



ISSUES IN HIGHER EDUCATION

Equity Policies in Global Higher Education

Reducing Inequality and Increasing Participation and Attainment

Edited by

Orlanda Tavares · Carla Sá
Cristina Sin · Alberto Amaral

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With the support of more than 30 libraries, the LYRASIS United Nations Sustainable Development Goals Fund has enabled this publication to be available fully open access.



Issues in Higher Education

ISBN 978-3-030-69690-0

ISBN 978-3-030-69691-7 (eBook)

<https://doi.org/10.1007/978-3-030-69691-7>

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This Palgrave Macmillan imprint is published by the registered company Springer Nature Switzerland AG.

The registered company address is: Gewerbestrasse 11, 6330 Cham, Switzerland

The original version of the book has been revised. A correction to this book can be found at https://doi.org/10.1007/978-3-030-69691-7_11

ACKNOWLEDGEMENTS

This work was financed by private funds through the EDULOG—Belmiro de Azevedo Foundation and by the FCT—Portuguese Foundation for Science and Technology within the project UID/CED/00757/2020.

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ABBREVIATIONS

AAUP	American Association of University Professors
ACT	American College Testing
CNE	Conselho Nacional de Educação (National Council for Education, Portugal)
DGEEC	Direção Geral de Estatísticas da Educação e Ciências (General-Directorate of Education and Science Statistics, Portugal)
EMI	Effectively Maintained Inequality
ENES	Exames Nacionais do Ensino Secundário (Secondary Education National Exams), Portugal
ESU	European Students' Union
EU	European Union
EUA	European University Association
EUCEN	European University Continuing Education Network
FAFSA	Free Application for Federal Student Aid
FIES	Fundo de Financiamento Estudantil (Higher Education Student Fund, Brazil)
GPA	Grade Point Average
HE	Higher education
HEDOCE	Dropout and completion in higher education in Europe
HEFCE	Higher Education Funding Council for England
HEI	Higher education institution
HESA	Higher Education Statistics Agency
IAU	International Association of Universities
IBGE	Instituto Brasileiro de Geografia, Estatística (Brazilian Institute of Geography and Statistics)
ILO	International Labour Organisation

INEP	Instituto Nacional de Estudos e Pesquisas Educacionais Anísio Teixeira (Anísio Teixeira National Institute of Educational Studies and Research, Brazil)
IPEA	Instituto de Pesquisa Econômica Aplicada (Institute of Applied Economics Research, Brazil)
KPM	Key Performance Measures
MMI	Maximally Maintained Inequality
NCAA	National Collegiate Athletic Association
NCES	National Centre for Education Statistics
NCIHE	National Committee of Inquiry into Higher Education
NCSM	National Council of Supervisors of Mathematics
NYT	New York Times
OECD	Organisation for Economic Co-operation and Development
OFFA	The Office for Fair Access
OFS	Office for Students
PIAAC	Programme for the International Assessment of Adult Competencies
PISA	Programme for International Student Assessment
PROUNI	Programa Universidade para Todos (University for All Programme, Brazil)
SAT	Standardized Admission Test
SEC	Socio-economic class
SHEEOA	State Higher Education Executive Officers Association
TEF	Teaching Excellence Framework
UK	United Kingdom
UNDP	United Nations Development Programme
URM	Underrepresented minority
US	United States
WID	World Inequality Database

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Introduction

Alberto Amaral

This book project is the outcome of an international conference on ‘Equity in higher education: evidence, policy and practice’ (Porto, 5–6 December 2019), jointly organised by CIPES and A3ES and funded by EDULOG (Foundation Belmiro de Azevedo). The conference focused on social inequalities in participation in higher education (regarding access and success).

With the emergence of the knowledge society many individuals now require theoretical knowledge to perform their work, and a well-educated workforce has become the major resource of the post-industrial societies (Amaral, 2018). This has prompted countries to expand their higher education systems and ensure that the population has increasing higher levels of education. Quality assurance systems have been implemented to guarantee the quality of education provision and concerns about access equity have been triggered as it was recognised that significant layers of the population did not reach the expected education levels. The present pandemic situation, by taking the lives of a disproportionate number of

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O. Tavares et al. (eds.), *Equity Policies in Global Higher Education*,
Issues in Higher Education,
https://doi.org/10.1007/978-3-030-69691-7_1

people from deprived strata of the population has made visible the unfair living conditions of part of the population and may increase equity concerns beyond those related to access to education.

Widening access to higher education became an issue of political concern following the end of the Second World War. It aimed both at improving social justice by granting conditions of access to all social groups and improving economic performance, because a more educated population would contribute to the economic competitiveness of countries. In his chapter Per Olaf Aamodt quotes Erikson and Jonsson (1996) to present additional reasons for implementing policies aiming at eliminating inequalities in educational enrolments, which are seen as being socially ineffective and unfair as a person's life chances should not be dependent of the status of the families they were born into, while creating social discord from reinforced class differences and inducing lack of representativeness if all people with higher education, holding leading positions in society, were recruited from a narrow social elite (Erikson & Jonsson, 1996).

There was a generalised conviction that social inequalities could be reduced through the massification of higher education. However, although some progress has been made in terms of increased participation, the goal of equal treatment of valid student applicants, independently of their socioeconomic backgrounds (e.g. fairness), has persistently remained out of reach. This book aims to analyse the causes that make equity of access (in the sense of fairness) such a difficult objective to fulfil. There was a deliberate choice to address primarily the socioeconomic dimension, being aware that the socioeconomic background is closely related to ethnicity and race, especially since these latter condition the former to a great extent. Data on these variables is not available in all the studied national contexts (e.g. Portugal), but race and ethnicity are discussed in the case of countries where this is possible (U.S. and Brazil).

An initial chapter presents the theoretical background which relates the difficulties in attaining fairness to the fact that higher education is a positional good, and positional goods have a tendency to be monopolised by social groups from privileged backgrounds (Marginson, 1998, 2011). The chapter also presents two hypotheses (Maximally Maintained Inequality and Effectively Maintained Inequality) which have been used to describe inequality patterns. This initial chapter is followed by several chapters presenting national cases with a description of policies aiming at increasing fairness and the reasons why these policies were not successful. The chapters include contrasting examples. Two of the countries (U.S. and Brazil)

have implemented affirmative action policies. However, although they both have a federal organisation, in the U.S. the federal government does not have an important role in education as educational policies come under the purview of each state, while in Brazil the federal government has control over higher education and even finances a network of federal universities. In the U.S. there are no regulations on tuition fees and each institution can decide freely on the recruitment of students. On the contrary, in Brazil the federal government centralises the regulation of the higher education system. Another country (England) was chosen because it has aimed at improving social justice within a context of neoliberal policies. The Nordic countries offer a contrasting example, as they are based on the social democratic model characterised by redistribution policies and universalistic contribution mechanisms, being very far from the neoliberal worldview. At last, a Southern European country (Portugal) completes the chosen sample. A final chapter presents the conclusions.

It is also important to stress that many countries have developed cost-sharing policies transferring to students and their parents at least part of the education costs. To make this change more tolerable governments have also created loan systems which can be of two types. In the case of mortgage-style loans (e.g. U.S.) students start repaying the debt once they complete their studies and instalments are calculated for a specified repayment period based on the total amount of the loan plus interest. Mortgage-style loans are rather risky for students who may default if they do not complete their studies or if their earned income is excessively low. Income-contingent loans (e.g. England) offer more protection to students as default, in principle, is not possible. Graduates only start repaying their loans when their earnings go above a fixed threshold, when they start paying a percentage of the income about that threshold. Payments cease when the debt is paid or after a period of 25 to 30 years, when any outstanding debt is written off. Payments are directly deducted from salaries via the tax system and students will only escape payments if they migrate to another country. This is apparently a fair system and some kind of group insurance. If one gets a very good job once completing the studies, the debt will be paid in a short time; otherwise, payments will be adjusted to earnings and may even be null if one is unemployed or poorly paid.

In Chap. 2 Alberto Amaral presents a definition of equity which is diverse from the notion of equality, and refers several supranational organisations that have proposed declarations furthering access equity. This is followed by an analysis of the components of equity which comprise

fairness and inclusion. However, equity is not restricted to access; it also needs to include a component of success, as the socioeconomic background of parents is one of the strongest predictors of students' academic achievement and attainment (Reardon, 2011). Indeed, supranational organisations recommend the implementation of policies promoting the success of students, as access without success is rather meaningless (IAU, 2008).

Massification of higher education systems was accompanied by their diversification in order to attend to the very diverse needs and aspirations of a much more heterogeneous student population. In most countries, diversification was achieved by implementing new types of institutions different from research universities, many offering shorter degrees. Diversification has created a new, subtler form of inequity, as students from deprived backgrounds have a tendency to concentrate in these new lower value opportunities (Koucký et al., 2010; Shavit et al., 2007).

The main argument of the chapter is focused on the idea that education is a positional good in the sense that it provides students with a competitive advantage when looking for employment, social standing and status (Marginson, 1998). The problem is that positional goods tend to be monopolised by social groups from privileged backgrounds, which contributes to the persistence of inequities in higher education. To interpret inequality patterns among different cohorts of students related to diverse socioeconomic backgrounds Amaral (this book) resorts to the hypotheses of Maximally Maintained Inequality (MMI) (Raftery & Hout, 1993) and Effectively Maintained Inequality (EMI) (Lucas, 2001). While a higher education system expands and before it becomes saturated, privileged economic groups use their advantages to ensure that their children can secure a place (MMI). Once the system comes close to saturation, the game changes, and as almost everyone can enter higher education, the socioeconomically advantaged look for qualitative differences, and try to secure places in the best institutions and the best study programmes, which is consistent with the idea of education as positional good. MMI and EMI describe inequality patterns but do not explain them. Amaral quotes Raftery and Hout (1993) who used rational-choice theories for an explanation. In Chap. 9, Per Olaf Aamodt discusses a number of theories which aim at explaining why social background influences inequality in education: the value theory, the cultural theory (Bourdieu & Passeron, 1977) and the social position theory (Boudon, 1974). Amaral refers to the argument of the OECD that equity in tertiary education is affected by

inequities in preceding levels of education and concludes with a discussion on a number of factors which can favour or hinder equity such as early tracking systems, the selective role of mathematics and national traditions which rule access to tertiary education.

In Chap. 3 David Dill presents a critical analysis of the U.S. case which is extremely relevant being the first country to promote massification of its higher education system. David Dill questions the effectiveness of current American policies governing access to higher education, namely in terms of equity of access and the promotion of higher earnings mobility. There is lack of national regulation of tuition and fees in private higher education where tuition can go to very high levels. Even in public universities, despite state-level efforts to limit tuition fees, their net value per full-time equivalent student has increased by 96% over the last 25 years (SHEEOA, 2019) while per capita state appropriations declined by 8%. And institutions are completely free in deciding which new students will be recruited; this, as David Dill argues, can have dramatic consequences in terms of equity.

In the absence of state regulation, it is expected that the market will operate. However, for a market to operate efficiently (Leslie & Johnson, 1974), one of the conditions is that purchasers have a good knowledge of the price and characteristics of the goods and services to be purchased, as well as the market conditions. David Dill (this book) quotes Nicholas Barr (2010) who argues that students applying to a higher education place are in general well-informed customers able to make rational economic choices, which contrasts with Dill's argument that students are immature customers lacking enough information to make, discretionary choices (Dill, 1997). Indeed, lack of information has been, for many years, a recurrent problem of American higher education, and students may enrol in institutions with very low completion rates or offering diplomas with very low employment prospects.

The Commission on the Future of Higher Education appointed in 2005 by Margaret Spellings, U.S. Secretary of Education, recommended that accreditation decisions should be more based on evidence of student achievement and institutional performance, and the final reports should be made public (Commission of the Future of Higher Education, 2006). However, Margaret Spellings was defeated in Congress and no change was possible.

In the Obama administration Secretary of Education Arne Duncan (2015) also tried to change the situation. He presented as an example, citing a Wall Street Journal investigation, the case of 11 schools with

six-year graduation rates below 10% which still managed to get accreditation. He complained of very high drop-out rates which left many people with a debt from loans and that some schools offered diplomas which meant little to nothing to employers. The Obama administration tried to implement a rating system in order to promote greater transparency and offer more information to students and their families. This project was met with strong opposition from higher education institutions and their leaders and was later abandoned in favour of the College Scorecard. ‘The College Scorecard (2015) [introduced by the Obama administration] provides students, families, guidance counsellors, non-profits and other key stakeholders with institutional data through an online tool which has been accessed by over 2.5 million users (Kreighbaum, 2017). Users could find average annual cost of an institution, its graduation rate, the typical salary post-graduation, and information on student debt levels’ (Ransom et al., 2018, p. 17).

The colleges’ freedom to decide admissions in the U.S. allows them to use a method known as ‘holistic review’ which has a historical origin in a strategy of elite colleges developed before the Second World War, ‘in part to deny admission to growing numbers of Jewish applicants’ (Bastedo et al., 2017, p. 1). Holistic admissions are ‘defined as evaluating prospective students in the context of the educational, personal, and financial conditions experienced by the applicant (Bastedo & Bowman, 2017; College Board, 2012; Lucido, 2014)’ (Bowman & Bastedo, 2018, p. 431). This means that decisions on admission are based not only on the numeric results of tests such as SAT (Scholastic Aptitude Test) or ACT (American College Tests); they also include a large number of qualitative data such as essays, teacher/counsellor recommendation, demonstrated interest, internships, volunteerism, class rank, interview, geography, race/ethnicity, athletic ability, leadership, personal qualities, portfolios, veteran status, first generation status, legacy, and so on.

This means that decisions on student recruitment lack transparency. Many institutions include what is known as ADLC criteria, based on athletic ability (A), a list composed by the Dean (D), legacies made by the parents of prospective students (L) and staff children (C). Dill quotes a paper by Arcidiacono et al. (2019) which analyses a court case against Harvard to show that in this university ADLC students have a much higher probability (from 86% for athletes to 33.6% for legacies) of getting a place than other students (below 8%).

Initially some institutions established racial quotas but they were declared unconstitutional by the U.S. Supreme Court. However, race/ethnicity has been used in the holistic admissions system. As stressed by David Dill, as it became recognised that a person's life chances could be influenced by the level of education, there has been an increasing public opposition to affirmative action and a survey has shown that 73% of Americans did not favour the use of race/ethnicity in admission decisions (Pew Research Centre, 2019). Several cases were also taken to court, but so far the Supreme Court has upheld the principle that 'a diverse student body is essential to the educational objectives of colleges and universities' (AAUP, 2020), but the University must 'ensure that each applicant is evaluated as an individual and not in a way that makes an applicant's race or ethnicity the defining feature of his or her application' (Fisher vs. University of Texas, 2013). In a recent decision on a case against the University of Harvard the judge although upholding the integrity of holistic review recommended that 'statistics should be used as a check on the process and as a way to recognize when implicit bias might be affecting outcomes' (Alvero et al., 2020, p. 202). Recent cases of corruption, namely bribery of coaches to declare potential students as athletes has again raised the question of the fairness of access practices (Jaschik, 2019a, 2019b).

Finally, David Dill refers to the U.S. loan system which uses a mortgage approach, which has created serious difficulties for many young people who have defaulted on their loans and which has led to a huge accumulated debt of over one trillion dollars. At the same time, the movement towards merit-based financial loans has created additional inequalities, since in general students from affluent backgrounds are more likely to be contemplated, as family background has influence over the performance of students.

In Chap. 4 Bertolin and McCowan present the Brazilian case which also includes a component of affirmative action policies. Brazil is one of the most unequal countries in terms of income distribution (the 10th worst country as measured by the Gini coefficient [UNDP, 2016]) and one of the last moving to mass higher education. Despite an impressive increase in enrolments over the last three decades, from 1.5 million to more than 8 million, the percentage of graduates aged 25 to 34 in Brazil was only 18%, as compared against an OECD average of 43% (OECD, 2018).

One of the characteristics of Brazilian education consists in the low quality of public secondary schooling when compared against its private

counterpart, while public higher education is recognised as having superior quality when compared with private higher education. This situation has strong reflection in enrolments in higher education. Students from deprived backgrounds enrol in public secondary schools as they cannot afford to pay to attend a private school, and they are at a disadvantage when competing with students from private schools for a place in a public higher education institution, where there is no tuition. In most cases they will find a place in a lower-quality higher education institution where they have to pay significant tuition fees.

During the period 1990–2002 enrolments almost doubled, but in the absence of affirmative action policies this expansion benefited mainly students from the middle and upper-middle classes while the participation of students from deprived backgrounds (bottom half of the income distribution) fell from 8.6% to 7.5%. In 2002, no student belonged to the 20% poorest of the population and only 4% belonged to the 40% poorest (Bertolin & McCowan, this book). These data are consistent with the MMI hypothesis. Later, the government of President Lula da Silva introduced affirmative action policies for the public sector. Act 12.711/2012, the Quotas Law, established a 50% quota for public school students, divided into sub-quotas for low-income students and black, mixed-race and indigenous students. A recent study of the Brazilian Institute for Geography and Statistics (IBGE, 2019) reported that for the first time the number of black and mixed-race students in public higher education institutions surpassed the number of white students.

