

Myths, Beliefs and Realities:

Public-Private Competition and Program Diversification in Higher Education

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Abstract

In recent years we have observed a significant growth of the private sector in many higher education systems around the globe. This growth of private higher education was associated with high political expectations, notably concerning greater choice of programs and greater responsiveness of institutions to students' and labor market's demands. Looking at the experience of several European and Latin American countries, this study analyses the patterns of program diversification of public and private higher education and discusses the impact of private sector for the diversification of higher education's supply. The results show a contrasting picture between political beliefs about privatization in higher education and its actual results, suggesting that private institutions tend to be far more specialized than their public counterparts.

Keywords: competition, diversification, higher education, privatization, specialization, educational markets

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1. INTRODUCTION

Over the last two decades, we have seen a growing role of market forces and private supply in higher education (Brown, 2010; Teixeira et al., 2004). This was expected to increase the degree of choice among students and families and to promote a better use of resources available, especially among public institutions (Cave et al, 1997; Barr, 2004). The growing literature on public-private competition in education has nevertheless largely overlooked the higher education sector (Belfield and Levin, 2005; Cohn, 1997; Chubb and Moe, 1990; Levin, 2001). However, in the case of this sector, the promotion of greater diversification in program supply has been regarded as a necessary feature of mass higher education (Scott, 1995; Trow, 2010) and a major potential effect of greater privatization and marketization (Geiger, 1986; Altbach, 1999). A more diverse program supply was regarded as a necessity in view of an increasingly diverse student population and the needs of the so-called knowledge economy (Brown et al, 2011). Nonetheless, recent research has raised serious doubts about the effectiveness of privatization in promoting a more diverse program supply in higher education (Teixeira and Amaral, 2001, Welch, 2007; Rossi, 2009).

This paper discusses the issue of diversification in higher education markets and the potential effects of the development of private higher education for program diversity. The analysis has been stimulated by the significant political expectations in many countries regarding the development of a large private higher education sector and its potential impact for the diversification of the overall system's program supply. We aim at contributing to a better understanding about the different specialization patterns and horizontal differentiation - in terms of educational fields - between public and private

sectors. In particular, we discuss whether private Higher Education Institutions (HEI) are all supplying the same fields of education or if they are specialized in some particular areas. In the next section we discuss the increasing relevance of diversity in higher education and the expectations surrounding the development of private higher education in this regard. In the third section we present the empirical part of our analysis. The analysis will be based on the experience of several European and Latin American countries for which the private sector has been a major feature of the development of mass higher education. The countries analyzed present examples of systems where the private sector is relatively large and has attained a significant share of enrolments. The large size of the private sector in these countries makes also possible to identify patterns across the sector vis-à-vis the public one. In the final part of the paper we discuss some possible explanations for the apparent contrast between political expectations and the actual empirical patterns of program diversification in higher education.

2. PRIVATIZATION AND DIVERSITY IN HIGHER EDUCATION

Over the last two decades, we have observed significant changes in the higher education sector. This sector, which in many parts of the world was strongly dominated by public provision and strong government regulation (Neave and Vught, 1991), has seen a growing role of market forces and private supply (Brown, 2010; Teixeira et al., 2004). One of the most significant aspects of that marketization process has been an increasing competition between public and private higher education institutions. This competition was often stimulated by public policies (Le Grand, 2004), aiming at

enhancing choice among students and families (Friedman, 1962; Belfield, 2000; Jongbloed, 2006). It was expected that more competitive educational markets could contribute to more efficient behavior from universities and colleges, namely through improvements in students' achievement and graduation rates (Weisbrod et al, 2008). More competition between educational institutions was also expected to reduce waste and to promote a better use of resources available, especially among public institutions (Cave et al, 1997; Barr, 2004), though this process was recognized as a complex one (Payne, 2010).

Despite the increasing body of literature on public-private competition in education (Belfield and Levin, 2005; Cohn, 1997; Chubb and Moe, 1990; Levin, 2001), most economic research has largely overlooked the higher education sector. This is particularly puzzling, since in many countries there have been significant advances in private supply of higher education (Geiger, 1986; Altbach, 1999; Teixeira, 2009b).¹ Faced with increasing limitations on public expenditure (Barr, 2004) and with strong economic and social pressures to expand higher education, many governments around the world have chosen to expand the system by allowing the development of private

¹ The growing relevance of privatization in higher education has emerged in various dimensions (Williams, 1996). One of the major developments has been a growing privateness in the governance and management of public sectors, with increasing pressure for public institutions to adopt private-like styles of management and to use them to become more efficient (Amaral et al, 2003). Another important development has been the pressure for the diversification of funding, notably through non-public sources such as the introduction and the increase of tuition fees and other types of cost-sharing (Teixeira et al, 2006). This has been further reinforced in recent years due to the effects of the financial crisis on governments' budgets.

supply, leading to a situation in which the share of enrolments in the private sector has become a significant or even a dominant portion of the overall system. (Kim et al, 2007). Furthermore, the current pressures on governments' budgets, in the aftermath of the financial crisis of 2008, suggest that this trend is likely to be further reinforced, as governments around the world attempt to reduce public expenditure, especially in social areas.

