some detail, the current challenges that the Brazilian higher education system faces: i) maintenance of the pace of growth of enrollments; ii) improvement of efficacy, with a reduction of dropouts and a larger number of graduates; iii) development of access mechanisms; and iv) awareness of the diversity of the offer of post-secondary education in the country. Although these challenges are also present in most of the systems that made a move towards the democratization of access to higher education, in Brazil these challenges are faced in the context of a wide privatization and commodification of this level of education, together with a strong economic and fiscal crisis. Besides that, there is a rather strong valorization of a unique model of higher education based on the research university, which in fact corresponds to a small part of the national system.

RESUMO

A educação superior no Brasil, como em outras partes do globo, passa por transformações importantes, dentre as quais a ampliação do acesso e o expressivo crescimento das matrículas. No país, desde o início do século, o número delas triplicou, atingindo, em 2015, mais de oito milhões de estudantes. Neste texto, apresentamos alguns fatores que convergiram para a ocorrência dessa expansão e procuramos indicar os principais desafios do sistema de ensino superior brasileiro hoje. À guisa de introdução, indicamos os efeitos dos programas federais de financiamento estudantil para alunos matriculados em instituições privadas e do programa de ampliação de vagas em instituições públicas sobre a configuração do sistema nacional. Nas partes seguintes, elencamos, com algum detalhamento, os principais desafios que o sistema de ensino superior brasileiro enfrenta hoje: i) manutenção do ritmo de crescimento das matrículas; ii) busca de maior eficácia, com a garantia da permanência dos estudantes nas instituições, redução da evasão e elevação do número de concluintes; iii) aprimoramento dos mecanismos de acesso; e iv) reconhecimento da diversidade da oferta do ensino pós-secundário no país. Embora também presentes em boa parte dos sistemas de ensino superior no mundo que democratizaram o acesso à educação superior, esses desafios, no Brasil, são enfrentados em um contexto de ampla privatização e mercantilização desse nível de ensino, de forte crise econômica e fiscal do Estado e de arraigada valorização de um modelo único de educação superior baseado na universidade de pesquisa que corresponde a uma parcela diminuta do sistema nacional.

Introduction

The system of higher education in Brazil developed late in comparison with the countries of The Organisation for Economic Co-operation and Development (OECD) and even with the neighboring countries of Latin America. The first universities emerged only in the twentieth century. One of the milestones was the foundation of the University of São Paulo (USP) in 1934, which became the very first bona-fide university in Brazil, more than 400 years after the Portuguese had instated the colony (1531) and already more than a century after Brazil had become an independent nation (1822).

Even with the establishment of USP, modeled on a mix of German and French features, another generation passed before, in the 1960's, the idea of a modern doctorate system and of departmental structure started to be considered in the budding federal system, which was formed from institutions that were developing since the beginning of the 20th century. The 1968 Higher Education Reform established research as the central activity of the university, following the legislators' understanding of the United States model of the research university. Despite these transformations, higher education has been strongly under the control of the national state – a situation that dates back to the Imperial period.

The Brazilian higher education system can be described as a dual system comprising a public sector – tuition-fee free, more selective and dominated by universities in three levels (federal, state and city)

– and a private sector – formed by for-profit and non-for-profit institutions more oriented to large masses of students and dominated by isolated institutions of professional training. Currently, many of these private institutions belong, through sales and/or merger processes, to large educational groups operating in the country. The private sector has been an integral part of Brazilian higher education since the ninetieth century.

There are four main types of HEI in Brazil: a) universities – institutions that conduct research and community outreach, with at least one third of the teaching staff with PhD qualifications; b) University Centers – multi-course institutions that are not required to carry out research, but with autonomy to open new courses without seeking permission from the Ministry of Education; c) Integrated Faculties and Schools of Higher Education – smaller institutions with little autonomy that must obtain approval from the Ministry of Education when opening new courses, certificates, or degrees; and d) Federal Institutes – units focused on vocational training, with professional qualification in different areas. They offer integrated vocational programs (integrated with secondary education and higher education courses), technological courses and postgraduate programs.

Universities in Brazil represent only 8% of the total number of Higher Education Institutions (HEIs) with 53% of total enrollment (INEP 2016). Although Brazilian legislation makes room for other types of academic organizations – such as university centers, technological institutes – and types of courses – for example, technological courses, alongside bachelors and teaching training courses – the system has a low institutional differentiation.

The low institutional differentiation, paradoxically, does not make the system any more homogeneous. On the contrary, the main characteristic of the Brazilian system is its internal heterogeneity, between the public sector and the private sector, and among the various institutions that comprise these sectors. There are a number of aspects that contribute to this heterogeneity, for example: the geographic region where the institutions are located; the size, seniority and tradition of institutions; the qualifications and working conditions of the faculties; the socioeconomic profile of students; and the academic quality of teaching according to official evaluation indicators.

Since the beginning of the twenty-first century, the higher education system in Brazil has undergone important transformations, most notably with the expansion of access. Between 2000 and 2015, the number of enrollments tripled, reaching more than eight million students on undergraduate courses in 2015. This significant expansion in less than two decades is the result of several associated factors, but stems, above all, from changes that were already in progress since the late twentieth century in the educational levels preceding tertiary education. The improvement in the flow of students in basic education has led to an increase in the number of students and graduates of secondary education, leading to the expansion of the contingent of people formally able to enter higher education. Along with this structural factor related to the increase in the demand for post-secondary education, other factors converged to bring about the expansion of the system.

In the context of educational policies, three federal programs were instrumental in expanding access and enrollment growth in the period: the “Federal University Restructuring and Expansion Program” (Reuni) established in 2007 (Brasil 2007); the “University for All Program” (Prouni) in 2005 (Brasil 2005); and the “Student Financing Fund” (FIES) in 2011 (Brasil 2011).

Reuni,¹ which was developed between 2007 and 2012, focused on the federal public universities and free-tuition universities, and its main objective was to increase the offer of places on undergraduate courses, either through the creation of new courses, increasing the number of places on existing courses, or even offering places on evening courses.

