

CONJECTURES AND DEMOCRATIZATION OF HIGHER EDUCATION: THE POLYTECHNIC INSTITUTE OF VISEU CASE

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Abstract

Higher education in Portugal is characterized by the implementation, in the last two decades of the XX century, of a binary system: university and polytechnic studies. The establishment of polytechnic education allowed an effective democratization of the access to higher education. However, this process took time to be implemented and we still verify, today, persistent dichotomies with the university system. Nevertheless, it is unquestionable that, the institution of this higher education system, allowed a redistribution of the regional offer and the possibility for young people, coming from socioeconomically disadvantaged sectors of society, to have access to higher education, contributing to reducing geographic, social, and economic contrasts. In this reflection, we intend to address the specific case of the Polytechnic Institute of Viseu, as the first institution of polytechnic education created at national level. We have revised the data obtained in several investigations that took place between 2006 and 2020 (557 surveys), in search of, in a longitudinal perspective, to verify the changes in the social profiles of its students, in their access to higher education, their motivations and professional expectations.

Keywords: Polytechnic higher education, social classes, educational motivations, professional expectations.

1 INTRODUCTION

The context of higher education in Portugal has suffered major changes with the emergence of the polytechnic system, responsible for its effective democratization. The current structure of higher education in Portugal (public university, public polytechnic and private higher education) is relatively recent, because, until 1960, the offer of this type of education was exclusively in the public universities with access limited to a small portion of the population.

Until 1970, higher education in Portugal was clearly a system of elites, characterized by low levels of participation. The creation of the binary higher education system (University's and Polytechnics) seeks to respond to the growing demand in secondary education, a consequence of the compulsory and gratuity of basic education. This enlargement in the number and genesis of higher education sought to promote its democratization, expansion, regionalization and diversification. The regionalist discourse, in defense of economic promotion and social well-being at national level, affirms the need for a network of schools dedicated to forming the frameworks indispensable to the achievement of those objectives. The network of polytechnic institutes has filled this gap, emerging as an appropriate means of the articulation between the requests of economic agents and the professionalizing effort of school responsibility.

However, it was soon found that the process would not be linear. Until 1970, higher education in Portugal was clearly a system of elites, characterized by low levels of participation. The creation of the binary higher education system (University's and Polytechnics) seeks to respond to the growing demand in secondary education, a consequence of the compulsory and gratuity of basic education. Considering the new demographic and institutional contexts, several singularities have intensified in the last two decades: the increase in the graduates unemployment and the consequent concern of institutions with this problem; the evaluation of higher education system and increase of institutional competitiveness; the upload of needs of scientific production and investigation funding; the sharp drop in the offer in certain scientific areas (the most evident example is the education); the progressive needs for PhD's professors in polytechnics and universities and finally the application of the Bologna process of the 2nds and 3rds cycles.

This is the context that outlines this approach, which the purpose to contribute to the reflection on the role of the polytechnic education on the effective democratization of access and frequency of higher education, to minimize the social, economic, and regional dichotomies that persist in Portugal. Alves (2007)^[1] identify three types of dualities in national higher education system, namely: the social recognition (originated by the University's ancestry, accumulated prestige and differentiation of type and teaching objectives); between public and private education, with this being the subject of less social

recognition and prestige and between central (Lisbon, Porto and Coimbra) and peripheral institutions (regionalization of education, where polytechnic education occupies a central position). Consequently, there are persistent inequities at the geographic level, although in terms of training and with the implementation of the Bologna process, the type and forms of formations offers, in higher education, has gradually approached the two subsystems. However, according to Amaral and Teixeira (2000)^[2], the private and public offer, mainly of a university nature, persists in concentrating in the North Coast and in the Lisbon area. Cabrito (1997)^[3], in a more evident way, and Balsa; Simões; Nunes; Carmo; Campos, (2001)^[4] and Machado; Costa; Mauritti; Martins; Casanova; Almeida, (2003)^[5] in a more moderate way, identify social inequalities in access to higher education and confirming a reproductive and social selection logic.