The recent expansion of private higher education has also been taking place amid a favorable political economic mood.² The pressures for expansion of higher education have coincided with a period of increasing constraints on public expenditure that have affected education in general and higher education in particular (McPherson and Schapiro, 2006; Johnstone and Marcucci, 2009). In the case of the wealthiest countries, the retrenchment of the welfare state has undermined the financial reliance of higher education on public funding (Barr, 2004; Teixeira et al, 2006). In the case of developing countries, the financial limitations associated with a lower fiscal basis have been regarded as a significant obstacle to the ambition of expanding the higher education system on the basis of public funding. Nonetheless, those constraints of public funding cannot be dissociated from a political mood characterized by the growing influence of an ideological agenda based on increasing liberalization, unleashing market forces, and restraining government's intervention in various areas of social expenditure (Middleton, 1996; Slaughter and Leslie, 1997).

² This contemporary environment contrasts significantly with the views among older prominent economic thinkers such as John Stuart Mill (1988, XXVIII) or Thorstein Veblen (2009), both of which have expressed mistrust regarding the quality of private provision of education and need for government regulation to enforce minimum standards of quality.

The emergence of private higher education worldwide has been taking place against a background of high political expectations regarding its virtuous contribution for the workings of the system at large. One of the leading issues concerns the belief that it would stimulate more competition and efficiency in this sector (Levy, 1999; Kim et al, 2007). The rationale was that by strengthening private supply in higher education, there would be more competition between public and private institutions and this would stimulate the prior dominant public sector to become more efficient in its use of resources and its responsiveness to social and economic needs (e.g., Geiger, 1986; Altbach, 1999). Moreover, more private supply would also bring greater freedom of choice (Belfield and Levin, 2010) and a more diversified set of programs.

The diversification of program supply has been a very prominent issue in policy debates about mass higher education. The expansion of the system towards mass and universal access has been presented as requiring a more diverse program supply to cater for an increasingly diverse student population and to help mass higher education to perform more effectively a growing set of missions (Scott, 1995; Trow, 2010). A more diverse program supply has also been regarded as a necessity in view of the needs of the so-called knowledge economy since higher education has been called adapt to more diverse and complex training profiles (Brown et al, 2011; Levy and Murnane, 2008).

The changes aiming at strengthening market forces and a greater role of private initiative in higher education have been expected to favor the emergence of innovative and differentiating behavior among higher education institutions (Rotschild and White, 1995, Winston, 1999). The private sector was supposed to demonstrate an increased capacity for exploring new market opportunities and for occupying market niches, by using its higher administrative flexibility and financial motivation (Levy, 1999). Private

and private-like institutions – meaning those institutions treated as if they were privately owned – were to promote a better balanced supply of higher education from a geographical and disciplinary perspective (Geiger, 1986). Likewise, a similar rationale was present regarding labor market demands, since the expected greater responsiveness of private-type higher education institutions was viewed as a powerful stimulus for institutions to supply programs better adapted to labor market needs (Brown and Hesketh, 2004).

Nonetheless, recent research has raised some questions about these beliefs on the potential virtuous role of privatization in promoting increasing diversification in higher education (e.g., Welch, 2007; Rossi, 2009). Some studies have suggested that private institutions were more likely to duplicate what public institutions were doing, especially by supplying programs in fields with strong demand and requiring low investment (Teixeira and Amaral, 2001; Wells et al, 2007). Meek et al. (1996) considered that institutional responses to increased market competition could lead institutions to imitate the activities of their successful competitors. Thus, under certain circumstances private higher education does not bring organizational diversity (Levy, 1999). In the higher education literature there has been accumulating several national case-studies suggesting that private higher education has an overall negative effect in the diversity of the system (Teixeira and Amaral, 2001). In those countries where higher education has recently evolved from a system of almost homogeneous public or semi-public provision to one in which the private sector accounts for a significant portion of students, one seems to identify some apparent commonalities in the patterns of development and behavior of private higher education (see Table 1).

