GROWTH OR RETRACTION: WHAT TENDENCIES DO INDICES FOR VACANCY OFFER, REGISTRATIONS AND NUMBER OF GRADUATES IN BRAZILIAN ACCOUNTING SCIENCE PROGRAMS EXPOSE?

CRESCIMENTO OU RETRAÇÃO: QUAIS TENDÊNCIAS OS INDICADORES DE OFERTA DE VAGAS, MATRÍCULAS E CONCLUINTES DOS CURSOS DE CIÊNCIAS CONTÁBEIS BRASILEIROS EXPÕEM?

CRECIMIENTO O RETRACCIÓN: ¿CUÁLES TENDENCIAS SEÑALAN LOS INDICADORES DE OFERTA DE PLAZAS, MATRÍCULAS Y RECIÉN LICENCIADOS EN LOS CURSOS DE CIENCIAS CONTABLES BRASILEÑOS?

Daniele Silva Rodrigues

Graduanda em Ciências Contábeis (UFV) Email: silvar.daniele@gmail.com

Nálbia de Araújo Santos

Doutora em Controladoria e Contabilidade (USP) Professora Adjunta da Universidade Federal de Viçosa (UFV) Endereço: Av. Peter Henry Rolfs, s/n – Campus Universitário 36.570-000 – Viçosa/MG, Brasil Email: nalbia@ufv.br

Monique da Silva Santana

Graduada em Ciências Contábeis (UFV) Email: monique.santana@ufv.br

ABSTRACT

This study aims to identify possible tendencies from offered vacancy indices, registrations and number of graduates in the field of Accounting Science, both in presential and distance education, from 1995 to 2012. Expansion policies and the increasing access of the Brazilian Higher Education System ("Sistema de Educação Superior") (SES), institutionalized by the government, are considered as a context to understand these tendencies. The main data sources used were micro data from the Higher Education Census ("Censo de Educação Superior") (CES) from 1995 to 2012. This study carried out descriptive and analytical procedures in a trending movement for these indices from 1995 to 2012. The results suggest that the growth in the offer of vacancies was expressive throughout the period. This movement was not followed in the same rate by the number of interested candidates to compete for a position in the Accounting Science program. There is an oversupply on offers for vacancies with a rising tendency in private institutions. The evolution in the registration rate in distant education courses ("Cursos de Educação à Distância") (EAD) is inconstant. There is a concentration of enrolled students at a lower number in Higher Education Institutions ("Instituições de Ensino Superior") (IES) of a public nature, in contrast with the pulverized distribution on registrations among a higher number of private IES. The completion rate in Accounting Science presents high and low alternate periods for the

Recebido em 04.08.2014. Revisado por pares em 02.10.2014. 1ª Reformulação em 21.10.2014. 2ª Reformulação em 02.12.2014. Recomendado para publicação em 03.12.2014. Publicado em 26.01.2015.



presential modality. However, there is evidence on high evasion and/or retention index. The course assessment tools indicate possible problems in the offering of the education service and deficiencies regarding the under graduation of students in Accounting Science.

Keywords: Higher Education. Higher Education Tendencies. Accounting Science/Education.

RESUMO

O objetivo do estudo é identificar as possíveis tendências dos indicadores de vagas oferecidas, matrículas e concluintes da área de conhecimento de Ciências Contábeis, nas modalidades de presencial e de educação à distância, do período de 1995 a 2012. São consideradas as políticas de expansão e de ampliação de acesso ao Sistema de Educação Superior (SES) brasileiro, institucionalizadas pelo governo, como contexto para compreender essas tendências. A principal fonte de dados utilizada foram os microdados do Censo de Educação Superior (CES) de 1995 a 2012. Foram realizados procedimentos descritivos e de análise do movimento de tendências desses indicadores no período de 1995 a 2012. Os resultados sugerem que o crescimento na oferta de vagas foi expressivo, ao longo do período. Esse movimento não foi acompanhado na mesma proporção pelo número de candidatos interessados em concorrer por uma vaga no curso de Ciências Contábeis. Existe excesso de oferta de vagas com tendência de aumento nas instituições privadas. A evolução da taxa de matrícula nos cursos de educação à distância (EAD) é inconstante. Existe concentração de estudantes matriculados em um número menor de IES de natureza pública, em contraste com uma distribuição pulverizada de matrículas entre um número maior de IES privadas. A taxa de conclusão na área de Ciências Contábeis apresenta períodos alternados de alta e baixa na modalidade presencial. Mas, existe evidência para elevado índice de evasão e/ou retenção. Os instrumentos de avaliação dos cursos indicaram possíveis problemas na oferta do serviço de educação e deficiências na formação dos estudantes da área Ciências Contábeis.

Palavras-chave: Ensino Superior. Tendências da Educação Superior. Contabilidade/Ensino.

RESUMEN

El objetivo del estudio es identificar las posibles tendencias de los indicadores de plazas ofertadas, matrículas y recién licenciados en el área de conocimiento de Ciencias Contables, en las modalidades presencial y a distancia, en el periodo entre 1995 y 2012. Para comprender estas tendencias se debe considerar el contexto de las políticas de expansión y de ampliación del acceso al Sistema de Educación Superior (SES) brasileño implantadas por el gobierno. La principal fuente de datos utilizada fueron los microdatos del Censo de Educación Superior (CES) desde 1995 a 2012. Fueron realizados procedimientos descriptivos y de análisis del movimiento de las tendencias de los referidos indicadores en el periodo entre 1995 y 2012. Los resultados sugieren que el ritmo de crecimiento de la oferta de plazas fue significativo, a lo largo del tiempo. Este movimiento no estuvo acompañado en la misma proporción por el número de candidatos interesados en disputar una plaza del curso de Ciencias Contables. Existe un exceso de ofertas de plazas cuya tendencia es aumentar en las instituciones privadas. La evolución de la tasa de matriculación en los cursos de educación a distancia (EAD) es inconstante. Existe una concentración de estudiantes matriculados en un número menor de IES de naturaleza pública, en contraste con una distribución pulverizada de matrículas entre un número mayor de IES privadas. La tasa de conclusión en la modalidad presencial del área de Ciencias Contables presenta periodos alternados al alza y a la baja. Pero, existe evidencia del elevado índice de evasión y/o retención. Los instrumentos de

evaluación de los cursos indicaron posibles problemas en la oferta del servicio de educación y deficiencias en la formación de los estudiantes del área de Ciencias Contables.

Palabras clave: Enseñanza Superior. Tendencias de la Educación Superior. Contabilidad/Enseñanza.