Family economic and socio-educational contexts persist in influencing choices and possibilities of accessing to institutions, scientific areas and geographic spaces, and the regionalization of demand continues to represent one of the structural characteristics of higher education in Portugal. In fact, several studies in the last decades, prove that social origin plays a central role in the academic trajectories of the youngest, and polytechnic higher education is attended, tendentially, by young people coming from families with lower economic and socio-educational resources, compared to the universities. However, this issue is not an exclusive feature of our country, Ellersgaard (2015)^[6] and Savage and Friedman (2015)^[7], demonstrates that, at the international level, the economic and cultural social capital of the parents continues to play a significant influence on the academic and professional options and activities of their children.

This context allows us to continue to establish a direct relationship between social, academic and professional trajectories and social and professional reproduction. This situation was corroborated, in the specific case of the IPV, in several analyses on the process of transition to the work of graduates (Sousa, 2004^[8]; 2010^[9]; 2014^[10]), verifying that, in most cases, the access to a superior degree does not always allow a social mobility. We cannot forget that, according to Mauritti (2002)^[11], educational resources and more specifically, the way they are mobilized in the construction of professional aspirations and expectations are central elements for the understanding of the mechanisms that, from the point of view of the search for work, guide the transition processes to the active professional life of the most educated young people. Resende and Vieira (1992)^[12] prove that the polytechnic student population has a sociological profile that tends to be distinct from those of the university's: in the first case they tendentially come from the regional middle classes (urban and non-urban) and other social groups traditionally removed from the school culture; in the second case the origin is also diverse, but with strong expression in the social circles of large cities and regions with superior economic and cultural resources.

The issue of social origin is, consequently, particularly relevant in this process. It influences the school aspirations of young people (Boudon, 1977)^[13], and simultaneously reflects the social image that the family has of itself. Bourdieu (1984)^[14] advances, in this context, with the concept of social capital, conceptualizing the theory of domination, which emerges as a social mechanism based on the social resources of the actor, in the relations of knowledge and recognition. Werfhorst and Andersen (2005)^[15] proved the influence of the social background on the school trajectory, mainly of the social origin and the educational level of the parents, "(...) parents' education and social status and the gender of the graduates, is generally seen as being influential (...) To have parents with higher education seems to be a clear advantage for one's own success." (Schomburg, 2007: 47-48)^[16].

In this process, the importance of the family context and the territorial dimension are presented as important contextualization factors. It directly involves, in addition to young people and their relational networks, the employers and their own public policies in formative and employment support, which regulate the scale of the phenomenon of unemployment and employment itself. It implies, therefore, a diversity of roles, it depends on the transformations of the conditions of acquisition of knowledge and contributes to the sociopolitical regulation of the unemployed or inactive population, face to an increasingly volatile reality. New parameters of competitive demand are introduced and at the economic level there is a progressive reduction in work force needs, which is a direct consequence of the application of technology and mechanization/informatization of production processes, intensifying a phenomenon, so far residual - the unemployment of higher education graduates.

Consequently, most young people who obtain a degree, in view of the difficulties of accessing a job, progressively see it as a purely instrumental factor, which often leads to the first opportunity, where the origin and geographical framework of demand, among others, are context variables of extreme relevance in this movement. What is at stake here is not only the issue of employment or unemployment, but the increasingly complex social issues, such as standard of living, social integration, precarious employment, postponement of entry into adulthood and social reproduction.

2 METHODOLOGY

This paper is structured in different sections: Abstract, Introduction, Methodology, Results, Conclusions, Acknowledgements and References.

Taking in consideration the national dichotomies, especially those of a sociodemographic (littoral/interior) and institutional (universities/polytechnics) nature, our analysis contains a sociological relevance. Subsequently, we seek here to highlight the role played by the Polytechnic Institute of Viseu in the local development, especially through the attraction and potential fixation of students and graduates in the region, bearing in mind the relevance of this movement in the demography (urban concentration), culture (elevation of the average cultural levels of the population) and economy (supply of qualified work force in the region).

Polytechnic higher education has played, since its creation, a central position in the democratization of higher education in Portugal and the Polytechnic Institute of Viseu was, in this context, particularly relevant because, it was the first Polytechnic to start operating in Portugal (Higher School of Education in 1986).