For the private sector institutions, Act 11.096/2005 created a financing programme (Prouni, University for all) providing non-refundable full and partial (50%) scholarships for enrolments at private colleges and universities. This programme has been a bounty for the private sector, including for-profits and the sector grew from 58% of total enrolments in 1995 to 75% in 2018 (INEP, 2019). However, much of this expansion resulted from an explosive increase of distance education (DE) in the private sector, from 2% of total enrolments in private higher education in 2005 to some 30% ten years later. In 2018 the number of new DE places in private higher education was already higher than the number of places in classroom-based study programmes. However, while 30.7% of young whites were enrolled in higher education institutions in 2018, only 15.1% of black youngsters and 16.3% of mixed-race youngsters were enrolled (Todos pela Educação, 2019). In terms of secondary school graduates, only 33% of black and mixed-race students were enrolled in higher

education institutions to be compared with 52% of white students (IBGE, 2019). However, students from deprived backgrounds tend to concentrate in inferior quality study programmes offered by private institutions in the distance education mode, of lower social value but at the same time less expensive (tuition fees are about 1/3 of classroom-based programmes).

It is undeniable that the share of students from lower socioeconomic levels among enrollees and graduates has increased significantly even in the high prestige federal sector (Bertolin & McCowan, this book), even if they are more likely to finish their degrees in lower-quality institutions and in courses that are less socially and economically valued (Bertolin & McCowan, 2020). On the contrary, higher valued study programmes such as Medicine have lower enrolments for non-white students, students from low-income families, graduates from public secondary schools, and students whose mothers had little education (Bertolin & McGowan, this book), which is consistent with the Effectively Maintained Inequality (EMI) hypothesis.

Bertolin and McGowan conclude that there are increasing participation rates for students admitted through affirmative action policies (Quotas Law) or public funding (e.g. Prouni—a scholarship programme and Fies—a public loan scheme), which democratise access. However, there are still remnants from an elitist system maintaining an inappropriate level of inequity.

The next two chapters deal with the English higher education system. Claire Callender presents a critical analysis of the English policies for funding higher education and its consequences, and Liz Thomas reflects on English policies aiming at improving access and completion by under-represented and vulnerable groups.

In her chapter, Claire Callender considers that reforms in England were designed under the influence of neoliberal policies and the idea of the marketisation of higher education. Since the 1990s England has introduced cost-sharing policies aiming at expanding the higher education system and increasing participation rates. Those policies have progressively transferred the costs of higher education to students and/or their families by introducing tuition fees and replacing grants with loans. It should be noted that loans can be mortgage-style or income-contingent. Chapman argues that students who default ‘face damage to their credit reputation and thus eligibility for other loans, such as for a home mortgage’

(Chapman, 2006, p. 82). The U.S., where loans are mortgage-type, is confronted with a huge student debt of over one trillion US dollars.

In England loans are income-contingent and students start paying 9% of their earnings above the threshold level of £25,000 per year and any outstanding debt is written off after 30 years. Tuition fees were introduced in 1998 by Tony Blair's Labour government, with a value of £1000. That value was increased to £3000 in 2006/07 following the passing of the 2004 Higher Education Act by Tony Blair's Labour Government. In 2012/13, following the recommendations of the Browne report (2010), the Cameron-Clegg's coalition government of the Conservative Party with the Liberal Party increased fees to £9000. In 2017/18 fees were increased to their present value of £9250. Fees for part-time students with a maximum value of £6750 were introduced in 2012/13 and were increased to £6935 in 2017/18. The government hoped that higher education institutions would compete on price by charging different tuition fees but these expectations were completely frustrated as virtually all institutions charged the maximum value, one of the reasons being that charging lower fees could be seen as an indication of lower quality. And any occasional loss in enrolments would be more than compensated by the higher prices.

The government also hoped that as higher education institutions were made more financially self-sufficient, the system could expand and the number or available places would increase. This was even made easier as the cap government placed on the number of students, which universities could recruit has been progressively lifted, being completely abolished in 2015/16. Unfortunately, this prediction failed. The total number of students fell from a maximum of 851,590 in 2008/10 to 666,210 in 2012/13 and then remained almost stable until 2018/19 when enrolments totalled 674,840. However, the behaviour of full-time students was different from that of part-timers. Enrolments of full-time students had reached a maximum of 521,605 by 2011/12, then dropped to 466,270 in 2012/13 just after the large increase in fees to £9000 and then recovered slowly to 546,305 in 2018/19. On the contrary, enrolments of part-time students reached a maximum of 344,775 in 2008/09, decreasing to 199,940 in 2012/13, and then continued to drop to a value of 128,535 in 2018/19.

An additional objective of the government, which also remained unfulfilled, was to increase the relative participation rates of students from under-represented groups, another objective which remained unfulfilled.

Claire Callender (this book) presents data demonstrating that the gap in participation rates between students from the poorest backgrounds and their wealthier peers actually increased from 18.5% to 21.6% from 2010/11 to 2017/18.

Claire Callender explains the sharp decline in the enrolments of part-time students by the fact that almost half of them did not qualify for loans (53% in 2015, Callender & Thompson, 2018). Moreover, many of those who qualified for a loan would not take it (41% in 2012, *ibid.*), one of the reasons being that they were in general employed and the eventual increase in salary once they graduated might not compensate the investment made. At last, debt aversion also plays a role, as ‘students from lower socioeconomic backgrounds are more sensitive to financial incentives ... and are less willing to borrow than students from higher socioeconomic backgrounds’ (Vossensteyn & De Jong, 2006, p. 239). Indeed, even if Barr considered debt aversion irrational in the case of income-contingent loans (Barr, 2010), Callender and Mason (2017) found that debt aversion affects higher education applications from young working-class students.

The higher education reform which included a very substantial increase in student fees was publicly presented as a ‘political “compromise” of widening access to higher education to promote social justice, and improving the economic capacity of individuals and the nation’ (Liz Thomas, this book). Liz Thomas argues that the English higher education system has exhibited both characteristics of Maximally Maintained Inequality (MMI) and of Effectively Maintained Inequality (EMI). The Robbins Report (Committee on Higher Education, 1963) recommended a major expansion of the higher education system in order to provide places for ‘all who were qualified for them by ability and attainment’, independently of their family background. However, data from the 1997 Dearing Report showed that the extra places resulting from the expansion of the higher education system in the 1980s and 1990s were mainly taken up by middle class students, namely women, leaving students from lower socioeconomic groups and ethnic minority groups significantly under-represented, especially in the traditional universities (Thomas, this book), which is consistent with the MMI hypothesis (Thomas, 2001). The expansion of the number of graduates undermined the positional value of higher education and students from privileged classes started to look for differentiation by enrolling in elite institutions and pursuing graduate studies (Thomas, this book) which is consistent with the EMI hypothesis (Lucas, 2001).

Liz Thomas dedicates most of her chapter to discussing policies that were implemented in England to promote retention and completion rates. It is well-known that students from lower economic status backgrounds have higher odds for not completing their study programmes (HEFCE, 2013) (see also Bertolin & McCowan, this book). Given the very high level of tuition fees, not completing a degree would leave students with a substantial debt to pay and under an income-contingent loan scheme this debt would be transferred to the State. Indeed, access without success is a deceitful offer (Tinto, 2008) and England introduced a number of policies to promote equality of outcomes, or equity, through inclusion (Marginson, 2011).

When the value of tuition fees increased to £3000 in 2006/07 the government also installed the Office for Fair Access (OFFA), an independent, non-departmental public body with the mission of promoting and safeguarding fair access to higher education for lower income and other under-represented groups. This body was replaced with the Office for Students (OfS) from 1 April 2018. Initially the emphasis of OFFA was on the access of students from lower economic status backgrounds and institutions proposing to charge higher tuition fees had to agree with OFFA on an ‘access agreement’ explaining how they intended to safeguard and promote fair access to higher education. In 2018 access agreements were replaced with ‘Access and Participation Plans’ which detail how institutions will improve equality of opportunity for under-represented groups to access, succeed in and progress from higher education. These plans need previous approval by the Office for Students.

To promote the quality of higher education provision the government in England introduced the Teaching Excellence and Student Outcomes Framework (TEF). TEF is an award given to institutions that go beyond the national quality standards, ensuring excellent outcomes for their students in terms of graduate-level employment or further study. The awards can be gold, silver, bronze or conditional and they contain information on student satisfaction, employment outcomes and the number of students who continue their studies from one year to the next, helping prospective students to choose the institution where they want to enrol.

Liz Thomas argues that although these policies have been less successful in terms of increasing the participation of students from non-traditional groups, especially in pre-1992 elite universities, they have contributed to reduce the gap in retention and completion rates between students from diverse socioeconomic backgrounds and different ethnicities.

The next two chapters present the Portuguese case and show that developments in Portugal were consistent with the MMI and EMI hypotheses. Following the 1974 revolution, the Portuguese higher education system went through a process of accelerated expansion, with gross participation rates jumping from around 7% in 1974 to more than 50% at present. It is possible to argue that there are two distinct profiles in Portugal; the population over 35 years old which has in general a low education level and a younger sector, up to 35 years of age, with an expressive percentage of higher education graduates.

In secondary education there are two tracks: an academically oriented traditional one and a vocational one. Higher education is diversified, with universities and polytechnics (in the meaning of the former UK polytechnics), public or private. Higher education degrees are compatible with the Bologna structure and non-degree awarding shorter study cycles (TESP) were recently introduced for students willing to make an early entrance into the labour market.

The OECD (2008) presented a number of factors influencing equity in the access to higher education, including inequalities present in earlier phases of the education system (Marcenaro-Gutierrez et al., 2007; Wömann & Schütz, 2006), family socioeconomic background, early tracking, geography, articulation between secondary and tertiary education, access system. In their chapter, Baptista, Sin and Tavares discuss how these factors contribute to social inequity in Portugal, still present despite the massive increase in enrolments.

Baptista, Sin and Tavares (this book) argue that socioeconomic status is the most important aspect that directly or indirectly conditions transition to higher education in Portugal, and thus is the primary source of inequality in participation, with students whose parents have higher educational capital (in general also associated with higher income) being over represented in higher education. The socioeconomic filter in upper secondary education has origins in students' trajectories and academic performance in basic and lower secondary education. Research results for Australia, England, U.S. and Canada show that the attendance of private schools appears to favour entry into higher education (Chesters & Watson, 2013; Engberg & Wolniak, 2010; Frempong et al., 2012; Mangan et al., 2010) and the same is apparently true for Portugal. To make things worse, it was found that there are some schools (mainly private) which systematically inflate grades to give an extra advantage to their students (the Inspectorate for Education and Science has just announced that those schools found

guilty of grade inflation will be punished). As students from deprived backgrounds cannot afford to pay for a place in a private school this is an additional factor of inequality of access to higher education.

The existence of two main tracks, one more academic and one more vocational, plays an important role in maintaining inequality as the vocational track not only prepares students for an early entrance into the labour market, but also places some barriers to transition to higher education in Portugal (the government very recently passed legislation to soften these barriers). In 2017/18, 80% of graduates from the academic track were enrolled in higher education one year later, almost all in degree awarding programmes. In contrast, only 18% of those who graduated from the vocational track (disproportionately attended by disadvantaged students) were enrolled in higher education after one year, two thirds of which in TESP programmes.

Using social support (which is means tested) as a proxy for socioeconomic status, Baptista, Sin and Tavares demonstrate that the stronger the level of support, the lower the proportion of secondary school graduates that pursue higher education studies. Data also show that, on average, students who receive higher levels of social support tend to be given lower internal grades, when compared to their higher status peers that have similar scores in the national exams.

There are also significant regional differences in the enrolment rates in higher education among upper secondary graduates from different Portuguese regions, especially in the case of graduates of secondary vocational programmes, which is compatible with the results presented by the OECD (2008). This is the result of places in higher education programmes and institutions not being equally accessible to local students throughout the country, which places an extra burden on students from deprived backgrounds due to the costs of displacement from their household.

In Chap. 8, Sá, Tavares and Sin present further analyses of the Portuguese higher education system aiming at understanding why there are still persistent inequalities despite the expansion of the system since the 1974 revolution. In the first part of their chapter the authors examine the influence of the students' socioeconomic and cultural backgrounds on their choice of institution and study programme. The expansion of the system was achieved through diversification—a dual system of universities and polytechnics—and privatisation—a parallel system of public and private institutions. This expansion has improved the chances of students from lower socioeconomic backgrounds to enter higher education

(inclusion), which is consistent with the MMI hypothesis. However, diversification has resulted in social stratification, with universities having more prestige than polytechnics.

Empirical results show that students from privileged backgrounds prefer universities while students from lower socioeconomic backgrounds tend to concentrate in polytechnics. Sá, Tavares and Sin (this book) use the parents' qualification (holding or not a higher education degree) to show that students with parents holding higher education degrees are overrepresented in universities relative to their presence in the Portuguese society, while students from families with lower cultural capital are underrepresented. On the other hand, polytechnic institutions enrol a more diversified student body, being more representative of the composition of the student population in Portugal, which is consistent with the EMI hypothesis. On average families with higher cultural background are also expected to be those with higher socioeconomic capital. In Portugal, scholarships are means tested which makes the percentage of scholarships a good proxy for the socioeconomic level of families. Sá, Tavares and Sin also show that the percentage of students with scholarships is higher in polytechnic institutions than in universities, which is consistent with the results obtained for cultural capital.

The persistence of inequalities is also visible in the choice of study programmes, as students from families with higher cultural or socioeconomic capital have a much higher enrolment rate in the most prestigious study programmes, when compared with students from less privileged backgrounds. Sa et al. illustrate these findings with several examples of study programmes from similar scientific areas, but from different higher education sub-systems [e.g. Medicine (university) against Nursing (polytechnic); Pharmaceutical Sciences (university) against Pharmacy (polytechnic); Design (university) against Design (polytechnic)].

In the second part of their chapter, Sá, Tavares and Sin use two datasets, one containing data on individual candidates to public higher education and another one containing programme/institution level data. The first dataset contains data on individual candidates to public higher education for the period 2012 to 2018 (almost 330,000 individuals). The second dataset refers to the academic year 2017/18 and contains information on the proportions of candidates to income-based scholarship and scholarship holders, as well as on the parental educational levels (mother and father, separately). There is also information on the minimum admission GPA (grade point average) and admission exams, for each pair

programme/institution. Despite the fact that the number of places in public higher education institutions is close to the number of candidates, every year a number of students is unable to find a place (11.6% in the period under analysis). Sa et al. analyse the characteristics of the left-out students to conclude that candidates to places in Social Sciences, Business and Law have more difficulty in getting a place; this is a consequence of the high number of candidates due to the fact that the mathematics exam is not a compulsory admission criterion for most study programmes. Unsuccessful candidates are also over-represented in programmes such as Medicine, but this is due to the very selective and demanding nature of the admission criteria. There are also significant regional differences, with unsuccessful candidates being over-represented in Porto and Lisbon, which is due not only to very high population density but also to the fact that institutions in these urban areas attract a large number of candidates from other regions.

Next, Sá, Tavares and Sin examine inequalities within the public higher education system using four different models. The first two models estimate inequalities among placed students. Consistent with the EMI hypothesis, they find inequalities in the placement of students in their first preference of programme/institution and in the access to more selective institutions and study programmes. Two other models were used at programme/institution level to identify the main characteristics of the programmes that explain the minimum admission GPA. They conclude that students with lower GPA, with a lower social status, will only get a place in the more selective programmes or institutions when the needs of the socially advantaged students are fully satisfied, or when these latter have secured for themselves both quantitatively and qualitatively better outcomes, which is consistent with the MMI and EMI hypotheses.

In Chap. 9, Per Olaf Aamodt presents the case of four Nordic countries—Denmark, Finland, Norway and Sweden—all based on the social democratic model characterised by redistribution policies and universalistic contribution mechanisms, high living conditions and high scores in international surveys of life satisfaction (Ramstedt, 2009) and small income differences measured by Gini-coefficients (OECD, 2016), thus creating a stark contrast with England where developments were based on neoliberal policies and marketisation of higher education.

Although there are differences among the four countries, both regarding higher education systems and education policies, which resulted in differences both in levels of inequality and in changes over time, there are

however a significant number of similarities. There are no tuition fees in higher education and the introduction of tuition fees is not part of the political agenda, as fees are seen as unfair, leading to social differences in higher education attendance. Nordic countries established state-run student support systems before 1950, which make students independent of family income and financial support is given directly to the student on a universal basis (not means tested). There are less differences in prestige between higher education institutions in the Nordic countries than in other countries and, due to the relatively small income differences of the population, the relative value of higher education in terms of economic outcomes is lower than in many other countries. Aamodt quotes Erikson and Jonsson to present additional reasons for implementing policies aiming at eliminating inequalities in educational enrolments (Erikson & Jonsson, 1996).