1 INTRODUCTION

In the last four decades, the capacity of assistance of the Higher Education systems of the world has increased. According to UNESCO, there were 32 million students registered in Higher Education programs in 1970, whereas this number was of 159 millions in 2008, meaning six times the capacity of assistance (UNESCO, 2010). This scenario is similar in the Brazilian context, seen that the Government has adopted a series of policies to expand the right of access to Higher Education. A reflection of these policies is the increase of 92.8% in the number of positions offered by the courses of the *Sistema de Educação Superior* (SES) ("Higher Education System") in the 1990s, according to data from the *Censo da Educação Superior* (CES) ("Higher Education Census"), annually carried out by the *Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira* (INEP) ("Anísio Teixeira National Institute for Educational Studies and Research"). This indicator reveals a tendency of growth in the macro context that cannot be confirmed at a micro level, i.e., by a determined area of knowledge, since the Brazilian SES is heterogeneous due to it consisting of several areas of knowledge and different ways of administrative and academic organizations.

Along with political expansion actions, the Brazilian Government institutionalized instruments and indicators for the evaluation and monitoring of the quality of the Higher Education programs offered. The first instrument, instituted by Law 9,131, of 1995, was the Exame Nacional de Cursos (ENC) ("National Course Exam"), also known as "provão", was applied between 1996 and 2003. Subsequently, the CES and the Avaliação das Condições de Ensino (ACE) ("Evaluation of Teaching Conditions") were implemented by a series of visits of committees from elsewhere than from the Higher Education Institution (IES) itself. In 2004, by means of the Law 10,861, the Sistema Nacional de Avaliação da Educação Superior (SINAES) ("National System for the Evaluation of Higher Education) was instituted. The Law allowed for the creation of a series of alterations in the process of evaluations of the IES and substituted ENC by the Exame Nacional de Desempenho de Estudante (Enade) ("National Exam for Student Performance"). Since 2009, the marks obtained by the students on Enade compose the Conceito Preliminar do Curso (CPC) "Preliminary Course Concept", ranging from 1 to 5, in addition to variables regarding the quality of infrastructure and the didactic-pedagogical organization of the programs. This indicator is used by managers of the Ministry of Education (MEC) to monitor the quality of the offered courses. The courses of CPC 1 or 2 are considered unsatisfactory. In these cases, the *in loco* ACE will be mandatory, and, depending on the result, the CPC results may grow or decrease. Furthermore, sanctions and regulatory and supervisory measures will take place shall the program maintain its CPC 1 or 2 during the next Enade cycle, which takes three years.

The challenge simultaneous to the expansion and evaluation processes of Higher Education is to detect possible tendencies regarding indicators: authorized programs, enrollments, demand and supply for positions in the program, unoccupied positions, graduate students, evasion on *in loco* and distance learning programs in Accounting. The policies for the expansion, amplification of access and evaluation of the Brazilian SES, institutionalized by the Government, must be considered for one to comprehend the observed tendencies. The main sources of data are the micro data from the CES from 1995 to 2012.

The research problem conducting this paper is: what are the tendencies of the indicators for authorized programs, enrollments, demand and supply for positions in the program, unoccupied positions, graduate students, evasion on *in loco* and distance learning programs in Accounting?

Answering the question may contribute to (i) observe the periodicity of fluctuations in the number of offered positions, enrollments and graduate students; (ii) point out the existence of a tendency of expansion, stability or contraction for these numbers; (iii) call the attention of managers of IES and of the programs to the evolution of these indicators in the context of expansion, access and evaluation political actions for Higher Education.

This study is divided into four sections, besides this introduction. In the second section, we present a theoretical referential on the proposed subject. The third section describes the methodological strategies employed in the study. In the forth section, we describe the set of data and analyze the obtained results. The fifth section presents the discussions and the final comments.

2. PREVIOUS STUDIES

There is an interest in the subject when considering both national and international literature. Internationally, for example, Schofer & Meyer (2005) proposed a data model disposed as a panel to analyze the expansion of Higher Education worldwide, from 1900 to 2000, considering the socioeconomic characteristics of countries as an explicative factor. The evidence suggests that the expansion in Higher Education develops more rapidly in countries with a growing secondary education system and that follow the world educational policies defined by international organs.

Bratti, Checchi & Blasio (2008) analyzed the expansion policy as a way of augmenting the equality of opportunities and of access to Higher Education in Italy from 1990 to 2000. The authors concluded that this expansion policy had a limited effect only on the reduction of inequality of access to Higher Education programs, with an especially positive effect in university environment. However, the authors found evidence of student retention due to possible inefficiencies of the institutions.

McCoy & Smyth (2011) explored the subject to see if the expansion policy fostered the participation of students from different social classes and different genders of debutant students in Higher Education technology institutes in Ireland, between 1980 and 2006. The results suggest that, initially, there was in increase in the disparity of participation between students with extensive professional experience when compared to the other groups. However, there is a tendency of decrease in the participation of students with professional experience, since the marketing is reaching its saturation point. Besides, for the authors, the exemption of enrollment fees in higher Education, adopted in 1996, was not enough to increase the participation of the working class. These results may be consequence of the permanence of high, direct expenses and of the fact that the job market may be more appealing to students. Moreover, the authors observed that there was a significant change in the composition of participants of Higher Education programs regarding gender, given that young women became the majority of students.

In Brazil, the studies of Loch & Reis (2004), Barreiro & Terribili Filho (2007), Neves, Raizer & Fachienetto (2007), Pfeifer & Giareta (2009) and Segenreich & Castanheira (2009) are of great importance. Loch & Reis (2004) described the evolution in the number of course enrollments and in the number of offered positions and of students enrolled to private IES in the metropolitan region of Curitiba from 1997 to 2002. The authors concluded that there is an

excessive number of positions being offered and, therefore, a tendency of vacancy. To these authors, this scenario suggests the possibility of discontinuation of private IES in the region.

Barreiro & Terribili Filho (2007) analyzed if the state universities from the state of São Paulo met the requirements of the Constitution of São Paulo, which states that at least one third of the total vacancies must be offered for evening courses. The authors concluded that the institutions partially met the policy. Moreover, they stress the need of revising this exigency, since the percentage has been behind the demands of the society. The authors suggest further research on the definition of an adequate policy for the distribution of the percentage of available positions for the evening period by area of knowledge, compatible with the nature, the exigency, the curricular guidelines, and the specificities of each program.

Neves, Raizer & Fachienetto (2007) focused on the issue of access and equity in education. The authors evinced the low index of conclusion of the middle school courses is generating a low demand for Higher Education positions. Therefore, part of the increase in the offering of positions, mainly amongst private schools, may be explained by the set of potential candidates, as individuals who were out of the educational system and that came to seek the opportunity of completing a Higher Education program.