In the academic year of 2019/20 (DGEEC, 2020)^[17] the public Polytechnic higher education made available 23186 vacancy's, which represents 44.7% of the total public higher education offer (51798). In this context, we pretend to approach, specifically, to the institutional framework of higher education in Portugal, and we intend to present contributions that allow us to understand, in a deeper way, the role played in this process.

To do that, we use the information obtained in previous and current investigations that we have carried out in the last two decades, Sousa (2004^[8]; 2010^[9]; 2014^[10]; 2017^[18]), to try to characterize socioeconomic profiles and the access motivations and professional expectations of the students, assuming, indirectly, the relevance of the transition to work as a condition for the integration, selection, or exclusion of young people in society. We will use, in this context, the data collected in different time periods from surveys applied to the finalists of the IPV of the academic years 2005/2006 (244 surveys), 2018/2019 (152 surveys) and 2019/2020 (161 surveys), to allow us a longitudinal analysis. Statistical analyses were supported by the Statistical Package for the Social Sciences 27.0 program.

3 RESULTS

3.1 Sociodemographic contexts and higher education

We start this reflection by the sociodemographic characterization of the finalists, comparing data from 2005 to 2020, to understand what kind of population accesses the polytechnic of Viseu.

Table 1 - Sociodemographic characterization by academic year (%)

		2005/06	2018/19	2019/20
Genre	Woman	38,5	70,4	77
	Man	61,5	29,6	23
Age	20-23	62,7	78,3	83,2
	24-30	26,2	12,5	11,2
	31-40	6,9	5,3	3,1
	+ 40	3,2	3,9	2,5
Residence/District	Viseu	66	61,8	60,9
	Aveiro	12,3	13,2	16,8
	Porto	3,7	5,9	6,8
	Guarda	4,9	3,3	4,3
	Braga	2	2	1,2
	Vila Real	1,6	2,6	0,6
	Outros	9,5	13,2	9,4
Total		100	100	100

N: 657

As we can see in table 1, we verify a change in the dimension of the gender, with a progressive feminization of the student population, movement that was also verified in the Portuguese higher education, in the recent decades. Regarding age, it appears that most of the finalists are in the age group of 21 to 23 years old, revelling a trend that has been intensified, in parallel with the decrease in the representativeness of students of higher age groups. This movement proves a progressive linearity of the school trajectories of the youngest, which is related to a progressive increase in the compulsory education level (actually of 12 years, promoting the direct access to higher education) and the implementation of the first education cycle of the Bolonha process (3 years), but it also represents the end of the movement of return to school (higher education) of a generation that had abandoned the system too early, as we demonstrate in the case of IPV (Sousa, 2010).

This context has consequences in the personal and family life of young people. The majority are single, fitting, according to Galland (1991)^[19], in a perspective of progressive extend of academic trajectories and consequently delaying the entry into adult life. As for the geographical origins of the IPV finalists, most students come from the central region of the country, with an evident prominence from the district of Viseu (above 60%), corroborating trends in regional demand for education, that have been observed since the last decade of the XX century, in Portugal (Cruz and Cruzeiro, 1995^[20]; Vieira, 1995^[21]). However, there is a progressive increase in the attraction of young people coming from other districts, which tend to be bordering the district of Viseu (Aveiro and Porto), and that reflects a mobility improvement, specifically of the national roads systems between limitrophe districts.

On the other hand, we pretend to establish a direct relation between family context (economic, qualifying and organizational resources) and their children's educational trajectory as it can be seen in Resende; Vieira (1992)^[12] and Tavares; Justino; Amaral, (2008)^[22]. The social class continues to influence the access to higher education and the type of scientific area chosen by students. Consequently, it is necessary to trace the social origin of the finalists. To determine their class places, using the typology presented by Costa, Machado and Almeida (2007)^[23], who argue that most of the theoretical proposals and empirical investigations linked in the current sociology of social classes converge for the permanence of an importance central to socio-educational and socio-professional indicators. These authors speak of class structure, defining their respective categories or class places as their respective categories.