In his chapter Aamodt argues that enrolment patterns in the Nordic countries are clearly consistent with the MMI and the EMI hypothesis. The expansion of the higher education sector was accomplished by creating a number of institutions different from universities but also less prestigious, which has led to increasing stratification within tertiary higher education. Unfortunately, and consistently with the EMI hypothesis, lower-tier opportunities are preferentially taken by students from deprived backgrounds who otherwise would not have access to tertiary education as argued in Amaral's chapter (Koucký et al., 2010; Shavit et al., 2007). These lower-tier institutions have a more democratic enrolment than universities (Aamodt, this book) which have kept an enrolment clearly favouring students from the upper classes. As argued by Aamodt (this book), the strong social differences in enrolment to elite programmes such as law, medicine, dentistry, veterinary medicine, graduate engineering, business administration and architecture have continued.

Therefore, in the Nordic countries, despite some progress made to eliminate access inequities there is still a considerable inequality in access to higher education. Aamodt resorts to Boudon (1974) to explain the persistence of these inequities. Boudon introduced the concepts 'primary effects' referring to the relation between students' ability and parental social status and 'secondary effects' to account for the fact that students from different social classes make different choices along their educational paths independently of their academic success (Aamodt, 1982; Erikson & Jonsson, 1996; Jackson et al., 2007). The preference of students from deprived backgrounds for vocational tracks in opposition to academic

tracks, as reported in the Nordic countries and Portugal (this book) is an example of secondary effects. The use of criteria based on academic performance to determine transitions between levels in educational systems tends to increase these effects (OECD, 2008). Data collected by Hansen (2019) for Norway provide a good illustration of secondary effects by relating social class with grades, decisions to continue to upper higher education and the choice of vocational paths.

At last, Chap. 10 presents the conclusions, which are divided in three parts: a summary of the policies adopted to date in order to ensure equity in access to and success in higher education, a reflection on the inequalities that persist despite the adoption of these policies and a discussion and suggestions of possible ways forward.

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CHAPTER 2

Equity in Higher Education: Evidences, Policies and Practices. Setting the Scene

Alberto Amaral

DEFINITION OF EQUITY

Education is a prerequisite for upholding democratic societies (Koucký et al., 2010), and higher education is associated with higher living standards, being a key factor of economic growth of societies (Blaug, 1987; Mincer, 1984). Equity of access to higher education has progressively become an increasingly prominent concern of education policies of governments and of international organisations.

Following Morton Deutsch, distributive justice (Homans, 1961) ‘is concerned with the distribution of the conditions and goods which affect individual well-being’ (Deutsch, 1975, p. 137) and equity and equality are its main basis (Espinoza, 2007). Although some authors use those terms interchangeably (Lerner, 1974; Warner, 1985) equity is a concept different from equality (Cook & Hegtvedt, 1983). For Adams (1963), equity is related to the fairness of social exchanges, meaning that ‘equity exists

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O. Tavares et al. (eds.), *Equity Policies in Global Higher Education*,
Issues in Higher Education,
https://doi.org/10.1007/978-3-030-69691-7_2

when the ratio between the investment and the return of an individual is perceived as being identical in terms of ratio to that of other people or groups' (Balassiano & Salles, 2012, p. 271). Eckhoff (1974) defined five distinct principles of equality: objective equality, subjective equality, relative equality, rank order equality and equal opportunity. Under objective equality each recipient receives the same amount, which is the traditional notion of equality. Under subjective equality each recipient receives according to their needs, while relative equality (equality relative to individual contributions) corresponds to the notion of equity. Homans defined the principle of rank order equality as, 'If the costs or investments of the members of one group are higher than those of another, distributive justice requires that their rewards should be higher, too' (Homans, 1958, p. 604). Equality of opportunities is difficult to apply due to the complexity of the term "opportunity" (Cook & Hegtvedt, 1983, p. 221).

In higher education, equity or substantive equality 'is based on an understanding that academic performance and outcomes should be the same across groups of students, but it recognises that variables such as sex, class, socioeconomic status, race, and ethnicity will determine what students need to achieve these goals (American Association of University Women, 1998)' (as cited by Larkin & Staton, 2001, p. 364). Therefore, equity does not mean treating all people the same way. In this chapter the term "equality" is used as meaning "subjective equality", which is equivalent to "equity".

EQUITY AND SUPRANATIONAL ORGANISATIONS

The relevance of equity in higher education is visible in the proliferation of declarations from international organisations. The *Universal Declaration of Human Rights* was proclaimed by the United Nations General Assembly in Paris on 10 December 1948. Paragraph 1 of article 26 addresses the problem of education as a fundamental right of humanity:

Everyone has the right to education. Education shall be free, at least in the elementary and fundamental stages. Elementary education shall be compulsory. Technical and professional education shall be made generally available and **higher education shall be equally accessible to all on the basis of merit.**

The *World Declaration on Higher Education for the Twenty-First Century: Vision and Action*, proclaimed in the 1998 World Conference on Higher Education, also held in Paris, has a full paragraph under the heading of Equity of Access and affirms that no discrimination can be accepted:

In keeping with Article 26.1 of the Universal Declaration of Human Rights, admission to higher education should be based on the merit, capacity, efforts, perseverance and devotion, showed by those seeking access to it, and can take place in a lifelong scheme, at any time, with due recognition of previously acquired skills. As a consequence, **no discrimination can be accepted** in granting access to higher education on grounds of race, gender, language or religion, or economic, cultural or social distinctions, or physical disabilities.

The International Association of Universities (IAU), in a political statement on *Equitable Access, Success and Quality in Higher Education* adopted in its 13th General Conference, held in Utrecht in July 2008, urged that access to higher learning should be made possible to all regardless of race, ethnicity, gender, economic or social class, age, language, religion, location or[dis]abilities. It also considered that the goal of access policies should be successful participation in higher education, as access without a reasonable chance of success is an empty promise and argued that equitable access and academic excellence were essential and compatible aspects of a quality higher education. To fulfil these objectives, IAU proposed that different institutional models, flexible programmes of study as well as a variety of delivery modes must be available to allow individuals at all stages of life to move through higher education in a manner that suited their needs.

The OECD published an extensive report entitled *Tertiary Education for the Knowledge Society* (OECD, 2008), which dedicated a full chapter to achieving equity. In that report, equity in tertiary education (The designation “tertiary education” has frequently replaced the designation “higher education” to account for the diversification of the systems with institutions which are no longer universities) is defined as:

Equitable tertiary education systems are those that ensure that access to, participation in and outcomes of tertiary education are based only on individuals’ innate ability and study effort. They ensure that the achievement of educational potential at tertiary level is not the result of personal and social circumstances, including of factors such as socio-economic status, gender,

ethnic origin, immigrant status, place of residence, age or disability. (OECD, 2008, p. 13)

The European Commission (Commission of European Communities, 2006) also referred to the goals of equitable distribution of education resources. For the Commission, the concept of equity is close to the definition of equality of opportunity (Roemer, 1998). Equitable systems are those where the students' educational performance does not depend on ascriptive factors such as race, gender or family background. Or, in other words, educational outcomes will be the result only of the effort of individual students, not being influenced by other circumstances outside their control.

The European University Association (EUA) together with the European University Continuing Education Network (EUCEN) and the European Students' Union (ESU) has just published a report on *Diversity, Equity and Inclusion in European Higher Education Institutions* (EUA, 2019). The report establishes a distinction between *equality* and *equity*:

The term **equality** is linked to the idea that everyone has the same rights and should thus enjoy **equal treatment** and **non-discrimination**... The concept of **equity** goes further and includes **needs-based support** to level out relative disadvantage. It thus often comes along with measures such as positive action or **positive discrimination**. (EUA, 2019, p. 23)

Inclusion is often linked to social inclusion, where the challenge is to attain a social profile of the student body that corresponds to society at large. (EUA, 2019, p. 23)

These examples show that equity in access to higher education has received attention from many international organisations, although definitions of equity are not always fully coincident.

COMPONENTS OF EQUITY

The OECD (2008) considered that equity has two components: fairness, which implies that personal and social circumstances do not hinder achieving educational potential, and inclusion, which means that all are able to attain a basic standard of education. In a similar way, Marginson referred to two strategies to promote equity, the first one being to advance fairness'

by changing the composition of participation', and the second one being inclusion by 'broadening the access and completion of under-represented groups' (Marginson, 2011, p. 23). And IAU recommended that governments should implement policies aiming at promoting 'equitable access, broadened participation and success in higher education' (IAU, 2008, p. 3).

The OECD argued, 'it is clear that equity in tertiary education is affected by inequities in preceding levels of education' (OECD, 2008, p. 13). Much of the unequal access to tertiary education is the result of the inability to achieve the necessary qualifications due to inequities in the preceding levels of education—for example, the choice of secondary school or the choice of a vocational school will strongly influence access to higher education—(Commission of European Communities, 2006; Koucký et al., 2010; Marcenaro-Gutierrez et al., 2007; Wößmann & Schütz, 2006) and, in general, education systems have not been successful in breaking this link (OECD, 2008, p. 17).

The socioeconomic background of parents has been considered as one of the strongest predictors of students' academic achievement and attainment (Reardon, 2011). Many research studies on academic achievement have focused on the mechanisms through which differences between families lead to differences in students' academic success (Reardon, 2011). Income, parental educational attainment, family structure, school quality or choices are examples of some of these mechanisms. And Reardon concluded, 'the achievement gap between children from high- and low-income families has grown substantially in recent decades. The income achievement gap is now considerably larger than the black-white gap, a reversal of the pattern fifty years ago' (Reardon, 2011, p. 112).

Bourdieu (1986) defined three forms of capital: economic capital—related to the financial status of the family, cultural capital—related to knowledge, skills, attitudes and values, and social capital—social connections linked to a complex of shared norms and values that promote social cooperation (Fukuyama, 1999). All the three forms of capital have influence on individuals' educational paths, creating diverse modes of inequality, and will have influence on the equity in access to higher education. Bourdieu's social reproduction thesis (Bourdieu & Passeron, 1977) posits that the persistent inequalities in education, despite all the State efforts to eliminate or minimise them, are the result of the transmission to children of aesthetic codes, practices and dispositions [cultural capital] through the

process of family socialisation, which confers an advantage to children from families with the highest cultural capital (Tzanakis, 2011).

RELATIVE AND ABSOLUTE CHANGES IN PARTICIPATION

The expansion of elite higher education systems towards mass systems and even universal systems was supposed to promote equity. As stated by Clancy & Goastellec (2007, p. 144), ‘one of the most frequently quoted generalisations in research into post-compulsory education is that expansion has not significantly reduced social class inequalities in access to higher education’, a proposition confirmed by a number of researchers (Halsey, 1993; Kivinen et al., 2001; Shavit & Blossfeld, 1993). However, Clancy (2001) argued that it is necessary to consider not only relative changes in access (fairness) but also absolute changes (inclusion).

Expansion of the higher education systems opened more places in institutions, thus allowing for an increased intake of students from deprived backgrounds. This was confirmed by studies of Clancy and Goastellec (2007) and Koucký et al. (2010). Clancy & Goastellec argued that absolute changes pointed to the improvement of the participation of any particular group irrespective of what happened to other groups. And many governments claimed to have reduced access inequities if their education policies had increased the intake of students from deprived backgrounds.

However relative changes may present a different history as they are related to the positional character of education (see § 6). Koucký et al. (2010) analysed access to tertiary higher education in Europe for a sixty-year period from 1950 to 2009. Using the father’s and mother’s education and occupation, they defined four status groups of equal size to conclude that children from families in the higher status quarter still had 3.7 times higher chances to get tertiary qualifications than children from families in the lower quarter. And children from the top one tenth of higher status families still had 5.5 times higher chances than children from the one tenth of families with lower status. However, over those sixty years, chances to get tertiary qualifications increased considerably, both overall (from 12% in the 1950s to 42% today) and for all social groups.

MASSIFICATION AND DIVERSIFICATION OF THE SYSTEMS

In general, massification was accompanied by a diversification of the systems, which many governments considered an imperative to respond to the increasingly varied aspirations and capacities of an increasingly heterogeneous student population. Birnbaum (1983) distinguished between three types of diversification: systemic [different types of institutions in a higher education system], structural [institutional differences due to historical or legal reasons or in the internal structure of institutional power] and programmatic [diversified offer of study programmes and services].

Several authors considered that diversity played an important role when higher education systems moved from elite to mass. Stadtman (1980) argued that diversification was important for a number of reasons, including the offer of an increased number of alternative choices to students. He also referred to the adaptation of education to the wishes and individual capacities of students, which allows institutions to define their missions and the scope of their activities, answering to the complex and diversified social pressures, and making education virtually available to all.

More recently, van Vught (1996) referred to seven arguments in favour of diversity, including providing better responses to the needs of students and of the labour market; improving social mobility; allowing for increased efficacy of institutions and for low cost innovative experiments and making feasible the presence of elite institutions in a massified system. And Brennan and Naidoo (2007) argued that diversification was fundamental to create opportunities accessible for all and answering to a multitude of diverse interests and aspirations, since otherwise, many would be left out of higher education.

However, the diversification of higher education systems may create other types of inequity, as disadvantaged students may gain access to lower-status higher education institutions and/or programmes or they may represent a disproportionate percentage of those paying tuition fees (either in the public or private sector) (OECD, 2008, p. 19). Shavit et al. (2007) argued that massification tended to create new opportunities, but mainly of lower value. He considered that lower-tier opportunities allowed for the inclusion of students from deprived backgrounds who otherwise would not have access to tertiary education. And Koucký et al. (2010) argued that with expansion there has been a change in the character of inequalities, which have become 'more subtle and less discernible as they changed their focus from quantitative to qualitative characteristics', that is,

the status of institutions and programmes has gained a new prominence. Studies by Chevalier and Conlon (2003) and Leathwood (2004) for the British system, Martins et al. (2005) and Tavares et al. (2008) for the Portuguese system or Groenez et al. (2003) for the Flemish Community of Belgium confirmed these findings.

POSITIONAL GOODS

Much of what happens in terms of inequity of access to higher education is related to the fact that higher education is a positional good. Positional goods or status goods are goods or services which are demanded and bought because their possession or consumption confers social or other status to those acquiring them. Education is a positional good in the sense that it provides students with a competitive advantage when looking for employment, social standing and status (Marginson, 1998).

The value of positional goods depends strongly on their position in relation to others. Positional goods have a hierarchy of value, some being more valuable than others. Examples from education: a degree from Harvard University is more valuable than a degree from a community college; a degree from Cambridge University is more valuable than a degree from the University of Buckingham. In Portugal, a degree in Medicine is valuable as it remains scarce relative to demand and its value would decrease through massification. Places in highly reputed elite institutions such as Harvard or Cambridge or in study programmes such as Medicine are the most desired form of positional good as they offer a high probability of a successful career.

One of the characteristics of positional goods is that they are not only a *scarce good*, but they are also a *scarce good in absolute sense* (Marginson, 1998). As Hirsch put it in *Social Limits to Growth*, ‘Positional competition ... is a zero-sum game. What winners win, losers lose’ (Hirsch, 1976, p. 52). Hirsch offered a very good example of a spectator in a stadium who improved his view by standing on tiptoe. However, if everyone else did the same thing then everyone was worse off (Hirsch, 1976, p. 6) and the advantage of that spectator disappeared. Therefore, “positional goods” produced in higher education must be scarce. If the number of available places in medicine were to increase substantially, then the value of a degree in medicine would decrease. This explains why one of the main characteristics of American elite universities is their highly selective admissions system and their prestige in research (Dill & Soo, 2004), or the very high

positional value of study programmes such as medicine or dentistry that are frequently protected by imposing quotas (*numerus clausus*).

Marginson (2004) argued that scarcity by increasing competition for the best institutions and study programmes was a sign of prestige. For Marginson, ‘the mechanisms of competition for prestige reproduce prestige itself and sustain the relative standing of institutions that produce it’ (Marginson, 2004, p. 210). He further explained:

Elite institutions do not expand production to meet the full demand, like capitalist businesses. Their ultimate lodestone is not maximum market share or even maximum revenues; it is consumer preferment, social status and the academic status (especially in research) that helps to maintain their social status. (Marginson, 2004, p. 210)

In the positional competition game there are two parallel competitions: while students compete for a place in the best institutions and programmes, elite institutions compete for the best students. In this game increased competition reinforces the position of elite institutions and their position is not contestable. An example was the case of Civil Engineering programmes during the recent economic crisis in Portugal. During the crisis there was a strong decline of the building industry, which had reflection in the number of candidates for these programmes. However, while the most prestigious schools had no problem in filling their available places, all other institutions struggled and a few even closed their programmes.