Pfeifer & Giareta (2009) described a panoramic history of expansion of the Brazilian Higher Education from 1995 to 2007, aiming at identifying its role in the training of professors. The authors found a scenario of continuous expansion for the Higher Education system in Brazil, which was grounded on the fostering policy to the private initiative and to the amplification of resources regarding distance-learning programs. The authors also identified a demand for action from the public institutions in the field of Professor Training.

In the context of expansion, from 1996 to 2006, Segenreich & Castanheira (2009) studied the data from the CES to explore questions regarding privatization and differentiation of SES by categories of the institution, programs and student body. The results indicate that, in spite of the deceleration, the process of privatization continues under different access policies, such as the distribution of scholarships by means of the ProUni ("University to All") program by the MEC. Besides, to the authors, the public expansion policies for Higher Education in the public sphere are differentiated, since they tend to exist by means of new types of courses/institutions – superior technology programs in federal institutions – or by the institutionalization of distance learning courses, such as the Open University of Brazil.

In the context of Accounting, no studies similar to this one were found. Still, this article aims at contributing by exploring the possible tendency of the indicators regarding positions offered, enrollments, and graduate students in the *in loco* and distance learning modalities, in the field of Accounting.

3. METHODOLOGICAL STRATEGIES

The main methodological strategy employed was the descriptive analysis of data. To conduct the descriptive analysis, we chose to use two pieces of software: SPSS (version 20) and Microsoft Excel (2010).

The database was the Census for Higher Education (CES), extracted from the INEP website. The CES data are collected by means of the filling of forms, which are assigned to the responsible at the IES, and by importing data from the e-MEC system. Prior to its publication, the data are verified and validated by the IES and by INEP. The samples consist of the courses in Accounting, both *in loco* and distance learning programs. The analyzed period ranges from 1995 to 2012.

This database allows describing the amount of programs, the amount of positions being offered, the amount of applications, of debutant students, enrolled students and graduate

students. In addition to these variables, it is possible to calculate the indicators regarding the number of positions being offered, new students per number of positions being offered, average number of student per program, and evasion or retention rates for students. The variables and the indicators can be segregated by Administrative Category (CA), classified as public (Federal, State and Municipal) or private, by Academic Organization (OA), whose classification is "Universities", "University Centers", "Colleges", "Federal Institutes".

The analysis of these variables will enable the comprehension of the evolution of the expansion throughout the analyzed period per CA and OA. The indicators allow for the observation of the behavior of the relation between average number of candidates running for a position and if the positions were in fact filled.

The final considerations are grounded on the evidence found by these descriptive procedures and on the analysis of the tendency movements of the indicators, along with the set of policies for expansion, amplification of access and evaluation of the Brazilian SES from 1995 to 2012.

4. ANALYSIS OF THE TENDENCIES OF THE INDICATORS REGARDING THE OFFERING OF POSITIONS, ENROLLMENTS AND GRADUATE STUDENTS IN ACCOUNTING

4.1 The evolution in the number of positions

The accreditation policies for new Higher Education Institutions (IES) and for previous authorization for new undergraduate programs are used by the Brazilian government to increase the offering of positions in SES. Table 1 shows that the variation ($\%\Delta$) of IES was crescent between the period from 1995 to 2012, except for the reductions between 2007/2008 and 2010/2011. The maximum variation of 17.9% of increase in the number of IES occurred between 1998 and 2003. The emergence of new private institutions is responsible for this increase. As for State and Municipal IES, there was a decrease in the number between 1995 and 2001. However, after 2002, the number of public IES oscillated between periods of growth or decrease, such as from 2008 to 2010. The increase in Federal IES is a reflection of a series of governmental actions to create new universities and technical institutes to increase the number of positions being offered to debutant students.

As for Accounting, Table 1 also shows an increase in the number of programs registered to the private sphere was continuous; in 1995, it was of 247, raising by 261.9% to 894 by 2010. The maximum number of enrollments to a program in the field happened between 1998 and 2002, reaching a variation of 13.3%. The number of new programs decelerated between 2008 and 2010. There were periods of small reductions in the number of programs in the public sphere, which were then compensated by small increases in subsequent years.

Table 1 – Evolution of the number of Higher Education Institutions (IES) and of the number of Accounting *in loco* programs by Administrative Category, Brazil, from 1995 to 2012

			Numb	er of IE	S in Brazil		Number of undergraduate programs in Accounting						
Year	% ∆	Total	Federal	State	Municipal	Private	% ∆	Total	Federal	State	Municipal	Private	
1995		894	57	76	77	684		352	43	33	29	247	
1996	3.1	922	57	74	80	711	9.1	384	42	35	34	273	
1997	-2.4	900	56	74	81	689	0.8	387	40	35	37	275	
1998	8.1	973	57	74	78	764	5.2	407	40	36	38	293	
1999	12.7	1,097	60	72	60	905	12.8	459	42	39	19	359	
2000	7.6	1,180	61	61	54	1,004	11.1	510	53	48	15	394	
2001	17.9	1,391	67	63	53	1,208	13.3	578	51	49	17	461	

2002	17,7	1,637	73	65	57	1,442	10.9	641	54	50	21	516
2003	13.6	1,859	83	65	59	1,652	9.4	701	56	55	25	565
2004	8.3	2,013	87	75	62	1,789	8.8	763	59	56	24	624
2005	7.6	2,165	97	75	59	1,934	6.9	816	58	56	24	678
2006	4.8	2,270	105	83	60	2,022	8.6	886	60	57	24	745
2007	0.5	2,281	106	82	61	2,032	4.2	923	60	59	25	779
2008	-1.3	2,252	93	82	61	2,016	6.7	985	59	60	27	839
2009	2.8	2,314	94	84	67	2,069	4.4	1,028	62	56	32	878
2010	2.8	2,378	99	108	71	2,100	2.3	1,052	68	62	28	894
2011	-0.5	2,365	103	110	71	2,081	2.1	1,074	70	62	35	907
2012	2.2	2,416	103	116	85	2,112	5.1	1,129	69	62	56	942

Source: Micro data from CES (1995-2012).

To expand on the number of positions and amplify the opportunity of access to SES, another action promoted by the Brazilian Government was the authorization of distance learning courses (EAD). An example of this was the creating of the Open University of Brazil (UAB) in 2005. UAB emerged to be a system integrated by public IES, aiming to offer distance undergraduate programs. According to Pfeifer & Giareta (2009), the main policy adopted by the Government to raise the number of offered positions was the accreditation of programs "that demanded low investment in infrastructure, such as Professor Training and Administration, amongst other fields within Social and Human Sciences, which do not require equipment and machinery for high-technology laboratories" in private IES (and through EAD). The reflection of these political actions is evinced in Table 2, which shows the constant growth in the number of EAD programs in Brazil since 2000. The EAD Accounting programs have also grown from two, in 2005, to 35, in 2012, especially due to the increase of participation by private IES. However, during the analyzed period, the *in loco* modality was the one that presented a traditional increase in the number of Accounting programs.