With these measures, the Ministry of Education planned to increase both the number of students enrolled in federal universities and the retention of students. Reuni operated based on what Braun (2003) calls "delegation of incentives", linking financial incentives to performance indicators of institutions according to goals that they themselves had established. In the design of the program, the access of federal universities to additional public resources – aimed at improving infrastructure, hiring new teachers and administrative personnel, etc. – was conditional on higher enrollment and retention rates. As expected, over a ten-year period, enrollment in the federal universities sector doubled from almost 600 000 in 2005 to about 1.2 million in 2015 (INEP 2016). However, the growth in the graduation rate, as we will see later, has not matched that of growth in the enrollment rate.

The Prouni² and FIES³ programs, which are also federal and still operating, are targeted at low-income students enrolled in private higher education institutions. These programs had two significant effects on the Brazilian higher education system. The first, and most evident, was their contribution to increasing the number of students, especially in private institutions: between 2010 and 2014, this increase passed the mark of one million. In the same period, the number of contracts signed by FIES increased from 76 000 to 732 000, an increase of 862%. In 2014, contracts signed with FIES amounted to 11.3% of total enrollment in private higher education institutions (SEMESP 2016).

The second effect of these public funding programs for students enrolled in private institutions was on the configuration of the private higher education sector in the country. In the midst of privatization processes and the commodification of higher education, public funding for students enrolled in private higher education institutions, much of it in for-profit institutions, has contributed to the consolidation of large educational groups. Trading publicly on stock exchanges and attracting international

¹ The program contained six guidelines: "I – reduction of dropout rates, filling of unfilled places and increase of entry places, especially in the evenings; II – expansion of student mobility, with the implementation of curricular regimes and systems of qualifications that allow the building of training routes, through the use of credits and the circulation of students between institutions, courses and programs of Higher Education; III – revision of the academic structure, with reorganization of undergraduate courses and updating of teaching-learning methodologies, aimed at the constant raising of quality; IV – diversification of undergraduate courses, preferably not geared to early and specialized professionalization; V – expansion of inclusion policies and student assistance; and VI – linking of undergraduate with graduate programs and higher education with basic education" (Brasil 2007).

² To enroll in ProUni, candidates must satisfy the following requirements: a) have participated in the Enem and obtained an average of 450 points or higher and a mark higher than zero in the essay; B) have a monthly gross family income per person of up to a minimum wage and a half (full grants) or monthly gross family income of up to three minimum wages per person (50% grants); C) meet at least one of the following criteria: have completed High School in a public school or in a private school on one of the school's full grants; be a person with a disability; or be a teacher in the public school system, in the effective exercise of the teaching of basic education and being a member of the permanent staff of the public institution and competing for grants exclusively in undergraduate courses. In the latter case, it is not necessary to prove income or have completed the Enem (Brasil 2017).

³ The candidate for funding must have a gross monthly household income per capita of up to three minimum wages, about US\$ 880 in 2017.

investors, business groups working in higher education in Brazil account for around a third of the total enrollment in the private sector (Sampaio 2014b).

In sum, the growth of higher education enrollments in Brazil at the beginning of this century occurred during a strong process of privatization and commodification of this level of education (Sampaio 2014b). Although the segment of federal universities has registered a significant increase in enrollments, enrollment in the public sector – federal and state – accounts for only a quarter of the total enrollment in the higher education system in the country. It is within this framework of the real expansion of the contingent of students in post-secondary education, and of the intense privatization of enrollments, that the main challenges facing higher education in Brazil today are to be found. We highlight four: a) maintaining the growth rate of enrollments; b) increasing the effectiveness of the system in order to promote student retention, reducing dropout rates and increasing the completion rate; c) improving access mechanisms; and d) recognizing the diversity of the system and broadening the notion of quality in the evaluation processes of the institutions.

From this set of challenges, the first consideration to be made is the sense of a certain optimism that they bring. In fact, a large part of it results from important advances that have already occurred in Brazilian higher education in the last decades, hence their enunciation with the verbs "to maintain" and "to improve". The second finding is that Brazil is not alone in these processes of transformation of higher education.

The challenges listed are not unique to Brazil, but general to several national systems that have extended, whether in the more distant past or more recently, access to post-secondary education. Unlike developed countries (such as the United States, France, or Germany, in which the expansion of their respective higher education systems occurred in the middle of the last century), Brazil, along with other Latin-American countries, and China, India, and South Korea, among others, have only experienced a more significant growth of their post-secondary education systems in this century (Altbach 2007; Clancy *et al.* 2007). In this sense, the challenges facing higher education in Brazil today are, for the most part, also present in most of the higher education systems in the world that have made the transition from "elite systems", aimed at training a very small proportion of young people from the most privileged social strata, to "mass systems" that, due to the increase in the percentage of young people in higher education in relation to the total numbers in higher education, find themselves catering for a larger and more diversified contingent of students (Trow 1973, 2007).

The next sections of the text seek to address each of the four challenges outlined and to offer some final considerations.

Maintaining the growth of enrollment rate

Enrollment in tertiary education has grown dramatically over the past decade, as shown in Figure 1 below. However, keeping it at the same pace is a huge challenge for a variety of reasons. Firstly, it does not involve only the higher level, but also the entire educational system of the country, from kindergarten to elementary and secondary education, with all its striking regional, social class, racial, gender and other inequalities.