Table 1 here

The overall picture given by existing research suggests that this sector tends to be rather concentrated regarding fields of study. An overview of existing studies analyzing cases of the development of private higher education (presented on Table 1) indicates that private supply is mostly focused in Social Sciences programs, namely Business and Management, Law, and Economics. Outside Europe it is not unusual that to this group are normally added the cases of programs in Computer Sciences and Information Technologies. The behavior of private institutions suggests the need to avoid simplistic theoretical interpretations and the necessity to collect more empirical evidence. However, most of the existing literature has presented limited empirical data to support those patterns and even less in a comparative way. Thus, a more consolidated knowledge of the role of privatization in the degree of higher education supply's specialization requires greater attention to both aspects.

3. MEASURING DIVERSITY AND SPECIALIZATION IN HIGHER EDUCATION SECTORS

The empirical analysis of diversification of activities has been for long time one of the main topics of debate in industrial economics and management thought (see, for instance, Caves 1980; Porter 1980). In particular, many authors have examined why certain firms diversify their activity and what is the best environment to promote or hinder diversification, especially when this corresponds to an innovative behavior. Kamien and Schwartz (1975) and Ramanujam and Varadarajan (1989) provide two valuable in-depth surveys on the link between corporate diversification strategies and market structure. The most explored hypothesis is the possible influence of the market/sector structure in the promotion of diversification of an organization's

activities. Another dimension that has been also signaled in some industry studies is the size of firms (Tremblay and Tremblay, 1996), though this relationship does not necessarily hold for some sectors (Botazzi and Secchi, 2005).

Although diversity has been an increasing relevant topic in higher education, there is almost no research exploring the way market structure can affect the degree of diversification in this sector. Our study aims at providing evidence on whether can be identified different specialization patterns and horizontal differentiation - in terms of educational fields - between public and private sectors. In particular, we are interested in exploring to what extent private higher education is supplying programs in all fields or if it is specialized in some particular fields. If the latter is the case, it will be important to find out which fields are those and what implications can be drawn from that possible specialization.

3.1.DATA

We have selected several countries in Europe and Latin America for the purposes of our study of specialization and diversification patterns in public and private higher education sectors. The countries analyzed share both the fact that mass higher education developed later than in the wealthiest Western countries and privatization was a major feature of higher education's modern expansion. Thus, we do not consider in our analysis countries such as the U.S. or Japan which also have large private sectors, but their processes of privatization have much older historical roots and pre-date the development of mass higher education (Altbach and Umakoshi, 2004; Trow, 2010),

with other significant peculiarities that require a separate analysis.³ The countries analyzed in this study attempt to illustrate the recent policy trends in which private higher education has been explicitly used as an instrument for the development of mass higher education and to promote more choice and greater program diversity.

The analysis adopts a concept of private institution that is not restricted to issues of legal ownership, but it also includes funding criteria. In fact, in many countries there are institutions that are not considered as legally public organizations, though they are treated as such for funding purposes, thus making them very similar to public institutions regarding incentives and behavior. For the purposes of our analysis, we wanted to compare the behavior of publicly funded institutions with those private institutions that are essentially financially dependent on the tuition fees that they charge to their students.

The countries were also selected inasmuch as they provided examples of higher education systems in which the private sector has attained a significant size regarding enrolments and where a comparison between the public and the private sectors could be meaningful. We have therefore excluded many European countries where private institutions are a residual portion of the higher education landscape. We have also excluded countries that have very small higher education sectors, with very few institutions, like many systems in Latin America, since the comparison between public and private sectors would be restricted to a very small number of institutions and

³ It should be noted that the share of the private sector on higher education's enrolments in the US is smaller than in any of the countries selected for the purposes of this study (see Weisbrod et al, 2008).

therefore could be significantly influenced by individual institutional peculiarities rather than by general trends common to multiple institutions.

The selection of countries was also conditioned by our purpose to analyze the distribution of programs across different fields in a comparative perspective. Thus, we could only use countries that have publicly available data on programs according to comparable groups of scientific fields and for both the public and the private sectors. In some cases national statistics present that distribution but for the overall higher education system. In other cases, data is presented according to nationally criteria that prevent an international comparison since the classification is different and the lack of detail prevents its reclassification according to internationally comparable categories.

The countries selected are not regarded as a representative sample but as significant examples of large and consolidated private sectors that can provide important insights regarding the potential effects on program supply of public-private competition in higher education. The countries included in the empirical analysis are the following ones: Argentina, Brazil, Chile, Mexico, Poland and Portugal.⁴ The four Latin American countries have large private sectors and include the largest higher education systems in the region. In the case of Portugal and Poland, these are the European countries where the private sector has attained a largest share of enrolments and therefore where the

⁴ For Portugal, data was collected from Ministry of Science, Technology and Higher Education (MCTES – GPEARI). For Brazil, we have accessed to data through the Ministry of Education and INEP. For Chile, data was made available by the Chilean Ministry of Education (DIVESUP). Similarly, for Argentina, data was collected through the website of Ministry of Education (SPU). For Mexico, data comes from the official offices, namely INEGI, ANUIES and SEP. For Poland, data was obtained from the Ministry of Science and Higher Education.

comparison between public and private sectors can be more meaningful. The countries selected are also countries in which both the public and the private sectors are composed by a significant large number of institutions, making more possible to identify common trends across institutions peculiarities.