Table 2 - Social class by school year (%)

	2005/06	2018/19	2019/20
EMLP - Entrepreneurs, Managers and Liberal Professionals	10,3	19,7	12,3
TFP - Technical and Framing Professionals	12,9	15,5	12,9
IW - Independent Workers	12,5	4,9	3,2
PSEW - Pluriactive self-employed workers	35,8	2,8	1,9
IF- Independent Farmers	0,4	1,4	0,6
AIPL - Pluriactive Independent Farmers	0,9	1,4	0,6
EE - Executing Employees	11,2	15,5	21,3
FO – Factory Workers	4,7	22,5	17,1
AWE - Agricultural wage earners	0,4	0	1,3
SPE - Salaried Pluriactive Executives	10,8	15,5	28,4
Total	100	100	100

N: 657

The table 2 evidences three clear trends: there is a prominence of the lowest categories, namely SPE, FO and EE, whose representativeness has increased; in the higher categories (EMLP and TFP) we verify a stabilization movement, with an increase registered in the higher EMLP category (19.5% in 2019), mainly supported by cases in which parents have small businesses, especially in the commercial and catering areas; and finally, the decrease in the representativeness of the intermediate categories (especially PSEW and IW). These results may be related with the movements that support, in recent years, a crisis of the middle class in Portugal (Louçã; Lopes; Ferro, 2019)^[24] with consequences in social hierarchy. The fact is that these results allow us to continue to associate the relevance of social origin in the academic trajectory of the youngest, fitting in the perspective of Cabrito (1997)^[3], Balsa; Simões;

Nunes; Carmo; Campos (2001)^[4] and Machado; Costa; Mauritti; Martins; Casanova; Almeida (2003)^[5]: the persistence of a movement of social inequality in access to higher education and a social differentiation, that confirms a reproductive logic and social selection of the national higher education system. These data also reinforce the perspective that we are facing a type of education with a predominantly female population, coming from social classes with low economic, qualifying, and organizational resources, which may justify an evident movement of regional demand for education.

3.2 Motivations and expectations of the finalists

Bearing in mind the progressive revalorization of higher education degrees value and the constitution of new parameters, demands and competitiveness in the labour market, the unemployment currently dominates the concerns of the politics, economists and families. This issue particularly affects those who progressively see one of the only ways of social ascension being overblown. This movement, in Portugal, has several causes. To Amaral and Teixeira (2000)^[2], it is originated by the increase of the familiar investment in education and, simultaneous, by the implementation of governmental educational policies, specifically the progressive expansion of the offer of higher education, which reached, in 2020/21 (DGEEC, 2020)^[17], new maximum values.

Consequently, new challenges are created not only to the traditional role of the state in regulating the higher education system, but also in terms of the expectations of young people and their families. To try to explore these questions, we present the motivations of accessing to higher education and the representations and expectations of the finalists, regarding the diploma and employment role in the professional future. We verify, simultaneously, that the finalists continue to declare that, above all, they were placed in their first option during the access to higher education process, corroborating what was already advanced: a high level of correspondence, particularly at the institution/area level. In this process, it is important to analyse the access motivations, to verify whether this movement is justified by socioeconomic issues or if it reflects a recognition of institutional quality (Tavares; Justino; Amaral, 2008)^[22]. The issues related to *access to a job* and *good working conditions* (the motivations most mentioned by the finalists), which allows us to connect to the importance of access to a degree and the social and economic family contexts.

Table 3 - Representations and expectations about diploma/employment by school year (%)

Obtaining a higher education degree affects		2005/06	2019/20	2020/21
Possibility to find a job	Yes	88,1	87,1	95,5
	No	12,9	12,9	4,5
In salary and material incomes	Yes	83,9	82,4	86,9
	No	16,1	17,6	13,1
Increase social status	Yes	66,3	73,6	67,2
	No	33,7	26,4	32,8
Total		100	100	100

N: 657

In table 3, we verify that the finalists continue to value the importance of obtaining a degree. We emphasize that the finalists continue to believe that the access to *the diploma directly interferes with the possibilities of finding a job*, that it *influences salary conditions* and that it *infers an increase in social status*. Despite the movement of school inflation, the representativeness of unemployment of the most qualified young people and the movement of overeducation (Hartog; Pereira; Vieira, 2001)^[25], IPV students continue to reveal high professional expectations and a significant symbolic representativeness to the status of the degree.

