Access and Achievement: Low-Income Students

in Portuguese Higher Education Case Study

Elsa Justino[1,2], Diana Dias[3,4] & Gina Santos[3,4]

[1] Department of Political Science and Public Policy, Iscte-University Institute of Lisbon, Portugal

[2] CIES - Centre for Research and Studies in Sociology, Lisbon, Portugal

[3] Lusofona University, Oporto, Portugal

[4] CETRAD - Centre for Transdisciplinary Development Studies, Vila Real, Portugal

Correspondence: Elsa Justino, Department of Political Science and Public Policy, Iscte-University Institute of Lisbon, Avenida das Forças Armada, Office AA3.309, 1600-076 Lisbon, Portugal. E-mail: elsa_justino@iscte-iul.pt

Abstract

This study investigates the experiences of low-income students in Portuguese higher education, focusing on universities in peripheral regions. Despite policies aimed at widening access since the 1980s, inequalities persist. The research examines whether families with greater social, cultural, and economic capital are disproportionately represented in higher education relative to their presence in Portuguese society. By analyzing class-based educational strategies employed by different social classes and their expectations of upward social mobility, the study conceptualizes access to higher education as a "game" of unequal opportunities. Using the University of Trás-os-Montes e Alto Douro (UTAD) in northern Portugal as a case study, the analysis combines statistical data with surveys of first-year students. Findings reveal the strong influence of socioeconomic background on access to higher education, underscoring the persistent selectivity and barriers faced by disadvantaged groups.

Keywords: higher education, inclusive higher education, social and cultural background, access, disadvantaged students

1. Introduction

In Portugal, the democratization of higher education should not be understood solely through the lens of mass participation, measured only by the number of young people within the educational system (Fonseca et al., 2014). Although access is a fundamental issue in contemporary educational debates, given the wide-ranging benefits it provides to individuals, households, and societies (Bagonza et al., 2022), the significant expansion of enrolments during the 1980s and 1990s did not necessarily translate into genuine democratization. Instead, it calls for a critical assessment of who gains access, under what conditions, and with what consequences for equity and success. The enlargement of the higher education network, supported by public investment (reinforced by European structural funds) and by the growth of the private sector (mainly through tuition fees), was a major driver of this growth.

Higher education in Portugal includes students from lower social and cultural strata who had little or no representation three to four decades ago (Neave & Amaral, 2012). However, inequalities in terms of income, location, and socio-economic status continue to constrain access to quality higher education (Bagonza et al., 2022). Patterns of enrolment stagnation (Justino & Santos, 2016), combined with persistent social selectivity, demonstrate that access continues to be strongly conditioned by socioeconomic background. Students from families with high cultural capital are nearly ten times more likely to enter higher education than those from low cultural-capital families (Amado-Tavares, 2008a; CNE, 2014). This highlights the central role of family capital—cultural, social, and economic—as a decisive factor in the stratification of opportunities (Tan et al., 2023), with inequalities particularly visible in the contrast between metropolitan universities and smaller regional institutions, especially those in peripheral regions facing distinct development challenges (Kohoutek et al., 2017).

Understanding democratization, therefore, requires considering the less visible factors — the social and economic constraints that shape choices and influence participation in higher education. To grasp this process, it is necessary to examine the schooling strategies of different social classes and how these strategies correlate with available

resources and expectations of upward social mobility. Access to higher education can be seen as a "game" of opportunities where the possession of family capital directly influences the acquisition of advantages (Justino & Santos, 2016; Dias & Santos, 2023; Tan et al., 2023), and socioeconomic background plays a central role in differentiating trajectories (Teixeira et al., 2022). At the same time, democratization cannot be reduced to the moment of access alone: it must also encompass processes of integration, identity construction, and persistence. Becoming a student is not merely a transitory status, but rather the assumption of a complex social role — a "student craft" (Perrenoud, 1995; Coulon, 1997) — shaped by family expectations, institutional structures, peer relations, and personal strategies (Dias & Santos, 2023). First-year students, in particular, must negotiate their identities between studying to live and living to study, often oscillating between academic investment and the desire to maintain a balanced youth identity (Dias & Santos, 2023). These dynamics directly affect academic success and, ultimately, the effectiveness of democratization.

