

THE HOW AND WHY OF THE EXPANSION OF PUBLIC HIGHER EDUCATION IN BRAZIL*

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Resumen

Este artículo busca, por un lado, mostrar cómo se ha dado la expansión de la educación superior en Brasil, con especial atención en la educación superior pública durante las últimas décadas, en las que ocurre una anómala aceleración en el sector de las instituciones federales a partir de la implantación del programa de Reestructuración y Expansión de las Universidades Federales (REUNI) y de la Educación a Distancia, (EAD), por medio de la Universidad Abierta de Brasil (UAB). Por el otro, presentar argumentos que contribuyan a verificar hipótesis acerca de las razones de esta expansión.

Palabras clave:

- Educación superior
- Expansión de la educación superior
- Privatización de la educación
- Mercantilización del conocimiento
- Certificación en masa.

Abstract

This paper aims to demonstrate how the expansion of higher education in Brazil has taken place, paying special attention to public higher education in recent decades, when an anomalous acceleration of the federal sector occurred due to the implementation of the REUNI (Restructuring and Expansion of Federal Universities) and the DE (Distance Education), through the UAB (Brazil's Open University). As well, arguments are presented that may contribute to hypothesize on the underlying reasons for this expansion.

Key words:

- Higher education
- Expansion of higher education
- Privatization of education
- Commercialization of knowledge
- Widespread certification

Introduction

DFor the past two decades Brazil has experienced a slow and profound change in organizational culture at the public universities as a result of the political-economic choices deliberately and consciously made by the governments of Fernando Henrique Cardoso (FHC 1995-2002), Luiz Inacio Lula da Silva (LULA 2003-2010) and Dilma Rousseff (DILMA 2011-2014). As for the roots of this process it is possible to put forward a number of hypotheses to neatly highlight some periods that shaped the process over time. This period may be divided in three phases.

The first one would be when a series of institutional reforms, of which the onset and maximum expression is to be found in the State reform carried out during the Presidency of FHC, led by his Minister of Federal Administration and State Reform, Bresser Pereira. In this period Brazil's rulers sought to align the country with an ongoing worldwide transition. Capitalism then lived a radical transition from a monopolistic accumulation regime to a regime of financial accumulation predominance. This altered Brazil's historical continuity and represented a break, even from recent events.

From this trailblazing reform followed others, though not immediately, that reached diverse instances, spreading throughout all state institutions in general and the public university in particular. Among the institutional culture features of the latter are applied research, accelerated courses offered through educational methods based on new information and communication technologies, evaluation processes or external regulation and control, the gradual loss of university autonomy associated with the emergence of management heteronomy as well as new business-university partnerships induced and supported by the government. All of these had long been observed in the transition of Central-planning countries whose economy intensification took place around the European Union, with the Bologna Process.

A second phase occurred more in the period of President Lula, although through the continuation of the reforms from the previous government. While a third period of public university changes happened also during Lula's second term.

This third phase was marked by the creation of programs with a strong potential for institutional change, such as the Support Program for the Restructuring and Expansion of Federal Universities (REUNI, acronym in Portuguese)¹, Distance Learning (DL)², Brazil's Open University (BOU)³, as well, the continuation of graduate program expansion, although ameliorated compared to previous phases, and the induction of research. As for the graduate programs, from 2007 on, these processes were consolidated and, therefore, continued to intensify, at this level, the work of public college professors. We would like to emphasize, in this stage, the somewhat anomalous expansion of enrollment in public higher education in the country, as its distinctive synthesis, even more so felt in the federal subsector at the undergraduate level, towards the end of Lula's second term.

Hypothesizing we may say that this process has been deployed in two dimensions simultaneously: the continuity of the commodification of knowledge production and the certification en masse of undergraduate and graduate students,⁴ whereas each of these levels has trained labor for different categories of the economy. These dimensions are at polar ends of the spectrum, and yet complementary as well: undergraduate and postgraduate certification awarded by unaccredited institutions (*lato sensu*) is directed generally to the largest and most excluded sectors of society, for its graduates to work in the most exploitative business environments with the least technical requirements. On the other hand, research, predominantly applied, and certification, especially postgraduate (MA and Ph.D), by accredited institutions (*stricto sensu*) tend to be put at the service of national and international businesses, with a lesser extent of exploitation and greater technical requirements. In the case of the training, as in research, they show the level of knowledge accumulated by the country while, at the same time, seeking to expand it by inducing it.

The latter dimension is aimed at the best students in the best universities accredited by government bodies created for this purpose, that meet criteria established by the government itself. As a hypothesis, and based on the numbers of Brazil's public universities, which will be later discussed, it is verified

¹ REUNI was instituted on April 24th, 2007 as one of the components of the Development Plan for Education (DPE), both approved by the President of the Republic and the Ministry of Education. REUNI's formal objective is expanding access and increasing student retention in the Higher Education sub-system. It is applied through management contracts between the federal HEIs and the Ministry of Education (MEC), with an average duration of five years (2007-2012). Among its parameters are achieving 1/18 teacher/student ratio and a graduation efficiency ratio of 90% per program, plus introducing significant curricular changes and "new organizational arrangements and management mechanisms for more efficiency in spending from the assumption that results established by contractual commitment are the sure bet for solving problems in system expansion" (Araújo, Pinheiro, 2010: 647).

