Evaluation systems in education:
Quality, equity, and efficiency of higher education in Brazil

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Abstract

This paper discusses the evaluation of higher education (HE) in Brazil; after presenting a short overview of HE evaluation in the country from the 1990s onwards, it asks questions as to the impact of evaluation systems on the relevance of education, on racial and regional equity, and on efficacy. By reviewing official statistical and quantitative data on a range of indicators, the paper questions not only the quality, but also the equity and the efficiency of HE in Brazil. We are furthermore concerned with discussing the rationales behind the introduction of evaluation systems in the country, since the current 'regulatory evaluation' seems to follow an international 'call for accountability'. The concluding section discusses different theoretical perspectives on this development.

1. Introduction

One of the main tenets of educational reform since the early 1990s is related to the quality and effective governance of education; this can be said in general, but it applies to developing and transition countries in particular. Increasing demand, shrinking state financing sources, and the need to build capacity in terms of 'doing more for less' are rationales that loom large in current Ibero-American education policy discourses.

A central argument for introducing market mechanisms in education systems – i.e. privatization, choice, vouchers, quasi-markets, etc. and new governance instruments such as evaluation and monitoring systems, rankings, etc. – is grounded in the claim that they help improve quality standards, i.e. the *efficiency*, and raise *equity* of access while at the same time improving the *efficacy* in terms of value for money. This view

is strongly advocated by international organizations such as the OECD (Woodhouse, 1999) and the World Bank (1994, 2000; see also Salmi, 2009; Fielden, 2008).

Evaluation of both teaching and research activities is being used in the governance of education worldwide. In Brazil, evaluation systems were introduced fairly early to measure the quality and monitor the development of the education system, both in the public and the private sector.

There is a vast body of literature on evaluation in Brazil (e.g., Dias Sobrinho, 2003; Barreyro, 2004; Schwartzman, 2005, 2010).[1] Attempts at categorizing evaluation models usually chart differences in methodology, epistemology, or ontology; they usually take a set of characteristics into account such as their purpose and assumptions, organization/structure, types of questions, intended users, but also more formal aspects such as periodization, formalization and standardization, and transparency (see Mathison, 2005, p. 256 ff.; Whitley, 2007, p. 6 ff.). The definition of evaluation is thus relative to its proponents and the functions it is meant to fulfill. Notwithstanding, evaluation can be seen as a systematic approach leading to a judgment of an object, program, policy, etc. by grading or ranking it according to how well the object fulfils a predefined set of standards or criteria (see House, 2005, p. 18). Two major rationales lie behind evaluation efforts in general, i.e. summative or formative approaches. *Summative evaluation* is concerned with the effects of an intervention, measured for instance before (t1) and after the intervention (t2). Usually the function of summative evaluation exercises is to assess the merit or accomplishment of an object/program/policy. *Formative evaluation*, on the other hand, is more concerned with the processes of implementation of an intervention, a policy, etc. It usually has several measurement points in time and the results of intermediate evaluation points are, in turn, fed into the process. Moreover, a further characteristic of evaluation systems refers to the distinction of *internal* and *external* evaluation. Finally, evaluation systems may fulfill different functions: quality management and development of institutional/organizational structures and processes, following a formative rationale; or, following a summative rationale, functioning as regulatory and/or punitive governance instrument conceived of as supplanting hierarchical (bureaucratic) steering (see Dias Sobrinho, 2003). Most students of higher education principally agree that evaluation represents an instrument capable of improving quality and raising standard: it appears as one crucial instrument in quality management and development (Böttcher, Holtappels & Brohm, 2006; Bank, 2000, p. 51 ff.). However, in many cases the results of an evaluation are not used to inform educational policies. Evaluation is instead rather used as a regulatory governance instrument and does little to improve the education field (cf. Cook & Shadish, 1986; Whitley, 2007). Since there is no clear evidence that systemic evaluation has had a positive effect on HE – on the contrary, there is indication that the system is deteriorating on several dimensions – this paper contends that evaluation primarily serves the managerial regulation of the system at the organizational level, and does not
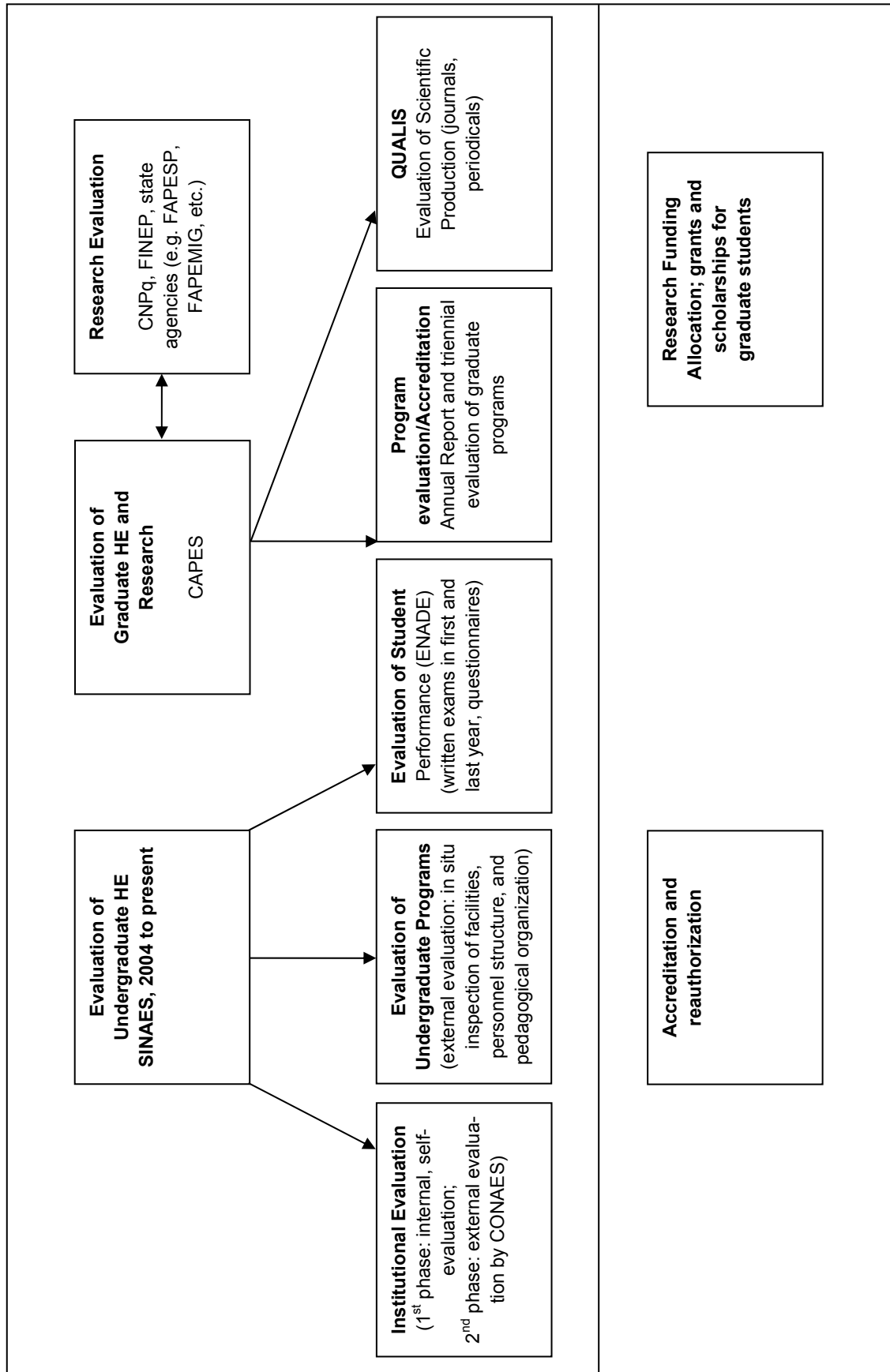
improve the quality of education in terms of better learning/teaching conditions for HE participants.

In the following, we *first* present a brief overview of evaluation exercises in the country, then focus on the indicators used to evaluate the system. Against this background, we explore the impact of evaluation systems on the relevance of education, on racial and regional equity, and on efficacy in order to assess our hypothesis that evaluation of HE in Brazil is serving only a regulatory function. In a *second* step, we present the rationales behind the introduction of evaluation systems in the country and discuss how this regulatory evaluation seems to follow an international 'call for accountability'. In a *concluding* section we discuss different (theoretical) perspectives on this development: first, in what one could term 'marketization and de-politization/ de-nationalization perspective', some authors (e.g., Dias Sobrinho, 2010) argue that perhaps evaluation only helps foster further marketization of the HE system since it provides incentives for competition and fosters the creation of a segmented field of HE following a credentialing rationale (Bruno, 2010). On the other hand, the introduction of evaluation may also be seen as one articulation of rationalized governance models that are being institutionalized worldwide (see for instance Ramirez, 2009). The discussion in the final part of the paper indicates the need to take a closer look at governance instruments as to their different rationales and diverging effects.