Factors such as access to cultural and educational resources, the financial capacity to sustain long-term education investments, and families' early commitment to specific educational pathways are largely dependent on social background (Tavares et al., 2008). Although students whose parents did not attend higher education may enrol, those from families with higher levels of educational attainment tend to concentrate in more prestigious programmes and institutions, where access is more competitive (Teixeira et al., 2022). From a macro perspective, smaller universities may appear more democratized. However, horizontal stratification persists, with qualitative differences between programmes and institutions (Charles & Bradley, 2002), reinforcing the notion that competition for places in reputable institutions has exacerbated inequality (Teixeira et al., 2022). This underscores the need to complement structural analyses with attention to the micro-level dynamics of student identity and role investment, as highlighted by Dias and Santos (2023).

Despite significant research on massification and equity in Portuguese higher education, little is known about how low-income students in peripheral universities navigate access, programme choice, and academic success. This study addresses this gap by examining the University of Trás-os-Montes e Alto Douro (UTAD) as a representative case of a peripheral institution. Combining secondary analysis of national statistical databases with survey data from 818 first-year students, the study operationalizes the concept of sociocultural background through Multiple Correspondence Analysis and cluster analysis. The results reveal three distinct profiles (high, medium, and low background) and demonstrate how family capital, particularly parental education and occupations, shapes students' trajectories, with marked stratification across fields of study. By linking structural inequalities with identity dynamics, the article contributes to international debates on democratization in higher education, highlighting both the democratizing role and the limitations of peripheral universities in widening access and fostering equity.

The remainder of the article is organized as follows. It begins by setting the scene, outlining the regional and institutional context, and explaining the rationale for selecting UTAD as a peripheral case. The following part describes the data, sample, variables, and analytical strategy, including the use of Multiple Correspondence Analysis and cluster procedures. The results are then presented, highlighting the student profiles identified and their distribution across programmes and social backgrounds. The discussion situates these findings within broader debates on democratization and the role of peripheral universities. Finally, the article concludes with implications for policy, reflections on the limitations of the study, and directions for future research.

2. Method

2.1 Setting the Scene

At the regional level, Portugal is divided into seven NUTS II regions: North, Centre, Lisbon Metropolitan Area, Alentejo, Algarve, and the island archipelagos of the Azores and Madeira. The Alentejo, Centre, and North regions cover the largest territorial areas of the country. In terms of student enrollment in higher education, the regions of Lisbon, North, and Centre collectively accounted for 89% of total student enrolments in the 2022/2023 academic year.

In 2023, Portugal's GDP per capita (in PPP) represented 78% of the EU27 average. Among the NUTS II regions, the Lisbon Metropolitan Area stood above the European average at 112%, while the Algarve's figure matched the Portuguese national average of 78%. Conversely, the North and Centre regions recorded GDP per capita levels of 62% and 66%, respectively. The northern region is the poorest not only in Portugal but also across the entire Iberian Peninsula (Comissão de Coordenação e Desenvolvimento Regional do Norte [CCDR-N], 2023).

The University of Trás-os-Montes e Alto Douro (UTAD) is embedded in this disadvantaged socioeconomic landscape and predominantly attracts students from working-class families. As shown by Dias and Santos (2023),

such students face not only structural barriers in access but also identity challenges during their first year, having to reconcile academic demands with youth identity, which directly affects persistence and success. Both nationally and at UTAD, social classes are represented in unequal proportions, generating asymmetrical relationships with the system. Internal competition becomes evident in the stratified choices of students, with those from families endowed with economic and cultural capital gravitating toward prestigious institutions and programmes. At the same time, more disadvantaged "outsider" groups continue to pursue higher education, often choosing institutions and programmes perceived negatively in terms of labour market logic or prestige (Giddens, 1998).

The question of agency within this dynamic remains. Students are shaped by numerous external factors, yet they are also active participants in the system itself. These actors (in this case, students and their families) use their reflective capacity for decision-making. This process, often guided by a "practical consciousness," shapes their choices, even though they may not always articulate this awareness in a clear or structured manner (Giddens, 1998).