As it can be seen in Figure 1 the private sector caters for a significant number of enrolments, though its relative weight varies among the countries. The lowest share of enrolments is found in Argentina (20%) and the highest in Brazil (about 75% of total enrolments), with the remaining countries presenting a relative weight of private sector between 30% and 50% of total students enrolled in higher education. These differences may be a relevant factor when analyzing the patterns of specialization for the public and private sectors to be found in each country.

Figure 1 here

The countries analyzed in this study share some similarities, but present also some differences concerning their national histories and traditions of private higher education, As the data on Table 2 indicates, there are some differences regarding the timing in the expansion of the private sector, which may be relevant to be kept in mind throughout the analysis in order to explore to what extent certain features of each country's private sector may influence its patterns of specialization and diversification.

Table 2 here

3.2.METHODOLOGY

In our analysis we focus on two particular interrelated measures: specialization and diversification. In brief, the higher the specialization levels of sectors, the lower will be their diversification. Diversification captures how each specific sector is changing the mix of educational fields supplied, thus, a sector will be more diversified if the range of educational fields offered is wide or it will be considered more specialized if it supplies a narrower combination of areas. In order to make both concepts computable with synthetic indicators, we first need to identify one or more HEIs' characteristics of interest with respect to which the above concepts can be applied. Due to limitations at availability and comparability of data across the sample of countries considered, our analysis is restricted to the number of enrolled students in each sector, disaggregated by educational fields. To measure to what extent each sub-sector is "specialized" in a particular educational area relative to the national average we follow Rossi (2009) by applying the Revealed Comparative Advantage (RCA) index developed in international economics by Balassa (1965). Accordingly, the specialization index of sector j in educational field i , S_{ji} , is defined as follows:

$$(1) \quad S_{ji} = ((x_{ji}/X_j)/(x_i/X)),$$

where:

x_{ji} = number of enrolled students in sector j and in educational field i ;

X_j = total number of enrolled students in sector j ;

x_i = number of enrolled students in educational field i from all institutions in both sectors;

X = total number of enrolled students of all institutions from both sectors in the country;

j = legal status of the sector: {private, public};

i = educational field according to the Unesco/OECD/Eurostat (UOE) manual⁵.

This index only takes positive values, so that values smaller than 1 mean that sector j is relatively under-specialized in educational field i , whereas values greater than 1 imply that sector j is relatively over-specialized in the area. However, to avoid problems associated with the sensitivity of the index to the size of sectors, we normalized S_{ji} following Brusoni and Geuna (2003, 2004) as follows:

$$(2) \quad NS_{ji} = (S_{ji}-1)/(S_{ji}+1),$$

Now, the index may take values in the range $[-1,1]$ and indicates whether sector j has a higher-than-average “activity” ($NS_{ji} > 0$) or a lower-than-average “activity” ($NS_{ji} < 0$) in a particular educational field i .

To capture the level of diversification of each sector, we constructed a “diversification index” based on the inverse of Herfindhal-Hirschman index and commonly used in industrial organization to measure the market concentration (Pepall

⁵ The UOE manual considers eight educational fields: Education (Teacher training and education science), Humanities and Arts (Arts; Humanities), Social sciences, business and law (Social and behavioral science; Journalism and information; Business and administration; Law), Science (Life sciences; Physical sciences; Mathematics and statistics; Computing), Engineering, manufacturing and construction (Engineering and engineering trades; Manufacturing and processing; Architecture and building), Agriculture (Agriculture, forestry and fishery; Veterinary), Health and welfare (Health; Social services) and Services (Personal services; Transport services; Environmental protection; Security services).

et al., 2008). Following Rossi (2009), we compute the diversification index for each sector as indicated below:

$$(3) \quad D_j = (\sum_i [(x_{ji}/X_j)]^2)^{-1},$$

where, as previously, x_{ji} is the number of enrolled students in sector j and in educational field i and X_j corresponds to total number of students in sector j . This diversification index shows how wide the range of educational fields of each sector is, based on the relative weight of each educational field for the sector j . Thus, low values of D_j imply that sector j is more specialized, while higher values mean that the sector is more diversified. D_j assumes values between 1 and n (the overall number of educational fields). This index can also be normalized to take values in the range [0, 1] as follows:

$$(4) \quad ND_j = (D_j - 1) / (n - 1).$$

These indicators provide a suitable quantification of specialization and diversification in higher education and were considered in the analysis of the dynamics of diversity and relative specialization of countries' higher education systems (Huisman et al, 2007; Rossi, 2009).