1.1 Higher education evaluation in Brazil since the 1990s

This section presents a brief overview of evaluation efforts in Brazil, in particular since the mid-1990s. Brazil's HE landscape is centrally organized and administered. There is a federal HE Secretariat in charge of planning, orienting, and supervising all institutions in the country, no matter if these are federal, state, or municipal institutions or if they are part of the public or private sector. In 2008, 5 million students were enrolled in a total of 2,252 HE institutions in the country, of which 2,016 (89 %) were in the private sector – the for-profit part encompasses 70 % of the total number of institutions (1,579) in the country (INEP, 2008). In fact, 20 out of the 30 largest institutions (by number of students) are private ones (INEP, 2009, p. 32). HE institutions in Brazil are distributed among three types: 'faculdades', university centers, and universities (Law 5.773 from May 9, 2006).[2] Article 52 of the law 9.394/96 – the National Education Law of 1996 – determines that universities are pluridisciplinary institutions that combine the professional training, research, and university extension.[3] The law also specifies that at least a third of the university staff members must have an academic degree of 'mestrado'[4] or doctorate and be employed in full-time positions (Law LDB 9.394/96, Chapter IV). The majority of institutions are either faculdades (1,911) or university centers (124) where teaching is the primary mission (see also Amos, Bruno & Parreira do Amaral, 2008, p. 133 ff.).

Figure 1:   Teaching and research HE evaluation system in Brazil

Evaluation of Undergraduate HE
SINAES, 2004 to present

→ **Evaluation of Student** Performance (ENADE) (written exams in first and last year, questionnaires)

→ **Evaluation of Undergraduate Programs** (external evaluation: in situ inspection of facilities, personnel structure, and pedagogical organization)

→ **Institutional Evaluation**
(1st phase: internal, self-evaluation; 2nd phase: external evalua-tion by CONAES)

Evaluation of Graduate HE and Research
CAPES

↔ **Research Evaluation**
CNPq, FINEP, state agencies (e.g. FAPESP, FAPEMIG, etc.)

→ **QUALIS**
Evaluation of Scientific Production (journals, periodicals)

→ **Program evaluation/Accreditation**
Annual Report and triennial evaluation of graduate programs

Research Funding Allocation; grants and scholarships for graduate students

Accreditation and reauthorization

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Evaluation exercises in HE are not novel to Brazil, whereby both the private and the public sectors are subjected to assessment. Since the mid-1970s both teaching and research have been regularly evaluated. Across this period of time, different phases and different rationales for evaluating HE have been endorsed, without ever pursuing an integrated and coherent system of evaluation. At the beginning, only graduate courses were evaluated by the Coordinators for the Improvement of Higher Education Personnel (Coordenação de Apefeiçoamento de Pessoal de Nível Superior, CAPES), research activities fell under the jurisdiction of the National Council of Scientific and Technological Development (Conselho Nacional de Pesquisa, CNPq) as well as of the various state research support agencies (FAPESP, FAPEMIG, FAPERJ, etc.). From the mid-1990s onwards, a division of labor has been in place at the federal level: the National Institute of Educational Research (Instituto Nacional de Estudos ePesquisas Educacionais Anísio Teixeira, INEP) is responsible for the evaluation of undergraduate higher education, and CAPES, CNPq and the diverse state agencies evaluate the graduate level and research. Figure 1 summarizes all components of the current evaluation system in Brazil.

After several reforms and readjustments, the Ministry of Education created a National Commission on Evaluation and in 1993, its assisting committee proposed the Program of Institutional Evaluation of Brazilian Universities (Programa de Avaliação Institucional das Universidades Brasileiras, PAIUB). This system was oriented towards a qualitative and formative evaluation of institutions: viewing the process as an organic one, it stressed the self-evaluation of the institutions in their various dimensions. In 1996, a new Law of guidelines and bases for education was passed, which progressively established other mechanisms of evaluation, shifting the rationale and function of evaluation towards an instrument of regulation. Although the new model also included the analysis of the conditions of institutional offerings and an institutional evaluation, the aspect that gained greatest importance was the National Examination of Courses (Exame Nacional de Cursos, ENC), an annual compulsory test administered to students at the concluding level of some selected courses (cf. Bruno, 2010; Paula, Azevedo & Sinder, 2004). Even though the results of the ENC implied a sanction for poor performance (e.g. *ultima ratio* loss of authorization), the 'high stakes' components of this system were never practised (Verhine & Dantas, 2005); their wide-spread publication in the media, however, led to the establishment of a ranking of the institutions evaluated, thus fostering competition. Unlike most other countries, Brazil allows institutions to be legally for-profit, which has simplified matters for for-profit companies, boosting their increase. For this reason the expansion of HE in Brazil during the past twenty years developed mainly in the private sector (cf. PROPHE, 2008).

Faced with mounting criticism,[5] the Ministry of Education set up a commission to discuss the evaluation of HE (Comissão Especial de Avaliação, CEA), which pre-

sented a proposal for a new system of evaluation that came to be known as SINAES (Sistema Nacional de Avaliação da Educação Superior, English: National System of Evaluation of Higher Education) implemented in 2004.

The new system was to incorporate more formative elements to the regulatory framework of the system described above, also enabling the participation of those involved in the process. Thus, there is, at least in principle, a dual aim in SINAES: first, an *educational* (formative) evaluation with view to improving the quality and capacity of HE and second, a *regulatory* evaluation, aiming at supervising, authorizing, and accrediting institutions and programs. SINAES is composed of three main pillars, i.e. the evaluation of (1) institutions, (2) programs, and (3) student performance (Exame Nacional de Desempenho de Estudantes, ENADE).

The crucial element in the evaluation system remained the evaluation of student performance; however, there are differences in the organization of the evaluation. ENADE is administered every three years, it encompasses students entering and completing the programs. According to the original concept, the system aimed at measuring the 'trajectory' rather than performance: it should use predefined criteria for the evaluation and considering the various processes and dimensions of HE; adopt a low-profile in the publication of the results; and avoid the use of rankings. Throughout the implementation process, many changes were introduced that altered the original formulation, almost completely negating the original idea (cf. Sguissardi, 2008, p. 858). Among the many changes SINAES underwent during the past years, the most radical were the introduction of the Preliminary Grade of Programs (Conceito Preliminar de Cursos, CPC)[6] and a General Index of Programs (Indíce Geral de Cursos, IGC)[7] in 2008. The IGC and the CPC are in fact a ranking of the programs (and thus of institutions) according to their performance in ENADE, mainly disregarding the other two components of SINAES. The results of this evaluation system have received much attention in the media; they serve not least the purpose of regulating HE in Brazil. There are in fact important sanctions for recurrent low performance. In September 2009, the Higher Education Secretariat suspended among others ten programs in Education (mainly teacher training and school administration programs) graded 1 or 2 (5 is the highest score) due to the poor performance of their students and in the evaluation of infrastructure and faculty profile of the institutions between 2005 and 2008 (ENADE and IGC/CPC). In what concerns the central pillar of Brazilian HE evaluation, compulsory student testing has implied in the past, and continues to do so, a gradual standardization of courses, since the exams are designed centrally by the commission charged with evaluation of HE. However, not all courses and disciplines are evaluated in every cycle.

At the graduate level, CAPES is the agency responsible for evaluating the courses (master's and doctoral degree programs) and of scientific production (journals). *First*, there is an annual report and a triennial evaluation of graduate programs, which are

graded 1 to 7 (7 being the highest score). Decision for reauthorization is based upon these grades, they are also considered when grants for students (scholarships) are reviewed. S*econd*, CAPES evaluates the proposals for launching new programs. *Third*, the evaluation of scientific production – called Qualis – ranks scientific journals according to their Impact Factor, in disregard of important differences of scientific (sub) disciplines and, most importantly, of the level of circulation, national or international. As a matter of fact, CNPq research grants are always considered with reference to the publication rate in journals with the highest rank. Moreover, academics are required to register with the Lattes CV System which is a component of the Lattes Platform developed for the CNPq, and used by the MCT (Science and Technology Ministry), FINEP (Projects and Studies Financing), CAPES/MEC, and all institutional actors, such as the Brazilian scientific community, as a curricular information system for the evaluation of competences of candidates to scholarships and/or research funding; for the selection of consultants, members of committees and advisory groups; to allow the evaluation of post-graduate teaching and research. Scholarship and research grants depend on the existence of a registered CV.

1.2   HE evaluation: The impact on relevance, on racial and regional equity, and on efficacy

Evaluation of HE is deemed to assess and improve its quality; however, there is no unified understanding of what quality means nor by which indicators it can be captured. Nevertheless, there are several initiatives for the operationalization of evaluation through indicators of quality – several inter- and transnational organizations have developed a number of indicator sets, among them the OECD/CERI, UNESCO, EU, and the World Bank (cf. Altbach, Reisberg & Rumbley, 2009, chap. 4; OECD & IMHE, 1999).[8] More recently, the World Bank and UNESCO have set up a Global Initiative on Quality Assurance Capacity which aims at harmonizing quality assurance practices across the world (World Bank & UNESCO, 2010). Also, there is much discussion about HE quality monitoring systems in the context of regional integration in the Ibero-American region (see e.g. Fernández Lamarra, 2008). These initiatives have in common a set of indicators that account for *input, process, and outcomes*.