² DL was developed in Brazil in all levels of education, from basic (or elementary) to HE, even at graduate levels (masters and doctorate). Today it is the fastest growing HE delivery mode in the country with nearly one million enrollments. Moreover, its growth takes place especially in for-profit institutions, which the law allows, as the DL has lower costs, less rigid regulation and potential for high profitability.

³ The BOU is a project of the Ministry of Education (MEC) in conjunction with the states, municipalities and public HEIs offering undergraduate, graduate and university extension through DL or mixed modalities. It began in 2007 when the 291 BOU poles were installed, in 2009 they numbered 750, with the forecast of reaching 1,000 in 2013, each with about 800 students. The poles are spread over all regions of Brazil and its programs are validated and recognized by the MEC.

⁴ Graduate studies in Brazil, which are intended for those who already have completed a bachelor's degree (bachelor, undergraduate or technical), are divided into two types of programs: *lato sensu* (unaccredited) and *stricto sensu* (accredited). The first are professional improvement and specialization, including MBAS, with a minimum duration of 360 hours. The second offer master's and PhDs, the masters program average duration is two to three years, the degree is awarded to students, that in addition to completing all credits, submit a dissertation to be approved by a panel consisting of at least three PhD faculty. In Doctorate programs (with an average duration of three to five years) the degree is awarded to doctoral candidates who, in addition to completing all credits, present a thesis that is approved by an Examining Board composed of at least five PhD faculty.

that in the last two decades public HEIs were transformed by a movement that advanced at a sluggish rate, with rare moments of significant expansion and change, as the one taking place right now, especially since the introduction of REUNI.⁵

According to data from the 2009 National Household Sample (PNAD, 2010), in regards to the relationship between schooling and family income, the North and Northeast regions have the worst rates of student education lag for poor 15 to 24 y/o youth. Regarding the percentage of students attending secondary school, it is only about 45% for the northern region and 41% for the northeast. When these rates are compared to the Southeast, with a figure that is closer to 60.5% for the same age group, the inequality between the states of the Brazilian federation becomes evident, as for their distance or proximity to the economic-social-political-hegemonic centers. This observation points to another structural problem already mentioned in the economic literature for understanding Brazil: it is imperative to consider regional inequalities caused by the historical development of Brazilian capitalism (Tavares, 1997).

We may say that, by the end of the 1980s and the beginning of the 1990s, not without some degree of idealization, that the center of the culture of public universities appeared in the form of a classic contradiction: on the one hand, it contributed to the country's economic growth and strengthened the social pact, then on the other, it stood as the institutional space for criticism of its times and its own goals. It was very different from the church –which is based on dogma– universities were seen as a healthy and necessary space for questioning, for criticism and for debate.

From that time since, the first pole was to suffer a clear hypertrophy, while the second a significant historical atrophy. Criticism and debate gave way to silence and support, with rare exceptions, through plans, programs and official activities, suggesting that the republican university institution would have become an implementing agency rather uncritical of public policy. More precisely, the public university and the State, became instruments,

⁵ In a report by the Folha de S. Paulo, under the title of "Third phase of HE system expansion includes four federal universities, 47 university campuses and 208 colleges of education, science and technology," the president, Dilma Rousseff, announced that "The economic and social development of the interior is the orientation of the third phase of expansion of the federal research and HE system, should open 250,000 spaces in Federal Universities and 600,000 in federal institutes of education, science and technology by 2014. In addition to democratizing access to knowledge, projects are integrated into the Local Productivity Agreements and large industrial and infrastructure investments, so as to form professionals and develop technologies for progress with income re-distribution (August 17th, 2011).

although indirect, of production, and the country, with an economy with a high capacity for accumulation and full availability of public funds became a safe haven for global capital markets, industrial and financial. Public universities radically altered their institutional culture as they underwent such profile and feature changes as Brazil was aligned, during FHC presidency, with the finance-dominated regime. This would explain, as a hypothesis, the essentials of the public university changes over the last couple of decades.

In the following pages we will try to show how the public education expansion took place, unhurriedly, in recent decades, with an anomalous accent placed on the federal institution sector, especially since the introduction of REUNI, DL via BOU. Also, we will present arguments to contribute to test hypotheses concerning the reasons for such expansion, as a whole, and the expansion of undergraduate and graduate levels and research, in particular, within the public and private spheres, along with the profound changes in the institutional university culture which we have briefly referred to before.

How higher education expansion took place, especially public higher education

The data collected by the census of higher education from Brazil's National Institute for Educational Studies and Research (NIESR), allow to verify the way in which public higher education was expanded, not only in recent years, but since 1964, when the cycle of military dictatorships began. This period lasted twenty very long years and was responsible for triggering and accelerating the privatization process of education in Brazil, especially during its first decade in power. This may be verified by looking at the evolution of enrollment in public and private higher education.