Table 2 – Evolution of the number of undergraduate programs in the field of Accounting for the *in loco* and distance learning modalities in Brazil (1995-2012)

		Brazil				Ac	counting			
	In loco	Distance	Total		In loco			Distance		
				Public	Private	Total	Public	Private	Total	Total
1995	6,252		6,252	105	247	352				352
1996	6,644		6,644	111	273	384				384
1997	6,132		6,132	112	275	387				387
1998	6,950		6,950	114	293	407				407
1999	8,878		8,878	100	359	459				459
2000	10,585	10	10,595	116	394	510				510
2001	12,155	14	12,169	117	461	578				578
2002	14,399	46	14,445	125	516	641				641
2003	16,453	52	16,505	136	565	701				701
2004	18,644	107	18,751	139	624	763				763
2005	20,407	189	20,596	138	678	816	1	1	2	818
2006	22,101	349	22,450	141	745	886	2	9	11	897
2007	23,488	408	23,896	144	779	923	2	15	17	940
2008	24,719	647	25,366	146	839	985	4	18	22	1,007
2009	27,827	844	28,671	150	878	1,028	3	21	24	1,052
2010	28,577	930	29,507	158	894	1,052	3	25	28	1,080

2011	29,376	1,044	30,420	167	907	1,074	3	27	30	1,104
2012	30,718	1,148	31,866	187	942	1,129	5	30	35	1,164

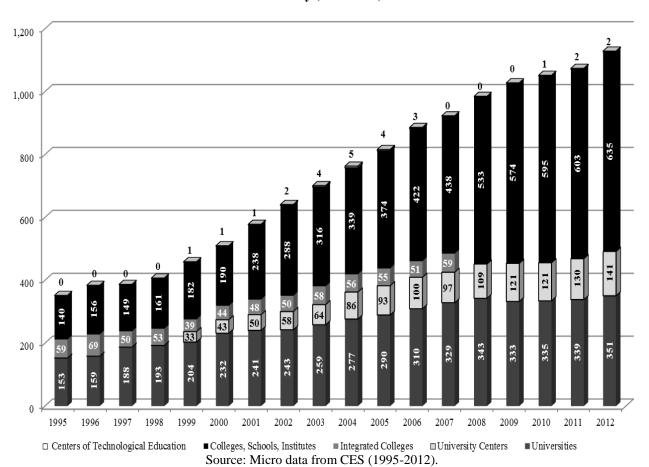
Source: Micro data from CES (1995-2012).

According to Plank & Davis (2010, p. 302), generally, the State chooses between two options of political actions to amplify the economy of scale for Education. The first is to keep great schools, consequently generating a monopoly position. The second is to encourage competition with the emergence of smaller schools. As for the case of the Brazilian Government, both were chosen at different times between 1995 and 2012.

An example of the first option is the *Programa de Apoio a Planos de Reestruturação e Expansão das Universidades Federais* (Reuni), a program to support the plans for restructuring and expanding Federal schools that begun in 2003. As it is for CES, for "Universities", the number of programs went from 9,396 to 15,113, a growth of 60.9% from 2003 to 2013. The second option was observed throughout the period between 1995 and 2012, since the number of registered programs to Colleges, which are considered isolated teaching unities, went from 2,325, in 1995, to 10,714, in 2012, augmenting by 360.8%.

As for Accounting, it is possible to observe in Figure 1, below, that the second option prevailed throughout 1995 to 2012, since the number of courses in the *in loco* modality went from 140 in 1995 to 635 in 2012, increasing by 353.6%. The increase in the number of university programs was smaller (129.4%), going from 153 to 351 between 1995 and 2012.

Figure 1 – Evolution of the participation in number of Accounting programs by OA for the *in loco* modality (1995-2012)



Parallel to the expansion policies, Brazilian undergraduate courses are periodically evaluated since 1996. This evaluation process aims at verifying the conditions for the supply of educational services. In the field of Humanities, MEC announced that 270 had an unsatisfactory CPC (1 and 2) in 2012. Therefore, 44,069 offers were suspended by MEC in the fields of Administration, Accounting, Law, Social Communication, and others. Out of this number, according to MEC, 24,828 are linked to 152 programs that presented a positive tendency due to the continuous improvement (a minimum of two tenths of CPC between 2009 and 2012). Other 19,241 spots are tied to 118 programs with a negative tendency, since there was no improvement. According to MEC, the courses with a positive tendency can only be reinstated in 2015 should their plan of improvement be approved by the Government. The negative group is not offered with the same possibility. As for the Accounting programs, 4,624 positions, which were tied to 98 programs, were suspended.

Despite these precautionary measures from MEC, however, the consequences of the political expansion actions were relevant, since the increase in the number of vacancies was considerable, as the 610,355 vacancies in 1995 raised to 4,653,814 positions in 2012, growing by 662.5%, according to Table 3. This upward movement in the number of offered positions has substantially expanded the difference between the number of places offered and the actual number of student entries in undergraduate courses, as shown in Table 3, below.

However, the difference between the number of vacancies offered was reduced when compared to the number of candidates from 1995 to 2012. This reduction may reflect the Government programs that facilitated the entry of students to SES, such as the "Unified Selection System" (Sisu).

Unlike the general context, in the area of Accounting, Table 3, below, demonstrates the market downturn in the number of vacancies, since there was a decrease from 242,791 to 202,422 positions offered between 2007 and 2011. It tended to surpass the number of registered applications in 2007 and 2008. This difference between openings and applications decreased, and they were nearly equalized from 2009 to 2010. But the total number of applications received and tickets grew over 1995 to 2012. However, the difference between the effective number of debutant students entering the undergraduate degree in Accounting and the number of vacancies offered has grown considerably over the observed period. During this period, the representative of the Accounting course in the Brazilian SES has declined when compared to the number of places offered, debutant students and applications.