Data is generated mainly by three agencies: INEP, CAPES, and CNPq. These three institutions are quite closely related in the field of HE. INEP assesses the degree courses producing indicators and a system of information, research, and statistics that underpins the process of implementing public policies for the sector. CAPES – besides fostering the training and improvement of human resources subsidizing research by students and faculty members inside and outside the country – conducts the evaluation of graduate programs and of scientific journals. Both are linked to the Ministry of Education. CNPq is part of the Ministry of Science and Technology; its aim is the promotion of scientific and technological research and training of human resources in

the area of research. These three institutions work together to support and implement public policies of education, research, and extension activities in the HE field.

In Brazil, the agency responsible for higher education statistics is the Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (INEP). INEP conducts an annual census of HE and is responsible for the evaluation of undergraduate HE. There is, however, no integrated system of indicators for the evaluation of HE in the country.[9]

Table 1:   Relevant indicators in the assessment of HE quality

INPUT	HE financing	– Expenditure on HE (public and private) according to GDP
		– Expenditure on HE per student
		– Expenditure on R&D according to GDP
	Number and qualification level of faculty members	– Ratio of students per faculty members
		– Ratio of faculty members with high qualification according to institutional type
PROCESS	Commitment of faculty members	– Number of faculty members with exclusive commitment
	Diversification of institutions and programs	– Number of students according to institutional type
		– Number of students according to domain
	Level of internationalization	– Number of students participating in international exchange
		– Number of faculty members participating in international exchange
	External evaluation	– Number of institutions evaluated externally
		– Number of programs evaluated externally
	Performance	– Percentage of programs with high performance levels in evaluation exercises
		– Percentage of students concluding programs
		– Percentage of students dropping out in the first year
	HE impact on socioeconomic development	– Rate of employment of HE graduates according to labor force
		– Number of publications per academic staff member (average and per domain)
	Social and regional equity	– Percentage of students according to share of population aged 18–24
		– Ratio of students per ethnic group according to representation in the population
		– Ratio of students per region and population of that region
		– Percentage of programs with high levels of performance according to region (Geocapes data)

In line with other students of HE in the Ibero-American region we "insist on the unavoidable need to link quality with pertinence, equity, social responsibility, cultural diversity, and the specific contexts within which it will develop" (Dias Sobrinho, 2008, p. 85). In order to discuss the evaluation of Brazilian HE, we define shorthand quality of HE as relevance,[10] racial and regional equity, and efficacy as core elements of education and review official statistical and quantitative data to question the impact of evaluation in the country. Data used in this article has been drawn mostly from the statistical publication 'Censo da Educação Superior' (INEP, 2000, 2008, 2009), from the Ministry of Science and Technology (2004, 2010), the Internet website of CAPES[11] as well as from the HE secretariat (Secretaria da Educação Superior, SESu). Table 1 summarizes the indicators often considered most important to assessing the quality of HE.

An exhaustive examination of all important indicators of quality as summarized above is beyond the scope of this paper. We do not intend to present a comprehensive study of all the indicators mentioned above or attempt to 'evaluate evaluation' of HE in Brazil. Rather, in the following discussion we review only some of the most important variables in considering the quality of higher education in order to illustrate the developments in the country. The indicators discussed here were chosen according to their availability for the years 1994[12] and 2007/2008 in official data available from government sources in Brazil. As what concerns the *input indicators*, the level of funding and adequate academic infrastructure as well as qualified personnel may count as central variables in assessing quality. Average expenditure in HE in relation to the GDP has not increased substantially between 1994 (0.59 %) and 2007 (0.80 %). What at first appears as an increase is in fact a substantial decrease of HE funding when considering that during the same period the number of enrolments surged from 1,661,034 (1994) to 5,080,056 (2008).[13] Thus, the expenditure on HE per student has decreased significantly between 1994 (R$ 24,262,69) and 2008 (R$ 14,763,00).[14] The level of investment in research and development (R&D) as the proportion of the GDP has slightly increased during the past years amounting to 0.26 % in 1996 and to 0.77 %,[15] in 2008 respectively. However, the number of HE institutions also increased exponentially. While there were 851 HE institutions (among these 127 universities) in 1994, this number had risen to 2,252 (among these 183 universities and 124 university centers) in 2008.[16]

The ratio of students per faculty member and the ratio of faculty members with high qualification (usually a doctoral degree) are also important factors in assessing the quality of HE. The average number of students per faculty member in 2008 is 15.8, the rate being slightly higher in the southeast region (16.5) and the North (16.8). This figure has changed significantly since 1994 when the ratio was 10.6 %.[17] The difference between private and public sectors is also notable: 11.4 % in the public and 18.2 % in the private sector.[18] The ratio of highly qualified faculty members varies

substantially according to the institutional type: in universities the percentage of Ph.D. holders is 38.8 %, but this figure varies from state to state and even from one institution to the next. There has been a substantial increase since 1994, when this figure was 15.1 %;[19] as noted above the new legislation of 1996 raised standards for universities – accordingly, at least a third of all full-time faculty members must hold a doctoral degree.

Indicators that hint at the *processual* dimension of HE quality might include the number of faculty members with exclusive commitment. Full-time faculty members are usually more concerned with overarching issues in academia, they are more often involved in servicing the university, the scientific community, and the profession. Moreover, they are most concerned with academic governance and long-term research projects. For the year 2008 57.9 % of the faculty members worked full-time in universities, while in university centers and faculdades this rate is 20.9 % and 17.4 % respectively. This means that in 2008, the vast majority of faculty members was recruited on the basis of hourly wages (universities 21.9 %; university centers 54.3 %, and faculdades 63.2 %).[20] Figure 2 shows the distribution according to institutional type, the numbers refer to 'teaching functions' (funções docentes) pointing to the fact that many faculty members hold positions in different institutions.

Figure 2:   Commitment of faculty members according to institutional type 2008
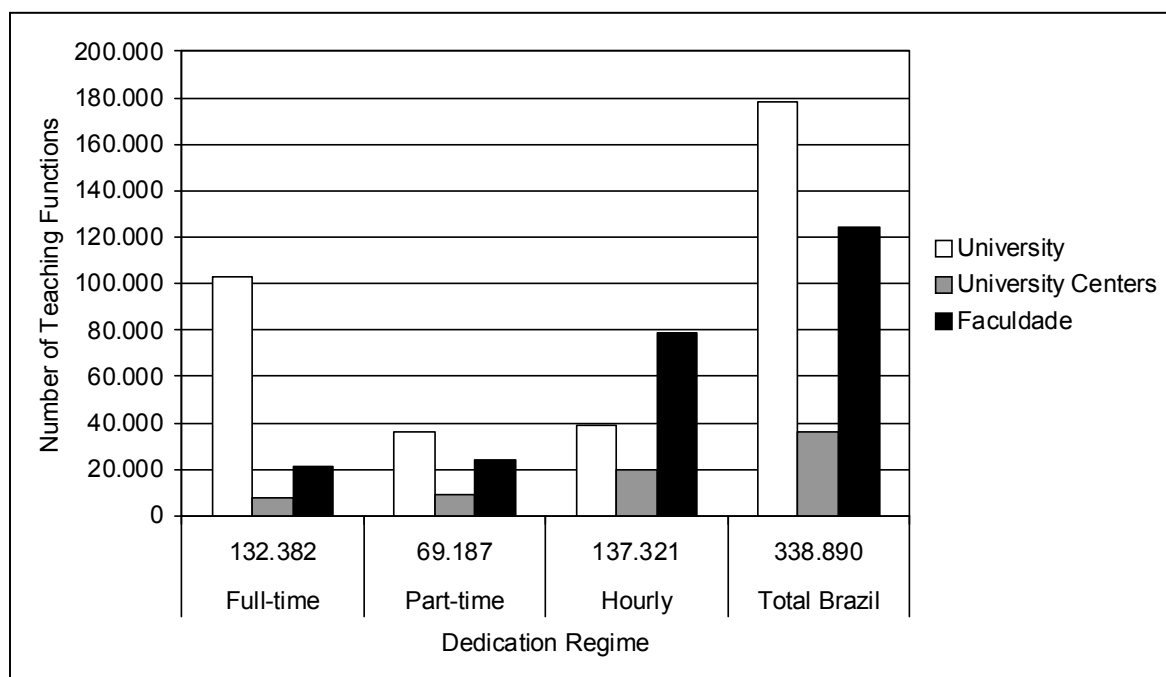
In the past, there has been a movement towards diversifying the HE system in the country, strongly advocated by international organizations such as the World Bank (see World Bank, 1994, 2000). Even though the number of institutions increased sub-

stantially, the relations among the institutional types are still very disproportional: while in 1994 approximately 15 % of all institutions were full universities, in 2008 this number has almost halved: 8.1 %; the percentage of faculdades, on the other hand, increased from 74 % in 1994 to 86 % in 2008.[21] The distribution of students according to institutional type also shows only moderate changes: in 1994 approximately 62 % of all students were enrolled in universities, 12 % in university centers, and 25 % in faculdades; for 2008 these figures are: 52 % in universities, 14 % in university centers, and 32 % in faculdades. Thus, the majority of students is still enrolled in universities.[22] A further important process indicator refers to the evaluation of institutions and programs that are evaluated externally. The data gathered by Bertolin (2007, p. 233) shows that while in 1996 only 9 % of the programs were evaluated externally, this number has increased to 36 % in 2003. The increase is due to the binding character of the new system for which institutions and programs are selected centrally for evaluation, contrasting with the voluntary character of PAIUB.