There is an ongoing power dynamic between the various social classes, each represented in different ways within higher education. Students from disadvantaged backgrounds, without a family tradition of higher education, tend to have a more limited understanding of the viable options available to them for accessing and attending higher education programs (Aries & Seider, 2005).

The concept of "sociocultural background" was developed from studies on access to Portuguese higher education (Teixeira, Jongbloed, et al., 2004; Teixeira, Johnstone, et al., 2008), combining students' socio-educational and socio-economic origins with indicators like family income (wages) (Justino, 2018).

Although cultural reproduction theory (Bourdieu & Passeron, 1964, 2018) suggests that Western capitalist societies tend to exclude large numbers of children from families with relatively low levels of education and no tradition of higher education, exceptions exist to this pattern, as this study demonstrates. Empirical evidence from Dias and Santos (2023) supports this, revealing that even students from disadvantaged backgrounds can achieve academic success when they develop adaptive identity strategies, highlighting that democratization involves not only access but also successful role integration.

2.2 Method and Sample

This study examines how families' socioeconomic and sociocultural status shape post-secondary educational choices. The methodological design combines two complementary approaches: (a) a comprehensive analysis of national statistical databases, including longitudinal data on higher education, and (b) a survey administered to first-year undergraduate students (1st cycle) at the University of Trás-os-Montes e Alto Douro (UTAD).

UTAD joined the network of Portuguese public universities in 1986, having previously been an institution focused solely on Agricultural Sciences. Since then, the university has expanded to offer programs across nearly all fields of knowledge. UTAD's academic offerings include 121-degree programs across various study cycles, with a total of 2,865 available places. According to Fonseca and Encarnação (2012), "The profile of UTAD's training offer (...) follows the average profile of the entire higher education system in Portugal (...)". However, the area of Agriculture, Animal Production, and Veterinary Medicine, while not large, constitutes a strategic differentiator for UTAD, given that its proportion exceeds the national average.

UTAD was selected as the empirical setting for this study for several reasons: its relatively small size (approximately 7,000 students), its geographical location in the disadvantaged North region, and its competitive position vis-à-vis larger and more prestigious universities in the same regional landscape. Furthermore, UTAD faces structural challenges in student recruitment, particularly those associated with the demographic decline and persistently low birth rates in the region. Although UTAD is explicitly identified as the empirical context, the intention is not to evaluate the institution per se but rather to use it as a representative case of a peripheral university, illustrating broader dynamics that may apply to similar contexts.

The data collection relied on a 43-item, closed-ended questionnaire administered online during the enrollment process at UTAD. The target population consisted of first-time entrants to undergraduate (1st cycle) and Integrated Master's programmes. Data was analysed using SPSS 20.0 and Infostat software. The final sample consisted of 818 students, specifically those admitted through the National Competition for Access to Higher Education (1st and 2nd stages), with alternative admission pathways excluded from the analysis.

2.3 Characterization of UTAD's Students

This section presents the key variables used to characterize the analyzed student population and identify the distinguishing features of different sociocultural groups.

The primary data analysis revealed that 65% of the students were female. The majority of UTAD students were between 17 and 18 years old, with 97.4% falling within the broader age range of 17 to 20 years. In terms of geographical origin,75.6% of the students reported family residence in the districts of Porto, Vila Real, and Braga.

Regarding parental marital status, 80.1% of parents were married or cohabiting, while 14.5% were divorced. Most households (80.3%) were traditional family structures composed of parents and one or two children. Parental age was concentrated in the 46–55 age group for both fathers and mothers, although mothers tended to be slightly younger than fathers. A minority of parents were 35 years or younger, representing 11.6% of fathers and 13% of mothers.

The socio-educational background of the students' parents is a key indicator (Education, Audiovisual and Culture Executive Agency, 2015; Gwosc et al., 2021). The prevalent level of education for both fathers and mothers was basic education (6th grade), at 39.6% for fathers and 29.3% for mothers. However, mothers were generally better educated, with 22.6% holding higher education degrees compared to 15.5% of fathers.

Regarding employment, 78.5% of fathers and 71.1% of mothers were employed. Although mothers displayed higher educational attainment, they also faced higher unemployment rates (21.8%). Nevertheless, in approximately two-thirds to three-quarters of households, both parents were in employment.