Table 3 – Evolution of the number of places offered, candidates and debutant students for Accounting programs in Brazil (1995-2012)

		Brazil			Accountin	ıg	Representativeness of the program (%)			
Year	VO	CI	Debutants	VO	CI	Debutants	VO	CI	Debutants	
1995	610,355	2,653,853	510,377	36,265	116,792	32,056	6	4	6	
1996	634,236	2,548,077	513,842	37,312	95,339	30,456	6	4	6	
1997	699,198	2,715,776	573,900	41,278	97,487	32,810	6	4	6	
1998	803,919	2,895,176	662,396	40,655	91,883	31,410	5	3	5	
1999	969,159	3,435,168	787,638	43,461	96,441	33,134	4	3	4	
2000	1,222,717	4,047,912	902,844	51,916	103,430	34,818	4	3	4	
2001	1,415,348	4,274,228	1,043,308	60,509	113,689	41,463	4	3	4	
2002	1,797,476	5,014,111	1,225,825	73,921	132,814	46,759	4	3	4	
2003	2,026,758	4,921,896	1,277,187	82,532	125,865	48,191	4	3	4	
2004	2,433,500	5,104,698	1,328,116	90,516	134,666	47,610	4	3	4	
2005	2,859,398	5,294,582	1,524,295	95,524	141,516	56,838	3	3	4	
2006	3,443,148	5,611,928	1,660,755	116,506	157,307	63,426	3	3	4	

2007	4,365,012	5,729,719	1,811,226	242,791	170,781	72,322	6	3	4
2008	4,684,626	6,243,473	1,968,912	225,440	193,810	85,647	5	3	4
2009	4,726,394	6,889,269	2,040,953	210,004	212,616	73,092	4	3	4
2010	4,754,310	7,389,823	1,922,240	215,166	214,319	80,553	5	3	4
2011	4,453,431	9,963,763	2,346,695	202,422	294,096	89,896	5	3	4
2012	4,653,814	11,957,756	2,747,089	228,597	346,772	115,803	5	3	4

Note: offered positions (VO) and number of candidates applying (CI)

Source: Micro data from CES (1995-2012).

The expansion of in the offering of positions, throughout this period, occurred both in public and private institutions. However, it is among the private institutions that the increase in the number of places offered was substantial. In 2011 and 2012, these institutions represented 88.1% and 86.9% of these vacancies, respectively. This indicates that the State has opted for a policy of expansion of the Brazilian SES by offering educational services via private IES, especially from the 1990s onwards; however, according to Belfield and Levin (2010), the supply of educational services predominantly by private institutions does not mean that the sector is being privatized. According to the authors, there are different ways to raise the involvement of non-governmental sponsorship, funding and delivering of education.

In the Brazilian SES, since 2005, part of the vacancies offered by private IES is funded by government incentives, such as the "University to All" program (Prouni) and the Student Financing Fund (FIES). According to MEC, from its creation until the second half of 2013, Prouni served more than 1.2 million students, 69% with full scholarships, covering 100% of the monthly fee.

According to CES data, the expansion of offered positions in the field of Accounting over this period also occurred both in public and private institutions. However, the growth in the number of places offered was substantial only among private institutions. In 2009, these institutions represented 91.6% of the vacancies. However, the proportion of students per places offered was 44.0%, suggesting that 56% of the places offered by private IES were not met.

The results presented in Table 4, below, show a downward trend in the number of candidates per vacancy in IES, as there were about 4 candidates per position in 1995, and that number dropped to 1.5 in 2010. Another indicator that reinforces this trend is the proportion of vacancies offered in relation to the occupied ones, as they were 84% in 1995 and now represent less than half, i.e., 40% in 2010. Regarding the percentage of candidates who actually joined the SES, the reverse process occurred: this index increased from 19% to 26% over the analyzed period. This trend may be due to the changes on student selection mechanisms to enter the SES, since, besides the traditional entrance exam, the National Secondary Education Examination (Enem), the Sisu and the reserving-place programs were implanted, among others. In 2010, 244,362 students entered the *in loco* undergraduate course by using, at all or in parts, the Enem in their selection processes, according to INEP (BRAZIL, 2012). Reserving-place programs completed 51,494 places in public IES in the year 2010. This represents an increase of 41.9% when compared to 2009, when 36,294 debutants were registered in public IES.

The data in Table 4, found below, indicate that the field of Accounting followed this downward trend in the index for registered candidates per vacancy offered and the increase of candidates who entered the Higher Education. However, the behavior of the proportion of debutant students per offered position suffered a reduction from 1995 to 2000, taking place after changes in the relations on alternate times during 2001-2010, according to the column Debutants/VO (%) on Table 4. This scenario indicates that the policy of expansion and

expansion of SES may be causing problems in filling positions offered by the Accounting programs.

Table 4 – Evolution of indices of enrolled candidates per number of offered positions, debutants per positions offered, and debutants per candidates enrolled in Brazil and in Accounting programs (1995-2012)

_		Brazil			Accounting	3
Year	CI/VO	Debutants/VO (%)	Debutants/CI (%)	CI/VO	Debutants/VO (%)	Debutants/CI (%)
1995	4.35	84	19	3.22	88	27
1996	4.02	81	20	2.56	82	32
1997	3.88	82	21	2.36	79	34
1998	3.60	82	23	2.26	77	34
1999	3.54	81	23	2.22	76	34
2000	3.31	74	22	1.99	67	34
2001	3.02	74	24	1.88	69	36
2002	2.79	68	24	1.80	63	35
2003	2.43	63	26	1.53	58	38
2004	2.10	55	26	1.49	53	35
2005	1.85	53	29	1.48	60	40
2006	1.63	48	30	1.35	54	40
2007	1.31	41	32	0.70	30	42
2008	1.33	42	32	0.86	38	44
2009	1.46	43	30	1.01	35	34
2010	1.55	40	26	1.00	37	38
2011	2.24	53	24	1.45	44	31
2012	2.57	59	23	1.52	51	33

Note: offered positions (VO) and number of candidates applying (CI)

Source: Micro data from CES (1995-2010).

Based on the previously information presented on the Tables and Figures, it is observed that the expansion policy led to a continuous growth in the number of undergraduate courses in Accounting and number of positions offered. This growth was particularly prominent among private IES. This increase in the number of positions via the accreditation of new courses in the area can be explained by the need for economies of IES scale and by governmental incentives, through the loosening of legislation and competition between IES.

Another trend suggested by the CES data is the stability regarding course representation in relation to all applications and debutants in Brazil, according to Table 3. These percentages indicate the proportion of individuals who are interested to apply to join the field. This scenario suggests a mismatch between the growth in the offer of vacancies and the increase in the number of candidates interested in applying for a position in the Accounting program. Although there are candidates for the vacancy offer, there is also idleness in filling these vacancies. It is worth investigating whether the competition with other graduate courses, the fact that the student actually is not selected, the oversizing the number of vacancies offered, the reduction in demand, the lack of interest in the Accounting career are factors that can explain the idleness in filling vacancies in the field.