Figure 3:   Regional distribution of graduate programs with the highest scores 2008
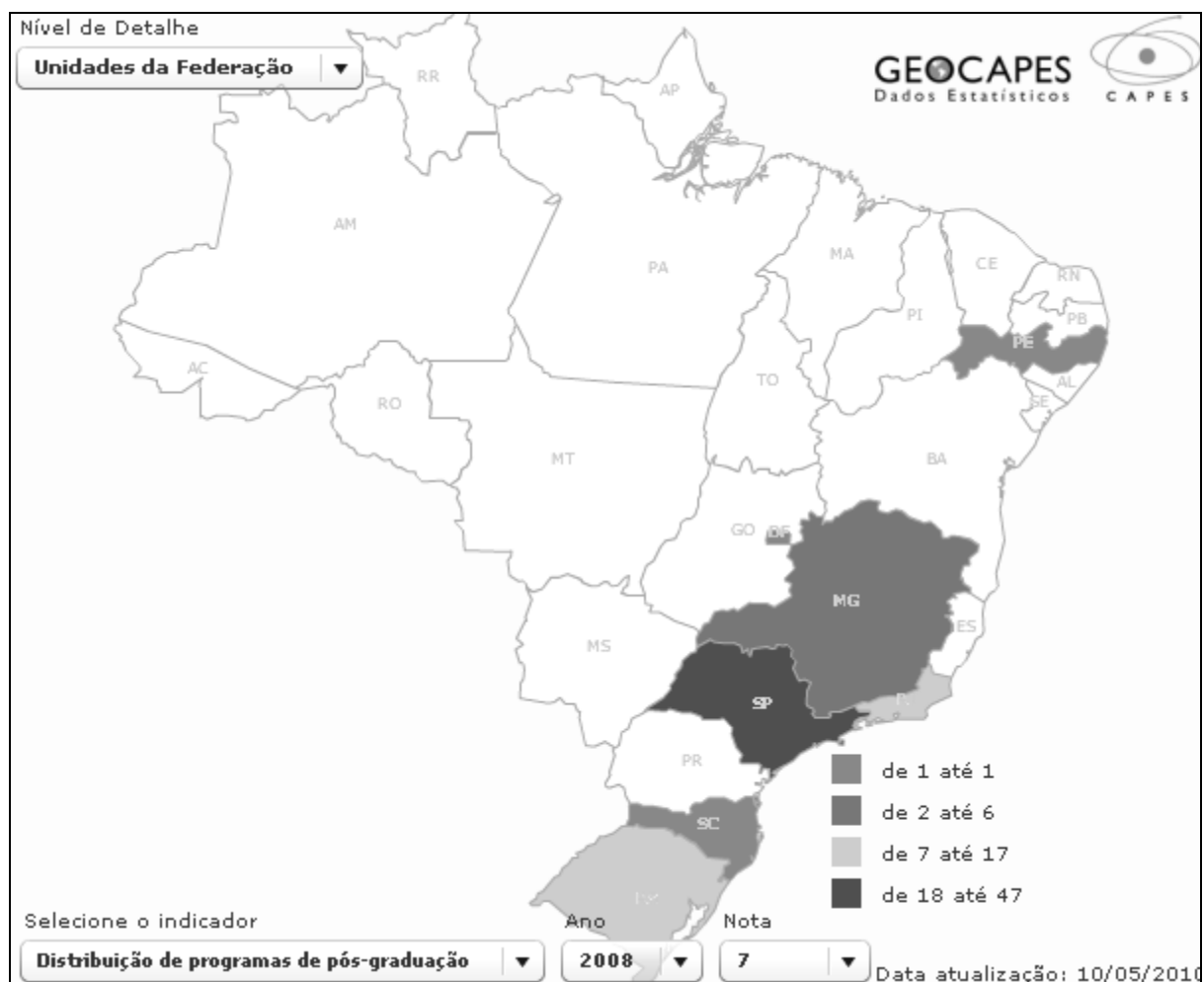
Source: Geocapes, 2010.

Among the indicators liable to represent *outputs and outcomes* are those that indicate the number of programs with high performance levels. In 1998 – the year for which data is available – all programs with the highest performance were located in four states in the Southeast and South of Brazil, by 2008 this unequal distribution had not changed indicating the unchanged regional inequity of Brazilian HE. For many specialties students from north or northeast Brazil still have to travel south. Figure 3 shows the regional distribution of graduate programs with the highest scores.[23]

Even though there has been an exponential increase in the number of available places (the vast majority in the private sector), this growth is concentrated in the South and Southeast, with no substantial effect on the country's other regions. From the 2,252 institutions (2008), 1,439 are located in the South and Southeast, i.e., 63 % of all institutions are concentrated in seven of 26 states, plus the Federal District Brasília.

Also, the number of students successfully concluding programs indicates the overall efficacy of the HE system. Figure 4 shows the number of students graduating in public and private institutions; the figure shows that the growth in the private sector has been substantially greater than in the public sector.

Figure 4:   Total number of students concluding programs (undergraduate) 1994/ 2008 in the public and private sectors
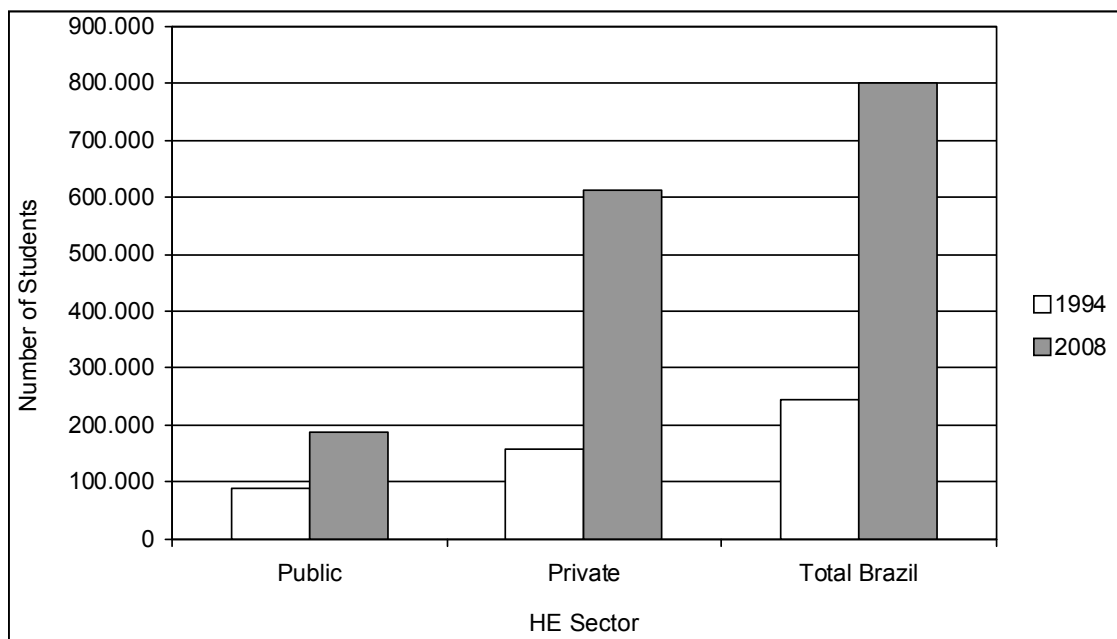
Source: INEP, 2000, p. 29, 2008, table 6.1; own calculation.

The distribution of graduates according to the three different types of institutions shows that apart from a shift to the private sector, the majority of students still graduate from universities (which are mainly in the public sector), see figure 5.