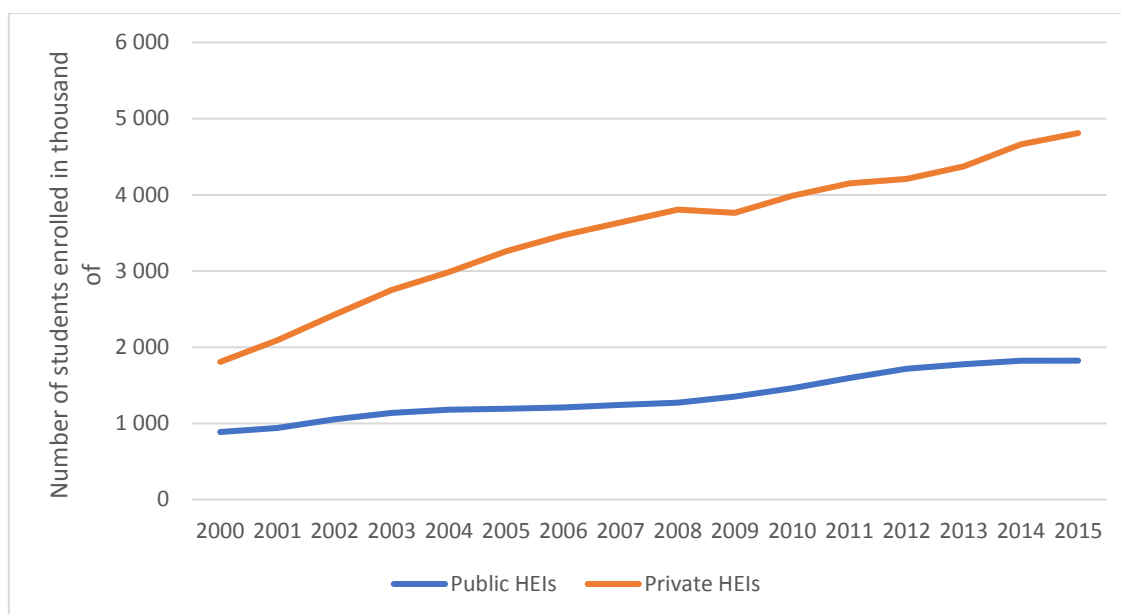


Figure 1 – Enrollments in public and private higher education institutions, Brazil, 2000-2015

Source: INEP (2001-2016).

One of the goals established by the National Education Plan (PNE in the Portuguese acronym) of 2001 (Brasil 2001) and then modified in the 2014 PNE (Brasil 2014) was to reach a net enrollment rate⁴ in higher education of 30% in 2010 and 33% in 2024. However, we are still far from achieving this. In 2015, the net enrollment rate in higher education was 18.1%, and regional differences remain strong. For example, while in the Federal District, in that same year, the net enrollment rate in higher education reached 33% (the target for the country within ten years), whereas in the States of Maranhão and Pará, located in the Northeast and North, the rates were 10.8% and 11.6% respectively (Observatório do PNE 2017).

To achieve PNE's goal, it is necessary, of course, to expand the net enrollment rate in secondary education. By 2015, 62.7% of 15-17 year olds were enrolled in High School, compared to the 85% target (Observatório do PNE 2017). The others either did not study or still attended elementary school. Studies based on data on the age/grade gap and school dropout rate in primary education indicate the strong persistence of the correlation between family income, race/color and educational advancement of young people (Ribeiro 2012, Corbucci 2014, Andrade 2015). In short, for Brazil to achieve the PNE target of 33% net enrollment in tertiary education in the short and medium terms, the current number of enrollments needs to be doubled, and this requires that most young people attend and complete secondary education at the age corresponding to their educational level, something that currently does not occur.

The second reason is the economic crisis that the country is experiencing, with GDP falling by 7.2% between 2015 and 2016, and by 9.1% in GDP per capita (Pires 2017), has destabilized efforts to maintain public funding of students in private higher education institutions. As we have seen, the FIES and Prouni programs, notably the former, were responsible for the large increase in enrollments in

⁴ Net enrollment rate refers to the percentage of the population aged 18 to 24 in higher education; that is, the number of students enrolled in higher education divided by the total population aged 18 to 24 years.

higher education in the last decade. However, since the end of 2014, the federal government has been making several changes in the way these programs operate to make them more restrictive.

Among the recent changes to FIES, is the federal government's increase in the academic requirements for students seeking to access educational credit.⁵ The changes in the rules, associated with the increase in the unemployment rate in the country, have a direct impact on reducing the number of contracts signed with FIES, which can cause significant changes in the scenario of private higher education in Brazil in the coming years (Knobel 2016).

As shown in Figure 2, from 2014 to 2015 there was a drop of more than 50% in the number of educational credits granted and, by 2016, the total number of FIES contracts was much lower than the 2013 total. The impacts of this change have yet to be felt.

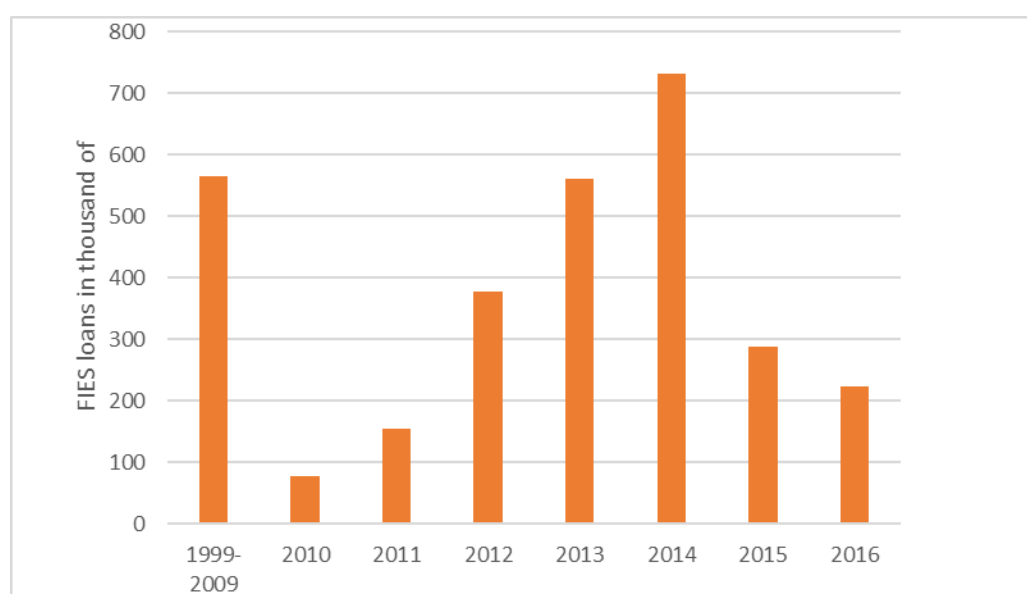


Figure 2 – Evolution of public funding for students enrolled in private institutions. Contracts signed with FIES. Brazil, 2010-2016. Source: Adapted from FNDE (n.d.) and MEC (2016).