4 CONCLUSIONS

We can sustain, in this specific case, that the IPV continues to present a student population that is mostly female (a movement that has intensified in the last decade) and increasingly younger (direct consequence of the implementation of compulsory education to 12 years and the reduction of students of higher age groups who, belonging to previous generations, had left too early the education system). Simultaneous, in relation to the social class of origin of the finalists, there was a bipolarization: an

increase in the representativeness of the lower classes (SPE; O; EE) and an effective decrease in the middle classes (especially the “disappearance” of the PSEW, IW), being that, generally, the data of the highest classes (EMLP; TFP) remained relatively stable.

We can support that the students tend to be young people, from families with low economic and qualification resources, which makes even more evident, in this case, the importance of the access to the polytechnic higher education, in the possibility to improve their social context. We consider understandable that a regional demand for education persists, as we can see in Cruz's; Cruzeiro and Matias (1992)^[20], Resende and Vieira (1992)^[12], Cabrito (1997)^[3], Balsa; Simões; Nunes; Carmo; Campos (2001)^[4] and Machado; Costa; Mauritti; Martins; Casanova; Almeida (2003)^[5] at national level, or in Sousa (2004^[7]; 2012^[26]; 2017^[18]) regarding IPV. Despite this, it is at the polytechnic higher educational level, in the interior of the country, that the reproductive and social selection logics persist, a movement that fits in the observation of the phenomenon of social inequality in access and in the affirmation of a social differentiation, supported by a reproductive logic and social selection of the national binary higher education system itself. Most finalists access to the higher education institution closest to their district of residence, and the link between this option and the family's socio-economic context can be established.

This situation is confirmed by the various indicators in the different time periods covered, showing a dichotomic social reality and a high correspondence between socioeconomic origins, motivations for accessing higher education and professional expectations. This context also reflects that, with increase of the durability of academic trajectories (growth of the masters and PhD's offers), the average age of access to stable employment and the time of entry into adult life increases, which means that residential and economic dependence on the family will be extended (Sousa, 2012)^[26].

As for the symbolic representativeness of the diploma, for many finalists, obtaining a graduation degree assumes a central importance in accessing to a well-paid job and social status, revealing high expectations, in view of his importance in their professional future. We can affirm that polytechnic education in Portugal, especially in regions of the interior of the country, continues to play a central role in the attempt to minimize the country's social and economic differences. For many, it still represents the only possibility of extending their school trajectories in the post-secondary period. Consequently, the process of affirming polytechnic education, in the context of the democratization of this level of education, has not been concluded, nor does it appear that this will happen in the short term. It continues to represent, for many, the only possibility of attending higher education, making it possible to create expectations to improve their original socio-economic condition and position, which represents the true spirit of the Bologna Declaration and European education policies.

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REFERENCES

- [1] Alves, M. G., *A Inserção profissional de diplomados do Ensino Superior*, Lisboa: FCT, 2007.
- [2] Amaral, A.; Teixeira P., “The rise and fall of the private sector in Portuguese higher education”, *Higher Education Policy*, nº13, 245-266, 2000.
- [3] Cabrito, B. G., “A equidade no sistema universitário português: Da universalidade do discurso à contradição das práticas”, *Análise Psicológica*, XV (1), 33-45, 1997.
- [4] Balsa, C., Simões, J. A., Nunes, P., Carmo, R.; Campos, R., *Perfil dos estudantes do ensino superior, desigualdades e diferenciação*, Lisboa: Colibri, 2001.
- [5] Machado, F. L., Costa, A. F., Mauritti, R., Martins, S. C., Casanova, J. L., Almeida, J. F., “Classes sociais e estudantes universitários: Origens, oportunidades e orientações”, *Revista Crítica de Ciências Sociais*, nº66, 45-80, 2003.
- [6] Ellersgaard, C., *Elites in Denmark: Power Elites and Ruling Classes in a Welfare State*. Denmark: University of Copenhagen, 2015.
- [7] Savage, M.; Friedman, S., *Social class in the 21st century*. London: Penguin Books, 2015.