During the first ten years of military rule higher education jumped an

Table 1

Evolution of Brazilian higher education enrollment by administrative category (public and private), 1964-1994

Year	Total	Public Enrollment		Private Enrollment	
		Total	%	Total	%
1964	142,386	87,665	61.6	54,721	38.4
1974	937,593	341,028	36.4	596,565	63.5
1984	1,399,539	571,879	40.9	827,660	59.1
1994	1,661,034	690,450	41.6	970,584	58.4
1964/1974 Δ%	559.8	289.1	-	990.1	-
1974/1984 Δ%	49.3	67.7	-	38.7	-
1984/1994 Δ%	18.7	20.7	-	17.3	-
1964/1994 Δ%	1,065.7	687.6	-	1,673.7	-

Source: Brazil. NIESR 2011 Statistical Higher Education Synopsis.

exponential 559.8% in enrollment, from 142,386 students to almost one million. Public enrollment had increased almost 300% but private enrollment had outperformed this by more than three times, i.e. 990%. It must be highlighted that the optimistic projection fed by the military government was associated with the creation of an industrial park by predominantly foreign capital, on the other hand, the civil-military dictatorship gave assurances to foreign capital entering the country.

However, in the military dictatorship's second decade and the end of the so-called economic miracle, the growth of enrollment in higher education was generally very poor: less than 50%, i.e. about ten times slower than the previous decade. There was a small compensation for the public sector which grew 67.7% on average, compared with only 38.7% of the private sector.

Moreover, the first decade of redemocratization, after the end of the military rule, rendered even more negligible results, a complete disaster: only 18.7%, a rate of just over 1% annual growth, or about half the vegetative growth of the population, which at the time exceeded 2%. At the time public and private evolution rates did not differ significantly: 20.7% and 17.3% respectively. It should be noted that in this decade the main concern was the containment of high inflation, which was attempted with the famous monetarist heterodox plans: Cruzado Plan, Bresser, Verão Plan and Collor I and II Plans. The intent to implement monetarism in Brazil was already underway.

In the field of science and technology production, Minister Renato Archer gave continuity to what had begun during the dictatorship, seeking an expansion in this area which could impact the public university. One of the frameworks for this initiative was the First National Conference on Science and Technology, held in 1985. The second conference was held in the 1990s, after an adjustment for the realignment of the economic and political frameworks and based on the guidelines resulting from this policy making. Then followed the third (2005), and the fourth and final, in May 2010, which was held in alignment with the guidelines of the 2011-2020 National Graduate Plan. This fact is also involved in the process of expansion and change in higher education, public higher education and the federal subsystem.

In short, these three decades show a significant expansion, more concentrated in the first decade of military dictatorship, 1964-1974, with an increase of private participation nearly three times higher than public enrollment.

During FHC's (Cardoso) first term, the growth in the number of institutions was moderate, but while the number of public HEIs was reduced by 4.1%, the private HEIs registered an increase of 20.7%. Regarding enrollment, there was a slight increase compared to the first decade after the return to democracy, just over half the rate of increase of the second decade of military rule and almost ten times less than the rate of the first decade of the dictatorship. In regard to the public-private ratio, it is a little more

moderate, although the lesser degree, the primacy of private sector growth, which experienced more than twice the increase than that of the public sector: 36.2% and 16.5%, respectively.

During FHC's second term, after the enactment of the Law of Guidelines

Table 2**Evolution of the number of institutions and enrollment in higher education by administrative category (Public and private), 1994-2008**

Year	Number of Institutions					Enrollments				
	Total	Public	%	Priv.	%	Total	Públ. (mil)	%	Priv. (mil)	%
1994	851	218	25.6	633	74.4	(mil)	Public	41.6	970	58.4
1998	973	209	21.4	764	78.6	(mil)	%	Priv.	1,321	62.2
1994-1998 Δ%	14.3	-04.1	-	20.7	-	(mil)	16.5	-	36.2	-

Fuente: : Brasil. MEC/INEP. Sinopsis Estadística de la Educación Superior, 2011.

for Education (LGE), in December 1996, a more significant increase in the number of institutions and enrollment was registered, with a marked predominance of the private sector and, within that, the commercial private sector. This can be corroborated with the numbers provided since then (1999), by the Census of Higher Education by the National Institute for Educational Studies and Research Anísio Teixeira (NIES), which separates the higher education institutions (HEIS) data into public (federal⁶, state and municipal) and private (religious community, nonprofit and for-profit).

Table 3 shows the data for FHC's second term, which shows an increase in the number of private and public institutions of around 50% in 2000-2002 compared to less than a third of that, 14.3%, in the previous four years. However, the difference between the increase in public HEIS compared to private is stunning and very revealing of the public policies adopted by this government: in 2000-2002 public HEIS grew a meager 1.5% and private HEIS 59.3%, or about 40 times more! Two other phenomena are clear: 1) among public HEIS, federal grew in number, 21.6%, state and municipal decreased by 9.7% and 5.0%, respectively; 2) among private HEIS, religious and community shrank 16.3%, while private for-profit grew 113.8%! Their number jumped from 526 to 1,125 institutions.