In relation to Proni, there has also been a decrease in the offer of grants, especially full grants. According to the data in Figure 3, during the ten years of its existence, the program has shown a continuous growth in the offer of full grants and more fluctuating growth in relation to the offer of partial grants. In 2014, the program broke its record in offering full grants. However, in 2016, as with FIES, total grants offered dropped to the level of 2013 and the number of partial grants increased.

⁵ Since 2015, in addition to meeting the socioeconomic criteria stipulated by FIES, the student must have a minimum score (450 points) in the National Secondary Education Examination (ENEM). In addition, criteria were also established in relation to the courses that can be financed: face-to-face courses with a classification higher or equal to 03 in the National System of Evaluation of Higher Education (SINAES), offered by higher education institutions participating in FIES. Courses that have not yet been evaluated, but are authorized to operate under the MEC registration, can also participate in the Program (Brasil 2015).

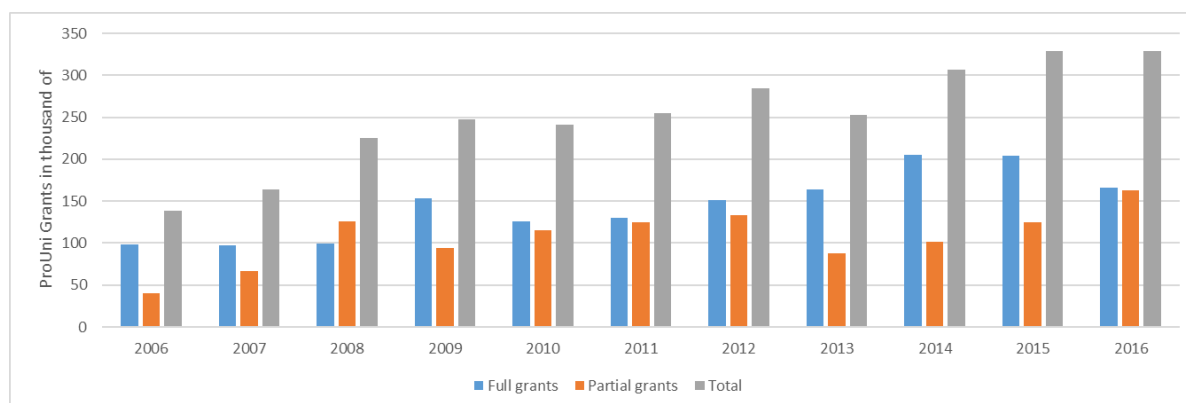


Figure 3 – Evolution of public funding for students enrolled in private institutions. PROUNI grants. Brazil, 2006-2016. Source: Adapted from Prouni (n.d.)

Public funding for students enrolled in private institutions and the growth of higher education enrollments in Brazil are phenomena intrinsically linked in the period under review. In this way, the reduction of the former will necessarily imply a reduction in the rhythm of the latter. Considering that private higher education currently accounts for 74% of total enrollments in the national system, the cutback occurring in student public financing at this moment undoubtedly jeopardizes the continuity of the expansion of the Brazilian higher education system.

Improving admission policies in higher education

In Brazil, student access to higher education occurs through the taking of entrance exams. The most widely known of these, which offers access to federal universities and public funding, via ProUni or FIES, in private institutions, is the National Secondary Education Examination (ENEM in the Portuguese acronym). Created in 1998 as a mechanism for the evaluation of secondary education, the examination began to operate as a means of accessing higher education in 2009.⁶ With these changes, the Enem has become a giant gatekeeper for higher education. There are few public and private institutions today that do not use the results of Enem either to replace or to supplement their own entrance examinations.

In 2014, the Enem reached a record in its number of subscribers. There were over 9.5 million individuals enrolled to take the exam, reaching the same net enrollment as the *gao kao*, the Chinese exam that is the main form of access to higher education in that country where the population is around seven times larger than in Brazil and the number of students in higher education is four times higher.

In Brazil, data from those enrolled in the Enem in 2014 show that the majority (58%) are female, 70% are up to 24 years old, 85% are studying in public schools and 76% have a family income of up to two minimum wages. Of the students who actually took the exam, there is a correlation between the grade obtained in the exam and family income: the lower the income, the lower the percentage of students attaining the minimum of 450 points and who did not obtain zero in the writing. These criteria were

⁶ Until recently, the Enem was still used as a means of High School certification. This possibility was abolished in 2017.

required, as we have seen, by the two federal programs – Prouni and FIES – for students enrolled in private institutions. In the family income bracket of up to one minimum wage, less than half (45.7%) of the students achieved 450 points. Among the students that obtained 450 points or more and did not obtain zero in the writing, 72.8% have a monthly family income of up to three minimum wages.

The Enem generates many controversies in the country (Dutra & Santos 2017, Andriola 2011, Santos 2011, Figueirêdo *et al.* 2014, Mello Neto *et al.* 2014, Waltenberg 2009, Diaz 2010, Schwartzman & Knobel 2016). While some perceive it as a breakthrough in the educational system, functioning as a unified nationwide entrance examination, others consider it to be an amplifier of the inequalities that characterize the educational system: regional, social, racial, and other inequalities.

According to critics of the Enem, the examination needs to be improved. Far from being a gateway of opportunity, the exam has become a device to exclude young people from families of lower income and smaller cultural capital, who constitute the clear majority of those who do not achieve the necessary score to gain access via SISU to the most popular courses at federal universities, or to publicly funded programs to attend a good quality private institution.