In terms of professional classification, the most frequent response for parents was the category of "inactive"—a term that reflects employment status rather than a specific profession — at 19.1% for mothers and 11.2% for fathers. Following this, "Industry entrepreneurs, trade, and services" was a standard classification for fathers, while "Administrative employees in trade and services" was familiar for mothers. In professions requiring higher education qualifications, women prevailed in "Intellectual and scientific professions" (5.7%) compared to men (1.8%).

Household income data showed that the most common income ranges were between €485 and €1,454, with a slight concentration in the mid-to-low-income category (€485 to €969). When asked about the financing of their education, the majority of students expected their parents to cover costs, followed by scholarships. Other financing options received negligible responses.

Nearly all students identified themselves as full-time students, with no involvement in paid work. Concerning admission to UTAD, 93.3% of students were first-time enrollees, aligning with the aforementioned age profile.

Regarding enrollment choices, the data showed that the distribution of available places per course did not always align with student demand. However, programs in Sports Science and the Integrated Master's degree in Veterinary Medicine were particularly popular, attracting the highest number of vacancies, candidates, and enrolled students. Furthermore, 54.3% of students obtained admission to their first-choice programme through the National Competition for Access to Higher Education.

The primary reasons students gave for selecting their course were: "*It is the field I want to work in/my vocation,*" followed by "*It is a course with good professional prospects.*" When it came to choosing UTAD, the main factors cited were "*Location*" and "*Influence/Advice from family/friends.*"

3. Construction of the Operational Concept of Socio-cultural Background

To operationalize the concept of sociocultural background, multivariate data analysis was conducted using Multiple Correspondence Analysis (MCA) and cluster analysis, as these methods are well-suited for predominantly categorical data.

Following the descriptive statistical analysis of the questionnaire data, it was necessary to prepare the dataset for MCA testing. Because the number of responses per program was limited in some cases, a criterion was needed to determine which programs were suitable for statistical analysis.

The most reliable criterion for evaluating programs and student demand for educational offerings is the "strength index," as defined by Fonseca and Encarnação (2012). The strength index is the ratio of the number of first-phase, first-choice applicants to the total number of available vacancies.

To calculate the strength index for UTAD's 1st cycle and integrated master's programs, data on students admitted to UTAD were compiled. This information, provided by the Ministry of Education (Directorate General of Higher Education), included statistics on the number of applicants and placements for each program and institution relative

to its available vacancies.

From this analysis, Table 1 was generated, listing UTAD programs that met the criterion for MCA analysis. Only programs with a strength index equal to or higher than the national average (0.78) were considered (Fonseca & Encarnação, 2012).

Table 1. Implementation of Strength Index to UTAD's programs

Course	Strength Index
Management	3.32
Veterinary Medicine	1.89
Languages and Business Relations	1.63
Psychology	1.58
Sport Sciences	1.34
Tourism	1.17
Communication and Multimedia	1.16
Communication Sciences	1.00
Genetics and Biotechnology	0.94
Nursing	0.90
Social Work	0.88

Of the 32 available programs at the time of access to higher education, and after applying the strength index, 11 programs remained. For the subsequent analysis, only responses from students who were placed in UTAD programs with a strength index equal to or higher than 0.78 were considered. This approach aimed to eliminate potential bias from responses of students placed in programs with low enrollment rates and consequently low response rates to the questionnaire. This same filtering was applied to the survey database.

As a result, the initial database of 818 validated questionnaires was reduced to 507 questionnaires deemed suitable for statistical analysis.

3.1 The Application of the Concept of Sociocultural Background to the Case Study of UTAD

Considering the nature of the units in question—higher education students—and the characterization of their families in terms of social attributes (education, income, and occupation), as well as the study's aim of evaluating the existence of homogeneous groups through a relational approach to these multiple variables, Multiple Correspondence Analysis (MCA) was used. This method aimed to identify associations between categories, establish profiles for each group, and determine the distance between groups (their relative positioning) to assess association or opposition relationships.

The initial step involved selecting variables with the greatest explanatory value for understanding the social positions of the students. Table 2 presents the three variables studied.