During LULA's first term (2003-2006) there was a reduction in the overall HEIS increase (38.7%) and a much smaller difference between the growth of public and private HEIS: 27.2% versus 40.2%. Here it should be noted that the growth of federal HEIS was the highest of all public and private

⁶ The federal HEIs include Federal Institutions of Higher Education (IFES), the Federal Institutes of Education, Science and Technology (IFET) and others.

subsectors: 43.8% against 27.6% of state, 5.3% of municipal, 38.9% of religious and community, and 40.7% of private for-profit.

During the first three years of LULA's second term (2010 data is missing, it has not yet been released by the INEP) the smallest percentage increase was registered since 1964, with a stagnant growth of public HEIS (10.4% reduction of federal, and increases of 1.2% in state and 11.6% in municipal) and a tiny average increase of 2.3% of the private sector, with a remarkable reduction in the number of religious and community HEIS of 34%, i.e., going from 439 to 290 in only three years. In this context the positive growth was concentrated on private for-profit which continued increasing its significance: 12.4%.

Table 3 Evolution and percentage of the number of higher education institutions by administrative category (Public: federal, state and municipal; Private: community and religious, and for-profit), 1999-2009

Year	Number of Institutions														
	Total	Public									Private				
	Total	%	Federal	%	State	%	Municipal	%	Total	%	Religious/Community	%	For-Profit	%	
1999	1,097	192	17.5	60	5.4	72	6.5	60	5.4	905	82.5	379	34.5	526	48.0
2002	1,637	195	11.9	73	4.4	65	3.9	57	3.5	1,442	88.0	317	19.4	1,125	68.7
2006	2,270	248	11.0	105	4.6	83	3.6	60	2.6	2,022	89.0	439	19.0	1,583	70.0
2009	2,314	245	10.6	94	4.1	84	3.6	67	2.9	2,069	89.4	290	12.5	1,779	76.9
1999-2002 Δ%	49.2	1.5	-	21.6	-	-9.7	-	-5.0	-	59.3	-	-16.3	-	113.8	-
2002-2006 Δ%	38.7	27.2	-	43.8	-	27.6	-	5.3	-	40.2	-	38.9	-	40.7	-
2006-2009 Δ%	1.9	-0.3	-	-10.4	-	1.2	-	11.6	-	2.3	-	-33.9	-	12.4	-
1999-2009 Δ%	110.9	27.6	-	56.6	-	16.6	-	11.6	-	128.7	-	-23.5	-	238.2	-

Source: Brazil. MEC / INEP. Statistical Synopsis of Higher Education, 2011

Table 4 Evolution and percentage of the number of higher education enrollments by administrative category (Public, federal, state, municipal; Private: community and religious, and for-profit), 1999-2009

Year	Number of Enrollments														
	Total	Public									Private				
	Total	%	Federal	%	State	%	Munic	%	Total	%	Relig./Comm	%	For-Profit	%	
1999	2,369,945	832,022	35.1	442,562	18.7	302,380	12.7	87,080	3.7	1,537,923	64.9	886,561	37.4	651,362	27.5
2002	3,479,913	1,051,655	30.2	531,634	15.3	415,569	11.9	104,452	3.0	2,428,258	69.8	1,166,357	33.5	1,261,901	36.3
2006	4,676,646	1,209,304	25.8	589,821	12.6	481,756	10.3	137,727	2.9	3,467,342	74.2	1,543,176	33.0	1,924,166	41.2
2009	5,115,896	1,351,168	26.4	752,847	14.7	480,145	9.4	118,176	2.3	3,764,728	73.6	864,965	16.9	2,899,763	56.7
1999-2002 Δ%	46.8	26.4	-	20.1	-	37.4	-	19.9	-	57.8	-	31.5	-	93.7	-
2002-2006 Δ%	34.4	14.9	-	10.9	-	15.9	-	31.8	-	42.8	-	32.3	-	52.5	-
2006-2009 Δ%	9.4	11.7	-	27.6	-	-0.03	-	-14.1	-	8.6	-	-43.9	-	52.3	-
1999-2009 Δ%	115.8	62.4	-	70.1	-	58.8	-	35.7	-	144.7	-	-2.4	-	345.2	-

Source: Brazil. MEC / INEP. Statistical Synopsis of Higher Education, 2011

Based on the analysis of the data presented in Table 4, on the evolution of enrollments in the same period as Table 3 (1999-2009), it is important to highlight that although the evolution of enrollments tends to follow the evolution in the number of HEIs some asymmetries do occur, as will be discussed below.