In addition to improvements in the current mechanisms for entering higher education, there is room for the creation of new and different mechanisms, as well as mechanisms of mobility between courses within a single institution and between different institutions.

Increasing the effectiveness of the system: decreasing dropout rates

Historically high since the 1980s, the dropout rate in Brazilian higher education has been an issue of concern for educational managers concerned with the efficiency of the system (Lobo 2007). The dropout phenomenon manifests in different ways and its understanding among scholars is also quite complex (Tinto 2007; Vitelli & Fritsch 2016). It can vary depending on the course and type of institution; whether education is campus-based or distance learning; whether studies occur during the day or evening shift, and according to the student profile, among other factors.

In Brazil, the dropout rate in public higher education is 18%, slightly lower than the national average of 25.4% (see figure 4). Consequently, in private higher education, it is above average – reaching almost 28%. Dropout also tends to be higher in distance education courses (EAD), reaching 32.5% in EAD courses offered by private institutions and 26.8% in EADs from public institutions. The dropout rate also varies according to the age group of the students: among students over 24 years old, dropout is higher, 32.6%, compared to 23.6% among students up to 24 years old (SEMESP 2016).

In private higher education institutions, holding grants from Prouni and other programs, or being in receipt of an education loan (FIES and other types) is related to student dropout. Although the dropout rate in private higher education has been increasing since 2010, it tends to be lower among FIES beneficiary students. In 2014, while the dropout rate of students receiving student financing was 7.4%, the rate for other students reached almost 26%.

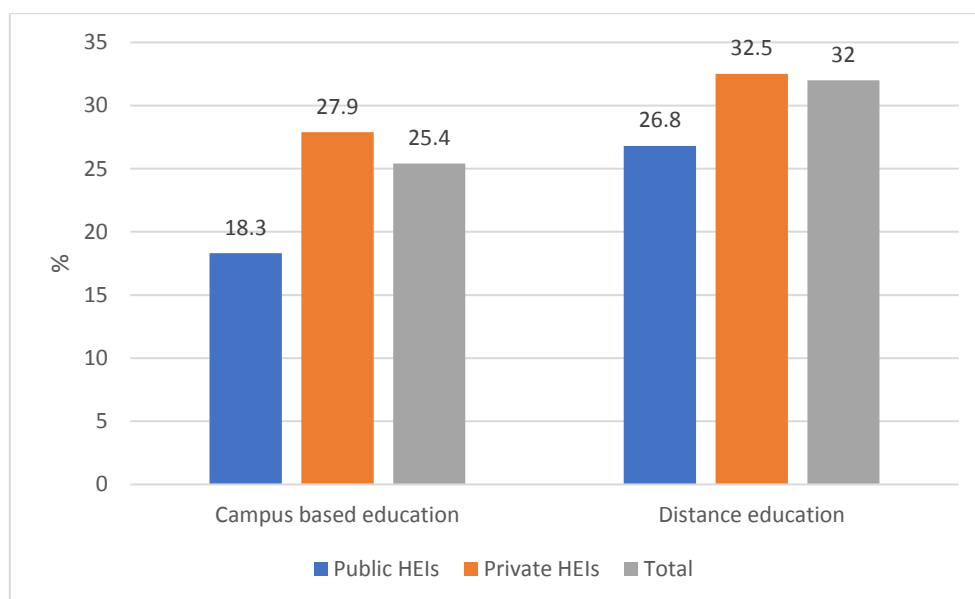


Figure 4 – Dropout rate in higher education. Brazil, 2014.

Note: Dropout rate was measured by dropout enrollments (suspended, deactivated and deceased) on the total of students enrolled.

Source: SEMESP 2016.

Increasing the effectiveness of the system: increasing retention and completion rate

With the expansion of access to higher education, the institutions began to receive a more diversified contingent of young people in relation to socioeconomic profile and academic preparation. These new students encounter anything from financial difficulties that prevent them from attending daily and dedicating themselves full time to academic activities, to difficulties of adaptation, to distant and unknown environments, to difficulties of a cognitive order, that require students to decode various juxtaposed systems – bureaucratic, teaching methods, evaluation etc. – and respond quickly to all of them. It should also be taken into consideration that in many cases the new students are the first generation of their families to access higher education.

The equation of integration in higher education poses questions that involve not only the students, but also the institutions that tend to shape their courses based on an "ideal student" profile that has for some time been scarce in Brazilian higher education and in the North-American context (Kennen & Lopez 2005). It is in this context of changes that the retention of the students in institutions of higher education until completion of the course has become one of the great concerns of managers and policy makers.

In Brazil, as shown in Figure 5, the retention rate on a higher education course for the 2010 cohort, and those who had not dropped out in five years, was approximately 50% in public HEIs and around 40% in private HEIs. This means that just over half of a class of new entrants to public institutions were still enrolled or had completed college in five years. In private institutions, most do not reach the end of the course in this period. In the distance education modality, the student retention rate is even lower in both the public and private sectors. It should be noted that undergraduate courses in Brazil have a minimum attendance requirement ranging from three to seven years.