Table 2. Variables and Attributes in the MCA and Cluster Analysis

Variables	Attributes
Parent's education	1 - Do not read and write
	2 - Basic Education
	3 - 9th grade of Education
	4 - Secondary Education
	5 - High School
	6 - Higher Education
	7 – Not Applicable
Parent's income	1 - Less than € 485 / month
	2 - From € 485 to 969 € / month
	3 - From € 970 to € 1,454 / month
	4 - From € 1,455 to € 1,939 / month
	5 - No less than € 1,940 / month
Parent's Occupation	1 – Inactive
	2 - Workers in the primary sector
	3 - Unskilled Workers
	4 - Self-employed in the primary sector
	5 - Other active people
	6 - Independent industrial and craft workers
	7 - Paid primary sector
	8 - Small employers in the primary sector
	9 - Small employers industry
	10 - Service providers and independent traders
	11 - Trade Administrative Workers and unskilled services
	12 - Workers skilled and semiskilled
	13 - Small employers of trade and services
	14 - Industry, trade and services Entrepreneurs
	15 - Administrative Employees of trade and services
	16 - Small employers with intermediate technical professions
	17 - Intermediate technical boards
	18 - independent technical intermediate professionals
	19 - Private sector Entrepreneurs
	20 - Intermediate Administrative Boards
	21 - Staff of the Armed Forces
	22 - Entrepreneurs with scientific and technical intellectual professions
	23 - Intellectual and scientific boards
	24 - Small employers with intellectual and scientific professions
	25 - Small business and organizations leaders
	26 - Directors and managers of the state and businesses
	27 - Intellectual and scientific independent professionals

To examine the relationship between the variables of parents' highest educational level, household income, and parents' highest occupation, we used Multiple Correspondence Analysis (MCA) with the statistical software Infostat.

A first test showed that the variables naturally grouped into three large clusters, which corresponded to what we call sociocultural backgrounds. To validate the creation of three sociocultural profiles (high, medium, and low), we resorted to the statistical method of K-means clustering.

As mentioned earlier, we proceeded to the grouping of study subjects by performing a non-hierarchical k-means cluster analysis with 3 clusters (k = 3). To identify which variables were the most important in the three resulting clusters, we proceeded to an ANOVA F-test (Marôco, 2018). All analyses were performed using SPSS (v.20; SPSS, Chicago, IL).

Table 3 presents the cluster centres (averages) for each variable and the respective F-statistic resulting from the non-hierarchical k-means cluster analysis procedure.

According to Table 3, Cluster 1 is the group of individuals with the highest scores in the level of parental education, profession, and income, thus corresponding to the High Background. Cluster 3 has the lowest scores in the three variables mentioned and is thus associated with the Low Background. By process of elimination, Cluster 2 is associated with the Medium Background. The variables that best differentiate the clusters are the level of parental education (F = 562.7) and their occupation (F = 552.3), while Income is the variable that least differentiates the three clusters (F = 202.2).

Table 3. Cluster Centers and F-Statistics for Parental Education, Occupation, and Income

Variable	Centres of Clusters			F	p
	1	2	3		
Parent's education	5.7	3.3	2.8	562.7	<0.001
Parent's Occupation	18.7	14.4	3.7	552.3	<0.001
Parent's income	3.8	2.4	2.0	202.2	<0.001

The final distribution of the sample across the three clusters is shown in Table 4.

Table 4. Distribution of Sample Elements by Cluster

	N	%
Cluster 1	152	30.0%
Cluster 2	199	39.3%
Cluster 3	156	30.8%

The MCA was performed using two dimensions (Axis 1 and Axis 2). The inertia value was 75% for Axis 1 and 56% for Axis 2. The analysis revealed the existence of two opposing groups: a low background group and an antagonistic high background group. Axis 2 differentiates a third group, less uniform than the first two, which is termed the medium background.

The "Low background" cluster (Table 5) shows homogeneity. Its profile is consistently defined by a combination of key attributes: the 'basic education' level and an income of less than €485. This profile is associated with low-education and low-income professions, particularly in primary sector occupations.