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Figure 5:   Students concluding undergraduate programs 1994/2008 according to in-
            stitutional type
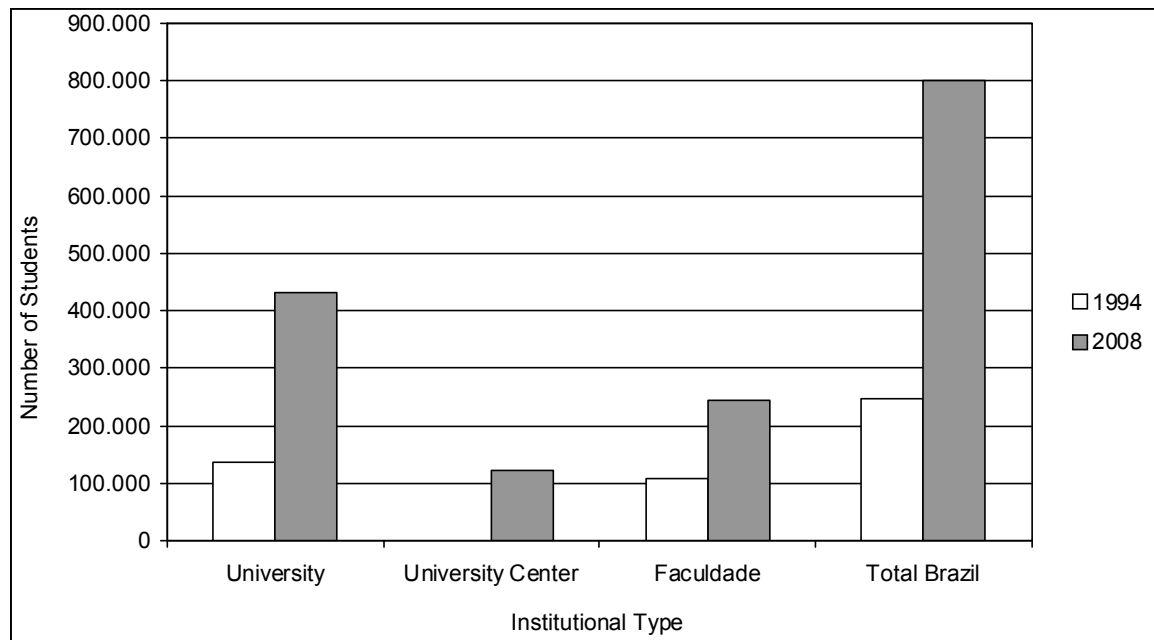
Source: INEP, 2000, 2008, table 7.1; own calculation.

A review of further key figures of the HE landscape in the country reveals the highly selective and inequitable nature of HE in Brazil. The raw enrolment rate in HE in Brazil is approximately 20 % (GUNI, 2008), i.e. the total number of students enrolled at the higher level, of all ages, compared to the total number of students aged 18–24 (Dias Sobrinho & Brito, 2008, p. 493). Access to HE in the country is controlled via decentralized and highly competitive entrance examinations (called vestibular) administered by each institution. The discrepancy in the access rates between the public and the private HE sector is notable: in 1994 12 % of the candidates succeeded in entering public institutions via the vestibular, while 32 % in the private sector did so; these figures changed only in the private sector in 2008: 12 % of the candidates entered public institutions and 38 % in the private sector.[24] Even if some institutions (mainly public universities) now accept students according to their secondary school performance and their scores in the ENEM examination (*Exame Nacional do Ensino Médio*), and even if quotas were introduced in the early 2000s (see Parreira do Amaral, 2008, p. 121–125), the vestibular still represents the main obstacle to accessing higher education. Figure 6 shows the share of different ethnic groups in the general population (first column left), their representation among the graduates of secondary education (middle column), and their share in HE (right column); the figure shows the obvious overrepresentation of 'whites' (third column from left).

Figure 6:   General population, graduates of secondary level, and representation in HE according to ethnic groups
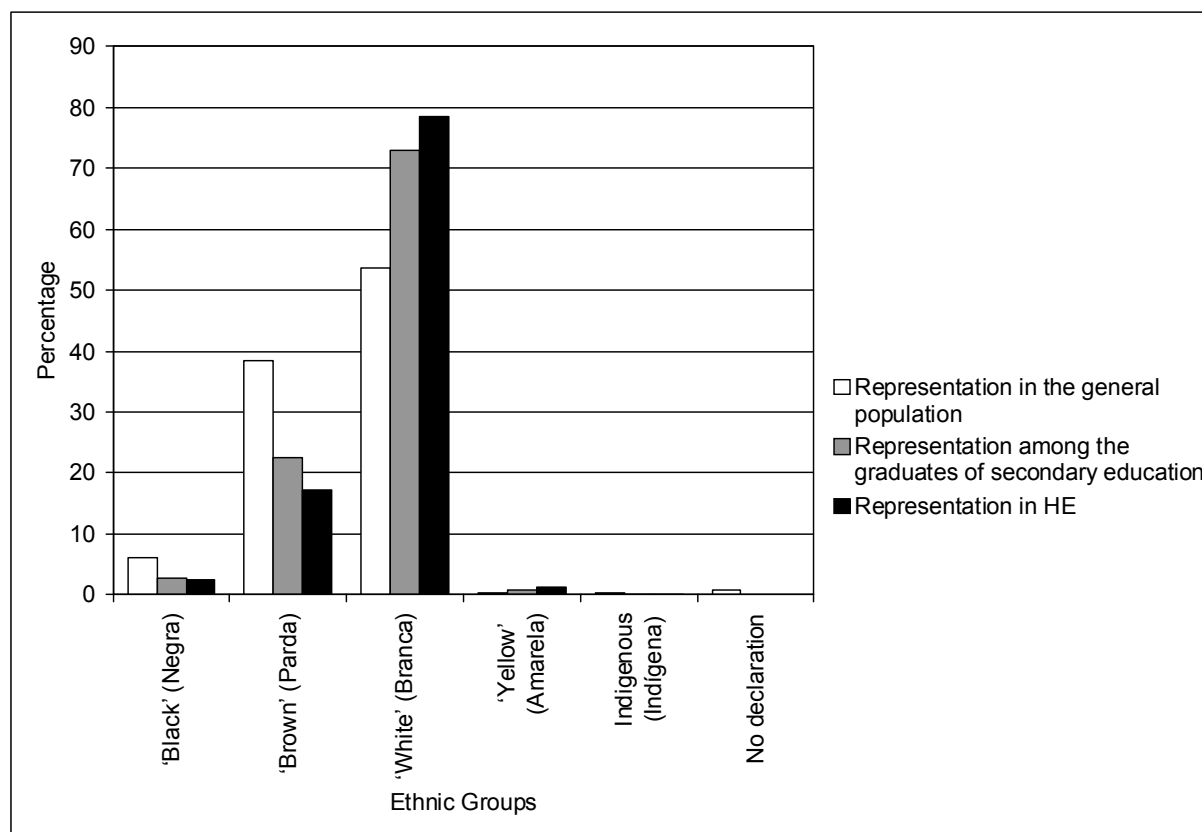
Source: Sverdlick, Ferrari & Jaimovich, 2005, p. 40.

The odds of accessing HE in Brazil are not only closely linked to ethnic origin, as shown in figure 6, but also to socioeconomic status. According to Sverdlick et al. (2005, p. 41 f.) the relationship between family income and access to higher education is a close one: while the highest quintiles (IV and V) have a representation close to 80 % in the public institutions and of 90 % in the private sector, the lower quintiles (I and II) amount to only 7 % for public institutions and 2.6 % for private ones. Moreover, the social selectivity appears to be greater in private institutions, where the concentration around the income quintile V is higher than in the public sector (ibid.).

For almost all indicators briefly reviewed above, there has been no substantial change and some of them have been deteriorating. Even for those indicators that showed some improvement, a closer look reveals signs of deterioration when concomitant developments are taken into account, especially when considering the context of untrammeled expansion of HE. The following section poses questions as to the underlying rationales for evaluation systems in the country.

1.3 Rationales for evaluation of higher education in Brazil

The rationales for implementing HE evaluation systems in Brazil changed over the time. The rationale for introducing evaluation in the previous decades was mainly the attempt to regulate and, to some extent, curb the expansion in the private sector. During this phase, but especially between 1975 and 1985, evaluation was used by the military government as a mechanism for regulating the expansion of the higher education system. Its main objective was to respond to the pressures of the various social segments, who while asking for an increase of the numbers of places in higher education also looked for quality of education and for maintaining the value of the diplomas by restricting issuances. In regard to the current developments, as early as 1985, a policy paper of the Sarney administration[25] – 'A New Policy For Higher Education' (Uma Nova Política Para a Educação Superior) – presented evaluation as a crucial instrument for the "rational distribution of its [federal] resources", assigning to it a privileged role in the processes of regulation and control of the higher education system (Ministério de Educação e Cultura, 1985, p. 68). This position also characterizes the succeeding administrations (Franco 1992–1994, Cardoso 1995–2003) and despite all other political differences, also of the Lula da Silva administration. The current system of HE evaluation in Brazil – despite temporary positive developments – has maintained the regulatory and punitive logic of a strong evaluation system.[26] It fosters competition among institutions and programs (and also among the different administrative levels – state, federal – as well as among private and public institutions). Furthermore, it discards autonomy and installs heteronomy, leading to conformity not to a real culture of evaluation for the sake of quality and social accountability (cf. Sguissardi, 2008, p. 861). The results of the evaluation exercises have direct – if not always immediate – consequences for organizational survival, since performance is taken into account in the decision process of re-accreditation of institutions and new programs. Indeed, organizational mortality is a deserving research topic in the country. Also, research funding and scholarship grants are dependent on performance in evaluation. It is also worth noting that a large proportion of research in the country is assisted by graduate students.