In Portugal there is a centralised application process for the public sector, in which candidates have to rank up to 6 combinations of programme/institution. Candidates are allocated to the available places based on their preferences and the application grade point average (GPA). The Ministry decided to allow institutions to establish a threshold GPA value for application to their programmes, higher than the legal minimum value. While the more prestigious institutions did this for their more coveted programmes, the other institutions adopted the minimum value and even suggested eliminating that minimum.

While elite institutions do not need to advertise their programmes or services, this is not the case of low and middle-level institutions, which have to spend resources on marketing hard to attract students to fill their vacancies. However, their success is always contestable and those institutions must maintain their marketing efforts every year, or even try to attract students by dropping prices or providing positive information on

employment of their former graduates. This may create a race to the bottom among less prestigious institutions, where marketing and reliance on lower prices may degrade quality (Marginson, 2004).

As argued by Marginson (2004), social groups from deprived backgrounds are not in a good position to compete for positional goods, as the latter tend to be monopolised by social groups from privileged backgrounds. A consequence of this competition is the persistent inequality at the level of higher education. As Marginson explained:

Wealth follows prestige: wealthy families invest in high value positions in education so as to maintain their positions of social leadership, positions which provide necessary (though not sufficient) conditions for reproducing incomes and wealth in the next generation. Positional markets in higher education are a matching game in which the hierarchy of students/families is synchronised with the hierarchy of universities, and individual market choices are determined by status goals. (Marginson, 2004, p. 210)

MAXIMALLY MAINTAINED INEQUALITY (MMI) AND EFFECTIVELY MAINTAINED INEQUALITY (EMI)

It is well known that students whose parents come from well-educated and affluent backgrounds have an advantage over students coming from less educated parents. Achieving equality of opportunities for students of all social backgrounds has been an objective of many nations. It was expected that the effect of social background could be eliminated or at least minimised by the expansion of education systems. However, against all expectations, educational inequalities were surprisingly persistent in the face of the expansion of schooling at elementary and secondary levels (Erikson & Jonsson, 1996; Featherman & Hauser, 1978; Halsey et al., 1980; Shavit & Blossfeld, 1993). Similar results can be found for higher education (Chesters & Watson, 2013; Givord & Goux, 2007; Lynch & O'riordan, 1998; Roksa et al., 2007; Tsui, 2003).

It is argued that expansion is unlikely to reduce inequalities simply because students from privileged socioeconomic backgrounds are better placed than others to use the new educational opportunities offered by expansion (MMI—Maximally Maintained Inequality) and to obtain a qualitatively better kind of education at any given level (EMI—Effectively Maintained Inequality) (Boliver, 2011, p. 230).

Raftery & Hout (1993, p. 56) analysed the change in inequality among different cohorts of students resulting from the expansion of secondary education in Ireland to conclude that ‘transition rates and odds ratios between social origins and educational transitions remain the same from cohort to cohort unless they are forced to change by increasing enrolments’. They suggested the term *Maximally Maintained Inequality* (MMI) for this hypothesis. They grounded the hypothesis (Raftery & Hout, 1993, p. 56–57) on the arguments that transition rates will remain constant in time if growth in the capacity of secondary and higher education only goes along with population growth and/or upgrading of social origins; that class odds-ratios will remain constant while transition rates increase for all social levels if expansion raises enrolments faster than demand; and that when demand for the privileged classes becomes saturated (near 100%), the association between social origin and participation will be undermined (however, this only occurs if expansion in enrolment cannot be accommodated by alternative means, such as lower value opportunities; see Green, 1980; Sussman, 1967).

To summarise rather cynically, the lower classes can only take advantage of opportunities offered by expansion when the needs of the upper classes are fully satisfied. The existence of alternative routes can play a role, which will probably increase the odds of accessing higher education for students from lower backgrounds, even if in lower value opportunities. In the Portuguese case, the new vocational route is attracting mainly students from the lower classes who in general enter the labour market without having been in higher education. It is interesting to note that the expansion of secondary education in Ireland was not accompanied, at the time, by a similar expansion of enrolments in universities during the period 1970–1990, which resulted in a sharp decrease in transition rates, as many students completing secondary education could not find a place in a university. The problem was partially mitigated by offering new places in non-university tertiary education, a lower value alternative.

Lucas (2001) noted that MMI failed in some cases such as the U.S. and the Netherlands because the effect of social background decreased before the strong condition for saturation (100%) was achieved. However, Hout argued that ‘inequality of educational opportunity may decrease prior to [national] saturation in part because some schools and colleges may reach saturation before others do... Aggregated over space and time, this phenomenon yields a decrease in inequality of educational opportunity prior to nationwide saturation’ (Hout, 2006, p. 239). Hout therefore

considered that the strong condition of saturation (100%) at national level was excessive, and the decrease in inequality could occur when ‘the proportion of successful students from privileged backgrounds exceeded 80%—near saturation’ (Hout, 2006, p. 239).

MMI describes inequality patterns but does not explain them. Raftery and Hout (1993) resorted to rational-choice assumptions for an explanation. They considered that the decision to continue in education was determined by the costs and benefits of continued education, as perceived by the student and her or his family. However, they deviate from pure rational-choice by considering that students may have different perceptions of the benefits of education due to ‘unobserved effects such as ability and taste’ (Raftery & Hout, 1993, p. 57) or because families from deprived backgrounds are more sensitive to the costs of education. Alternatively, inequality patterns could be explained by behavioural economics, based on the idea that people deviate from rational and selfish choice (Vossensteyn & de Jong, 2008). When students make their decisions, they do it under considerable uncertainty about the actual contents of their study programme and about the possibility of being employed after they finish their studies. As argued by Vossensteyn and de Jong, students make their decisions under the influence of background characteristics such as socioeconomic status, gender and ethnicity, their reference levels and loss aversion (Vossensteyn & de Jong, 2008).

Lucas (2001) introduced a new hypothesis, which he designated as Effectively Maintained Inequality (EMI), to explain the endurance of inequality despite expansion. EMI posits that ‘socioeconomically advantaged actors secure for themselves and their children some degree of advantage wherever advantages are commonly possible. On the one hand, if quantitative differences are common, the socioeconomically advantaged will obtain quantitative advantage; on the other hand, if qualitative differences are common the socioeconomically advantaged will obtain qualitative advantage’ (Lucas, 2001, p. 1652). Before a particular level of schooling becomes saturated, the socioeconomically advantaged use their advantages to secure that level of schooling. Once that level of schooling approaches saturation, the socioeconomically advantaged look for qualitative differences and try to secure quantitatively similar but qualitatively better education. In other words, what counts is no longer entering that level of education but entering the best institutions and the best study programmes, which is consistent with the idea of education as positional good.

This explains, for instance, why in the Portuguese higher education system, although the overall number of new places is higher than the number of candidates, segregation by socioeconomic background is still evident in the choice of highly selective study programmes such as Medicine. Recent data show that 73.2% of medical students (university) have parents with higher education, while 73.0% of students in nursing and health technologies (polytechnic) have parents with qualifications below higher education (see Sá et al. this book).

DISCUSSION

In its 2008 report the OECD referred to two components of equity: fairness and inclusion. To promote fairness, governments should design policies aiming at convergence to a situation in which the percentage of participation of students from different family backgrounds would match the social composition of society. To promote inclusion, governments should design policies aimed at increasing the absolute number of students from deprived backgrounds entering higher education and graduating successfully. Therefore, two ways of measuring progress in equity have been used: relative changes of participation (equity/fairness) or absolute changes (inclusion) (Clancy & Goastellec, 2007).

The positional character of higher education makes the objective of fairness extremely difficult to attain. Koucký et al. (2010), who analysed change in access to European higher education over a period of sixty years, concluded:

... it is not possible to postulate that quantitative expansion by itself decreases the differences in the attainment of tertiary education by children of various social strata and groups and thus also the Inequality Index, though it contributes to this effect; although opportunities for all groups have been increasing, the mutual relationship of their levels has not changed too much. (Koucký et al., 2010, p. 32)

Marginson (2011) argued that the OECD reports show that it is more achievable and more fruitful to implement policies aimed at inclusion, rather than to increase fairness. He suggested, citing Bowden and Doughney (2010), privileging policies which aim at ‘fostering first generation participation in higher education by building aspirations, confidence and educational capabilities, from early childhood to higher education’

(Marginson, 2011, p. 34) and through higher education. As these additional students will come mainly from deprived backgrounds, this means increasing social support systems. These policies will be effective from the point of view of inclusion and may eventually, although slowly, contribute to increased fairness. As Marginson (2011, p. 34) recognised, ‘social inequalities in education are organic to social relations and sustained from outside as well as inside regulated systems, in the reproduction of families, classes, professions, wealth and political power’. Therefore, instead of ignoring the role of status or choosing a direct confrontation it is more useful to find ways around it.

There are however some countries where affirmative policies were implemented aiming at increasing fairness in higher education. In this volume two examples of policies of affirmative action are presented and results critically analysed. These are the cases of the U.S. discussed by David Dill (this book) and of Brazil, discussed by Julio Bertolin and Tristan McCowan (this book).

Tracking Systems

There are some measures which could contribute to increase equity. One such measure consists of avoiding early tracking systems. There is tracking when students are grouped into distinct classes by academic ability, either in different schools or in different classes of the same school. In Europe some countries use separate secondary education schools for different objectives, some for vocational students and technical students and others for those aiming to go to university. In the U.S. all secondary education is provided in ‘comprehensive high schools’, a single destination for students from all social classes. However, inside the same high school students are assigned to different levels of the same course, or to a course with a curriculum that is either more or less rigorous (Lucas, 1999; Oakes, 2005). The OECD (2008) argued that there is evidence that tracked systems of secondary education contribute to widening inequalities in access to higher education. Tracked systems promote a stronger relationship between family background and student achievement, with deleterious effects on entry to higher education. The 2010 EUA Trends Report emphasised that early tracking seemed to reduce significantly inter-generational mobility (Sursock & Smidt, 2010) and the 2010 Eurydice Report also mentioned that in systems with early tracking ‘students from lower socio-economic status backgrounds are statistically more likely to

“opt for” (or to have no option but) a vocational training route, from where it is more difficult to continue to higher education’ (Eurydice, 2010, p. 29).

The Selective Nature of Mathematics

Mathematics seems to play a very important role in sorting and stratifying students by race, ethnicity, gender and socioeconomic status (Davis & Martin, 2008; Ellis, 2008; Gerdes, 1988; Gutiérrez, 2008; Kitchen, 2015; Kitchen et al., 2007; Lattimore, 2005; Martin, 2013; Spielhagen, 2011). In a joint position statement from the National Council of Supervisors of Mathematics (NCSM) and TODOS: Mathematics for ALL is an international professional organization that advocates for equity and excellence in mathematics education for ALL students—in particular, Latina/o students. It is stated:

Historically, mathematics and the perceived ability to learn mathematics have been used to educate children into different societal roles such as leadership/ruling class and labor/working class leading to segregation and separation (Berry et al., 2014; Davis & Martin, 2008; Martin et al., 2010; Stanic, 1987; Tate, 1994; Woodson, 1933/2000). (NCSM, 2016, p. 2)

Many research studies show that success and achievement in mathematics is problematic. Indeed, as measured by the OECD’s PISA study (OECD, 2015), the worst results were for mathematics, with 22.2% share of low achievers, followed by science with 20.6% and reading with a 19.7% (Eurostat, 2017). Even more concerning was the fact that, according to Kloosterman and Gorman (1990), by the middle grades, several students started to perceive mathematics as a special domain in which smart students were successful and other students failed. As students tended to maintain the level of mathematics skills with which they entered higher education (Parker, 2005) they considered that success or failure was the result of an ability. Consequently, Middleton and Spanias (1999) argued that (i) effort was perceived as rarely leading to a significant change in success patterns, (ii) motivations to mathematics were developed early and were stable over time, and (iii) there were inequities among groups of students that were differently taught to view mathematics.

As argued in the NCSM/TODOS position paper:

The detrimental effects of tracking start early in elementary school with readiness labels and ability grouping structures that provide vastly different mathematical experiences. (NCSM, 2016, p. 2)

Brynes and Miller (2007) found that the socioeconomic status had direct effects on mathematics achievement, as students from favourable backgrounds had access to better-trained teachers, among other things, and tended to perform at higher levels than students from lower socioeconomic backgrounds did. Moreover, Hogrebe and Tate (2012) found that algebra performance was influenced by where students live. These studies showed that when high-quality mathematics education did not start in preschool and continued through the early years, children might get trapped in a trajectory of failure (Rouse et al., 2005; Starkey et al., 1999). Young children from low-income families showed specific difficulties in mathematics (Griffin et al., 1994). Working-class children in the U.K. were a year behind in simple addition and subtraction as early as 3 years of age (Hughes, 1981). Similarly, U.S. low-income children began kindergarten behind middle-income children and, although they progressed at the same rate on most tasks, they ended behind and made no progress in some tasks. For example, although they performed adequately on nonverbal arithmetic tasks, they made no progress over the entire kindergarten year on arithmetic story problems (Jordan et al., 2006).

Other research from across the world confirms the finding that there is greater variation in number knowledge among young children of lower socioeconomic background (Wright, 1991) and that there is a definite trend for students from lower socioeconomic backgrounds to perform at a lower level, which was more apparent for the difficult items (Thomson et al., 2005; see also West et al., 2001).

The Admission System

The admission system to higher education can also create problems. OECD explained:

... a number of young people are excluded from tertiary education because they do not meet the necessary qualifications. These include early school-leavers and students who complete given tracks of secondary education, which do not give direct access to tertiary education. (OECD, 2008, p. 26)

In many countries there are national examinations, either when leaving secondary education or when entering tertiary education. Equity problems may result from the fact that students from privileged backgrounds were likely to attend better schools or they could afford to pay private tutoring. For example, Choi et al. (2003) reported that in South Korea 56% of secondary school students had private tutoring in 2003. Also providing competitive advantage, in Portugal there are some private colleges specialised in training students to have good performances in national examinations, which additionally inflate grades in those disciplines without national examinations, which also count in the calculation of the GPA considered for HE access (Baptista et al., this book). Therefore, to increase equity it is necessary to create alternative ways of acquiring eligibility for tertiary education (OECD, 2008), by broadening selection criteria beyond the traditional competition based on academic performance. Examples are special entrance criteria for mature students (over 23 or 25 years of age), the establishment of quotas for students from under-represented minorities or diverse forms of affirmative action (OECD, 2008).

In particular, it is well known that students from deprived backgrounds tend to enrol in higher proportion in vocational tracks of upper secondary education, which do not facilitate access to the best universities and programmes. This is the case of vocational education in Portugal or of the tracking system in the US. Therefore, it is highly advisable to create alternative pathways for access to tertiary education.

CONCLUSION

The commendable objective of many national educational policies intends to eliminate or at least to soften inequalities in the access to higher education. The positional nature of higher education makes this objective rather difficult to fulfil and, even when systems become mass systems or even universal systems, inequalities persist although they change in character: the question is no longer entering higher education but entering a particular institution or a particular study programme.

With the massification of higher education systems, there has been an increase in the number of students from deprived backgrounds entering higher education. However, diversification of the systems, usually by creating lower value opportunities (vocational programmes, short cycles, non-university institutions, etc.), has changed the nature of the game and

the competition is no longer to enter a higher education institution but to enter the best institutions and the best programmes.

It is possible that inclusion policies, by promoting a progressive increase of people with higher education degrees, will contribute in a less contested even if slow way to progressively lower the present level of inequity.

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Access and Inequality in US Higher Education: Policy Issues

David Dill

INTRODUCTION

The US transition to mass post-secondary education after World War II and its positive socioeconomic impact on American society are often regarded as a primary motivation for the “massification” of other national systems of higher education over the last 25 years. However, while there are a number of estimable policies and practices in US higher education, including its nationally competitive funding of academic research, its management, and governance of research universities, and its structure and collegial organization of research doctoral programmes, the effectiveness of current American policies governing access to higher education is more debatable. For example, the percentage of recent US high school graduates enrolled in college rose from 45% in 1960 to 67% in 1997 (NCES, 2018), but has stagnated since then. The US now trails a number of OECD nations in the percentage of young adults who have completed tertiary education (OECD, 2019). In addition, American public

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O. Tavares et al. (eds.), *Equity Policies in Global Higher Education*,
Issues in Higher Education,

https://doi.org/10.1007/978-3-030-69691-7_3

schooling at the secondary level was traditionally perceived as more “democratic” than systems in Europe and contributed to the belief that social mobility was greater in the US than in other developed nations (LeTendre et al., 2003). But these beliefs now clash with contemporary economic and demographic evidence indicating many EU nations, particularly the Scandinavian countries, have both higher earnings mobility across generations and lower levels of economic inequality than does the US (OECD, 2015, 2018).