- [8] Sousa, L., "Processo(s) de Transição ao Trabalho: o caso dos diplomados em Comunicação Social", *Sociologia*, N° 14, P. 195-225, 2004.
- [9] Sousa, L., "Ensino Superior e diplomas: Contornos regionais de acesso e preparação para o trabalho". in Marques A., Alves, M., (eds), *Inserção Profissional de Graduados em Portugal: (Re)configurações Teóricas e Empíricas*, V.N. Famalicão: Húmus, 2010.
- [10] Sousa, L., *Empreendedorismo e Ensino Superior: Contornos de implementação do programa Poliempreeende*, *Egitania Sciencia*, nº14, 102-127, 2014.
- [11] Mauritti, R., "Padrões de vida dos estudantes universitários nos processos de transição para a vida adulta", *Sociologia, Problemas e Práticas*, nº 39, 85-116, 2002.
- [12] Resende, J; Vieira, M., "Entre a autonomia e a dependência: a realidade do sistema de ensino superior politécnico em Portugal", *Sociologia, Problemas e Práticas*, N° 11, P.89-110, 1992.
- [13] Boudon, R., *L'inégalité des chances. La mobilité dans les sociétés industrielles*, Paris, Armand Colin, 1977.
- [14] Bourdieu, P., *Distinction. A Social Critique of the Judgement of Taste*, Cambridge, Harvard University Press, 1984.
- [15] Werfhorst, H; Andersen, R., "Social background, credential and educational strategies", *Acta Sociológica*, nº 48 (4), 321-340, 2005.
- [16] Schomburg, H., "The Professional Success of Higher Education Graduates", *European Journal of Education*, Vol. 42, N° 1, P. 35-57, 2007.
- [17] Direção-Geral de estatísticas da Educação e Ciência, *Estatísticas - Vagas do Ensino Superior 1995/96 a 2019/20*, 2020. Retrieved from <https://www.dgeec.mec.pt/np4/EstatVagasInsc/>
- [18] Sousa, L., *Ensino politécnico, empreendedorismo e transição para o trabalho*. *Sociologia*, N.º temático 7, 75-98, 2017.
- [19] Galland, O., *Sociologie de la Jeunesse. L'entrée dans la vie*. Paris: Armand Collin, 1991.
- [20] Cruz, M.; Cruzeiro, M., *O Desenvolvimento do Ensino Superior em Portugal - Situação e problemas de acesso*, Lisboa: Ministério da Educação, 1995.
- [21] Vieira, M., "Transformação recente no campo do ensino superior", *Análise Social*, Vol. XXX (131132), P. 315-373, 1995.
- [22] Tavares D.; Justino E.; Amaral A., "Student's Preferences and needs in Portuguese Higher Education", *European Journal of Education*, Vol. 43, nº 1, 107-122, 2008.
- [23] Costa, A. F., Machado, F. L., Almeida, J. F., "Classes sociais e recursos educativos: uma análise transnacional", In: Costa, A. F., Machado, F. L., Ávila, P., (eds) *Portugal no Contexto Europeu. Sociedade e Conhecimento*, Lisboa: Celta, 2007.
- [24] Louçã F.; Lopes, J.; Ferro, L., *As classes médias em Portugal*. Lisboa: Bertrand, 2019.
- [25] Hartog, J.; Pereira, P.; Vieira, J., "Changing returns to education in Portugal during the 1980s and early 1990s: OLS and quantile regression estimators", *Applied Economics*, N° 33(8), P. 1021–1037, 2001.
- [26] Sousa, L., "Emprego e Trajetórias Profissionais: o caso dos diplomados do Instituto Superior Politécnico de Viseu". *Sociologia - Revista da Faculdade de Letras da Universidade do Porto*, nº 33:149-169, 2012.
- [27] Direção-Geral de estatísticas da Educação e Ciência, *Estatísticas - Vagas do Ensino Superior 1995/96 a 2019/20*, 2020. Retrieved from <https://www.dgeec.mec.pt/np4/EstatVagasInsc/>
- [28] Sousa, L., *Ensino politécnico, empreendedorismo e transição para o trabalho*. *Sociologia*, N° temático 7, 75-98, 2017.
- [29] Galland, O., *Sociologie de la Jeunesse. L'entrée dans la vie*. Paris: Armand Collin, 1991.
- [30] Cruz, M.; Cruzeiro, M., *O Desenvolvimento do Ensino Superior em Portugal - Situação e problemas de acesso*, Lisboa: Ministério da Educação, 1995.