4.2 The evolution of the number of enrollments and graduate students

In Brazil, the growth rate for enrollments in the period from 1995 to 2012 increased between 1997 and 2002, reaching a peak of 14.8%, as shown in Figure 2. However, from 2003 to 2012, there was a downward trend that may indicate possible evasion or retention, and there was a decrease of 2.4% in absolute terms in the last year, despite a slight increase in 2010. From 2003 until 2012, this downward trend was accompanied by the line representing

the Accounting program, in Figure 4, below, with the exception of the growth peaks of 2005 and 2007 (respectively, 8.1% and 24.1%). These peaks are reflections of the increases of students enrolled in courses of the distance education modality, according to the CES data.

The evolution of the tuition of the Accounting course in distance education mode (EAD) is unstable. According to the ESC micro data, there was a reduction of 77.4% in enrollment, from 2005 to 2006, succeeded by an increased rate of 1188.7%, from 2006 to 2007, and in subsequent years, equivalent to an increase of 174.8% from 2007 to 2008, and a decrease of 10.4% from 2008 to 2009.

24.1% 25% 20% 14.8% 15% 13.7% 12.7% 11.5 10% 7.0% 1% 6.2% 4.1% 5% 3.2% 3.2% 2.6% 2.2% 0.79 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012

Figure 2 – Evolution rate for under-graduation enrollments in Brazil for Accounting programs between 1995 a 2012

Source: Micro data from CES (1995-2012).

—■—Accounting

←Brazi1

According to CES 2009, the average number of students enrolled per course was 221 in private institutions and 177 in public institutions. The distribution of students enrolled by IES averaged 2,141 students by private institution; as for public IES, the average was 6,220. If the area of Accounting, Table 5, below, shows that historically the number of students enrolled in private IES was greater, from 1995 to 2012. However, the average number of students enrolled in public IES is higher than in private institutions. This ratio of enrollment by number of courses indicates that concentration of students enrolled in fewer public nature IES, in contrast to a widespread distribution of enrollments among a larger number of private IES.

Table 5 – Evolution of the number of programs and students enrolled in the Accounting course for the *in loco* and distance learning courses, per Administrative Category (1995-2012)

	Numl	ber of progra	ıms	Numb	er of enrolled s	tudents	Enrollments/Programs			
Year	Public	Private	Total	Public	Private	Total	Public	Private	Total	
1995	105	247	352	33,389	73,749	107,138	318	299	304	
1996	111	273	384	35,536	77,215	112,751	320	283	294	
1997	112	275	387	36,368	80,023	116,391	325	291	301	
1998	114	293	407	37,040	85,480	122,520	325	292	301	
1999	100	359	459	34,154	93,606	127,760	342	261	278	
2000	116	394	510	33,011	97,502	130,513	285	247	256	
2001	117	461	578	33,659	103,330	136,989	288	224	237	
2002	125	516	641	35,133	112,342	147,475	281	218	230	
2003	136	565	701	37,046	120,945	157,991	272	214	225	
2004	139	624	763	37,929	124,221	162,150	273	199	213	
2005	139	679	818	42,218	132,987	175,205	304	196	214	

Continua...

	Num	ber of progra	ams	Numbe	er of enrolled s	tudents	Enrollments/Programs			
Year	Public	Private	Total	Public	Private	Total	Public	Private	Total	
2006	143	754	897	37,440	143,352	180,792	262	190	202	
2007	146	794	940	58,455	165,940	224,395	400	209	239	
2008	150	857	1,007	47,044	187,557	234,601	314	219	233	
2009	153	899	1,052	47,668	187,606	235,274	312	209	224	
2010	161	919	1,080	47,107	218,057	265,164	293	237	246	
2011	170	934	1,104	49,986	238,800	288,786	294	256	262	
2012	192	972	1,164	53,472	259,702	313,174	279	267	269	

Source: Micro data from CES (1995-2012).

The expansion of the number of debutant students and the consequent increase in the enrollment throughout the period reflected in the growth of graduates. The number of students who have completed graduation is growing, both in classroom courses and in distance-learning programs, as described in Table 6. It was in 2000 that the first distance-education students graduated, and in 2012, this number exceeded 174,000 graduates. It should be noted that in 2008 the first students graduated in Accounting by distance education. Since 2002, the area represents 4% of students who have completed graduation in Brazil.

Table 6 – Evolution in the number of graduates in Brazil and in the Accounting programs (1995-2012)

	Brazil			Accounting			Representa	tion of the p	program
	In loco	Distance	Total	In loco	EAD	Total	In loco %	% Distance	% Total
1995	254,401	0	254,401	14,816	0	14,816	6	0	6
1996	260,224	0	260,224	15,361	0	15,361	6	0	6
1997	274,384	0	274,384	16,121	0	16,121	6	0	6
1998	300,761	0	300,761	10,610	0	10,610	4	0	4
1999	324,734	0	324,734	13,626	0	13,626	4	0	4
2000	352,305	460	352,765	18,211	0	18,211	5	0	5
2001	395,988	131	396,119	20,225	0	20,225	5	0	5
2002	466,260	1,712	467,972	20,886	0	20,886	4	0	4
2003	528,223	4,005	532,228	21,800	0	21,800	4	0	4
2004	626,617	6,746	633,363	24,213	0	24,213	4	0	4

2005	717,858	12,626	730,484	28,580	0	28,580	4	0	4
2006	736,829	25,804	762,633	29,083	0	29,083	4	0	4
2007	756,799	29,812	786,611	28,025	0	28,025	4	0	4
2008	800,318	70,068	870,386	31,151	1,380	32,531	4	2	4
2009	826,928	132,269	959,197	32,300	2,257	34,557	4	2	4
2010	829,286	144,553	973,839	34,215	2,819	37,034	4	2	4
2011	865,161	151,552	1,016,713	34,305	4,079	38,384	4	3	4
2012	876,091	174,322	1,050,413	35,869	5,835	41,704	4	3	4

Source: Micro data from CES (1995-2012).

The indicator called by INEP of graduates rate is presented in Table 7 (INEP, 2009). To calculate this rate, INEP uses the criterion average time to complete the undergraduate courses, which is similar to the average duration of the Accounting courses. According to CES 2008 in general, the average duration of undergraduate courses is 4 years (INEP, 2009); thus, calculating the approximate proportion of completion of the ES. This percentage represents the ratio between the number of recent graduates of the year by the number of freshmen four years earlier and may represent an approximation of student evasion.