Thus, in comparing the evolution in the number of HEIs and enrollments, while there is a fairly close correlation in the period: 110.9% total growth for HEIs and 115.8% for enrollments, in the case of public HEIs total growth was 27.6%, while enrollment increased by 62.4% (in the case of federal HEIs the ratio is of 56.6% growth to 70.1% in enrollments, in the state 16.6% and 58.8%, in municipal 11.6% and 35.7% conversely). This may mean, on the one hand, an expansion in the number of campus, courses, places, and on the other, an intensification in teachers' workloads as well as a decline in their working conditions (Sguissardi and Silva Júnior, 2009). In the case of private HEIs in general, there was an increase of 128% in the number of institutions, while enrollments grew 144.7%. Yet this includes a minor reduction in enrollments (-2.4%) compared with the total reduction in the number of HEIs (-23.5%), for religious and community institutions. In the case of for-profit HEIs, the ratio was a 238.2% increase in number and a 345.2% increase in enrollments. The latter two cases may support the hypothesis of an increase in the size of these HEIs. This may confirm the 2007 forecast by consultants in the area, who announced "large investments and foreign capital betting on large national groups that are buying medium size institutions, which in turn, are absorbing smaller institutions" (Gorgulho, 2007 in Sguissardi, 2008:1004).

Verifying the sub-periods within this period it is important to observe various symmetries and asymmetries. During the 1999-2002 (FHC) sub-period there was a 49% increase in total HEIs distributed as follows: 1.5% in public (federal: 21.6%, state: -9.7% and municipal: -5%) and 59% in private (religious and community: -16.3%, for-profit: 113.8%) against a 46.8% increase in total enrollment, distributed as follows: 26.4% in public HEIs (federal: 20.1%, state: 37.4%, municipal: 19.9%) and 57.8% in private (religious and community: 31.5% and for-profit: 93.7%). There are more symmetries than asymmetries, although some asymmetries draw enough attention, such as state HEIs (-9.7% versus 37.4%) and those of community and philanthropic (-16.3% versus 31.5%) and even those of municipal (-5.0% versus 19.9%).

This sub-period illustrates the confirmation of higher education privatization and commodification policies: enrollment expansion of public HEIs (26.4%) at less than half of the rate of expansion of private institutions (57.8%). And above all, the expansion of private for-profit HEIs: 93.7% in only three years! Three times higher or more, than the growth rate of enrollments in community and faith and that of public HEIs.

During the sub-period corresponding to LULA's first term, as in the case of the total HEIs expansion rate (down from 49.2% to 38.7%), it shows a marked slowdown in overall enrollment growth (from 46.8% to 34.4%)

compared to the previous sub-period (FHC), both in public (26.4% to 14.9%) and in private HEIS (57.8% to 42.8%). However, this case still registers a huge difference between the enrollment expansion of private HEIS, in relation to federal institutions (52.5% to 10.9%, respectively).

The first three years of LULA's second term sub-period shows data confirming, in terms of enrollment, the trend verified in relation to the expansion of total HEIS: a sensible slowdown in the growth of enrollments, although this is almost five times higher than the actual number of HEIS (9.4% vs. 1.9%).

The largest asymmetries between the expansion of enrollments against the expansion in the number of HEIS in this sub-period are as follows: for a -10.4% decrease in total federal HEIS there was a 27.6% increase in total enrollments, and for a 12.4% increase in total private HEIS (for-profit) a 52.3% increase in their enrollments.

What happened to federal HEIS might be attributed to the implementation of REUNI, which in 2007 sought to double the number of existing spaces in the federal HEIS by 2012. As for private HEIS it is likely to be explained by the phenomenon which we referred to before, the acquisition of small sized HEIS by medium-size and large conglomerates like these by Anhanguera, Kroton-Pythagoras, Estacio de Sá and Laureate Inc. among others, that have solid support from transnational investment funds (Sguissardi, 2008, p.1003).

It is necessary to emphasize the fact that there was a 43.9% reduction in enrollment of philanthropic and community HEIS over a period of three years and the likely migration of these students to private for-profit institutions, with an exponential growth of 52.3% in this sub-period.

This data turns out even more dramatic for this private for-profit sub-sector when compared to the participation rates of enrollment in Brazil's higher education only ten years ago when community and faith HEIS had 37.4% of total enrollment, dropping to only 16.9% in 2009. Public HEIS had a significantly lower drop: from 35.1% to 26.4% (federal 18.7% to 14.7%, state 12.7% to 9.4%, and municipal 3.7% to 2.3%). In contrast to community and faith HEIS, the private for-profit went from 27% to 56.7% of total enrollments!