The reasons for these observed differences in economic inequality and access to higher education in the EU and US are complex. The Nobel Laureate in Economics, James Heckman (2019), summarizes the expected economic rates of return to society of various public investments in human capital, which include higher education. As Heckman notes, in most OECD nations achieving a tertiary degree increasingly improves one’s lifetime earnings. But public investment in effective prenatal healthcare, preschool education, and schooling actually provide a greater rate of return to society than public investments in higher education because of their substantial impact on the social and economic success of lower income individuals. The design of these public policies also influences access to higher education. The US varies from most EU nations in not providing universal prenatal healthcare, universal pre-school day-care and educational programmes. In addition, the US federal governance system places major responsibility on the 50 states for the organization and financing of primary and secondary education and within most states school financing is largely by local property taxes. Consequently, low-income areas in the US have poorer quality schools. Also, in comparison to many EU nations, the US has no national curriculum or exams for primary and secondary education, although standardized tests developed by the independent College Board (SAT Exam) and American College Testing (ACT Exam) are available to help inform college entrance decisions in the 50 states. Finally, US college and university admissions decisions are primarily the responsibility of each public and private institution.

Some of the differences in college entrance policies between the US and other countries were publicized by recent court cases regarding access to American institutions of higher education. One set of cases revealed wealthy parents bribing corrupt testing and college officials to guarantee entry of their children into elite, selective research universities (Chappell & Kennedy, 2019). These recent cases also confirmed substantive research on access to selective US colleges and universities (Arcidiacono et al.,

2019; Bowen & Levin, 2003; Shulman & Bowen, 2000), which has discovered biased admissions procedures favouring athletes recruited to play on college sports teams, children of college alumni (so-called legacies), as well as the children of institutional faculty members. These observed biases in selective college and university entrance standards raise legitimate questions as to the equity and fairness of access to current US higher education.

In public policy equity or fairness is often defined utilizing the economic concepts of horizontal and vertical equity (Weimer & Vining, 2017). With regard access to higher education, as outlined in Amaral's introductory chapter, horizontal equity can be conceived as the equal treatment of valid applicants. Contrastingly, vertical equity can be conceived as special treatment given to those valid higher education applicants with the greatest financial need. Both these forms of equity are visible in higher education access policies in the US and EU. Under the assumption one can learn from public policy failures as well as successes, this chapter reviews the research on the equity of access to US bachelor degree-granting institutions of higher education¹ with an emphasis on the impacts of financial aid policy, informational and behavioural constraints for lower income applicants, and affirmative action programmes.

US FINANCIAL AID POLICY

The economist Nicholas Barr (2009) has provided an economic framework for evaluating the efficiency and equity of national policies supporting higher education, and these guidelines can be usefully applied to explicate US financial aid policy. First, Barr argues because of its influence on national economic performance and on individual life chances, developed as well as emerging economies now require mass, high quality higher

¹ Higher education in the US also includes "community colleges," primarily two-year public institutions granting vocational certificates as well as associate degrees for transfer to a bachelor's degree-granting college or university. In contrast to most bachelor's degree-granting institutions, community colleges provide access to anyone who is a high school graduate. Consequently, the majority of community college entrants come from the bottom half of the economic distribution and include many working class and minority students. But 62% of students entering community colleges fail to complete a certificate or degree, and while 81% of those entering aspire to transfer for a bachelor's degree, only 15% eventually do so (Kahlenberg, 2018). Given these limitations, this chapter focuses on research regarding entrance directly to bachelor's degree-granting colleges and universities.

education. Second, higher education is too complex for central planning; therefore, institutions need to be able to charge differential tuition reflecting their different costs and objectives. Third, in order to maximize the social benefits of universal access, Barr recommends tuition and student living costs initially be paid by government in the form of a student loan and related support grant, making higher education essentially free at access. Given the substantial private benefits they receive from higher education, these student loans should be repaid by the students after graduation based on their current earnings and collected along with income taxes. These loans should also be progressive, charging an appropriate interest rate and providing forgiveness after 25 years to those with low-lifetime earnings. Finally, while Barr assumes a competitive market for mass higher education is most beneficial for society, this market needs to be “well-regulated” with regard quality and efficiency. For example, prestigious universities possess a substantial amount of “market power” because of their ability to attract students regardless of cost; therefore, Barr argues that some form of regulation is needed on institutional tuition.

Consistent with Barr’s framework, all bachelor’s degree-granting institutions in the US participate in a competitive market and therefore almost all such colleges and universities charge student tuition as well as housing and meal fees for those living on campus. Federal, state, as well as institutional funds provide financial assistance to students in the form of scholarships and grants, loans, and student “work-study” funds. Total US undergraduate student aid in 2018–2019 represented \$186.9 Billion from the following sources: 29% Federal Loans; 28% Institutional Grants; 15% Federal Pell Grants; 8% Federal Education Tax Benefits; 7% State Grants; 7% Private and Employer Grants; 6% Federal Veterans Benefits (College Board, 2019). The vast majority of US financial aid for higher education applicants is given on the basis of defined economic need, thereby reflecting the previously noted concept of vertical equity. However, “non-need-based aid” (i.e., student scholarships based solely upon academic merit and, as will be discussed below, scholarships based also on athletic talent) are awarded by higher education institutions throughout the 50 US states. Between 1999 and 2011 the percentage of students in the top income quartile receiving non-need aid rose from 13 to 19% of US undergraduates, while the percentage of students from the bottom income quartile receiving such aid barely changed from 9 to 10% (Giancola & Kahlenberg, 2016).

Applying Barr's framework helps clarify some obvious inequities in the US financial aid system for higher education. First, in the US there is no national regulation of tuition and fees in private higher education. While state governments have often attempted to limit tuition fee increases in public colleges and universities, over the last 25 years' state appropriations per full-time-equivalent (fte) student in the US have declined 8%, while net tuition per fte student has increased 96% (SHEEOA, 2019). Public college and university fees now represent almost 50% of total US public higher education revenue. Second, most US higher education loans, similar to mortgages, have fixed monthly repayments that begin immediately upon graduation, and they must be made over the short period of ten years. Consequently, the US college loan system is regressive. Primarily because of the very large repayment burdens for low-earning bachelor's graduates early in their career, US student default rates have now risen to an all-time high. In contrast, under Barr's guidelines, the regular amount to be paid by a student borrower should depend on his or her income. This both protects low-earning graduates from experiencing financial difficulties or defaulting as well as ensures that taxpayer subsidies are kept low.

Because of the rapidly rising costs of higher education in the US, a number of states have adopted merit-based aid programmes for their residents (Page & Scott-Clayton, 2016). These state programmes represent the largest increase in US financial aid spending over the last 20 years. Many of these programmes fully cover tuition at in-state public institutions regardless of financial need for applicants who meet a minimum secondary school grade point average (GPA) or SAT/ACT test standard. These policies have been effective in increasing overall college enrolment, student academic performance, and degree attainment. However, these merit-based state aid policies are also inequitable, because a high-proportion of the in-state students receiving this tax-based financial assistance would otherwise attend college and come from middle- or upper-class families who could readily afford higher education. In the state of Georgia (Dynarski, 2000) the benefits of a merit-based aid programme based upon student secondary school GPA were concentrated among white students, who experienced a 12.3 percentage point rise in their attendance rate relative to whites in comparison states. Following the adoption of this programme in Georgia the racial gap in public college attendance increased relative to its level in the rest of the Southeast, as did the gap in college attendance between those from low-income and high-income families.

In addition to caps on tuition, Barr recommended that market regulation include effective quality assurance policies. The amount of US college loans and percentage of student default rates have rapidly risen since the last recession, but an important contributor to this financial burden is the debt of students enrolled in bachelor's or equivalent degrees offered by for-profit higher education (Scott-Clayton, 2018). From 2002 to 2010 these institutions quadrupled their enrolment mainly by targeting relatively vulnerable and poorly informed populations such as African Americans, low-income applicants, and first-generation students. In comparison to non-profit public and private institutions, for-profit bachelor's programmes have had very low student completion rates, poor graduate payment in relevant employment, and four times higher default rates on student federal loans.

To address this problem, the Obama administration Education Department in 2015 adopted a "gainful employment regulation" requiring vocational programmes at for-profit higher education institutions to meet minimum thresholds for the debt-to-income rates of their graduates (Simon, 2018). For-profit vocational programmes that failed to meet these minimum requirements could lose access to all federal financial aid, putting them at a higher risk of closing. In 2016, the Education Department also shut down the Accrediting Council for Independent Colleges and Schools, the nation's largest accreditor of for-profit colleges, arguing it had approved too many dishonest schools. Under the subsequent Trump administration these and related academic quality assurance policies effecting for-profit higher education were reversed. A not surprising policy turn given the widely publicized case involving the closing of Trump University in 2010, a fraudulent for-profit institution set up by the former president.

The US higher education system is already characterized by colleges and universities with variable tuition and fees, market competition for student enrolment, and institutions with substantial autonomy on admissions policy. But the existing government financial aid system often contributes to income inequality. Suggested reforms would include adopting a government-supported loan system covering tuition fees, as well as a grant for living expenses, for all admitted bachelor's degree students. Loan payments following student graduation would be based upon graduates' income and payable for an extended number of years through the national tax system. To be effective such a government financial aid system would also require a more extensive regulation of public and private bachelor's

degree colleges and universities to ensure acceptable academic quality, student progression, and graduation rates, as well as gainful graduate employment.²

INFORMATIONAL AND BEHAVIOURAL CONSTRAINTS FOR LOWER INCOME APPLICANTS

As an economist Barr (2009) also argues higher education applicants are generally well-informed, or potentially well-informed, consumers and therefore better able than national planners to make choices which conform with their interests and those of the larger economy. This economic assumption has helped spawn the worldwide adoption of college and university “league tables,” rankings modelled initially after those developed in America by the magazine *US News and World Report*. Barr’s assumption regarding well-informed student applicants may be more valid in the EU where most students apply to pursue specific subject fields at the bachelor’s degree level. But in the US, where the vast majority of students identify and select their subject specialty during their bachelor’s degree education, the impacts of these rankings have not always contributed to the efficiency and equity of higher education (Dill & Soo, 2005).

Information provision is likely to positively influence equitable access to higher education only if quality rankings utilize measures linked with socially valued educational outcomes, students use this information in their choice of subjects, and institutions respond to student choices by improving relevant academic programmes (Gormley & Weimer, 1999). But many of the commercial rankings in the US (as well as internationally) are not based on any testable theory or model of university educational performance. Instead, US commercial rankings base their assessments primarily on indicators of “academic prestige” such as the quality of enrolled students and of faculty research (Dill & Soo, 2005). Consequently, in the US many colleges and universities have responded to these rankings, not by efforts to improve the quality of student learning in academic programmes, but by expending greater amounts of time and financial resources on marketing student admissions, as well as investments in athletics, residential facilities, and other amenities attractive to student applicants. These

²A detailed international critique of the US college and university loan system applies a similar economic perspective (see Barr et al., 2017).

over-investments in amenities contribute to the rapidly rising costs of US higher education (Ehrenberg, 2012).

As these investments suggest, the belief institutional “transparency” is an effective means of promoting access to higher education overlooks the evidence of the naïve student consumer, that is, ‘young adults [who are] particularly present focused, impulsive, and inexperienced in handling complex tasks’ (Page & Scott-Clayton, 2016, p. 10). A respected study of academic standards in the market-oriented US higher education system concluded, ‘there is no reason to expect that students and parents as consumers will prioritize undergraduate learning as an outcome’ (Arum & Roksa, 2011, p. 137).

Furthermore, with regard to fairness of access, some US institutions are seeking to improve their quality rankings by “cream skimming” student applicants, selecting the best-achieving applicants as well as wealthy students most able to pay higher levels of tuition (Dill, 2018). In addition, the increasing focus of rankings on academic research as an indicator of institutional prestige has encouraged US universities to increase the proportion of institutional funds expended on research as a means of improving their rankings. At the same time, the proportion of institutional funds expended on instruction is declining (Ehrenberg, 2012).

One recent approach to college rankings in the US offers a possible model for promoting fair access. A *College Access Index* developed by the *New York Times* (NYT) (2017) ranks selective US colleges—those with a five-year graduation rate of at least 75%—on their commitment to economic diversity. This index is based primarily upon the proportion of each institution’s students who receive a Pell Grant, the largest federal scholarship, which is awarded to applicants coming from roughly the bottom 50 or bottom 40% of the income distribution. All US colleges and universities are required to report how many of their students receive these grants. The ranking indicates how many US low- and middle-income students a college admits and graduates, as well as how much those students must pay for their education. The index therefore provides an indicator of which selective institutions are doing the most to promote social mobility.

The publication of this index has had some influence on college behaviour (Leonhardt, 2017). For example, until recently Princeton was among the least economically diverse US universities. Only 6.5% of the graduating class of 2007 was in the lower half of the national income distribution. Following the publication of the initial *NYT Access Rankings*, the Princeton administration actively addressed this issue and the percentage

of such students has steadily risen to a reported 21% of the entering class of 2017. The graduation rates of these lower-income students are comparable to the rate of other Princeton students. Princeton is now also increasing its enrolment of middle-class US students as well as low-income foreign applicants.

Barr (2009) does argue while many higher education applicants are fully informed, this knowledge is much less likely for students from poorer backgrounds. These behavioural constraints are evident in the US where low-income students and parents possess less knowledge about higher education and receive poorer information than advantaged students (Dougherty, 2018). These constraints include student and parent understanding of: the net price of selective colleges, after considering financial aid; the academic preparation and test scores sought by selective colleges; the importance of applying for Federal financial aid; the characteristics of different colleges and majors as well as graduation and job placements; and the mechanics of college acceptance including the benefit of applying to multiple colleges.

Taking the SAT/ACT college entrance exams is a key step in the US college application process, but an estimated 30% of students in the bottom income quartile do so, compared with 70% of students in the top income quartile (Page & Scott-Clayton, 2016). Students from many lower income families are much less likely to have college-educated parents, and possessing parents with this knowledge and experience is highly correlated with college application in the US. Lower income parents are also more likely to be engaged in small family-run businesses or farms, which often involve family members as workers. Therefore, these parents may be more debt-averse, less accepting of both the potential financial loss to their business as well as the costs of higher education associated with their children attending college.

In addition, lower income US students and their less-educated parents often find the process of applying for college financial aid complex and intimidating (Page & Scott-Clayton, 2016). All US college student applicants seeking financial aid must submit a Free Application for Federal Student Aid (FAFSA), a complicated 12-page form. While FAFSA application rates have risen over time, substantial numbers of students eligible for the mentioned Federal Pell Grants programme fail to apply. Many FAFSA applicants also file after required deadlines, decreasing the likelihood of receiving state and institutional aid for which they likely would be eligible.

Another important consideration for effective college access is “undermatch,” in which students enrol in an institution not well aligned to their academic skills and credentials (Deutschlander, 2017; Hoxby & Avery, 2013). In the US low-income students attending more selective colleges and universities experience much richer instructional as well as extracurricular resources and are also more likely to persist to graduation (Giancola & Kahlenberg, 2016). But high achieving, low-income US students are often geographically isolated from other high achieving peers and unlikely to encounter either a schoolmate from an older cohort or a teacher who attended a selective college. Consequently, these students tend to make application choices mirroring their socioeconomic rather than academic peers and therefore fail to apply to selective institutions. Because of the strong tradition of local school financing, this geographical isolation is a significant problem in rural areas of the US. As a consequence, it is likely the vast majority of very high achieving students from low-income families in the US do not apply to a college or university which would best serve their needs as well as those of society (Hoxby & Avery, 2013).

Recognizing the previously noted limitations of information-based guides and college rankings for student choice as well as the behavioural characteristics of low-income families, there have been a number of more active efforts to increase the equity of college access in the US. These have included school-based programmes providing greater access to national college exam testing for lower class students and targeted outreach financial aid counselling and support for low-income families. One carefully designed such outreach effort deserves special mention.

The selective University of Michigan implemented and evaluated an outreach programme designed to address the barriers to fair access experienced by high achieving, low-income US students (Dynarski et al., 2018). Students potentially eligible for the programme were identified using information contained in state administrative databases on student secondary school GPAs, SAT test scores, and eligibility for free or reduced-cost school meals. These data were available for Michigan residents for two reasons. First, Michigan had recently required all public high school students to take the SAT college entrance test, and second, a student's participation in the Federally-subsidized school lunch programme indicates they are from families with incomes below the Federal poverty line. Based upon this available information, the university selected a sample of low-income rising senior students in the state who would qualify for both admissions and full financial aid.

These students were randomly assigned to a pilot programme group and a matched control group. The programme group received personally-addressed packets at their homes in early September of their senior year of high school. Students in the control group received only postcards listing the University of Michigan application deadlines. The materials sent the programme group were large, glossy, and brightly coloured in the university's signature "maize and blue." The mailing included a letter from the University president encouraging the student to apply and promised a four-year, full-tuition and living expenses scholarship if the student was accepted. The packet also contained brochures explaining the application and admissions process as well as describing the University of Michigan experience. Materials stated prominently that applicants did not have to complete the traditional complex FAFSA form. Information about this offer from Michigan was also later mailed to the students' parents and to High School principals of eligible students asking them to encourage application for the scholarship.