Against the background of our definition of quality in higher education and in view of the indicators discussed above, it becomes clear that the evaluation exercises in the country fulfilled rather a regulatory function. From a holistic perspective, i. e., in what concerns the relevance, social, regional and racial equity of higher education, a positive impact of evaluation on the quality of HE in Brazil is to be doubted. Evaluation is rather part and parcel of an international trend in education policy that one of us has characterized elsewhere as an International Education Regime (IER) (Parreira do Amaral, 2007, 2010). The main features of this IER are a largely functionalistic definition of what education is or should be – not *Bildung* for human development in the humanistic sense, but instruction, (measurable) competences and skills for employable

individuals for a global knowledge economy; while education is admittedly open to all – Education for all – it has paradoxically tended to foster a "segregative democratization" (Duru-Bellat, 2006, p. 20), for instance through the euphemistic 'diversification' of the education sector, which amounts to separating 'mass' from 'elite' institutions. Education policy is placed under the sign of output and accountability – with all the associated managerial concepts: efficiency, efficacy, evidence as well as outcome orientation. This 'accountability regime' also has severe implications for the justification and legitimation of education policies (Radtke, 2010); the latter seems to be under siege of the "methodological fundamentalism" described by Ernest House (2005, p. 1078). It can be now observed that these features are being diffused globally (Kamens & McNeely, 2010; see also Lamarra, 2010). Discussions about education and education policy are significantly influenced by this 'accountability regime' and have been widely debated in the academia along the terms of 'economization', 'marketization' or 'commodification of education'. These are, however, not the only explanations of these developments; the discussion in the following section briefly addresses (theoretical) approaches to explaining why evaluation (as part of this 'accountability regime') proliferates even in the absence of a positive impact.

2. Discussion: Theoretical approaches to the diffusion of the 'accountability regime'

Approaching the issue from different vantage points one may explain the diffusion of evaluation (and other related accountability policies) either as a development following the neoliberal globalization of free market ideology or see its worldwide proliferation as the diffusion of models of a World Polity (see below). Some commentators have rightly argued that evaluation and other accountability instruments have fostered the privatization and commodification of higher education without raising quality standards (Bertolin, 2009, p. 378 ff.; Dias Sobrinho, 2010). Following this viewpoint, evaluation systems function as reform instruments that contract the public and decidedly incentive the private sector, backed by central government, particularly the Brazilian Ministry of Education, leading to the expansion of the business segment (Dias Sobrinho, 2010, p. 202). While this view accounts for the force driving the diffusion of evaluation systems worldwide, it fails in explaining why evaluation is currently seen as a panacea even when it obviously lacks evidence of efficiency or when its side effects bear negative impacts on the system.

On the other hand, institutional analysis explains the international trend towards 'accountability' with reference to 'normative and mimetic pressures' towards world models. Ramirez (2009, p. 7) puts it this way:

> Universities as national institutions are increasingly rationalized as organizational actors expected to commit themselves to the broad goals of greater accessibility/diversity and social usefulness/relevance. Universities are further expected to function as effective and flexible

organizations. Absent an efficacious technology to produce higher education quality, but a strong interest in becoming a good or better or even world-class university, universities are subjected to normative and mimetic pressures.

World polity research has pointed out that science is to be seen as a world institution in modern societies (Drori & Meyer, 2006; Drori, Meyer, Ramirez & Schofer, 2003). Scientific rationalization and rationalized governance (Drori, Jang & Meyer, 2006) are currently two of the most powerful forces driving most efforts to improve education systems worldwide, to make them more efficient and effective in terms of outcomes and of resources utilized. Scientization can be understood as an attempt to "discipline and rationalize the uncertainties of modern social environments," (Drori & Meyer, 2006, p. 31) enabling better organization, management, and regulation of social affairs (e.g. education). Three different dimensions of this scientific rationalization process may be discerned: *First*, a scientific rationalization which relies on scientific knowledge of the kind produced in universities – this kind of knowledge is deemed to be value-free and based upon specialized expertise, thus, able to expand the capacity to control and foresee social phenomena (Drori et al., 2003). *Second*, one may see attempts towards rationalization through the introduction of tightly-coupled management technologies[27] (e.g., Fusarelli & Johnson, 2004). New public management techniques such as monitoring, evaluation, market simulation and the like are well known examples of this type. *Third*, there is a trend towards social rationalization that refers to changing social institutions towards greater inclusiveness, usefulness, as well as flexibility and effectiveness (Ramirez, 2006, 2009). Scientization, rationalization, and rationalized governance share a "common logic … stressing orderly, impersonal, rule-based, and merit-based administration" (Drori et al., 2006, p. 207). In its current predominant neoliberal model, governance focuses "on accountability rather than on hierarchical authority" (ibid.).

Discussing evaluation as an educational policy one has to acknowledge its highly legitimate nature; evaluation and quality monitoring systems are perceived as being neutral, technical instruments void of any normative and ideological content. The institutional perspective invites us to look closer at more abstract and taken-for-granted aspects of education policies and to inquire why particular policies are favored over others, as is currently the case with evaluation.

In this vein, the emergence and diffusion of teaching and research evaluation systems can be seen as an instrument of knowledge production for the international governance of education (see Amos et al., 2008; Amos, 2010).

3. Conclusion

Discussions about education and education policy have been significantly influenced by the 'accountability regime' described above; several authors (e.g., Apple, Kenway & Singh, 2005; Lohmann & Rilling, 2002; Giroux, 2010) have discussed its effects

along the terms of 'economization', 'marketization' or 'commodification' of education. From this viewpoint, the 'accountability turn' in general and evaluation in particular serves the marketization/privatization of education because it fosters competition, diversification of institutions – thus leading to segmentation, and to a credentialing rationale. However, as the brief discussion of institutional research shows there are other theoretical positions on these developments that have to be considered when discussing evaluation. To be sure, the review of the data on indicators presented above has been highly selective and does not allow us to draw final conclusions. It demonstrates, however, that of the indicators of the *input* dimension (expenditure according to GDP, expenditure per student, investment on R&D, student/faculty ratio, among others) only the number of Ph.D. holders among the faculty members has developed in a distinctly positive way. All the other indicators either display a negative movement or show only slight improvements which are immediately relativized by concomitant developments (see above). As far as the process indicators are concerned (e.g., number of faculty members with exclusive commitment, distribution of students according to institutional type, number of programs evaluated externally, etc.) they also show only little progress, except for the number of programs with external evaluation that have increased exponentially. Our review of selected indicators liable to picture outputs and outcomes (e.g., number of programs with high performance scores, number of students concluding programs) shows that while there has been an enormous expansion, the increase in numbers of high performance programs and the number of students successfully concluding programs have been highly unequal according to regional, racial, and social dimensions. The question as to whether evaluation systems have improved the quality of HE in Brazil – in terms of offering a high standard educational experience to students and in terms of asserting it as a public good that furthers knowledge and training as a universal social and human right; and in terms of its contribution to economic development, with social, regional and racial justice – has to be answered in a negative way. The answer to the question as to whether evaluations have successfully served the regulatory function imparted in the overall governance of education is definitely positive: evaluations are transforming higher education institutions in Ibero-America.

Notes

1. See also the papers in the Brazilian journal 'Avaliação', the journal of the network in institutional evaluation of higher education in the country (RAIES). Retrieved October 25, 2010, from http://www.scielo.br/scielo.php?script=sci_issues&pid=1414-4077&lng=en&nrm=iso
2. The term 'faculdade' is often used synonymously with 'integrated faculties, faculties, higher institutes or higher schools'.
3. 'Academic extension services' (Extensão universitária) aims at building a bridge to other segments of society in that it offers knowledge/know-how and services to the community in which it is inserted.

4. 'Mestrado' is the first academic degree in graduate studies. It brings together some of the characteristics of M.A. and Ph.D. programs. In general, 'mestrado' programs aim at furthering research while at the same time training students for research and higher education teaching positions. Until a few years ago, 'mestrado' used to be the average minimum requirement for a university career, but since the mid-1990s it has been supplanted by the doctorate which is today the minimal requirement.

5. In fact, since the examination was compulsory – one could not be granted a diploma without participating – students have shown strong resistance, and boycotted the tests in substantial numbers (cf. Paula et al., 2004).