Table 5. Variables and Attributes that represent Low background

Variables	Attributes
Parent's education	2 - Basic Education
Parent's income	1 - Less than € 485 / month
Parent's Occupation	1 - Inactive
	2 - Workers in the primary sector
	3 - Unskilled Workers
	4 - Self-employed in the primary sector
	5 - Other active people
	6 - Independent industrial and craft workers
	7 - Paid primary sector
	8 - Small employers in the primary sector

The "High background" cluster (Table 6) is also homogeneous, characterized by a coherent combination of attributes, including the "higher education" level and an income exceeding € 1,455. This creates a profile associated with high-status occupations and high income, including educated professions such as leaders, intellectuals, and scientific staff.

Table 6. Dimensions and variables that represent the high background

Variables	Attributes
Parent's education	6 - Higher Education
Parent's income	4 - From € 1455 to € 1939 / month
	5 - No less than € 1940 / month
Parent's Occupation	22 - Entrepreneurs with scientific and technical intellectual professions
	23 - Intellectual and scientific boards
	24 - Small employers with intellectual and scientific professions
	25 - Small business and organizations leaders
	26 - Directors and managers of the state and businesses
	27 - Intellectual and scientific independent professionals

The "Medium background" cluster (Table 7) shows a relative homogeneity, defined by attributes not prominent in the other two groups. Its profile is characterized by parental education of a 9th-grade or secondary level and an income between €485 and €1454. This creates a profile associated with average schooling, mid-level professions, and average income, including professions that do not typically require a university degree, such as those linked to small employers and intermediate technical staff.

Table 7. Variables and attributes representing the medium background

Variables	Attributes
Parent's education	3 - 9th grade of Education
	4 - Secondary Education
Parent's income	2 - From € 485 to 969 € / month
	3 - From € 970 to € 1454 / month
Parent's Occupation	9 - Small employers' industry
	10 - Service providers and independent traders
	11 - Trade Administrative Workers and unskilled services
	12 - Workers skilled and semiskilled
	13 - Small employers of trade and services
	14 - Industry, trade and services Entrepreneurs
	15 - Administrative Employees of trade and services
	16 - Small employers with intermediate technical professions
	17 - Intermediate technical boards
	18 - independent technical intermediate professionals
	19 - Private sector Entrepreneurs
	20 - Intermediate Administrative Boards

3.2 Convergence and Divergence: the Unexpected

To understand the characteristics of the sociocultural profiles (High, Medium, and Low) derived from the preceding analysis, we evaluated key variables to characterize the students within each group. The chi-square (χ^2) test was used to determine whether the groups differed with respect to particular characteristics, i.e., to test if the observed frequency distribution across categories is non-random (Marôco, 2018).

In terms of convergence, the results indicate a general trend towards a medium sociocultural profile across the 11 selected programs at UTAD. However, the prevalence of students with a high sociocultural profile in the MSc in Veterinary Medicine (74.6%) suggests it is the only highly selective course at UTAD. Similarly, the Genetics and Biotechnology program (44.2%) also shows a strong association with students from high sociocultural backgrounds.

In terms of divergence, the Social Work program is characterized by a predominantly low sociocultural profile. Specifically, 91.7% of students in this program come from low sociocultural backgrounds. Finally, evaluating the "Father's schooling" indicator shows that 15.5% of UTAD fathers in the sample are university graduates, a figure comparable to the national average of 14.8% for the active population (Statistics Portugal, 2014). This suggests that, by this metric, the UTAD student population reflects the broader structure of Portuguese society.

Table 8. Household with Brothers

Course	High Background (N=152)		Medium Background (N=199)		Low Background (N=156)		χ^2	p
	N	%	N	%	N	%		
Management	8	5.3%	7	3.5%	15	9.6%		
Veterinary Medicine	53	34.9%	15	7.5%	3	1.9%		
Languages and Business Relations	5	3.3%	10	5.0%	10	6.4%		
Psychology	7	4.6%	22	11.1%	13	8.3%		
Sport Sciences	20	13.2%	39	19.6%	21	13.5%		
Tourism	7	4.6%	11	5.5%	12	7.7%	116.269	<0.001
Communication and Multimedia	7	4.6%	18	9.0%	13	8.3%		
Communication Sciences	7	4.6%	19	9.5%	17	10.9%		
Genetics and Biotechnology	19	12.5%	17	8.5%	7	4.5%		
Nursing	16	10.5%	30	15.1%	23	14.7%		
Social Service	3	2.0%	11	5.5%	22	14.1%		