An analysis over time of the matched samples revealed the impact of the Michigan programme intervention. Two-thirds of the high school students involved in the pilot programme applied to the university, compared with only a quarter of similar students in the control group. The share of those in the programme who ultimately enrolled at the University of Michigan was 27%, compared with 12% from the control group. Without the programme initiative, the increased share of low-income students who chose this selective institution would have predictably made different choices: 4% of this cohort would not have gone to college, 4% would have gone to a community college, and 7% would have gone to a less selective 4-year college. The effects of the programme also persisted once students entered the University of Michigan, with those participating in the Scholarship programme being 13.5% more likely than those who are in the control group to continue their college enrolment for a second year. The researchers concluded an inexpensive, targeted, personalized outreach campaign can alter the college choices of high achieving low-income students by lessening uncertainty about their suitability for an elite school, correcting their over-estimates of the (net) cost of college, and lowering procedural barriers such as the complexity of financial aid forms.

In sum, research on informational and behavioural constraints for low-income college applicants in the US raises serious questions about the assumption institutional transparency will effectively assure fair access in mass higher education. Unless rankings of colleges and universities are

carefully designed to ensure they utilize valid measures linked with socially valued educational outcomes, there is a danger they will instead promote institutional inefficiency and contribute to access inequality. Furthermore, policies to increase access for students of lower income need to involve more active, focused efforts directly related to their financial concerns. The recent effective outreach programme at the University of Michigan further emphasizes the importance to fair access of simplicity and clarity in the design of financial aid policies. This successful US intervention positively influenced parent and student behaviour on college access by making publicly obvious that a family bore no formal responsibility for college financial support and all accepted college applicants would receive the funds necessary to attend higher education.

AFFIRMATIVE ACTION POLICIES

A third relevant policy consideration for fair access is discrimination. From the perspective of horizontal equity, do valid applicants to US colleges and universities receive equal consideration in the admissions process, or is there discrimination, for example, by student gender, ethnicity, religion, or class.

Historically, colleges and universities in the US excluded racial minorities and women from access to higher education and also limited admission of religious groups such as Catholics and Jews. Because of this discrimination, separate colleges and universities were initially established to serve these excluded populations.³ In 1964 the US Civil Rights Act outlawed discrimination in public and private firms based on race, colour, religion, sex, or national origin. Following this Act many colleges and universities voluntarily adopted policies seeking to increase recruitment of racial minorities under the banner of Affirmative Action. Initially some of these admissions procedures included the use of racial quotas until the US Supreme Court questioned their constitutionality. The Court subsequently clarified race could be used as one of several factors in individual admissions decisions without necessarily violating the equal protection clause of the 14th Amendment. The Court's original decision supported

³ US colleges and universities currently include 35 women's colleges, 101 historically Black institutions, and over 7000 colleges and universities reporting a religious affiliation. The latter institutions include Catholic, Jewish, and Islamic institutions as well as the many different protestant denominations (NCES, 2019).

diversity in higher education as a “compelling interest,” but as Justice O’Connor noted in a later 2003 decision: ‘We expect that 25 years from now the use of racial preferences will no longer be necessary to further the interest approved today’ (Thomas, 2019).

As access to higher education has become increasingly influential on a person’s life chances, public opposition to Affirmative Action in US college admissions has grown. A recent national survey (Pew Research Center, 2019) reports 73% of Americans now say colleges and universities should not consider race or ethnicity when making decisions about student admissions. Reflecting this attitude seven additional states have followed California’s 1996 decision to prohibit preferential treatment for applicants to state supported universities on the basis of race, sex, ethnicity, or national origin (Baker, 2019). In the wake of these bans, the enrolment of underrepresented racial and ethnic minority students has decreased at selective public US colleges and universities in the relevant states.

The decline of minority enrolment in selective colleges may be particularly damaging to society. As previously noted selective US colleges and universities are a better fit or match for high achieving low-income students, who are more likely to progress and graduate from these institutions. Furthermore, an influential economic study (Dale & Krueger, 2014) uncovered an additional critical factor. The researchers discovered the higher average salaries over time predicted for graduates of highly selective US universities were more a product of the talents of their admitted students than of their educational programmes. That is, individuals accepted at highly selective colleges who instead enrolled in less selective institutions had similar incomes, as did the graduates of the elite schools. But Latino, black, and low-income students proved an exception. These students who were accepted at highly selective schools and who instead attended less selective institutions had lower average salaries over time. The researchers believed *networking opportunities available from attending a selective college may be particularly valuable for the life chances of black and Hispanic students and for students who come from families with a lower level of parental education*. This positive influence of elite institutions may be especially important in the US. Since the first Supreme Court decision on Affirmative Action, there has been continuing job discrimination, particularly against African Americans, as recent research on pay and job placement of minorities indicates (Quillian et al., 2017).

Similarly, a recent comprehensive economic study (Bleemer, 2020) finds that by nearly every measure, the ban on race-based Affirmative

Action in California's selective public universities has harmed underrepresented minority (URM) students, decreasing their number in the University of California system while reducing their odds of finishing college, going to graduate school and earning a high salary. At the same time, the policy did not appear to greatly benefit the white and Asian-American students who took their place.

In California, the effect of the ban on the state's elite universities was immediate. URM enrolment at the flagship Berkeley and Los Angeles campuses fell steeply. The ban also depressed the number of highly qualified URM high school students who applied to the overall University of California system, perhaps because they mistakenly believed they would not be accepted. The study assembled a database of every student who applied to the eight undergraduate campuses of the University of California from 1994 to 2002, including their high school grades, demographics, income, and SAT scores. The study tracked where they went to college, their academic majors and degrees, and how much they earned in the job market for years after graduation. After the ban fully took effect in 1998, URM students who would have enrolled at the flagship campuses before the ruling attended less selective universities in the system. This in turn pushed out other URM students, who moved down the ladder of selectivity. Those at the bottom lost their grip entirely, exiting the system altogether. It is noteworthy that if URM students had benefited from enrolling in less selective universities, they would have been more successful in rigorous math and science courses there. Instead, they were less likely to earn bachelor's degrees in a science or engineering field and less likely to graduate over all, compared with URM students before the ban. They were also less likely to earn graduate degrees.

The study discovered differences in the URM students' college classroom success, compared with white and Asian-American students, appeared to be largely explained by lower-quality preparation in K-12 schools, not admissions preferences. Because of the ban, students of colour in the study earned 5% less on average every year, an effect that persisted into their mid-30s, when the study period ended. For every Black and Hispanic student who was excluded by the ban, another student, probably white or Asian-American, took their place. But the study discovered, similar to Dale and Krueger's (2014) research on selective US public and private universities, that the replacement white and Asian-American students received little concrete benefit from the Affirmative Action ban. The study suggests these replacement students would have otherwise enrolled in an

equally selective college elsewhere, and had the same chances to graduate and begin successful careers. In sum, the Affirmative Action ban on the most selective public universities in California lowered the social and economic benefits of public higher education to the state. It set back a generation of Black and Hispanic students, pushing them down and out of the University of California system and helped to widen the existing racial wealth gap, with seemingly little offsetting benefits for other students.

The public reaction to possible bias for minorities in college admissions is also largely uninformed by the existing admissions preferences at selective US colleges and universities. As recent court cases on US college admissions have suggested and as substantive research has confirmed (Arcidiacono et al., 2019; Bowen & Levin, 2003; Shulman & Bowen, 2000), there are as strong or stronger admissions preferences in favour of recruited athletes, legacies, and the children of institutional faculty and staff as there are for underrepresented minorities. A court case involving Harvard University, one of the highest ranked and most selective universities in the US, for the first time provided publicly available institutional data on domestic undergraduate applications and admissions (Arcidiacono et al., 2019). Table 3.1 is based on applications for the entering classes of 2010–2015. It provides admit rates for applicants by race as well as by preference groups, such as recruited athletes, legacies, children of Harvard faculty and staff, as well as the Dean’s/Director’s Interest List, which rates

Table 3.1 Harvard domestic applicants/admits by race and ALDC status, 2010–2015

	<i># of applications</i>	<i>Admit rate</i>
White	57,582	4.89
Black	15,664	7.58
Hispanic	17,970	6.16
Asian	40,415	5.13
(A) Recruited athlete	1374	86.0
(L) Legacy	4644	33.6
(D) Dean/director rating	2501	42.2
(C) Faculty/staff children	321	46.7
Not ALDC	142,728	5.45
TOTAL	166,727	6.67

Note: ALDC refers to recruited athletes, legacies, those on the dean’s interest list, and children of faculty and staff

Source: Arcidiacono et al. (2019)

applicants whose family has donated financially to Harvard and who are likely future donors. As the Table indicates there is some preference in admissions given to minority applicants, but these preferences are modest compared to the weight of other listed preference categories which, with the exception of Harvard children, tend to favour white applicants from higher income families.

The Harvard preferences for athletes and legacies are common to admissions decisions studied in other selective US public and private colleges and universities (Bowen & Levin, 2003; Shulman & Bowen, 2000). In the US public mind, preferences for recruited athletes may be associated with minority enrolment, because of the visibly high proportion of black students engaged in college and university football, basketball, and track teams. But other than these sports at NCAA Division I universities,⁴ the vast majority of athletes recruited to selective and non-selective US colleges and universities including Harvard are white. Furthermore, Division I recruited athletes in many university sports are provided full tuition and living expenses scholarships and these scholarships are awarded based on athletic ability not financial need.⁵

Legacy admission preferences were initiated among elite US universities following World War I in order to limit the admission of able immigrants, particularly Jews (Schmidt, 2010). As Jewish applicants often surpassed traditional constituencies on standard meritocratic criteria, universities adopted Jewish quotas. When specific quotas became difficult to defend, the universities employed more indirect means to limit Jewish enrolment, including considerations of “character,” geographic diversity, and legacy status. Over time, legacy preferences became exceedingly popular among US college alumni and were widely adopted. Among the US top 100 national universities ranked in *U.S. News & World Report*, roughly three quarters employed legacy preferences in admissions and among the top 100 liberal arts colleges, virtually all do (Coffman et al., 2010).

⁴Division I is the highest level of intercollegiate athletics overseen by the US National Collegiate Athletic Association. These 350 bachelor-degree granting colleges and universities comprise the major athletic powers in the US collegiate ranks and have larger budgets, more advanced facilities, and offer more athletic scholarships than smaller schools.

⁵Harvard and other universities in the “Ivy League” are not part of the NCAA Division I and do not formally offer “athletic scholarships.” But as noted, most selective US colleges and universities, including Harvard and other Ivy League universities, provide intercollegiate sports programmes and give athletes preference in admissions (Bowen & Levin, 2003; Shulman & Bowen, 2000).

The publicly stated rationale for this policy by Harvard (Arcidiacono et al., 2019) is to provide a means of sustaining alumni engagement as reflected in their financial donations to the university as well as in their active volunteer efforts to recruit and interview student applicants. But while Harvard's Dean's/Director's Interest List gives special admissions preference to applicants whose family donated financially to the university, most institutions give admissions preference to all alumni children applicants. Consequently, economic research on the top 100 US universities (Coffman et al., 2010), which controlled for the wealth of alumni, provided no evidence legacy-preference policies themselves exert an influence on alumni giving behaviour. The researchers also examined giving at seven institutions that dropped legacy preferences during the period of the study and found no short-term measurable reduction in alumni giving as a result of the abolition of legacy preferences. For example, after Texas A&M University eliminated the use of legacy preferences in 2004, donations slightly declined, but then increased substantially from 2005 to 2007.

From the perspective of fair access to higher education, the evidence of the admission preferences employed by US college and universities is difficult to defend. While the biases favouring athletes and legacies may be unique to the US, the global development of mass higher education with competitive markets and academic rankings may induce other institutions to emulate the US preferences awarded to wealthy donors and alumni. It is worth noting alumni financial donations is one of the quality measures used in the *US News and World Report* rankings of American colleges and universities.

With regard affirmative action, the US Supreme Court in their last college admissions ruling challenged the US states and universities to find workable race-neutral strategies to achieve educationally-beneficial diversity (Baker et al., 2018). Because members of US minority groups are often of low income, some scholars (Kahlenberg, 2018) have advocated affirmative action admissions policies with preferences for socioeconomic class (SEC) rather than race. A recent rigorous simulation study of SEC-based admissions policies (Baker et al., 2018) indicates they would benefit US low-income applicants, but would not be as effective in aiding diversity as current race-sensitive university admissions policies. The researchers noted race-sensitive affirmative action leads to racial diversity because it can select directly the students who will contribute most to racial variety on a campus. SEC-based affirmative action would require a strong relationship between SEC and race in order to achieve racial diversity. Their

simulation study made clear even unusually strong SEC-based policies would only produce about half the diversity achieved under race-sensitive policies. However, the researchers argued the combination of an SEC-based admissions policy with a programme of targeted race-based recruiting and outreach offers the potential to yield racial diversity levels comparable to race-sensitive admissions policies. This type of targeted recruitment and outreach appears similar to the previously described scholarship intervention effort of the University of Michigan.

This brief review of possible discrimination in US college and university admissions decisions reveals a number of policy issues of possible relevance to other nations. First, as other countries “massify” their higher education systems many are also introducing tuition fees, promoting market competition for students among universities, and awarding greater administrative autonomy to academic institutions. The existing preferences in US admissions for students from wealthy alumni and families emerged in a system characterized by institutional autonomy, tuition-charging universities, as well as market competition for students and financial resources. The US example therefore suggests some possible issues for sustaining fair access in evolving admissions policies for higher education. Second, the US preferences embodied in affirmative action admissions policies raise challenging questions regarding horizontal equity. Within the US legal system, admissions preferences based on race and ethnicity have been strongly defended as compensatory policies necessitated by historical discrimination. But many of the minority students currently admitted to US selective institutions are from middle- and upper-class families (Giancola & Kahlenberg, 2016). The US experience therefore raises the critical issue of how best to determine who is most deserving of compensatory consideration for past discriminatory action.

CONCLUSION

The US experience on access and inequality in higher education admissions suggests a number of policy design issues for mass systems of higher education in developed nations.

First, US policy for higher education confirms many of Barr’s (2009) points about the design of efficient and equitable student financial aid. The lack of effective US regulation of public and private college and university tuition as well as academic quality has encouraged inefficient market competition. As a result, US college tuition and costs have rapidly

risen, but student tuition and university fees have been diverted into costly investments for athletics, residential facilities, and other amenities attractive to student applicants. These funds have also subsidized academic research. As a consequence, the proportion of college and university finances expended on instruction is declining. The design of the US student loan programme also does not reflect Barr's recommendations that loan repayments be made via income tax, be income contingent, and include interest based upon government's cost of borrowing. Therefore, the US student loan system has had punishing financial consequences for many young graduates, especially those from low-income families who have incurred large debts and defaulted on their loans. In addition, because of lax accreditation standards, the Federal Loan system has been exploited by profit-making higher education. Finally, the award of competitive, merit-based financial aid by many institutions, as well as by a number of US states, has disproportionally favoured students from wealthy families.

Second, a policy emphasis on institutional transparency as a means of improving access to higher education underestimates the negative effects of consumer naiveté as well as the informational and behavioural constraints experienced by lower income applicants. Because disadvantaged US students and parents possess less knowledge and experience regarding higher education, a large proportion of high achieving, low-income students under match in their choice of college. Consequently, these students thereby fail to achieve the quality of education most beneficial to themselves and to American society. One means of addressing this weakness would be requiring institutions and published quality rankings to include information on how much admissions decisions promote social mobility (e.g., how many low- and middle-income students a college or university admits and graduates). Financial aid systems for bachelor's degree students also need to be easily accessible and universal, clearly communicating student eligibility for aid and the amount of possible financial support, as do the systems in Australia and England. Even with such a financial aid system, the circumstances confronting disadvantaged families warrant adoption of policies to encourage the most selective institutions to engage in targeted, personalized recruitment efforts to encourage and guide bachelor's applications from able, low-income students.

Third, the US experience with admission preferences and affirmative action suggests several issues for admissions policy in other nations. The demonstrated admission preferences in bachelor's degree admissions for athletes, legacies, and faculty children may be distinctive to the US, but

adoption of market competition in the expansion of other nations' higher education systems has created greater incentives for institutions to seek paying students as well as financial resources to help boost academic prestige. In this environment, there is likely greater need to carefully monitor institutional admission procedures to assure an appropriate focus on true academic potential and merit. There is also evidence in some EU countries of "positive action" policies (O'Cinneide, 2009) designed to assure access of women to higher education, jobs, and professional opportunities. As the migration of ethnic and religious minorities into developed nations continues to increase, it is likely EU nations may also confront issues of discrimination,⁶ policy debate, and public reaction similar to those experienced in the US. For this reason, knowledge about the US experience with affirmative action policy in college and university admissions may also be of value.