For each country, we have used data on total enrolled students by educational field and by sector, for the most recent year for which reliable data was available. In Table 2 we present some statistics to briefly characterize the private sector of the countries in the sample. Besides the information on the maturity of the private sector and the period of its expansion, we provide data on the dimension of the private sector, both regarding the number of private HEIs, but also regarding the volume and share of enrolments absorbed by the private sector. The average number of students enrolled by private HEIs

corresponds to the ratio of total number of students enrolled in private sector to the total number of private HEIs, in order to provide a measure of the average dimension of private institutions in each country. Additionally, we present the growth rate of enrolments resulting from the following expression:

Growth rate of Enrolments_{t-s, t} = (Total Enrolments_t – Total Enrolments_{t-s})/Total Enrolments_{t-s}⁶.

In order to turn the results on the growth rate of enrolments comparable among countries, we normalized the rates, by converting them into annual average growth rates, which corresponds to the rate that enrolments would have grown if the growth occurred at a constant rate. This was obtained through the formula:

$$\text{Average growth rate between periods } i \text{ and } j = \sqrt[j-i]{X_j/X_i} - 1,$$

with X_j and X_i corresponding to the total number of students enrolled in years j and i , respectively.

3.3.MAIN RESULTS

The results obtained for our analysis of diversification of public and private higher education sectors in 6 countries are presented in Figure 2. Overall, the results indicate that the public sector is always more diversified (thus, less concentrated and less specialized) than the private sector, whatever the country analyzed. Moreover, the differences between the degrees of program diversification of the public and private

⁶ Detailed information about t and $t-s$ for each country is presented in the Table 2.

sector are noticeable for all the countries analyzed, with the largest differences obtained in the case of Poland and Brazil and the smallest differences for Chile and Portugal. The case of Brazil is particularly noteworthy since in this country the private sector is very large and dominant in enrolments. These results indicate that the private higher education sector tends to have higher concentration of their program supply in particular educational fields than the public sector. The results obtained for the public sector are rather interesting since the degree of diversification is rather similar for all the six countries analyzed, despite the fact that the share of enrolments in the public sector varies significantly among those countries.

Figure 2 here

In the following step we have analyzed the degrees of specialization indexes for the countries for which we had data about the distribution of programs according to comparable fields of education for both the public and private sectors.⁷ Table 3 reports the results of normalized average specialization index (NS_{ji}) for public and private HEIs for the eight educational fields defined in international educational statistics (as in the UOE manual). Similar to the diversification index, the specialization indexes were computed using data on total enrolled students for the most recent year for which the data were available. The shaded areas indicate the cases of relative over-specialization of each sector (with positive values for NS_{ji}).

Table 3 here

⁷ The results for Argentina and Mexico are excluded from the table, since different classifications of educational fields are used by the official statistical offices from which the data was collected. However, the results are available upon request to the authors.

The results presented in Table 3 suggest that the public and the private sectors have different profiles when we analyzed their specialization patterns across educational fields. The results indicate a specialization of the private higher education sector in four fields: Social Sciences, Business, and Law; Education; Services; and Health and Welfare. By contrast, there is an under-specialization of private higher education in the Sciences, Agriculture, and Engineering. At the country level, we find that the private sector specialization in Social Sciences is particularly significant for the two European countries analyzed (Poland and Portugal). Poland also presents a very high specialization of the private sector in education. By contrast, the main focus of the public sector seems to be in programs classified in the Sciences, Engineering, and Agriculture.

The degree and type of specialization observed for these countries raise some doubts about the beliefs surrounding the expansion of private higher education. Private higher education tends to be far more specialized than the public sector and its specialization appears to take place mostly in fields that combine low running costs and high student demand (especially the Social Sciences). They tend to avoid certain costly fields, which are largely left to the public sector. Thus governments may count on the private sector to expand the system, but less so to increase program diversity, since this sector will tend to have a pattern of supply more narrow than the public one with limited provision in certain fields.

3.4.DISCUSSION OF THE RESULTS

The results obtained in our analysis of the patterns of diversification and specialization of public and private sectors of higher education suggest a significant contrast with the policy expectations in many countries about the development of private higher education and the need of further discussion about potential factors that may help us to make sense of that apparent paradox. Several aspects can be taken into account when analyzing these different degrees of specialization. On the one hand, we may look at specific factors related to the development of public and private higher education in each country. On the other hand, we should consider possible features of the private sector that may help to understand to what extent this sector may differ from the public one in its program supply.