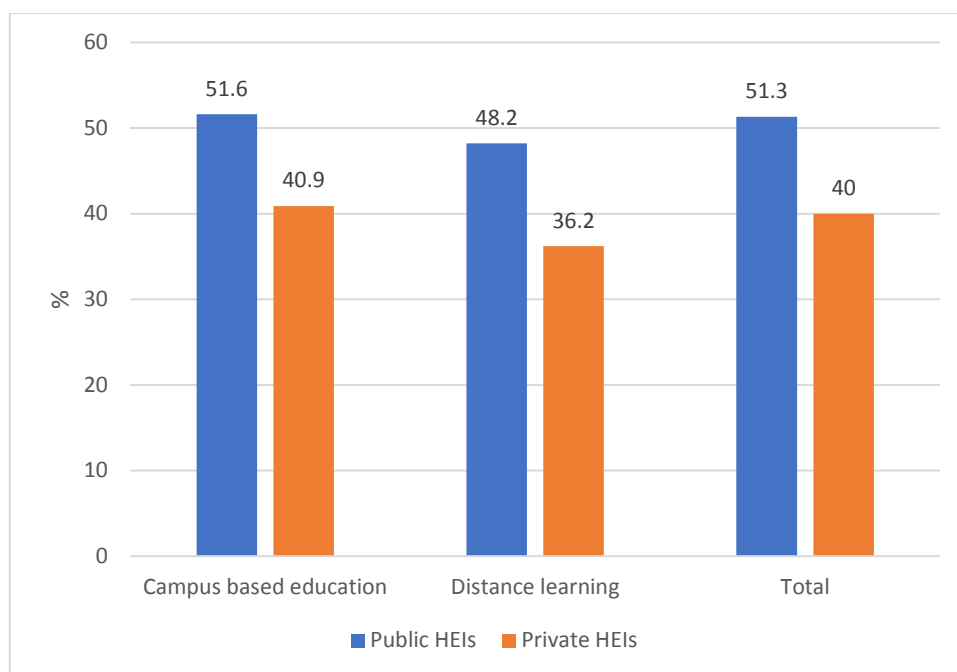


Figure 5 – Retention rate on courses by administrative dependency, Brazil, 2014

Note: retention rate is defined as continued enrollment (or degree completion) within the same higher education institution of students who first enrolled in 2010 and who did not drop out in five years, or suspend their enrollment, disengaging from the course or transferring institution. Deceased students are excluded from the calculation.

Source: SEMESP 2016.

Given this serious situation and facing the pressures of the university community, especially among students, public universities have sought to expand the support for student success, through study and work grants, increased help with housing, food, transportation, etc. Recent studies (Heringer & Honorato 2014) have highlighted the importance of these institutional policies for the success of students admitted through affirmative action policies in Brazilian public institutions. But the authors also warn that, although fundamental, financial support is not enough to guarantee the retention of these students on their courses. Aware of this, many institutions are adopting their own pedagogical programs such as remedial courses, elementary classes in Portuguese and basic mathematics, a general education course with an interdisciplinary focus, and engagement in research projects.

In private institutions, in addition to the Prouni grants and the FIES loans, there are study grants, partial or full grants, self-financing programs, discounts on tuition fees, etc. In addition to this financial support, some institutions have also offered their students pedagogical support, including psychological and educational orientation, and "reinforcement" classes. The objectives are to retain students and avoid dropouts that constitute a serious problem for them, especially in relation to financial considerations.

Retention and its opposite, dropout, are related with one of the most important challenges in higher education today in Brazil, which is to raise the number of graduates. As shown in figure 6 below, the absolute number of those completing courses in public higher education institutions as opposed to private sector institutions are quite different.

In the private sector, the number of entrants and graduates increased at about the same rate until 2011, when the gap began to widen. This process started in 2008 in the public sector when the gap also started to widen – in part because the number of entrants had increased while the number of graduates had stabilized. From 2000 to 2004, the opposite process occurred in the public sector, when the number of graduates increased comparing with the number of entrants on each year.

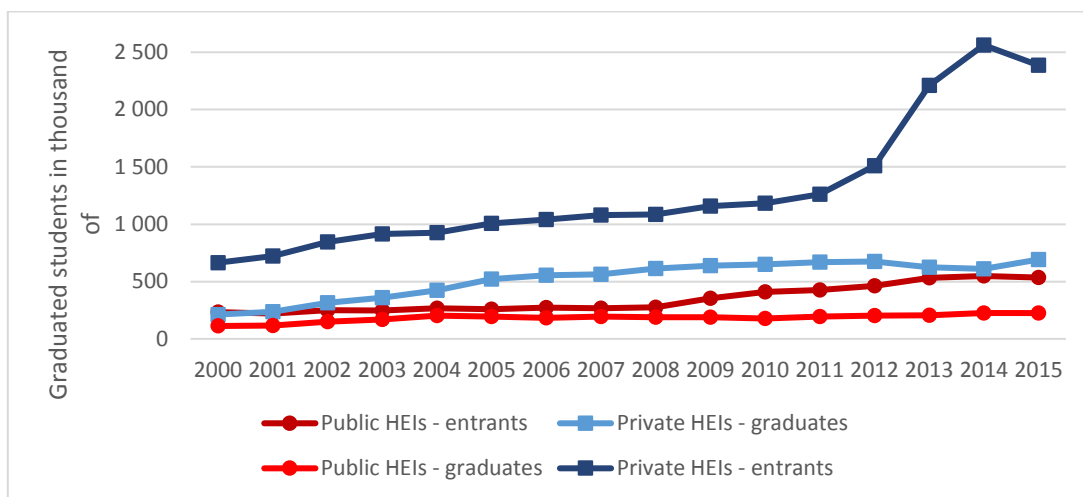


Figure 6 – Number of entrants and graduates in campus-based education, by administrative dependency, Brazil, 2000-2015. Source: INEP (2001-2016).

In Brazil, as shown in Figure 7, the mean completion rate in 2015 was 44.5% in campus-based education in public HEIs and around 40% in private HEIs. This means that graduates are less than half of the number of new entrants in public and private institutions. The completion rates in distance education are higher for public HEIs (51.8%) than for private HEIs (32.8%). Even though they are comparatively lower than the goal in the national plan of education (90% in campus-based education in public HEIs).