As many countries massify their systems of higher education, assuring equity and fairness in college and university admissions will continue to be a significant policy issue.

Acknowledgements I am indebted to Professors Steven Hemelt and Claire Callender for valuable suggestions, but remain solely responsible for the words and arguments presented.

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The Persistence of Inequity in Brazilian Higher Education: Background Data and Student Performance

Julio Bertolin and Tristan McCowan

INTRODUCTION

While being the world's eighth largest economy, Brazil is one of the most unequal countries in the world. In 2017, for example, Brazil's GDP was approximately USD 3.3 trillion, larger than that of countries such as Russia, Canada, Australia and Spain. In terms of income distribution, however, even after some improvement in recent decades, Brazil is still the tenth worst country, as measured by the Gini coefficient (UNDP, 2016). In 2017, there were 55 million Brazilians living below the poverty line, subsisting on up to USD 5.50 per day, which accounts for a quarter of the country's population (IBGE, 2018). In 2015, the share of national income of the richest 1 per cent of Brazilians was 28.3 per cent, giving it the

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O. Tavares et al. (eds.), *Equity Policies in Global Higher Education*,
Issues in Higher Education,

https://doi.org/10.1007/978-3-030-69691-7_4

world's second highest level of income concentration. Only Qatar, a dynastic Arab emirate of 2.6 million inhabitants, exceeds Brazil in that particular indicator (WID, 2015).

Social policy analyses indicate that: (i) as a share of income, Brazil is the country that least transfers funds to those who earn the least and that most transfers funds to those who earn the most; and (ii) in absolute terms, transfers to the richest 20 per cent represent almost half of the total, with a significant share of those transfers taking the form of pensions. That is why, according to a 2019 World Economic Forum Report, while a Danish family in the lowest-income group needs only two generations to achieve an average income level, in Brazil, families in the equivalent group would require nine generations. Brazilian inequality has historic causes, such as the fact that it was the last country in the Americas to abolish slavery, in 1888. In education, in addition to the fact that its first university was only established 400 years after the first university in Spanish America, during the 1990 World Conference on Education for All, in Jomtien, Thailand, Brazil was exposed as having one of the lowest literacy rates among the most populous countries in the world.

In this context of extreme social inequality, obtaining an undergraduate degree has become a key factor to enable social mobility. In Brazil, a higher education degree means that one has significant social and economic advantages. Various studies provide evidence that a university education is a strong conditioning factor for improved compensation and higher professional status (de Souza et al., 2010; IBGE, 2018). On average, in OECD countries, individuals with undergraduate degrees earn 1.6 times more than those with only a secondary education; in Brazil, they earn approximately three times more (OECD, 2018). In 2017, a worker with only primary education earned USD 457 per month and one with only secondary education earned USD 535 per month, while a worker with a higher education degree earned USD 1518 per month (Semesp, 2019).

Completing a higher education course also improves job security. The recent Brazilian economic crisis has led the unemployment rate to jump from 6.9 per cent in 2014 to 12.5 per cent in 2017, equivalent to 6.2 million more people in search of an occupation. In 2017, the unemployment rate for people with only primary education was 14.7 per cent for white Brazilians and 19.7 per cent for black Brazilians (which here includes 'negros' [black people] and 'pardos' [mixed-race people]). For those with a higher education degree, the rate was only 6.3 per cent for Brazilian whites and 7.4 per cent for Brazilian blacks (IBGE, 2018).

Therefore, expanding Brazilian higher education is an important step to face the challenge of extreme social inequality. To that end, in the attempt to widen the participation from members of disfavoured groups and achieve higher equality of opportunity in the country, Brazilian governments have lately made a series of efforts to expand access to higher education. In addition to passing regulations to certify for-profit institutions in the mid-1990s, several programmes were established from 2000 onward to facilitate access to federal (e.g., Lei de Cotas [affirmative action legislation]) and private institutions (e.g., refundable [Fies] and non-refundable [Prouni] credits). In 2014, when the net enrolment ratio (NER) was approximately 18 per cent, the Brazilian National Education Plan established a target NER of 33 per cent by 2024. Though the implementation of some of these expansion policies is relatively recent, their quantitative impact is already evident. As shown in Fig. 4.1, in the last three decades, absolute enrolment numbers grew from approximately 1.5 million students to over 8 million (INEP, 2017).

In terms of the NER, achievement grew from 7.4 per cent in 2000 (Corbucci, 2014) to 20 per cent in 2017 (Todos pela Educação, 2019). During the same period, the number of students completing their

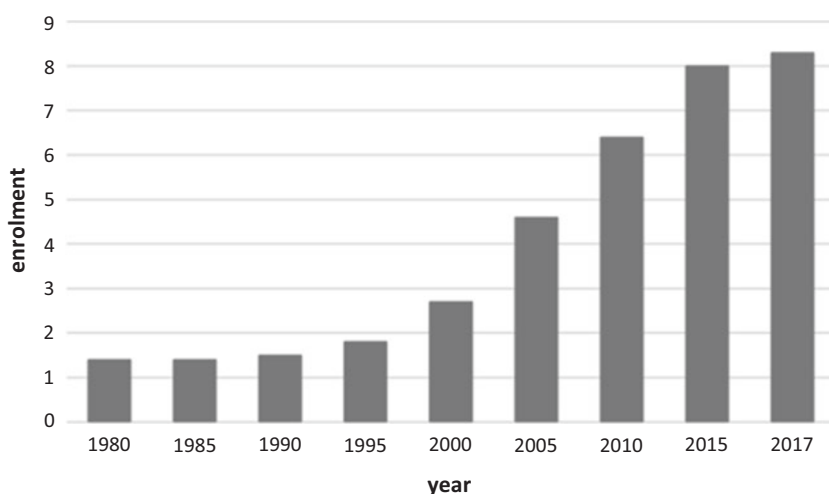


Fig. 4.1 Growth of student enrolment (in millions) in Brazilian higher education, 1980–2017

undergraduate degree tripled, reaching almost 1.2 million per year (INEP, 2017). This expansion led to higher ratios of young-to-older Brazilians with undergraduate degrees: 20 per cent of those between 20 and 34, compared to 14 per cent for those aged 55 to 64 (IBGE, 2018). Though many hold jobs that do not require high qualification levels, currently over 18 per cent of the Brazilian workforce holds an undergraduate degree, an important increase over the less than 14 per cent from 2012 (IPEA, 2017). In short, various indicators point to a significant expansion in Brazilian higher education.

However, simple increases in achievement and access indicators do not ensure the system is becoming fairer and provide more equal opportunities for young people from various cultural and socioeconomic backgrounds. In addition to access rates, one should also take into account the nature of the national higher education system. The expansion process, especially in such an extremely unequal country, should be assessed based on democratisation and equity trends. Therefore, one relevant question to be asked is whether the expansion of Brazilian higher education is providing opportunities for all social groups or simply reproducing inequalities. This is an important subject, since, despite the overall relevance of undergraduate degrees as a conditioning factor for social mobility in the country, the Brazilian system contains significant differences in terms of positional goods and academic values between institutions, courses, and modes of education. As argued by Marginson (2004), social groups from deprived backgrounds are not in a good position to compete for positional goods and academic status, which tend to be monopolised by social groups from privileged backgrounds. A possible consequence of this competition is the persistent inequality at the level of higher education.

According to McCowan (2016), there are three dimensions of equity of access to higher education. First, availability, meaning the existence of higher education institutions with adequate infrastructure and personnel, indicating there are enough available places for students who want to pursue a higher education degree. The second element is accessibility, referring to students' ability to actually enrol and occupy those available places. A series of obstacles might prevent them from enrolling, such as tuition fees and highly selective admissions criteria, as well as geographic distance and aspirations, among other factors. Systems have high accessibility levels when they include measures to overcome these obstacles and ensure substantive equality of opportunity in the admissions process in addition to formal equality. Finally, systems are considered horizontal when

institutional differentiation is based on orientation, area or mission, not quality or conferment of positional goods in the labour market.

Considering that key question and the theoretical framework discussed, we next analyse the actual expansion of Brazilian higher education in previous years in terms of horizontality. We break down changes in profiles of enrollees, the socioeconomic and cultural characteristics of graduates by type of institution, by courses/careers, and compare to graduates' performance by socioeconomic level in the various modes of the Brazilian higher education system.

ADVANCES IN DIVERSITY OF ENROLEE PROFILES: ONLY THE BEGINNING

The expansion of Brazilian higher education in recent years is changing student profiles, unlike the expansion in the 1990s, when few students from lower socioeconomic backgrounds gained access. In 2002, no student belonged to the poorest 20 per cent of the population and only 4 per cent belonged to the poorest 40 per cent. In 2015, approximately 15 per cent of higher education students belonged to the poorest 40 per cent of Brazilians (World Bank, 2017).

This change is likely the outcome of public policies focused on the democratisation of access implemented in the first years of the twenty-first century. At federal institutions, this initiative took primarily the form of affirmative action. Quotas Law (Act 12.711/2012, the Affirmative Action Act) sought to increase access to Federal Institutes and Universities, establishing a 50 per cent quota for public school students in all courses, in addition to sub-quotas for lower-income students who could prove family income of up to 1.5 minimum salaries per capita as well as for black, mixed-race and indigenous students.

At private institutions, whether for-profit or non-profit, major public policies focused on the democratisation of access include *Programa Universidade Para Todos* (University for All Programme—Prouni) and *Fundo de Financiamento ao Estudante do Ensino Superior* (Higher Education Student Fund—Fies). Prouni came about with the enactment of Act 11.096/2005, regulating the provision of full and partial (50 per cent) scholarships for higher education courses at private colleges and universities. Prouni is targeted at students with family incomes of zero to three minimum salaries per capita who attended public secondary schools

or received scholarships to attend private secondary schools. When distributing scholarships, institutions are required to set aside a quota for students with disabilities and those self-declaring as black and indigenous at the same rate as those races and ethnicities are found in their state, according to the latest census from IBGE. To be part of the programme, institutions are required to provide scholarships for new cohorts on all of their courses. In exchange, they are exempt from a given set of taxes and fees. Prouni is a form of non-refundable public financing.

FIES, in turn, established under that name in 1999, is a public loan scheme. Regulated by Act 10.260/2001, it consists of financial support through the provision of funds to students enrolled in higher education courses at private institutions that obtained positive evaluations upon finishing their secondary education. As a form of refundable financing, after graduating, students benefiting from the programme are required to return the funds at below-market interest rate. Access criteria and interest rates have been altered over the years, with a recent change creating the so-called New FIES in 2018, dividing the programme into modes.

A comparison with the immediately preceding period allows us to better understand the scope of these programmes. The expansion process that took place before the establishment of programmes such as Prouni, Quotas Law and Fies was clearly restricted in terms of promoting diversity in student profiles. A study by Schwartzman (2004) shows that, despite the number of enrollees more than doubling between 1999 and 2002, lower-income students scarcely gained at all: the percentage of students from the top 10 per cent in income fell slightly, from 43.9 to 41.4 per cent, the share of students from families in the bottom half of the income distribution also fell, from a low rate of 8.6 per cent to 7.5 per cent. Therefore, that initial expansion period almost exclusively benefited the middle and upper-middle classes.

On the other hand, from 2005 to 2018, almost 2.5 million students enrolled in undergraduate courses at private institutions using Prouni non-refundable financing, which is restricted according to social criteria (Ministério da Educação, 2019). A recent Instituto Brasileiro de Geografia, Estatística (IBGE) study (2019) relates the establishment of an affirmative action system to the fact that, for the first time ever, the number of black students in public higher education institutions has surpassed the number of white students. In 2018, Brazil had over 1.14 million students self-declaring as black or mixed-race ('pretos' and 'pardos'), while whites were 1.05 million in federal, state and/or municipal institutions. The numbers

represent 50.3 and 48.2 per cent, respectively, of the over 2.19 Brazilians enrolled in those institutions.

The more recent process of expanding access, however, still falls short of meeting the National Education Plan target of 33 per cent and has been unable to fully resolve the high levels of inequality present in the beginning of the century. Enrolments by race show that, though the gap is diminishing, there are still stark differences between groups. According to IBGE, in 2015, 45.22 per cent of Brazilians self-declared as white, 45.06 per cent as 'pardo' (mixed-race), 8.86 per cent as 'preto' (black), 0.47 per cent as Asian, and 0.38 per cent as indigenous. In terms of enrolment rates, while 30.7 per cent of young whites were enrolled in institutions of higher education in 2018 (almost reaching the 33 per cent target), black and mixed-race student were significantly below that level, with only 15.1 and 16.3 per cent enrolled, respectively (Todos pela Educação, 2019). Among secondary school graduates, only 33 per cent of black and mixed-race students enrolled in higher education institutions, compared with 52 per cent of white students (IBGE, 2018).

Most Brazilian secondary school students go to public schools (88 per cent) (IBGE, 2018), but have significantly worse outcomes than their private sector peers. In 2017, only 36 per cent of public school graduates were able to enrol in institutions of higher education. For private school students, that number was 79 per cent. In effect, that means students from higher-income families have higher access rates in Brazil.

In terms of gender, women are a substantially larger share of those enrolled in higher education institutions. Women represent 55.4 per cent of students enrolled in traditional classroom-based courses and 60.5 per cent of graduates (INEP, 2019). However, as in most countries, there are significant differences between men and women in courses chosen, and this is a contributing factor to women's lower returns in the labour market (ILO, 2018). While female students are 75 per cent of students in education and other teacher-training courses, their share falls to 37.4 per cent for engineering, production and construction, and to 13.8 per cent for information and communications technology and computer science (INEP, 2019).

Therefore, though access for students from lower socioeconomic backgrounds has increased significantly over the last 15 years, further advancements are clearly needed: in 2014, only 5 per cent of children of Brazilians with little education (up to 5th grade) managed to obtain an undergraduate degree. Among children from parents with higher education degrees,

70 per cent secured a diploma (IBGE, 2017). Therefore, it could be said that changes in profile and social diversity among Brazilian higher education students have led to greater equity but are only just starting.

CHANGES IN SOCIAL PROFILES OF GRADUATES: ELITIST LEFTOVERS

As paradoxical as it may seem, access to undergraduate courses for lower socioeconomic groups may, in some cases, pose new challenges to those students. Some young men and women from different social backgrounds entering the world of higher education fail in academia and drop out before finishing their degrees. For students from vulnerable and/or exclusionary backgrounds in Brazil participating in programmes such as Prouni and Quotas Law, other factors increase the odds of ‘school failure’ or dropping out.

One factor at play is the difficulty in settling into a strange new world (academia), distant from their daily lives, characterised by an ethos, a system of values and habits in a context with which they are not familiar (Bourdieu, 1966; Figueiredo, 2018). Another factor is the prejudice and discrimination scholarship students and affirmative action students suffer due to the very nature of their admission (considered unfair by many) and to their lower cultural and socioeconomic status (Lemos, 2017; Neves et al., 2016). Therefore, in the Brazilian case, a proper analysis of the system’s equity requires that the scope of studies go beyond access and include aspects related to retention and completion.

To that end, with the goal of assessing that trend in Brazilian higher education, Enade (Exame Nacional de Desempenho de Estudantes—National Student Performance Examination), an instrument deployed throughout the country, allows us to study the socioeconomic and cultural profile of students completing undergraduate courses. Since 2004, with the implementation of Sinaes (Sistema Nacional de Avaliação da Educação Superior—National Higher Education Assessment System), students completing a set of courses in certain careers and knowledge areas take the Enade exam every three years. Though the examination alternates between courses annually, the number of students taking Enade regularly is significant, providing a public database that serves as an important sample of Brazilian higher education graduates. In 2014, for instance, almost 500 thousand students finishing their degrees took the

examination, at a time when the total number of enrolees in the Brazilian system was a little over 7 million (Bertolin et al., 2019).

Over the last three Enade cycles, for the various sets of courses and careers (Group 1, primarily applied social sciences, held in the years 2009/2012/2015; Group 2, primarily health and agricultural sciences, held in the years 2010/2013/2016; and Group 3, primarily engineering and teacher-training, held in the years 2011/2014/2017), the data show that the population of graduates is undergoing a process of increasing participation rates for students admitted through affirmative action policies (Quotas Law) or public funding (e.g., Prouni and Fies), which democratise access.

Graduates supported by Prouni and Fies increased from 10 to 26 per cent between 2009 and 2015; from 11 to 37 per cent between 2010 and 2016; and from 8 to 22 per cent between 2011 and 2017. Likewise, the number of students admitted through affirmative action programmes, such as Quotas Law, over the last three cycles increased as a share of graduates, increasing from 10 to 18 per cent between 2009 and 2015, from 12 to 21 per cent between 2010 and 2016, and from 16 to 22 per cent between 2011 and 2017 (INEP, 2019).