Expansion of the federal sub-sector

In addition to the data in Tables 3 and 4 related to the expansion in the number of federal institutions, IFES, IFET and other (56.6%) and their enrollment (70.1%) during the period of 1999-2009, Table 5 shows data on the growth of faculty, administrative and technical bodies, and of programs, that explain such expansion, which, as previously noted, despite being significant falls far behind that seen in the private for-profit sub-sector (238.2% growth and 345.2% enrollments). These data seem to be a flashback to 1995, the onset of FHC's first term, which also provides a com-

Table 5

Total number of faculty positions (active), administrative and technical staff (active), programs, enrollments of all federal institutions (including IFES, IFET and other), 1995-2009

Year	Faculty Positions (active)		Administrative, Technical Staff (active)		IFES		Programs		Enrollment	
1995	44,486		100,517		57		1,536		367,531	
1996	42,110	-5.3	98,058	-2,4	57	0.0	1,581	2.9	388,987	5.8
1997	50,059	18.9	91,042	-7,2	56	-1.8	1,316	-16.8	395,833	1.8
1998	45,624	-8.9	75,122	-17,5	57	1.8	1,338	1.7	408,640	3.2
1999	46,687	2.3	72,604	-3,4	60	5.3	1,721	28.6	442,562	8.3
2000*	50,165	7.4	69,411	-4,4	61	1.7	1,996	16.0	482,750	9.1
2001	45,058	-10.2	56,596	-18,5	67	9.8	2,115	6.0	502,960	4.2
2002	45,907	1.9	59,652	5,4	73	9.0	2,316	9.5	531,634	5.7
2003	47,709	3.9	61,489	3,1	83	13.7	2,392	3.3	567,101	6.7
2004	50,337	5.5	61,707	0,4	87	4.8	2,450	2.4	574,584	1.3
2005	52,943	5.2	62,400	1,1	97	11.5	2,449	0.0	579,587	0.9
2006	54,560	3.1	64,164	2,8	105	8.2	2,785	13.7	589,821	1.8
2007	59,156	8.4	67,754	5,6	106	1.0	3,030	8.8	615,542	4.4
2008	61,783	4.4	67,993	0,4	93	-12.3	3,235	6.8	643,101	4.5
2009	72,228	16.9	96,786	42,3	94	1.1	4,368	35.0	752,847	17.1
1995/2002 Δ%	3.2	-	-40.7	-	28.1	-	50.8	-	44.7	-
2002/2006 Δ%	18.8	-	7.6	-	43.8	-	20.2	-	10.9	-
2002/2009 Δ%	57.3	-	62.2	-	28.7	-	88.6	-	41.6	-
2006/2009 Δ%	32.3	-	50.8	-	-8.9	-	56.8	-	27.6	-
1995/2009 Δ%	62.4	-	-3.7	-	64.9	-	184.4	-	104.8	-
2008/2009 Δ%	16.9	-	42.3	-	1.0	-	35.0	-	17.0	-

Available data about faculty positions and technical-administrative staff in 2000 add together active and inactive workers.
Source: MEC / INEP. Statistical Synopsis of Higher Education, 2011

parative look between that government's expansion policies and LULA's.

The two FHC terms (1995-2002) register minimal faculty expansion (3.2%), and a drastic reduction in technical and administrative staff (-40.7%). In contrast with a 28% increase in the number of institutions, 50.8% in the number of programs and 44.7% in enrollment.

During LULA's two terms (2003-2009, without 2010 missing data) this trend was reversed. The main figures of this expansion are as follows: 57.3% in faculty, 62.2% in technical and administrative staff. Program expansion was 88.6% and 41.6% of enrollments. The larger increase in faculty over enrollments might be explained due to the fact that vacancies in new programs have not yet been filled, in the domain of REUNI, which is to be completed in 2012.

The expansion of the federal sub-sector is also explained in part by examining the data on the expansion of DL, through the BOU, which in 2005 had an enrollment of 13,469 students and reached 43,905 in 2010, a 226% percentage increase.

Graduate studies expansion

Table 6 shows the expansion of graduate *sensu stricto* (accredited HEIS) in Brazil for a period of almost 20 years.

This period (1987-2009) highlights some facts: 1) the growth in the number of graduates (masters and doctors) in contrast to the increased enrollment: 1,111% versus 333%, the growth of Ph Ds (1209.7% or from 868 to 11,368 graduates) against an increase of about half in enrollment (631.8%, or 7,914 to 57,917), 2) the increase of more than four times the number of masters graduates in relation to the increased enrollment (878.5% versus 217%).

As a hypothesis, this difference is due, in particular, to a reduction in program duration encouraged or forced by the Capes Assessment Model, adopted by the agency for the funding, regulation and control of graduate studies, established in 1997 (Sguissardi, 2009:133).

There is also a significant expansion in enrollment and graduation in masters programs, a priority of the government bodies in the area, especially by the Coordination for the Improvement of Higher Education Staff.

Reasons for the expansion of higher education in Brazil

Brazil's higher education expansion, in the terms laid out above can be explained not only from the economic angle but also the political and the social. In an accumulation regime where the financial is valued above all else, monetary capital seems to acquire absolute autonomy in relation to the actual production of value (first capital cycle). This is the apex of commodity capital fetishism. This social arrangement leads to real changes in work, industry and education. It imposes a neoliberal –political and ideological– theoretical matrix, over society, along with the-necessary-reform-of-the-state-apparatus corollary.