One of the first aspects to bear in mind is the maturity of the private and public sectors. It has been argued that older institutions tend to reduce their diversification levels and that public and private sectors' diversification seems to have converged over time (Rossi, 2009). On the other hand, one could argue that younger institutions may tend to start their activity by focusing their supply in a few educational areas and with time diversify their set of programs. Our results could provide support for both hypotheses since the largest differences in patterns of diversification between the private and public sectors were found for two countries (Poland and Brazil) that differ significantly in the maturity of their private sectors. Whereas Poland, like many other Eastern European countries, has seen a recent development of its private sector (post-1990s), Brazil, like several other Latin American countries, has experienced private higher education for several decades. Moreover, although the several Latin American countries have had private institutions for several decades, large differences persist between the degrees of diversification of the private and public sectors, as measured by

our index. Thus, it seems that although private sectors may increase their levels of diversification in more mature stages, they are likely to present a lower degree of specialization than their public counterparts after several decades.

Another aspect to be considered when analyzing patterns of diversification of the public and private sectors is the size of the sector (Huisman et al., 2007). A bigger system, with larger and more numerous institutions, can be expected to present a more diversified profile since institutions will have to diversify their program supply to grow (Brewer et al, 2002). Moreover, new institutions will often be stimulated to find new market niches if they want to avoid competing with more established ones. Several of the Latin American countries analyzed in our study suggest that large private sectors tend to present a more diversified picture than private sectors absorbs a smaller share of enrolments (e.g. Poland). However, this relationship between size and specialization is by no means straightforward. In fact, countries such as Portugal and Argentina present more diverse private sectors than Brazil, despite the fact that the latter enrolls a bigger share of students in the private sector. Moreover, countries with similar shares of students enrolled in the private sector, such as Portugal, Mexico and Poland, present noticeable differences regarding degrees of specialization. Hence, the countries included in our study also place some doubts about the hypothesis that size may be a strong factor influencing patterns of diversification in the private sector, though this would need to be confirmed with a much larger sample of countries.

A related aspect suggested by our results that should be explored is to what extent the average size of private institutions seems to matter for the levels of diversification. Although the literature on scale and scope effects in higher education is less than conclusive, there are indications of both scale and scope effects in this sector, especially

at smaller scales of production (Cohn et al, 1989; Dundar and Lewis, 1995). Private sectors of higher education are often characterized by a smaller average institutional size regarding enrolments than their public counterparts, even in those cases in which the private sector is large. This smaller average size may explain their stronger focus on a few educational fields, thus, this is an hypothesis worth exploring in further research.

The results regarding the type of specialization also beget some discussion about certain apparent specificities of private institutions. Most private HEIs, even when they have a not for-profit status, seem to adopt a risk-averse behavior that seems to be highly relevant when analyzing patterns of diversification and their evolution across time. Launching new programs can be an organizational challenge, especially for smaller institutions, since they will have to find the necessary financial and human resources to attract a sufficient and qualified group of students in areas that an institution will not necessarily master and/or has reputation within. The risks will tend to be perceived as smaller in fields related to the existing ones. Moreover, and as several authors have already noted, HEIs tend to be selective in the way they develop new activities and programs since they perceive that part of their institutional prestige is actually strongly associated with that selectivity (Winston, 1999; Brewer et al, 2002). Thus, they may not necessarily regard expanding diversification as a strategy consistent with other organizational goals.

Additionally, one should reflect about the specific context observed in the private sector and to what extent the sector is experiencing a stage of expansion, decline or stagnation. This relationship has been largely ignored in the literature on higher education and, although the results obtained in this study do not allow for much more than an exploratory analysis, it does seem likely that a declining private sector may

present a very distinct pattern of diversification compared to an expanding one. A contracting private sector may stimulate institutions to explore as much market niches as possible in order to minimize the effects of overall decline. It should nevertheless be noted that an adverse demand situation may lead institutions to focus on their core areas of activity (Brewer et al, 2002), thus reinforcing institutional specialization and possibly contributing to reduce the sector's overall diversification. The countries analyzed in our study confirm that both effects are plausible and that the strength of each may vary from case to case. Summing-up, the aforementioned hypotheses constitute relevant issues to be addressed by further research on the role of the private sector for program diversification.