4. Discussion

Increasing access to higher education and reducing the under-representation of students from disadvantaged socioeconomic backgrounds have been key goals in Portugal's education policies over recent decades. However, this is a global challenge, and the simple expansion of a system does not in itself guarantee greater equity (Bagonza et al., 2022). Despite significant efforts following the democratic revolution, recent indicators show limited positive change, with Portugal still exhibiting weaker educational outcomes compared to other European countries (Clark et al., 2009; Donaldson et al., 2012; Organization for Economic Co-operation and Development [OECD], 2023).

To address unexpected academic trajectories, it is essential to understand the paths and conditions through which these students access higher education. Promoting equal opportunities and exploring their effects can be more effectively examined within specific contexts, such as UTAD, where the dynamics appear relatively more democratic according to the data analysis. The choice to attend UTAD instead of more prestigious universities in major metropolitan areas is not due to enrollment limitations at those institutions. Access to higher education operates under a numerus clausus system, meaning all students theoretically have equal access based solely on their secondary school grades.

However, this formal equality is challenged by subtler, more powerful mechanisms of stratification. Research consistently shows that access is heavily influenced by a family's cultural, social, and economic capital, with cultural capital often being the most decisive factor (Tan et al., 2023). The competition for places in the most prestigious institutions and programs disproportionately favors students whose parents have higher levels of educational attainment (Teixeira et al., 2022). Therefore, the underlying self-selection process or 'opt-out' phenomenon, wherein economically disadvantaged students may avoid applying to more prestigious universities, appears to be a rational response to this stratified system. This decision is often shaped by a combination of interconnected social and economic barriers, including a perceived lack of guidance on academic pathways, a limited understanding of future prospects, and the prohibitive cost of housing and living in the metropolitan areas where the most reputable universities are located (Teixeira et al., 2022; Tan et al., 2023). Consequently, the decision to attend a university in a peripheral region, often justified by "location," can be interpreted as a pragmatic strategy to make higher education accessible within their means. From a policy perspective, these findings suggest the need for targeted measures, such

as strengthening financial support schemes, improving guidance for disadvantaged students during secondary education, and addressing housing and cost-of-living barriers in metropolitan areas.

Analysis of UTAD's programs reveals a predominance of students from medium socioeconomic backgrounds overall. The Master's program in Veterinary Medicine is characterized by a high socioeconomic profile (74.6%) and is considered the only highly selective course at UTAD. In contrast, the Social Work program predominantly attracts students from lower socioeconomic backgrounds. UTAD, therefore, appears to function as a democratizing institution, reflecting the broader socioeconomic structure of the Portuguese population. While this study focuses on UTAD as a case study, its findings may not be fully generalizable to the entire Portuguese higher education system. While this study provides valuable insights into access and stratification at UTAD, several limitations should be acknowledged. First, the sample size, though sufficient for descriptive and comparative analyses, remains limited, which may constrain the generalizability of the findings. Second, the regional focus on a single peripheral university means that the dynamics observed may not fully reflect patterns in other Portuguese institutions, particularly those in major metropolitan areas. Finally, key indicators, such as household income and parental education, rely on self-reported survey data, which may be subject to reporting bias or inaccuracies. Future research could address these limitations by expanding the sample across multiple institutions and regions, and by triangulating self-reported data with administrative records to enhance the validity and robustness of the socioeconomic profiles.

Nevertheless, they provide valuable insights into the dynamics of access and stratification in peripheral institutions, which can inform comparative analyses in future research. Furthermore, the analysis relies on self-reported survey data for key indicators such as household income, which may be subject to reporting bias. Future research should therefore seek to triangulate these survey responses with national administrative records to enhance the validity of socioeconomic profiles.