In this context, education becomes a strategic social space for the production of value, financed by public funds (its privatization/commodification) and focused on the professional domain, due to the infinitesimal difference made between science, technology and technological innovations almost everywhere all the time. Reengineering, i.e. new forms of work organization are possible thanks to new scientific and technological basis as well as the machinery and equipment and its management by workers. According to Serfati (1998:177), this makes possible and requires a "lowering of the cost due to the reorganization of management processes [that] should not be of 15% to 20% but 80% to 90%." This is the process that Harvey (1994)

called space-time compression, as financial dominance compresses the cycle of capital for goods and, consequently, the actual production cycle value.

This process, and the concomitant steering, require the state apparatus, including education, to structurally reform, whereas as a marketable service produced by the private sector, education suffers the same consequences as other value adding processes. Moreover, considering that in a financial globalization environment the State also places debt securities in international markets, education, even state-sponsored, indirectly becomes hostage to the dictates of financial markets.

Financial capital, state reform and higher education expansion in Brazil

In a kind of prelude to the consolidation of the accumulation regime, with financial preponderance, in the 1980s, especially early in the decade, the globalization process of foreign direct investment (FDI) underwent a significant increase. Meanwhile, beyond FDI quantitative aspects in the world economy, there are qualitative aspects on which we will focus. For Chesnais (1996), quoting Henri Bourguinat, there are four main reasons for these developments:

First, unlike the foreign trade, FDI "has no nature of immediate or delayed liquidity". It is not reduced to an actual transaction. On the contrary, its second main characteristic is that it introduces an "intertemporal dimension" of great importance, as the "implementation decision gives rise to flows (production, trade, spread of profits) which necessarily extend themselves for long periods." The third feature is that it "involves property rights transfer, hence, economic power, without the common measure comparable to a simple export." "Finally," says Bourguinat, "There is a clear strategic component in the company's investment decision. Not only is its horizon significantly greater but also the underlying motivations are much more complex [...] whether the idea is one of penetration, to then displace local competitors, or to 'suck' local technologies [and knowledge production from places far beyond the company's headquarters] it is all part of this 'strategic' aspect of FDI, which is generally embedded in a complex process of preempting competitors' actions and reactions" (Chesnais, 1996 : 54, author's italics and emphasis added).

Financial dominance affects relationships among capital cycles by imposing very different forms of organization and by placing predominantly industrial groups (PIGs)⁷ in a new place in the world economy. The finance function turns into the function that demands greater productivity and especially new forms of work organization, with consequences for human work intensification and deterioration of labor relations in any potentially

Table 6

Evolution of the enrollment and graduation in stricto sensu graduate programs 1987-2009

Year	Masters (academic)		Masters (professional)		Doctorate		Total	
	Enrollment	Graduates	Enrollment	Graduates	Enrollment	Graduates	Enrollment	Graduates
1987	29,281	3,647	-	-	7,914	868	37,195	4,515
2008	88,295	33,360	9,073	2,654	52,750	10,711	150,118	46,725
2009	93,016	35,686	10,135	3,102	57,917	11,368	161,068	50,166
1987/2009 $\Delta\%$	217.0	878.5	-	-	631.8	1,209.7	333.0	1,111.0
2008/2009 $\Delta\%$	5.3	7.0	11.7	16.8	9.8	6.1	7.3	7.4

Source: MEC / CAPES / GEOCAPES, 2011

valuable production process. It requires from the worker a new psychophysical balance, which imposes new kinds of socialization. This includes, therefore, private institutions educational offer. Moreover, financial predominance imposes that governments put a legal and public policy framework with the same orientation in place.

Under a financial predominance regime movements of interest generating capital prevail and differ from other movements, which opens a twofold dimension: economic and legal. Because of this, the cycle gains more weight and compresses other cycles, which produces intense capital movements for functions (movement of goods), which in turn require the intensification of work in the field of real production of value and all sectors that are linked to it (Harvey, 1994).

In this context of economic globalization, where the central strategy is the generation of productive capital, but especially, by the means of new mechanisms for increasing returns through financial innovations. FDI as examined by Chesnais and Bourguinat, emerges as the center of a new business paradigm, with new corporate structures, new forms of organization and management, anchored in a new production base which is made possible, in this case, by current technologies generated in the wake of the third technological revolution. Therefore, it imposes upon the State the design of policies for research and manpower training in universities, a

⁷ Los grupos predominantemente industriales consisten en un "conjunto formado por una sociedad-madre (llamada holding del grupo) y las sociedades filiales que están bajo su control. De este modo, la sociedad-madre es sobre todo un centro de decisión financiera; mientras las sociedades bajo su control no pasan, la mayor parte de las veces, de sociedades explotadoras. El papel esencial de una sociedad-madre es el arbitraje permanente de las participaciones financieras que ella detenta, en función de la rentabilidad de los capitales involucrados. Es la función de arbitraje de la sociedad-madre que le confiere al grupo su carácter financiero" (Morin, en Serfati, 1998:143).