4. CONCLUDING REMARKS

In this paper we have discussed the possible links between the increasing privatization in higher education markets and the respective degree of program diversification, which has become a topic of increasing interest in higher education policy debates. The analysis was based in a set of statistical indexes that aimed at measuring the degree of diversification and specialization in the higher education system as a whole and in public and private sectors. The data were drawn from countries in Europe and in Latin America where the private sector has attained a significant share of enrolments. The results seem to confirm previous research insofar as the private sector tends to be far more specialized than the public sector and it does not appear to deliver the program diversification that many policy-makers expect. Although the number of countries is small, the size of those systems (and of its private sector) suggests that the results have some relevance and hint several hypotheses regarding the

peculiarities of private higher education and possible differences between private and public higher education sectors. These differences may be related to the maturity of the sector, the absolute and relative size of each sector, the average size of institutions in the public and private sector, or the contextual dynamics of the overall higher education system.

The possible contrasts between the realities and beliefs surrounding privatization in higher education have some important policy implications. One may argue that the apparent discrepancy may be at least in part due to the policy and political context in which many private sectors are developing. The pressure for rapid expansion of the higher education sector may create a regulatory context favorable to this pattern of development of the private sector by stimulating institutions to be more concerned with expansion in fields that have strong demand and require lower investment such as Social Sciences and avoid costlier and riskier ones such as Science, Health, and Engineering. Moreover, the results of our study, if confirmed by subsequent studies, draw attention to important policy challenges. One of the leading aspects to be considered may be the potential social benefits derived from higher education. The pattern of specialization may have some important growth effects, since fields such as the sciences, engineering or health are likely to have important externalities and may be more growth-enhancing for developing countries (Grossman, 2006). Thus, the policy environment would benefit from stimulating private institutions to diversify to those areas.⁸

⁸ However, it should be recognized that areas such as the social sciences may also bring important positive indirect effects regarding citizenship such as democratic values, political participation, and religious and political tolerance (see McMahon, 2009).

Overall, the results of our study recommend a more systematic approach when analyzing the actual development of the private sector in higher education. On the one hand, we need to compare the actual behavior of the private sector with the political misunderstandings that surrounds much of its development. On the other hand, we need to adopt a comparative international approach that may help us to identify common patterns across systems of higher education. We trust this paper may provide a stimulus not only for a more thorough and empirically-rooted analysis of the profile of private higher education, but also for a broader approach to diversity in higher education that can help us to understand better the impact of increasing public-private competition in the dynamics of higher education's development and the peculiarities of higher education markets. This will also help us to disentangle politically based argument in favor of privatization in higher education from the actual behavior of private universities.

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TABLES

Table 1. Specialization patterns of private Higher Education Institutions - cross-country comparisons

Country	Educational fields where the private sector is relatively specialized	Reference
Africa	South Africa	Information Technology, Business and Commerce
		Asmal (2003)
		Kraak (2003)
		Subotzky (2003)
	Ethiopia	Business Administration, Computer Studies and Information Technology
		Teferra (2005)
America	Brazil	Administration, Law, Accounting, and Economics
		Schwartzman (1997)
	Mexico	Finance, Business, Accounting, Computing and Humanities
		Kent and Ramírez (1999)
		Silas (2005)
	Argentina	Accounting, Marketing and Business
		De Cohen (2003)
	Uruguay	Social Sciences and Humanities
		Couture (2005)
Asia	Philippines	Business Administration, Computer Science, Education and Psychology
		Couture (2005)
	Philippines	Business and Engineering
		James (1991)
	Israel	Business and Engineering
		James (1991)
	Israel	Economics, Law and Management
		Guri-Rosenblit (1993)
	Vietnam	Business Administration, Foreign Languages, Accounting and Information Technology
		Huong and Fry (2002)
	Indonesia	Education and Social Sciences
		Welch (2007)
Europe	Russia	Management, Business and Market Economy subjects
		Kodin (1996)
		Law, Economics and Social Sciences
		Fried et al. (2007)
	Ukraine	Business, Law, Education and Medicine
		Stetar and Stocker (1997)
		Law, Economics and Management
		Stetar and Berezkina (2002)
		Law, Economics, Social Sciences and Humanities
		Fried et al. (2007)
	Hungary	Computer Sciences, Management, Business and Teaching of Foreign Languages
		Nagy-Darvas (1997)
	Czech Republic, Hungary, Poland and Romania	Business and Management, Computer Science and Pedagogy (Teaching of foreign languages)
		Giesecke (1999)
		Law, Economics, Business and Health
		Amaral and Teixeira (2000)
		Teixeira and Amaral (2001)
	Portugal	Social Sciences, Commerce and Law
		Correia et al. (2002)
		Law, Economics and Social Sciences
		Fried et al. (2007)
	Poland	Business, Management, Education, Political Sciences and Computer Sciences
		Duczmal (2005)
		Economics and Social Sciences
		Fried et al. (2007)
	Romania	Law, Economics and Humanities
		Nicolescu (2005)
		Fried et al. (2007)
	Albania, Germany	Law, Economics and Social Sciences
		Fried et al. (2007)
	Austria	Economics and Social Sciences
		Fried et al. (2007)
	Bulgaria	Economics, Social Sciences, Technical Sciences and Humanities
		Fried et al. (2007)
	Estonia and Spain	Law, Economics, Social Sciences and Technical Sciences
		Fried et al. (2007)
	Turkey	Law, Economics, Social Sciences and Humanities
		Fried et al. (2007)
	Italy	Law, Economics, Social Sciences and Arts
		Fried et al. (2007)
		Social Sciences, Arts and Humanities
		Rossi (2009)