It is made evident in Table 7 that the graduating rate in Higher Education in the *in loco* modality has decreased in Brazil from 1998 to 2009, despite the upward trend in the number of graduating students. According to CES 2008, the overall completion rate was 57.3%, based on the incoming number from 2005. Among the federal IES, the rate was 67%; state institutions had a rate of 64.3%; municipal institutions represented 61.2%. Private institutions had a completion rate of 55.3%, with the lowest completion percentage in campus undergraduate courses 2008 (INEP, 2009). In distance learning mode, there is alternation between periods of high and low completion rate. The ratios obtained above 100 may indicate retention, i.e., there are students who surpassed the estimated time to complete the program.

The completion rate in the field of Accounting has alternating periods of high and low *in loco* modality. This rate in the last year accounted for 58%, meaning that a little over half of the 2009 entrants completed the course in 2012. Consequently, 42% of the debutants of 2009 dropped out or are still to finish the course, considering the estimated period to complete the course to be of four years. The completion rate in the distance education modality grew between 2008 and 2009, but its proportion is still low, since it amounted to 16% in 2011 and 19% in 2012. These figures point to high evasion and retention rates.

Table 6 – Evolution of the rate relative to the number of graduating students per number of debutants (four years before) in Accountability programs in Brazil (1998-2012).

		Brazil		Accounting					
	In loco (%)	Distance (%)	Total (%)	In loco (%)	Distance (%)	Total (%)			
1998	59	0	59	33	0	33			
1999	63	0	63	45	0	45			
2000	61	0	61	56	0	56			
2001	60	0	60	64	0	64			
2002	59	0	59	59	0	59			
2003	59	76	59	63	0	63			
2004	60	102	61	58	0	58			
2005	60	61	60	61	0	61			
2006	58	181	60	60	0	60			
2007	58	119	59	59	0	59			
2008	57	55	57	60	30	57			

2009	57	62	58	56	37	54
2010	56	44	54	59	20	51
2011	57	33	52	57	16	45
2012	51	57	51	58	19	46

Source: Micro data from CES (1998-2012).

It is possible to see that there is a concentration of students enrolled amongst the lowest number of public IES and that the enrollment rate has been following a declining trend over the observed period. This reduction may be due to the existence of idleness, as the occupancy rates show that more than 50% of the places in Higher Educations are not occupied. This context can generate in SES the closing and merging of institutions, possible adjustment of costs and prices charged by private institutions for their services and the relaxation of the selection process in reason of the search for prospective students.

Additionally, we point out that between 1995 and 2012, the graduating students from the Accounting courses attended five large-scale standardized tests, also known as Achievement Tests. The average result achieved by students in the area in these tests was low. According to INEP data (2003, 2004), in the "provão" (editions of 2002 and 2003), the overall average of the graduating students of Accounting courses was 32.0, on a scale ranging from 0 to 100. At Enade/2006, the general average was 37.4 among graduating students, 44.7 in the General Formation component test (FG) and 30.0 in Specific Knowledge component test (EC) (INEP, 2007a). In these years, the students of the Accounting area had the overall average lower in the CE when compared to the 15 areas assessed (INEP, 2007). In 2009, the overall average obtained by the graduating students of the area was 39.9, the FG test, and 32.6, the CE test (INEP, 2011). In 2012, the overall average obtained by the graduating students of the area was 39.4 for the FG test and 32.8 for the CE test (INEP, 2011).

However, both in the "provão" 2002/2003 and in Enade 2006/2009, students indicated difficulties to answer questions when the students pointed out their impressions of the exam. The main options marked to explain their performance achieved in the "provão" 2003 were the following: the fact of having studied most of the test content, but a long time ago, which led to the content being forgotten (34.4%), the fact of having studied many of these contents during the course, but not all being well apprehended (44.2%) (INEP, 2004). In Enade/2006, the scenario changed, since only 4.5% of the graduating participants pointed to the lack of content to explain their results. However, the different way to approach the content (41.1%) and lack of motivation (35.4%) were identified as trouble to take the test (INEP, 2007a). The percentages relating to these aspects in the "provão" 2003 were 50.6% and 18.8%, respectively (INEP, 2004). These aggregate results may be evidence of possible problems in the teaching process, which may have affected the results of the evaluations.

This scenario shows that the training of professionals in Accounting may have worrying deficiencies. According to INEP, 22,694 graduates participated in the examinations in 2002, 22,976 in 2003, 19,040 in 2006, 31,960 in 2009 and 47,373 in 2012. In the CES 2012, 35,869 students completed the Accounting program. The graduate with poor training will probably have greatest difficulties in the labor market. As pointed out by Crespo and Kings (2009) there was a reduction in the importance of the worker only having one degree, due to the increase in the supply of skilled workers. Besides, the next graduates in Accounting find other mechanisms that restrict their entry and stay in the labor market as Accountants, as the Sufficiency Examination and continuing education programs, established by Law no. 12249 (2010). According to the CFC, the first edition of Sufficiency Examination held in 2011 approved only 30.83% of the participants who required the Counter register, a

percentage considered low by the members of the CFC committee conducting the examination (CFC, 2011).

5. FINAL CONSIDERATIONS

The objective of the study is to identify possible trends regarding the following indicators: authorized courses, enrollments, supply and demand for places, unfilled vacancies, graduates, and evasion regarding *in* loco and distance-learning modalities of Accounting graduate courses. We used the data series and the statistical information of CES from 1995 to 2012, and it was decided to conduct descriptive procedures and the analysis of the movement trend for these indicators over the period from 1995 to 2012. The expansion, expanding access and evaluation policies of the Brazilian SES, institutionalized by the Government, were considered in order to understand the observed trends.

The results suggest that the pace of growth in the number of vacancies was significant and continuous over this period. However, this movement has not been matched in the same proportion by the number of candidates interested in applying for a position in the Accounting course. In this context, it is suggested to investigate whether competition with other graduate courses, the fact of the student actually not being selected, the oversizing the number of vacancies offered, the reduction in demand and the lack of interest in the Counter career are factors that can explain the idleness in filling vacancies in the field.

Furthermore, they found that there is idle capacity in filling the vacancies offered, especially in private institutions. This context can generate the closing and merging of institutions for SES, a possible adjustment of costs and prices charged by private institutions for their services and the relaxation of the selection process because of the search for prospective students. Further evidence indicated by the instruments of evaluation of the courses was that of possible problems in the provision of education and service deficiencies in the training of students from the field of Accounting.

Another observed result was that the evolution of tuition in distance-learning courses is inconstant. In addition, there is a concentration of students enrolled in fewer public IES, in contrast to a widespread distribution of enrollments among a larger number of private IES. The completion rate in the area of Accounting has alternating periods of high and low rates in the *in loco* modality. However, there is evidence of high evasion and/or retention rates.