6. The Preliminary Grade of Courses was established as an indicator for renewal processes of authorizations of courses within the SINAES system. The CPC ranks courses from 1 to 5 and involves on-site evaluation (except for those courses reaching the mark of 5. Grades 1 and 2 are included automatically in the on-site evaluation; grade 3 is considered satisfactory and institutions may opt for the visit or not. The CPC includes different variables: results of the assessment of student performance, infrastructure and facilities, pedagogical resources, and faculty members (cf. http://portal.mec.gov.br/index.php?option=com_content&view=article&id=14384#conceito_preliminar_de_curso_cpc retrieved October 26, 2010).

7. The General Index of Courses was established to consolidate HE information contained in the records, census, and in the official assessments available at INEP and CAPES. It is calculated on the basis of a) weighted average of Preliminary Concepts Course, determined by enrollment in each of the corresponding undergraduate courses and b) weighted average based on the enrollment in each course or graduate program in question (cf. http://www.inep.gov.br/areaigc/ retrieved October 26, 2010).

8. For a concise definition used in HE papers of UNESCO-Cepes see: Vlăsceanu, Grünberg & Pârlea, 2004.

9. See for a first attempt to integrate indicators of quality in the operationalization of HE evaluation in Brazil: Bertolin, 2007.

10. The category 'relevance' refers to the impact of education on individuals and society in terms of adequacy of the earned qualification for significant working and personal experiences; it has thus both an individual/subjective (e.g., social integration) and a socioeconomic (human capital) dimension.

11. See: http://geocapes.capes.gov.br/geocapesds/# retrieved October, 25, 2010.

12. For some indicators for which data for 1994 was not available, data from 1996 were used.

13. Source for 1994: INEP, 2000; for 2008: INEP, 2009.

14. Source for 1994: Secretaria da Educação Superior, 2002; for 2008: INEP, 2010; amounts in Brazilian Real.

15. Source for 1996: Ministério de Ciência e Tecnologia, 2004; for 2008: Ministério de Ciência e Tecnologia, 2010.

16. These numbers include all types of institutions in all levels of administration. To be sure, not all institutions pursue research missions (only universities and university centers do), but even when excluding non-research institutions, the increase is still significant. Sources: for 1994: INEP, 2000, for 2008: INEP, 2009.

17. Source for 1994: INEP, 2000, p. 19 and 37; for 2008: INEP, 2009, p. 27.

18. Source: INEP, 2008, table 2.6

19. Source for 1994: INEP, 2003, p. 32; for 2008: INEP, 2009, p. 26.

20. Source: INEP, 2009, p. 26; no data available for 1994.

21. Source for 1994: INEP, 2000, p. 13; for 2008: INEP, 2009, p. 9.

22. Source for 1994: INEP, 2000, p. 19; for 2008: INEP, 2009, p. 18.

23. All programs are ranked by a score from 1 (lowest) to 7 (highest) according to the results of the triennial evaluation process by CAPES; these scores have a direct impact on decision for renewing authorization/accreditation of the programs according to the provisions of the Education Ministry.
24. Source for 1994: INEP, 2000, p. 59 and 64; for 2008: INEP, 2008, table 4.2, own calculation.
25. José Sarney was the president in the first government after the end of the military dictatorship.
26. The term 'strong evaluation system' refers to the characteristics of a particular model of evaluation that is highly institutionalized, takes place on a regular basis with formalized rules and procedures, and links positive and/or negative sanctions to results (see Whitley, 2007, p. 9).
27. The idea of 'tight coupling' contrasts Weick's (2009) concept of educational organizations as 'loosely-coupled' systems. Schools often have conflicting, poorly defined goals and objectives and no 'core technology' to fulfill their tasks. The links among the policy (e.g., educational program/curriculum), administrative (e.g., school inspection), and operative (e.g., teachers) levels are only weak. Loose-coupling refers, according to Meyer and Rowan, to the "lack [of] close internal coordination, especially of the content and methods of what is presumably their main activity – instruction" (1983, p. 71). Against this background, we may see evaluation as a means of transforming the characteristics of educational organizations from 'loose' into 'tight' coupling.

Bibliography

Altbach, P.G., Reisberg, L. & Rumbley, L.E. (2009). *Trends in global higher education: Tracking an academic revolution. A report prepared for the UNESCO 2009 World Conference on Higher Education*. Retrieved June 09, 2010, from
http://unesdoc.unesco.org/images/0018/001832/183219e.pdf

Amos, K. (Ed.). (2010). *International education governance Theoretical perspectives, themes and areas* (International perspectives on education and society series, Vol. 12). Bingley: Emerald.

Amos, K., Bruno, L. & Parreira do Amaral, M. (2008). The research university in context: The examples of Brazil and Germany. In D. Baker & A. Wiseman (Eds.), *The worldwide transformation of higher education* (International perspectives on education and society, Vol. 9) (pp. 111–153). Bingley: JAI Press.

Apple, M., Kenway, J. & Singh, M. (Eds.). (2005). *Globalizing education. Policies, pedagogies, & politics*. New York: Lang.

Bank, V. (2000). Evaluationswissenschaft in methodischer Rekonstruktion. In V. Bank & M. Lames, *Über Evaluation* (pp. 49–83). Kiel: bajOsch-Hein.

Barreyro, G.B. (2004). Do provão ao SINAES: O processo de construção de un novo modelo de avaliação da educação superior. *Avaliação, Revista da Avaliação da Educação Superior*, 9 (2), 37–49.

Bertolin, J.C.G. (2007). *Avaliação da qualidade do sistema de educação superior Brasileiro em tempos de mercantilização – 1994–2003*. Unpublished doctoral dissertation, Universidade Federal do Rio Grande do Sul, Faculdade de Educação.
Retrieved June 09, 2010, from http://www.lume.ufrgs.br/handle/10183/10339

Bertolin, J.C.G. (2009). Avaliação da educação superior Brasileira: Relevância, diversidade, equidade e eficácia do sistema em tempos de mercantilização. *Avaliação, Revista da Avaliação da Educação Superior, 14* (2), 351–383.

Böttcher, W., Holtappels, H.G. & Brohm, M. (Eds.). (2006). *Evaluation im Bildungswesen. Eine Einführung in Grundlagen und Praxisbeispiele*. Weinheim: Juventa.

Bruno, L. (2010). Evaluation of higher education in Brazil: Rationale and goals. In S.K. Amos (Ed.), *International education governance. Theoretical perspectives, themes and areas* (International perspectives on education and society series, Vol. 12) (pp. 193–216). Bingley: Emerald.

Cook, T.D. & Shadish, W. (1986). Program evaluation: The worldly science. *Annual Review of Psychology*, *37*, 193–232.

Dias Sobrinho, J. (2003). *Avaliação. Políticas educacionais e reformas da educação superior*. São Paulo: Cortez.

Dias Sobrinho, J. (2008). Quality, pertinence, and the social responsibility of the Latin American and Caribbean university. In A.L. Gazzola & A. Didriksson (Eds.), *Trends in higher education in Latin America and the Caribbean* (pp. 83–107). Caracas: UNESCO/IESALC.

Dias Sobrinho, J. (2010). Avaliação e transformações da educação superior brasileira (1995–2009): Do provão ao Sinaes. *Avaliação, Revista da Avaliação da Educação Superior, 15* (1), 195–224.

Dias Sobrinho, J. & Brito, M.R.F. (2008). La educación superior en Brasil: Principales tendencias y desafíos. *Avaliação, Revista da Avaliação da Educação Superior, 13* (2), 487–507.

Drori, G.S., Jang, Y.S. & Meyer, J.W. (2006). Sources of rationalized governance: Cross-national longitudinal analyses, 1985–2002. *Administrative Science Quarterly*, *51*, 205–229.

Drori, G.S. & Meyer, J.W. (2006). Scientization: Making a world safe for organizing. In M.-L. Djelic & K. Sahlin-Andersson (Eds.), *Transnational governance. Institutional dynamics of regulation* (pp. 31–52). Cambridge: Cambridge University Press.

Drori, G.S., Meyer, J.W., Ramirez, F.O. & Schofer, E. (2003). *Science in the modern world polity. Institutionalization and globalization*. Stanford: Stanford University Press.

Duru-Bellat, M. (2006). *L'Inflation scolaire. Les désillusions de la méritocratie*. Paris: Éditions du Seuil/La République des Idées.

Fernández Lamarra, N. (2008). Modelos y sistemas de evaluación y acreditación de la educación superior. Situación y perspectivas para el mejoramiento de la calidad y la integración regional. In A.L. Gazzola & S. Pires (Eds.), *Hacia una política regional de aseguramiento de la calidad en educación superior para América Latina y el Caribe* (pp. 57–108). Caracas: UNESCO-IESALC.

Fielden, J. (2008). *Global trends in university governance* (World Bank Education Working Paper Series, Vol. 9). Washington, DC: The World Bank.

Fusarelli, L.D. & Johnson, B. (2004), Educational governance and the new public management. *Public Administration and Management: An Interactive Journal, 9* (2), 118–127.