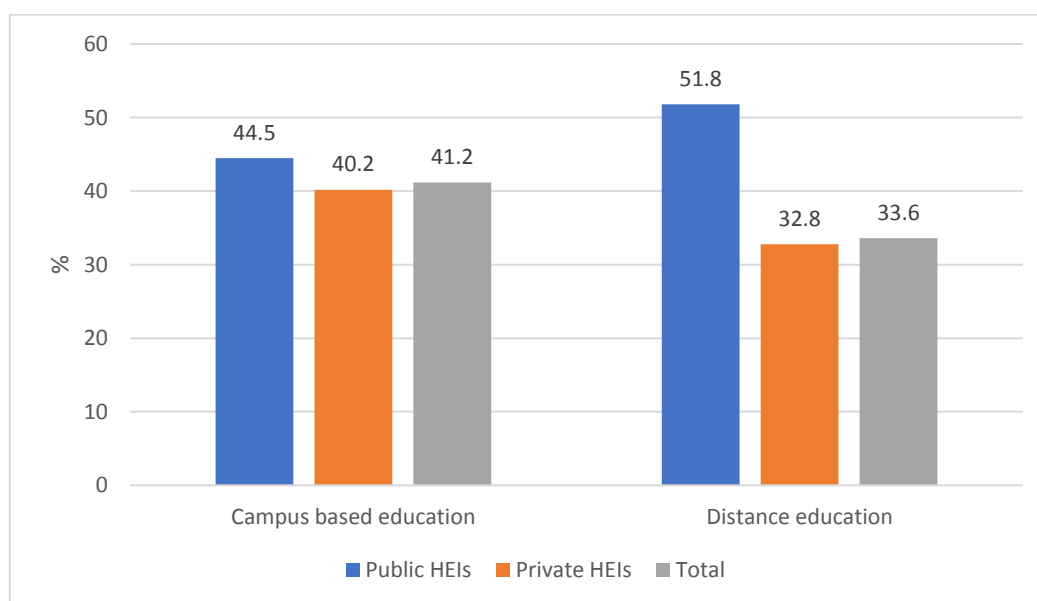


Figure 7 – Mean Completion rate by administrative dependency according modality, Brazil, 2015. Source: INEP (2016).

Recognizing the heterogeneity of the higher education system and broadening the notion of quality in the evaluation processes of institutions

There is a fundamental question in addressing the challenges of higher education in Brazil: the persistence, in the national imagination, of a single model of higher education that insists on shaping and regulating a real system that is internally very heterogeneous and unequal. This unique model has been forged in a very specific place in Brazil: the public university – federal and state – designed to house research, teaching and extension in an integrated way, and has been inculcated for many decades as a standard measure to guide all institutions that constitute the Brazilian higher education system.

However, in the last 50 years, the Brazilian higher education system has not only grown, but has become very differentiated (Sampaio 2014a, Neves 2003). Today it has more than eight million students (including campus-based and distance students): 74% of them are enrolled in private institutions, 64% attend evening/night courses, 16% are on distance-education degrees, and 44% of students are over 25 years old (INEP 2016). Since the 1970s, the private sector has been the majority provider in the higher education system (Sampaio 2000, Martins 2002) and in 2015 it accounted for 68% of the total number of campus-based and distance courses (22 732), 76% of the students (6 075 152) and 79% of the graduates (910 171) of higher education (INEP 2016).

Despite all these transformations, higher education in Brazil is still under the aegis of university reform that occurred in the country in the middle of the last century. In 1968, this reform tried to bring to Brazil what was understood at the time to be the model of the North-American research university, placing research as the main activity.

However, according to Schwartzman (2011), Brazilian higher education followed the French tradition, in which higher education is organized in vocational training colleges and teaching is dissociated from research. The 1968 Reform, however, by appropriating a partial understanding of what was taken to be an advanced model of university organization, the American model, superimposed this system on the system that emulated the Napoleonic model. In the almost fifty years following this reform, despite all the changes that have taken place in the legal framework of higher education and all the transformations it has undergone, the core of the 1968 law has never been modified. Whatever fails to meet the stipulation that teaching should be founded on research, and that the central institutions in this model are the universities, is seen as a deviation that may be tolerated provided the goal it sets itself is to attain the model of the research university.

However, the actual system is quite different: out of a total of 2 364 higher education institutions in 2015 in Brazil, only 195 are universities – the public ones are still the majority (INEP 2015). About 45% of the total number of universities (or 4% of the total number of HEIS) can be considered Research Universities that have three or more doctorate programs.

Of the 383 000 teaching posts in higher education, only about half have a full-time or exclusive dedication contract, and only a third of the teachers in higher education have a doctorate (INEP 2015). In terms of graduate studies and research, about 15 000 Doctors and 68 000 Masters students (CGEE

2016) are currently trained in the country per year, and an average of 60 000 scientific articles are published annually in the international literature, according to data from the Scopus Database. This production, however, is highly concentrated: about 40% of the work comes from the three state universities of São Paulo and another 20% have their origin in only three federal universities – Federal University of Rio de Janeiro (UFRJ), Federal University of Rio Grande do Sul (UFRGS) and Federal University of Minas Gerais (UFMG).

These data reveal a lot about higher education in Brazil and its challenges. If some institutions managed to attain the model of the research university, today they represent only a very small part of the national system of higher education. The more the system expands, the more it departs from the unique model designed by the 1968 Reform and ratified in all the regulations that followed it. The greatest risk, however, is that the few research universities might deviate from their mission in the quest to satisfy the multiplicity of demands made on them in the current times.

The division between the public sector and the private sector, although useful in characterizing the national system in its broad outline, is only one of the many dimensions that differentiate them today. Each sector – the public and the private – includes very diverse institutions. This heterogeneity leads both to approximations between groups of institutions belonging to different sectors and also produces distances between institutions within the same sector.

In the national system, bachelors and teaching training courses still predominate. Of the total of 33 501 undergraduate courses, 57% are bachelors and 23% are teaching training courses (INEP 2016). For decades, Business, Law and Education courses have competed among themselves for first place in terms of number of entrants, enrollments and graduates. Together they account for more than a third of total enrollments in higher education in the country (Sampaio 2014b).

The strong academic bias present in the unique model of higher education is one of the great obstacles to the effective democratization of this level of education in the country, since it contributes to reinforcing the stratification of the system and to legitimizing the hierarchies of institutions, courses, careers and diplomas that unequally position their holders in the labor market (Sampaio 2014b; Barbosa 2014; Schwartzman 2011).