This study was limited to the indicators obtained by Accounting programs, so its evidence is limited to this context. Furthermore, we can suggest, as a future research project, a description of the scenery of indicators for offered positions, enrollments and graduates in *in loco* and distance-learning modalities of Accounting programs by geographic region.

REFERENCES

BARREIRO, Iraíde Marques; TERRIBILI FILHO, Armando. **Educação superior no período noturno no Brasil: políticas, intenções e omissões.** Ensaio: aval. pol. públ. Educ., Rio de Janeiro, v. 15, n. 54, p. 81-102, jan./mar. 2007.

BRASIL. Ministério da Educação (MEC). Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (INEP). Diretoria de Avaliação da Educação Superior (DAES). **Evolução das Estatísticas do Ensino Superior - Brasil 1980 - 1998**. Brasília: INEP, 2000. Disponível em: http://www.inep.gov.br/superior/censosuperior/evolucao/evolucao.htm. Acesso em: 17 fev. 2011.

BRASIL. **Lei n.º 9.131, de 24 de novembro de 1995,** altera os dispositivos da Lei n.º 4.024, de 20 de dezembro de 1961, e dá outras providencias. Disponível em: http://www.planalto.gov.br/ccivil_03/leis/L9131.htm>. Acesso em: 02 ago. 2007.

BRASIL. Lei n.º 10.861, de 14 de abril de 2004, institui o Sistema Nacional de Avaliação da Educação Superior (SINAES) e dá outras providencias. Diário Oficial da União, n.º 72, Brasília- DF, seção 1, quinta-feira, 15 abr. 2004.

BRATTI, M.; CHECCHI, D.; BLASIO, G. de. **Does the Expansion of Higher Education Increase the Equality of Educational Opportunities? Evidence from Italy**. Discussion Paper Series 3361, Alemanha: Forschungsinstitut zur Zukunft der Arbeit, Institute for the Study of Labor, 2008.

BELFIELD, C.; LEVIN, H. M. **Educational Privatization**. In: Brewer, D. J.; & McEwan, P. (Eds.). Economics of education. San Diego: Elsevier, 2010, p. 306 – 31.

CRESPO, A., REIS, M. C. (2009). Sheepskin effects and the relationship between earnings and education: analyzing their evolution over time in Brazil. Revista Brasileira de Economia, 63(3), 209-231.

Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira.(2003). **Relatório do Exame Nacional de Cursos 2002: relatório-síntese**. Disponível em: http://www.inep.gov.br/superior/provao/sintese/sintese2002.htm>. Acesso em: 20 jun. 2010.

Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira. (2004). **Relatório do Exame Nacional de Cursos 2003: Ciências Contábeis (v. 6).** Disponível em: http://www.inep.gov.br/superior/provao/diretrizes/2003/ciencias_contabeis.htm. Acesso em: 20 jun. 2010.

Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira. (2007). **Enade – Resultados agregados.** Disponível em: http://www.inep.gov.br/superior/Enade/default.asp>. Acesso em: 2 ago. 2007

Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (INEP). **Resumo Técnico: censo da educação superior 2008 – dados preliminares**. Brasília: INEP, 2009. Disponível em: http://download.inep.gov.br/download/censo/2008/resumo_tecnico_2008_15_12_09.pdf>. Acesso em: 15 dez. 2009.

Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (INEP). **Resumo Técnico: censo da educação superior 2009 – dados preliminares**. Brasília: INEP, 2010. Disponível em: http://download.inep.gov.br/download/superior/censo/2009/resumo tecnico2009.pdf>.

Acesso em: 11 nov. 2010.

Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (INEP). **Resumo Técnico: censo da educação superior 2010**. Brasília: INEP, 2012. Disponível em:

http://download.inep.gov.br/educacao_superior/censo_superior/resumo_tecnico/resumo_tecnico_censo_educacao_superior_2010.pdf. Acesso em: 03 abri. 2012.

Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (INEP). Comissão Especial de Avaliação da Educação Superior. **Sistema Nacional de Avaliação da Educação Superior (Sinaes): bases para uma proposta de avaliação da educação superior brasileira.** Brasília: INEP, agosto 2003b. Disponível em: <www.unifesp.br/reitoria/orgaos/comissoes/avaliacao/sinaes.pdf>. Acesso em: 07 ago. 2007.

Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira. (2011). **Enade 2009** – **Relatório de curso: Fundação Universidade Federal de Viçosa.** Disponível em http://www.inep.gov.br/superior/Enade/default.asp>. Acesso em: 2 ago. 2011.

LOCH, João Matias; REIS, Dálcio Roberto dos. **A Expansão do ensino superior: um comparativo do crescimento no Brasil, no Paraná e na região metropolitana de Curitiba**.In: World Congress on Engineering and Technology Education, 1., 2004, São Paulo/SP. Anais... São Paulo, 2004.

MCCOCY, Selina; SMYTH, Emer. **Higher education expansion and differentiation in the Republic of Ireland**. High. Educ., n. 61, p. 243–260, 2011.

NEVES, Clarissa Eckert. Baeta; RAIZER, Leandro; FACHIENETTO, Rochele Fellini. **Acesso, expansão e equidade na educação superior: novos desafios para a política educacional brasileira**. Sociologias, Porto Alegre, ano 9, n. 17, p. 124-157, jan./jun. 2007.

PLANK, D. N.; DAVIS, T. E. **The economics role of the state in education**. In: Brewer, D. J.; & McEwan, P. J. (Eds.). Economics of education. 1 ed., Oxford (UK): Elsevier Science, 2010. v. 3. pp. 299-305.

PFEIFER, Mariana; GIARETA, Paulo Fioravante. **Expansão da educação superior no Brasil: panorama e perspectiva para a formação de professores**. Anais Congresso Nacional de Educação e Encontro Sul Brasileiro de Psicopedagogica, 2009, Curitiba, PR, Brasil, 9 e 3.

SCHOFER, Evan; MEYER, John W. The Worldwide expansion of higher education in the twentieth century. American Sociological Review, v. 70, n. 6, p. 898-920, dec. 2005.

SEGENREICH, Stella Cecilia Duarte; CASTANHEIRA, Antonio Mauricio. **Expansão, privatização e diferenciação da educação superior no Brasil pós - LDBEN/96: evidências e tendências**. Ensaio: aval. pol. públ. Educ., Rio de Janeiro, v. 17, n. 62, p. 55-86, jan./mar. 2009.

United Nations Educational, Scientific and Cultural Organization (UNESCO). **Global education digest 2010: comparing education statistics across the world.** Montreal: UNESCO Institute for Statistics, 2010. Disponível em: http://www.uis.unesco.org/ev.php?ID=8206_201&ID2=DO_TOPIC. Acesso em: 25 nov. 2010.