Herculean burden derived from Brazil's adherence to the imperatives of financial accumulation, at least, since the beginning of the 1990s⁸. Chesnais (1996) posits that a new business style is emerging, centered around strategies developed by the centralized headquarters of techno-finance, predominantly industrial groups (TFPIGS), which is based on the human capital that forms these groups. These global corporations will have at the core of their identities the shape and the nature of the relationships they establish with other companies and institutions in the economic and social sphere as well as with the republican institutions, with the State as mediator.

This movement will produce profound processes of change in the education sector, especially in higher education. Thus, the expansion of higher education and its respective institutional culture are affected by the globalization and financialization of the capital accumulation process, involving changes in the principles expressed in its educational underpinnings. What we see is that, in the case of higher education, this took the form of an educational process that takes on a reductionistic approach to human development in the form of education, predominantly focused on skills training, which is carried out by the means of a market logic leaning toward privatized or commercialized professional training. Among the levels most affected are all current modalities of higher education.

The realization of this process in Brazil starts at the beginning of the 1990s, when Fernando Henrique Cardoso assumes senior positions within the state apparatus.

When Paulani and Oliveira (2007) consider the relationship between the center and the periphery of the world economy, they make a clear case about the new place and status of the Brazilian state.

The concept of periphery depends on the existence of the nation state. But the nation has almost disappeared. Only the State remains intact as an instrument for governing the workforce and simultaneously, relegating their rights to the background, thus justifying the increase in the rate of exploitation. Conversely, the same state will grant exemptions, subsidies and incentives in order to increase profits for global capital. But the constant need for attracting investments [mainly, FDI] is only one side of globalization. On the other hand it turns the state into an instrument of production and enhancement of financial capital (Paulani and Oliveira, 2007:15-16; translated from the author's translation from the original in English).

Consequently, the reform of the state apparatus, which began in Brazil in 1995, brings with it the rationale of the matrix to which we referred, that comes with financial predominance. This originates a new paradigm, in which policies are guided by the same theoretical, political and ideological matrix from a reformed State. This matrix was the basis for the reform of all other republican institutions, among which, here specifically,

⁸ A pesar de haberse consolidado en la década de 1990 con la asumida orientación neoliberal que abrazaba el gobierno brasileño, los imperativos de la valorización financiera ya eran muy fuertes desde mediados de la década de 1970. Ver, al respecto, Bruno (2009).

we refer to the case of the higher education reform in Brazil. Hence we justify having taken, as a privileged analysis field, the higher education federal subsystem, as one that is the closest institutionally and therefore more susceptible to the policies of a State which became an instrument of production in a country whose nation was denationalized. Finally, we can say that such changes, despite mediations, and considering the alterations suffered by CAPES, the National Council for Scientific and Technological Development (CNPq, acronym in Portuguese) and the Financier for Studies and Projects (FINEP, same), tend to apply in all public education in the country and not just in the federal subsystem.

Conclusion

Examining the reasons for the expansion of higher education in Brazil is and always will be a notorious challenge. To discuss education with reference to the specificities of Brazilian capitalism, among other factors, patent on social disparities and even regional, is the basis for a critical analysis of an ongoing process, especially in regard to mass certification at the Federal Institutes for Education, Science and Technology (IFET). The reasons for the expansion of higher education and the rigid division between the commodification of knowledge and mass certification show the expansion itself, its motivations and the ways in which this process was carried out.

In the aforementioned first aspect, educational divisions mentioned in the introduction end up endorsing a fairly rigid class division in regard to higher education. For the ruling classes, an education geared towards applied research and scientific knowledge. For the lower classes, vocational education that meets the immediate demands of the labor market. This second aspect in particular, the training of workers, mass certification, exemplifies the efforts to this end. The University for All Program (ProUni), the REUNI, professional masters or doctoral studies, the Student Financing Program (FIES) for this type of graduate programs, on the one hand, and the attempt to put higher education under the control of the Ministry of Science and Technology (MCT), on the other, cater to the recommendations of international organizations as well as business claims, regarding the qualifications workers need for performing in a scenario of constant technological changes in industry, driven in turn by the commodification of knowledge and the search for increased financial innovation and gains.

Such compensatory policies gained importance, and were legitimized by the high rate of functional illiteracy and historic low educational levels in Brazil. Professional qualifications are used as a response mechanism to address workers' desire for social inclusion in Brazil. Understanding unemployment as a transitory and nonstructural process ended up legitimizing discourses, in appearance transformative, but in essence deeply conservative. Such compensatory policies raise several issues. First, the effectiveness of understanding unemployment as a transitory phenomenon. Will such policies ever address unemployment's structural triggers through professional

training and the evolution of the general conditions of actual production of value? Second, we should highlight the precariousness of education itself as well as higher education faculty's working conditions.

In conclusion, it appears that financialized global capital has imposed its own imperatives over a semi-peripheral economy, but with a high internal accumulation potential, therefore, of great economic interest, such as Brazil. In this transition, it has turned politics in the most precise sense of the word, into a purely economic activity. Higher education as a strategic space for social construction, should not have been left unscathed from the implications of this process.

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