Geocapes. (2010). Distribuição de programas de pós-graduação no Brasil por estado (1998 e 2008). Retrieved June 09, 2010, from http://geocapes.capes.gov.br/geocapesds/#app=c501&da7a-selectedIndex=0&5317-selectedIndex=0&82e1-selectedIndex=0

Giroux, H. (2010). Ensino superior, para quê?/Higher Education, what for? *Educar em Revista*, *37* (maio/agosto), 25–38.

GUNI. (2008). *La educación superior en el Mundo 3. Mundi-Prensa*. Madrid: LIMANA.

House, E.R. (2005). Qualitative evaluation and changing social policy. In N.K. Denzin & Y.S. Lincoln (Eds.), *The SAGE handbook of qualitative research* (3rd ed.) (pp. 1069–1081). London: Sage.

INEP (Instituto Nacional de Estudos e Pesquisas Educacionais). (2000). *Evolução do ensino superior no Brasil – graduação 1980–1998*. Retrieved June 09, 2010, from http://www.inep.gov.br/download/censo/1998/superior/evolucao_1980-1998.pdf

INEP (Instituto Nacional de Estudos e Pesquisas Educacionais). (2008). *Sinopse estatística da educação superior 2008* (Versão preliminar). Retrieved June 09, 2010, from http://www.inep.gov.br/superior/censosuperior/sinopse/default.asp

INEP (Instituto Nacional de Estudos e Pesquisas Educacionais). (2009). *Resumo técnico. Censo da educação superior 2008 (Dados Preliminares)*. Retrieved June 09, 2010, from http://www.inep.gov.br/download/censo/2008/resumo_tecnico_2008_15_12_09.pdf

INEP (Instituto Nacional de Estudos e Pesquisas Educacionais). (2010). *Percentual do investimento total em relação ao PIB por nível de ensino*.
Retrieved June 09, 2010, from http://www.inep.gov.br/estatisticas/gastoseducacao/indicadores_ financeiros/P.T.I._nivel_ensino.htm

Kamens, D.D. & McNeely, C.L. (2010). Globalization and the growth of international educational testing and national assessment. *Comparative Education Review*, *54* (1), 5–25.

Lamarra, N.F. (2010). La convergencia de la educación superior en América Latina y su articulación con los espacios europeo e iberoamericano: Posibilidades y límites. *Avaliação, Revista da Avaliação da Educação Superior, 15* (2), 9–35.

Lohmann, I. & Rilling, R. (Eds.). (2002). *Die verkaufte Bildung. Kritik und Kontroversen zur Kommerzialisierung von Schule, Weiterbildung, Erziehung und Wissenschaft*. Opladen: Leske + Budrich.

Mathison, S. (2005). Models of evaluation. In S. Mathison (Ed.), *Encyclopedia of evaluation* (pp. 256–258). Thousand Oaks: Sage.

Meyer, J.W. & Rowan, B. (1983). The structure of educational organizations. In J.W. Meyer & W.R. Scott, *Organizational environments* (pp. 71–97). Beverly Hills: Sage.

Ministério de Ciência e Tecnologia – Brasil (MCT). (2004). *Indicadores nacionais de ciência e tecnologia 2002*. Retrieved June 09, 2010, from http://www.mct.gov.br/upd_blob/0005/5077.pdf

Ministério de Ciência e Tecnologia – Brasil (MCT). (2010). *Brasil: Dispêndio nacional em ciência e tecnologia (C&T) (1), 2000–2008*.
Retrieved June 09, 2010, from http://www.mct.gov.br/index.php/content/view/9058.html

Ministério de Educação e Cultura – Brasil (MEC). (1985). *Uma nova política para a educação superior: Comissão nacional para reformulação da educação superior. Relatório final*. Brasília: MEC.

OECD & IMHE. (1999). *Quality and internationalisation in higher education*. Paris: OECD.

Parreira do Amaral, M. (2007). Regimeansatz – Annäherung an ein Weltweites Bildungsregime. *Tertium Comparationis*, *13* (2), 157–198.

Parreira do Amaral, M. (2008). World cultural patterns: Inequities in higher education and affirmative action in Brazil. *Teoría de la Educación*, *9* (2) 114–132.

Parreira do Amaral, M. (2010). Educational Governance und Regimetheorie. Die Emergenz eines Internationalen Bildungsregimes. In S.K. Amos, W. Meseth & M. Proske (Eds.), *Öffentliche Erziehung Revisited. Erziehung, Politik und Gesellschaft im Diskurs* (pp. 195–223). Wiesbaden: VS Verlag für Sozialwissenschaften.

Paula, M.F., Azevedo, M.D. & Sinder, M. (2004). Avaliação institucional na universidade: O caso da UFF. In M.F. Paula (Ed.), *Debatendo a universidade* (pp.151–182). Florianópolis: Insular.

PROPHE (Program for Research on Private Higher Education). (2008). *Country Data Summary (92 countries) January 2008*. Retrieved June 28, 2010, from http://www.albany.edu/dept/eaps/ prophe/data/international.html

Radtke, F.-O. (2010). Education in the 'Postnational Constellation': The weakening of democratic, expertocratic and ethico-professional legitimation and control. *Educação & Pesquisa, 36*, n.spe, 55–64.

Ramirez, F.O. (2006). The rationalization of universities. In M.-L. Djelic & K. Sahlin-Andersson (Eds.), *Transnational governance. Institutional dynamics of regulation* (pp. 225–244). Cambridge: Cambridge University Press.

Ramirez, F.O. (2009). Accounting for excellence: Transforming universities into organizational actors. In V. Rust, L. Portnoi & S. Bagely (Eds.), *Higher education, policy, and the global competition phenomenon*. Palgrave (quoted from unpublished manuscript of March, 2009).

Salmi, J. (2009). *The growing accountability agenda in tertiary education: Progress or mixed blessing?* (World Bank Education Working Paper Series, No. 16). Washington, DC: The World Bank.

Schwartzman, S. (2005). As avaliações de nova geração nas sociedades contemporâneas. In A. Melo & Souza (Ed.), *Dimensões da avaliação educacional* (pp. 15–34). Petrópolis: Vozes.

Schwartzman, S. (2010). *O impacto dos rankings nas instituições de ensino. Presentation at the 'VIII Congresso Brasileiro de Gestão Educacional', São Paulo, March 2010*. Retrieved August 21, 2010, from http://www.schwartzman.org.br/simon/2010rankings.pdf

Secretaria da Educação Superior – Brasil (SESu). (2002). *Boletim de dados físicos e orçamentários. IFES supervisionadas pelo Ministério da Educação.*
Retrieved June 20, 2010, from http://portal.mec.gov.br/sesu/arquivos/pdf/Bol1994_2001.pdf

Sguissardi, V. (2008). Regulação estatal *versus* cultura de avaliação institucional? *Avaliação, Revista da Avaliação da Educação Superior, 13* (3), 857–862.

Sverdlick, I., Ferrari, P. & Jaimovich, A. (2005). *Desigualdade e inclusão no ensino superior. Um estudo comparado em cinco países da América Latina* (Série Ensayos & Investigaciones, No. 10). Buenos Aires: Laboratório de Políticas Públicas. Retrieved June 09, 2010, from http://www.lpp-buenosaires.net/LPP_BA/Publicaciones/documentos/EI10_Universidad_Portugues.pdf

Verhine, R.E. & Dantas, L.M.V. (2005). *Avaliação da educação superior no Brasil: Do provão ao ENADE*. Retrieved June 21, 2010, from http://www.isp.ufba.br/avalia%C3%A7%C3%A3o%20da%20Ed%20Superior%20do%20Provao%20ao%20ENADE.pdf

Vlăsceanu, L., Grünberg, L. & Pârlea, D. (2004). Quality assurance and accreditation: A glossary of basic terms and definitions. In UNESCO-Cepes, *Papers on higher education*. Retrieved June 09, 2010, from http://www.cepes.ro/publications/pdf/QA&A%20Glossary.pdf

Weick, K.E. (2009). Bildungsorganisationen als lose gekoppelte Systeme. In S. Koch & M. Schemmann (Eds.), *Neo-Institutionalismus in der Erziehungswissenschaft. Grundlegende Texte und empirische Studien* (pp. 85–109). Wiesbaden: VS Verlag für Sozialwissenschaften.

Whitley, R. (2007). Changing the governance of the public sciences. In R. Whitley & J. Gläser (Eds.), *The changing governance of the sciences. The advent of research evaluation systems* (pp. 3–27). Dordrecht: Springer.

Woodhouse, D. (1999). Quality and quality assurance. In OECD & IMHE (Eds.), *Quality and internationalisation in higher education* (pp. 29–44). Paris: OECD.

World Bank. (1994). *Higher education: The lessons from experience*. Washington, DC: World Bank.

World Bank. (2000). *Higher education in developing countries. Peril and promise*. Washington, DC: World Bank.

World Bank & UNESCO. (2010). *Global initiative on quality assurance capacity (GIQAC)*. Retrieved June 28, 2010, from http://go.worldbank.org/3HMQXGCRA0