The recognition of the heterogeneity of higher education in Brazil is an important step towards the redesigning of a system of evaluation of institutions with more sensitive and comprehensive instruments that respect the specificities and produce finer diagnoses and more effective proposals for the definitive improvement of the quality of higher education in the country. Currently the evaluation mechanisms of the Brazilian higher education system are ineffective because they insist on measuring different things using the same rule, based on a single model of higher education to be followed by all institutions in the national system.

The institutions that constitute the Brazilian higher education system are, as we have said, very heterogeneous in terms of academic organization, the profile of their students, the qualifications and the work regime of faculties, the existence of research and the contribution of scientific production, etc. These differences cannot be suppressed by laws, government decrees, and unique systems of

evaluation that act on institutional differences as if they were merely unwanted deviations from an ideal of higher education.

Certainly, there will always be hierarchies of prestige between institutions, courses, careers and modes of teaching in higher education. The mere existence of these hierarchies, reinforced by a single yardstick, nevertheless creates strong pressure for institutions to imitate the modes of functioning of universities with an academic bias. As Schwartzman (2014) warns, while the call for "leveling up" is always more seductive, especially when done in the name of equal opportunity and access for all to the highest forms of education and culture, its effect can be disastrous, especially when rigid meritocratic criteria are applied indiscriminately to all, leading to exclusion (which manifests itself in high dropout rates or low rates of completion, as we have seen) or when the quality of education is sacrificed for equality and social inclusion.

Final considerations

Higher education systems in much of the world today experience permanent tension between two of their main functions: to train elites associated with research and to facilitate and stimulate social mobility. In Brazil, it is no different: the national system suffers nowadays at both ends: mass education does not develop as it should because it always seeks to emulate an inaccessible model of research university; and at the other end, research universities are pressured to open space for inclusion policies, seeking to reconcile the meritocratic tradition with new demands of society for general access to higher education. Facing this impasse, as Schwartzman (2015a) suggests, requires a review of the foundations of our educational system.

In the late 1980s, when the process of re-democratization in Brazil began and a new constitutional charter was enacted, the net enrollment rate in higher education was only 8%. After more than thirty years, that rate has doubled. The student population is more diversified: it has equalized the access of women and increased the participation of black, brown and indigenous people in higher education (Ribeiro & Schelegel 2015).

To increase access, public universities, adopting a strategy previously exclusive to private institutions by increasing the offer of courses in Education, Law and Administration, began to make them available in more than one session (day and evening) and increased the number of places.⁷ These are the courses in which, according to the study by Ribeiro & Schlegel (2015), there has been an advance since the 1980s in the participation of female students (especially in Education, Social Work and Psychology) and non-white students. In short, the expansion of access to higher education in Brazil has been taking place without disrupting the traditional pattern of baccalaureate courses in areas of knowledge already consolidated, which is reinforced by the government's own student financing programs.

⁷ Between 2001 and 2012, the number of non-whites (black + brown + indigenous) increased by 10% over the total population. The proportion of this group and that of people with low incomes in higher education is higher in the public sector than in the private sector, although the increase in the participation of both groups was higher in the private sector than in the public sector in the period. Differences occur more between courses and careers than between sectors and segments (Ribeiro & Schlegel 2015).

The expansion of access in tertiary education is slowly happening in Brazil, but at the expense of new stratifications and hierarchies that emerge within the system: between careers in each sector – the public and the private – within its different segments, and even within the same institution. To paraphrase Barbosa (2016), the issue of higher education in Brazil today is where the new inclusions are being included.

In view of this, it is necessary to ask whether the model of research university, geared to high-level training, which we usually call the "classic university", inspired by the nineteenth-century Humboldtian model, can still serve as the only format to guide higher education in those countries today that are making the transition from "elite systems" to "mass systems", to use Trow's (1973, 2007) synthetic terminology.

On the other hand, the modern knowledge society imposes great demands on the research universities and presses them with other demands previously unknown to these institutions. These institutions will not always be able to meet all the challenges and satisfy all the demands that are made on them in the contemporary world. What does not seem to make sense is to expect systems of mass, almost universally accessible, higher education to resemble a deeply transformed model of the classic research university (Schwartzman 2011; 2015b). Recognizing this impossibility does not mean abandoning the goal of offering a quality higher education to as many people as possible. The question to be asked is another: what does a post-secondary education of quality currently mean?

In Brazil, in order to respond to the challenges of higher education, we suggest avoiding two pitfalls: the first is to impose one vision on all institutions, as did the reformers of the Brazilian higher education system of the 1920s, 1950s and 1968 – something which we are still tempted to do. The second trap is more difficult because it is an archetype: we must see the Brazilian higher education system beyond our own reflected image in the mirror, even if, like Narcissus, this image does not seem very encouraging.

Taking the Brazilian challenges into account, we can learn some lessons. Firstly, the expansion of the higher education systems cannot move in a single direction. They should diversify the supply of post-secondary education in different dimensions: types of institutions, courses and careers (including technological and vocational), duration of courses, modalities of offering (campus-based, distance, mixed). On the other hand, the different types of institutions could have different combinations of the three-pillar mission (teaching, research and outreach). Consequently, the research university could keep its strategic role in the system and contribute and work in an articulated way with the other segments.

Secondly, the higher education systems should have regulation, evaluation and accreditation mechanisms that promote the diversity in the system. A single metric – such as exists today in Brazil – for a highly heterogeneous system tends only to reproduce hierarchies and inequalities of diplomas. Each HEI has to be the best in what it is proposed to do. And individually, each HEI cannot do everything.

Thirdly, the diversification of the higher education system should be expressed in the different types of diplomas and in the labor market. The main idea is to transform what is now unequal and

hierarchical (in the higher education system and in the labor market) into positive and valued differences.

Finally, systems should also diversify the funding sources, including funding for students enrolled in private institutions and for public institutions. The expansion of the system faces clear financial limits if the state is the sole provider.

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