Table 2. Basic data on the private sector for the countries analyzed

	Establishment of first private HEI	Period of expansion of the private sector	Number of private HEIs ^{a)}	Number of students enrolled in private sector ^{b)}	Share of private sector in enrolments ^{b)}	Average number of students enrolled by private HEI ^{b)}	Growth rate of enrolments	Annual average growth rate of enrolments
Argentina	1959	early 1990s	57	317,040	19.9%	5,562	40.0% ^{d)}	8.8%
Brazil	1940	late 60s	2,016	3,806,091	75.0%	1,888	16.7% ^{e)}	5.3%
Chile	1888	late 70s	44	273,357	47.5%	6,213	54.2% ^{f)}	9.0%
Mexico	1935	late 80s and early 90s	1,786	874,314	33.3%	490	23.4% ^{g)}	5.4%
Poland	1989	early 1990s	278	659,396	34.2%	2,372	13.6% ^{d)}	3.2%
Portugal	1964	late 70s	98	90,564	24.3%	924	-8.2% ^{f)}	-1.7%

a) Data for 2010; **b)** All data refer to 2008/2009 except for Mexico (07/08) and Chile (09/10); **c)** Between 2004/05- 2006/07; **d)** Between 2004/05-2008/09; **e)** Between 2005/06-2008/09; **f)** Between 2004/05- 2009/10; **g)** Between 2003/04-2007/08. For Portugal, data was collected from Ministry of Science, Technology and Higher Education (MCTES – GPEARI). For Brazil, from the Ministry of Education and INEP. For Chile, from the Chilean Ministry of Education (DIVESUP). For Argentina, from the Ministry of Education (SPU). For Mexico, from the INEGI, ANUIES and SEP. For Poland, from the Ministry of Science and Higher Education.

Table 3. Specialization of public and private sectors, measured by the Normalized Specialization Index (NS_{ji})

	Portugal		Brazil		Chile		Poland	
	Public	Private	Public	Private	Public	Private	Public	Private
Education	-0,01060	0,03203	0,26112	-0,13384	-0,03549	0,03651	-0,08751	0,13403
Humanities and Arts	0,03161	-0,09554	0,23580	-0,11491	-0,01769	0,01886	0,07836	-0,19553
Social Sciences, Business, and Law	-0,03886	0,11746	-0,30257	0,07200	-0,10335	0,09384	-0,10078	0,14974
Sciences	0,11229	-0,33939	0,13749	-0,05624	0,12238	-0,18227	0,06867	-0,16527
Engineering, Manuf., and Construction	0,10881	-0,32888	0,19426	-0,08758	0,18649	-0,33949	0,17582	-0,69589
Agriculture	0,18215	-0,55057	0,40156	-0,28888	0,09726	-0,13523	0,17363	-0,67830
Health and Welfare	-0,06103	0,18448	-0,13152	0,03737	-0,13172	0,11401	0,06780	-0,16266
Services	-0,03554	0,10741	-0,16757	0,04574	0,05709	-0,07174	-0,08999	0,13704

Figure 1 Share of enrolments in private higher education sector

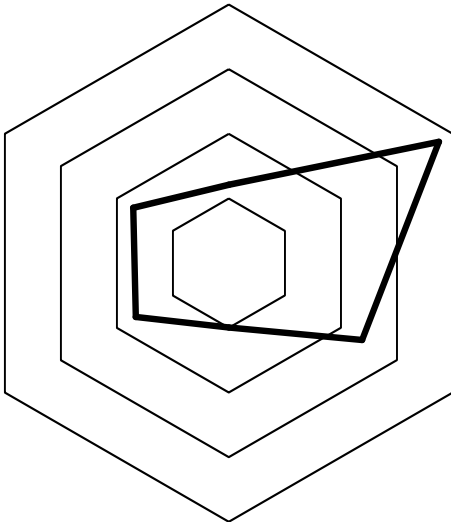


Figure 2 Normalized diversification index in public and private higher education sectors (NDj)