However, the role of a university as a "democratizing institution" becomes more complex when situated in a peripheral region. While UTAD provides crucial access, it also faces the risk of a "mismatch" between the knowledge it produces and the absorptive capacity of its regional economy (Kohoutek et al., 2017). If a region cannot provide adequate employment for highly qualified graduates, the university may inadvertently contribute to a "brain drain," where its democratizing function serves to export talent rather than foster local development (Kohoutek et al., 2017).

In conclusion, UTAD's role as a democratizing force is undeniable, as it provides an essential pathway for students who might otherwise be excluded from the country's elite institutions. Students from disadvantaged backgrounds enter higher education expecting to improve their social condition, and obtaining higher qualifications remains crucial for overcoming cycles of poverty (OECD, 2023). However, this function is not simply a product of institutional mission but a result of broader systemic inequalities that stratify student choice. For institutions like UTAD to be truly transformative, policies must look beyond just widening access and also address the structural challenges that limit opportunity, both within the education system and in the peripheral regions these universities serve (Bagonza et al., 2022).

5. Conclusions and Future Research Directions

The findings of this study indicate that family background—captured through parents' education, occupation, and income—remains a significant factor in shaping students' decisions to pursue higher education and influencing their program choices. These results are significant because they demonstrate that formal equality of access conceals persistent mechanisms of stratification: students from disadvantaged backgrounds are less likely to continue their studies and more prone to self-select into programs with lower prestige and weaker labour market outcomes. The broader implication is that higher education policy cannot be confined to widening access as measured by enrolment figures. It must also address the structural conditions that shape decision-making processes well before admission. By showing how family capital channels students' aspirations and trajectories, this study underscores the need for targeted interventions in academic guidance, financial support, and regional development—so that democratization in higher education is understood not merely as access but as the genuine expansion of equality of opportunity.

Peripheral universities tend to attract a significant proportion of students from disadvantaged households. This feature positions them as crucial entry points for groups traditionally underrepresented in higher education. By expanding access within peripheral regions, such higher education institutions fulfil a partial democratizing role and underscore the importance of regional universities in mitigating barriers related to geography, income, and cultural resources. The case study, therefore, highlights the need to examine not only national trends but also institutional contexts, where the dynamics of access may take on distinctive forms.

Rather than eradicating inequality, the expansion of higher education has rearticulated it through new forms of internal differentiation. Access to selective and symbolically prestigious programs, such as Veterinary Medicine, is still mainly concentrated among students from higher socioeconomic backgrounds, while fields such as Social Work are predominantly chosen by students from less advantaged families. This horizontal stratification within a single institution reflects enduring mechanisms of social reproduction: some programs continue to operate as pathways to high-status professions and cultural capital, whereas others remain tied to lower prestige and limited opportunities for upward mobility. The coexistence of wider formal access with entrenched symbolic and material hierarchies highlights the paradoxical nature of democratization in higher education, which often entails the restructuring rather than the dissolution of inequality.

Overall, this study illustrates the dual and, in many respects, contradictory role of peripheral universities. On the one hand, they operate as crucial vehicles of participation, widening access and creating opportunities for students who might otherwise remain excluded from higher education due to geographical, economic, or cultural constraints. On the other hand, they mirror and reproduce existing hierarchies through the stratified organization of study programs and the unequal social composition of their student populations, thereby sustaining mechanisms of differentiation within the very institutions that symbolize inclusion. Acknowledging this ambivalence is vital for both policy and practice, as it reveals that the democratizing potential of higher education cannot be measured solely by increased entry but must also be assessed in terms of how institutions structure opportunity, distribute prestige, and shape trajectories of social mobility. By bringing these dynamics to the fore, the present study contributes to wider international debates on equity, stratification, and the paradoxes of higher education democratization, highlighting that expansion often entails the reconfiguration rather than the dissolution of inequality.

Building on these findings, future research could examine students' longitudinal trajectories across different programs and institutions to better understand the mechanisms of social reproduction, undertake comparative analyses across regions and countries to identify contextual factors that mitigate or exacerbate internal stratification, and employ qualitative approaches to explore how family background, guidance, and institutional practices interact to shape educational pathways.

In sum, the take-home message is clear: expanding access to higher education is necessary but not sufficient; achieving genuine equality requires addressing the internal stratifications that continue to shape students' opportunities, aspirations, and long-term social mobility.

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