The growth in the number of students from lower socioeconomic levels among graduates happened in both public and private institutions, but it should be emphasised that they did not grow at the same rate. In Brazil, that statement indicates a serious issue. Analysing the profiles of students graduating from undergraduate programmes in the two sectors with the most students (federal institutions and private for-profit institutions) allow us to identify key trends in the process of expansion with stratification.

From 2009 to 2017, despite the ratio of students from lower socioeconomic backgrounds finishing their degrees having increased in both sectors, that group was more prominent in for-profit institutions (Fig. 4.2).

In federal institutions, the percentage of graduates whose mothers had only a 5th grade education or lower (an indicator of poor background and limited family schooling) increased from 16 per cent in the first cycle of Enade to 19 per cent in the third cycle, but in for-profit private institutions that increase was from 30 to 35 per cent. As for the low family income indicator (up to three minimum salaries), the percentage of graduates increased from 31 to 39 per cent during the period, but the increase was much larger in the for-profit private sector, jumping from 30 to 49 per cent (INEP, 2019). In other words, despite the badly needed

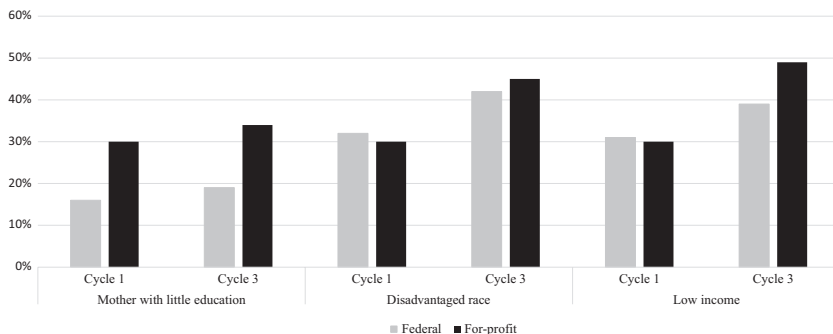


Fig. 4.2 Increase in students of lower socioeconomic level among graduates taking Enade (average of cycles 2009/2010/2011 and 2015/2016/2017)

improvements in the public sector, the ratio of graduates from disfavoured groups increased less than in the for-profit sector.

In Brazil, differences between private and public institutions of higher education are highly significant. Most of the country's scientific research is concentrated in its public institutions, while private institutions, with the exception of non-profits, rarely produce academic research. In a recent study from the World Bank (2017), graduates from for-profit institutions were shown to have, on average, the worst results at Enade. For this and many other reasons, public institutions are recognised both in the media and by society at large as sources of quality and academic values. Consequently, young students and their families generally aspire to a place at a federal university. However, many students do not have the economic resources and family education background that would allow them to reach an academic performance level required to enter a federal university due to the highly competitive nature of their admissions process. A recent study shows that, at zero-tuition federal institutions, only 20 per cent of students come from the bottom two quintiles of the population in terms of wealth, while 65 per cent come from the top two quintiles (World Bank, 2017). Thus, the gaps in participation rates between groups with different socioeconomic levels at federal institutions highlight the inequality of opportunity within the system.

Just as there are qualitative differences between categories of institutions (federal and private for-profit) in the Brazilian higher education system, there are also significant differences in social status and positional

goods provided to graduates by the various courses and corresponding careers. That difference can be measured in the selection processes. For instance, medicine courses whose graduates have the highest average salaries in Brazil usually have the most competitive admissions process both in federal and private institutions. In the federal system, up to 100 students apply for each slot. In the for-profits, it is not unheard of for tuition fees to exceed USD 2000 per month (a high amount even for the middle class in Brazil). In comparison, courses for Portuguese language teachers, which train basic education workers, sometimes do not fill all available places, despite being free at public institutions and having tuition of less than USD 100 per month at private institutions. In recent years, Enade has seen significant differences in participation by students from disadvantaged groups in different courses (see Table 4.1).

Between 2009 and 2017, despite the increasing number of low-income students in all courses, the most significant increase came from courses with lower social status, those that do not provide positional goods and generally confer lower potential future income (INEP, 2019). In the highly sought-after medicine courses, the percentage of graduates whose mother had only a 5th grade education or below increased only from 3 to 5 per cent in federal institutions and stayed at 3 per cent in private institutions, while in low-demand social work courses the number increased from 21 to 28 per cent in federal institutions and from 27 to 51 per cent in for-profit institutions. If, on one hand, in high-status civil engineering

Table 4.1 Ratios of higher education graduates in the last Enade examination (2015–2016–2017) from non-white backgrounds, low-income families, public secondary schools and mothers with low educational levels, by course

<i>Course</i>	<i>Disadvantaged racial group</i>	<i>Low-income</i>	<i>Public secondary education</i>	<i>Mother with low educational level</i>
Bus management	39%	38%	70%	32%
Law	37%	29%	48%	21%
Medicine	26%	13%	15%	4%
Social work	63%	71%	80%	51%
Civil engineering	35%	36%	53%	17%
Portuguese	56%	67%	78%	43%

Source: McCowan and Bertolin (2020)

courses the percentage of non-white students increased from 27 to 33 per cent at federal institutions and from 26 to 41 per cent at for-profit institutions, for courses for Portuguese language teachers, the same indicators rose from 52 to 60 per cent at federal universities and from 43 to 50 per cent at for-profit institutions.

In general, an analysis of Enade results from 2009–2017 shows that undergraduate courses with higher social status and that generate higher potential gains for graduates, such as medicine, have provided fewer access opportunities for non-white students, students from low-income families, graduates from public secondary schools, and students whose mothers had little education. This is consistent with Lucas' (2001) theory of Effectively Maintained Inequality (EMI) that relates the socioeconomic status and educational inequalities through the lens of rational choice. This theory suggests that groups with a higher socioeconomic background, in the context of expanding access, seek qualitative differences to guarantee diplomas that provide greater prestige and represent a positional good. In other words, what really makes the difference is no longer accessing higher education, but attending courses at the best research institutions that generate more status and income.

Thus, McCowan and Bertolin (2020) argue that students belonging to disadvantaged social groups are more likely to finish their degrees in lower-quality institutions and in courses that are less socially and economically valued, preserving remnants from the elitist system of the previous century.

PERFORMANCE OF GRADUATES FROM DIFFERENT MODES OF EDUCATION: QUALITY INEQUITY

The expansion in Brazilian higher education took place at both public and private institutions, and was more significant in the latter, especially at for-profit institutions. The trend is evident in the participation rates of private institutions in terms of enrolment, where it grew from 58 per cent in 1995 to 75 per cent in 2018 (INEP, 2019). As we have seen, the qualitative differences between public and private institutions of higher education run in the opposite direction, i.e., federal institutions are at an advantage in that regard. In recent years, the expansion in private institutions has been supported by the distance education (DE) system.

In 2005, distance education courses accounted for less than 2 per cent of total enrolments at private institutions; a little over 10 years later, that

mode of education accounted for 30 per cent of all enrolments. Currently, over 90 per cent of all DE students in the Brazilian system study in private institutions. Between 2015 and 2018, admissions for distance education students more than doubled, going from under 700 thousand to approximately 1.4 million, while classroom-based courses took a step back, from 2.2 to 2.1 million. In 2018, for the first time, the number of openings offered in this mode of education was higher than the number for classroom-based courses, at 7.2 versus 6.4 million (INEP, 2019).

In the case of expanded access to DE in Brazil, a further complicating factor is that DE students usually have lower socioeconomic profiles than students attending traditional classroom-based courses. On average, they are more often graduates of public secondary schools (80 per cent of DE students come from public schools, versus 60 per cent in classroom-based courses), are enrolled in courses with lower perceived social status (e.g., teacher training), and pay lower tuition fees (average monthly fees for a DE bachelor's degree are almost one third of those for a traditional classroom-based course) (Semesp, 2019). Combined, these factors impacting the expansion of this mode of education, targeted at a specific student profile, may be giving members of lower socioeconomic groups access to inferior education. Therefore, assessing DE quality has become critical in the context of analysing the system in terms of equity.

Thus, it should be stressed that, since the mid-twentieth century, studies have shown that school or undergraduate course attributes and characteristics are not the only factors to determine student performance in examinations. From that period on, studies such as the *Coleman Study* and *The Plowden Report* have shown that, unlike what some authors believe, there is another very important variable beyond school quality: background, i.e., students' family, social, economic and cultural 'stores' (Coleman et al., 1981; Department of Education and Science, & Plowden, 1967). When students of lower socioeconomic levels are able to overcome these disadvantages and outperform their more privileged counterparts, in these cases, the quality of the educational institution is likely to be the most relevant factor. That is precisely what performance comparisons between graduate profiles and modes of education in Brazilian undergraduate courses have revealed.

Disaggregating mode of education and background, the average student scores at Enade show that students from traditional classroom-based courses have significantly higher performance levels than those graduates from the three biggest DE courses in Brazil. In addition to this

performance gap, however, data analysis also shows that, in most cases, students with lower socioeconomic levels enrolled in classroom-based courses achieve higher scores at the ‘specific knowledge’¹ part of the examination than students from higher socioeconomic levels from DE courses (see Table 4.2).

In Business Management and Social Work courses, for all socioeconomic aspects considered (race, family income, mother’s schooling, attending private or public secondary schools, work situation), the superior influence of the mode of education was evident. In other words, in these cases, students from lower socioeconomic backgrounds in traditional classroom-based courses outperformed those with higher backgrounds in DE courses.

Table 4.2 Comparison of average ‘specific knowledge’ scores of graduates from traditional classroom-based courses and DE courses by subgroups from different backgrounds—business management (Enade 2015), social work (Enade 2016) and education (Enade 2017) courses

<i>Background subgroup/Mode of education</i>	<i>Courses</i>		
	<i>Bus mgt</i>	<i>Social work</i>	<i>Education</i>
Blacks and mixed-race/Trad	36.8	48.3	41.2
Whites/DE	33.7	39.6	39.7
3 MS or less/Trad	35.9	47.1	41.3
4.5 MS or more/DE	35.6	42.4	46.3
Mother with low educational level/Trad	35.1	44.8	38.9
Mother with higher education degree/DE	34.7	38.2	41.4
Public school/Trad	37.3	47.9	42.3
Private school/DE	36.8	40.6	46.0
Studies and work/Trad	38.0	48.3	43.0
Only studies/DE	32.0	37.0	37.0

Source: The authors, based on microdata from INEP (2019)
Note: Trad—Traditional classroom-based course. DE—Distance education mode
MS: Minimum salary
Bus mgt: Business management

¹The Enade test is taken every year by students completing undergraduate courses in specific disciplinary areas. It evaluates the performance of students via a two-part test: the ‘specific knowledge’ part with content on the degree course studied; and the ‘general education’ part which covers general knowledge and topics outside of the particular professional or academic area of the student.

Therefore, by applying the theories that emphasise the importance of student background to their performance in examinations, as well as comparisons between classroom-based and DE modes of education at Enade, which point to higher performance for students attending traditional classroom-based courses, regardless of socioeconomic level, it would be plausible to argue that, in Brazil, the traditional mode of education provides better learning conditions.

As DE aggregates student profiles who usually come from lower socioeconomic levels, the reproduction of inequalities through the expansion of private distance education is clear. Although acknowledging that DE may play an important role in widening access for distant locations in a country of continental size such as Brazil, the evidence shows that this particular mode of education has major limitations. The people who most need a teacher present are paying to study in distance education and enrolling in courses of dubious quality, while people from privileged backgrounds have access to classroom-based courses at the finest institutions, often free of charge. It could therefore be said equity in quality is absent from the system.

CONCLUSION

In the last three decades Brazil's enrolments grew from approximately 1.5 million to more than 8 million students (INEP, 2017). Despite this step forward in access, indicators are unimpressive by international standards. In 2017, the proportion of higher education graduates aged 25 to 34 in Brazil was 18 per cent, a number close to China's (19 per cent) and above India's (14 per cent), but still below Chile (30 per cent) and less than half the OECD average of 43 per cent (OECD, 2018).

In addition to progress in general achievement rates, the last 15 years also witnessed wider democratisation of access. The share of students from lower socioeconomic levels among enrolees and graduates has increased significantly even in the high prestige federal sector. This is an important step in decreasing inequality, since an undergraduate degree is almost always a source of better professional, social and income opportunities in Brazil.

When analysing the higher admission and graduation rates of students from lower socioeconomic levels in terms of the various courses/careers and modes of education present in the Brazilian higher education system,

however, it becomes evident that there are still remnants of an elitist system maintaining an inappropriate level of inequity.

Thus, since social context is still a strong conditioning factor and most students from lower-income families enrol in lower-quality, lower social status institutions, courses and modes of education, the current expansion is still partly reproducing the inequalities present in Brazil as a whole. Despite some progress, the process requires adjustments to widen opportunities and the potential for social mobility in the country.

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Towards Equity: Developing a National Approach to Improving Social Justice through Higher Education in England

Liz Thomas

INTRODUCTION

Higher education (HE) is charged with multiple goals, which are often in tension and conflict with one another (Castells, 2001). Two prominent goals are, on the one hand, improving social justice, and, on the other, improving the productivity and competitiveness of the national economy. The UK has addressed head on the political ‘compromise’ of widening access to higher education to promote social justice, and improving the economic capacity of individuals and the nation. For this reason, England (as the largest country within the UK) has been selected as a case study to explore how national policy tools can be used to navigate the compromise, and promote greater equity for students from socioeconomically disadvantaged groups by working through higher education institutions. Two contemporary national policy tools are considered, Access and Participation

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© The Author(s) 2022
O. Tavares et al. (eds.), *Equity Policies in Global Higher Education*,
Issues in Higher Education,
https://doi.org/10.1007/978-3-030-69691-7_5

Plans and the Teaching Excellence and Student Outcomes Framework, demonstrating how they are designed to address inequalities in relation to who participates in higher education through fairness, and to promote equality of outcomes, or equity, through inclusion (Marginson, 2011). The second half of the chapter focuses on student retention and success in higher education, as this is essential to achieve equity.

The Compromise: Economic Returns and Social Justice

The two goals of economic development and social justice are frequently placed in opposition to each other, and achieving both is framed as a compromise, as they seek to align individualist and collectivist political philosophies: individualised wealth accumulation at the expense of others, and the re-distribution of wealth and resources to achieve greater equality for the benefit of all. Thus, the role of universities may be viewed as needing to embrace these tensions and contradictory functions (Castells, 2001, p. 212). Alternatively, social justice and economic growth can be viewed as mutually supportive, in which education plays a fundamental role, furnishing individuals and communities with knowledge and skills that facilitate both personal and societal economic opportunities and promote greater cohesion and equality, and simultaneously generating a surplus necessary to support the re-distribution of wealth and greater equality in society (Frainstein, 2001). While this approach can be critiqued as naïve, or accepting of capitalism, the so-called Third Way (Giddens, 1998) was influential at the end of the twentieth and beginning of the twenty-first centuries, when the contemporary phase of widening participation began in England and the rest of the UK.

The Drive for Social Justice in Europe

The Europe 2020 strategy sets a target for at least 40% of 30–34-year-olds to complete an HE qualification by 2020 (European Commission, 2010). Fifteen countries have achieved their targets, while the majority are approaching them; Portugal is one of the countries furthest from achieving its target. Ireland and Luxembourg are also significantly adrift, but they both have particularly high national targets. As is discussed above, achieving participation targets is two-fold: it involves increasing the number of students who enter higher education, and increasing the proportion of those students who successfully complete their studies. Furthermore, it

can be argued that students from diverse backgrounds should not only have equal outcomes in HE, but that this should translate into success beyond HE in employment and other life chances too. This issue is discussed to some extent in relation to England in this chapter, but it is not the primary focus.

The 2011 Modernisation Agenda (Eurydice, 2011) states that it requires a joint effort of all Member States, higher education institutions and the European Commission to proactively work towards the objectives of increasing participation and achievement in higher education. In the US context there has been significant research about student persistence and attrition (see e.g. Troxel, 2010; Pascarella, 1985). Vincent Tinto, one of the leading figures in this aspect of higher education research, states that ‘Access without support is NOT opportunity’ (Tinto, 2008). He argues that diversifying the student population but failing to support these students to succeed does not contribute to overcoming social inequality or promoting social justice. Similar sentiments are found in many of the statements about the on-going priorities for the development of the European Higher Education Area, since the Prague Communiqué in 2001. The London Communiqué (2007) was explicit in stating the commitment to access and completion of higher education for diverse students ‘... the student body entering, participating in and completing higher education at all levels should reflect the diversity of our populations’, and students should be ‘... able to complete their studies without obstacles related to their social and economic background’.

In the Yerevan communiqué (2015) there is greater emphasis on the quality and relevance of learning and teaching, fostering the employability of graduates throughout their lives and making higher education more inclusive to widen opportunities for access, completion and progression (European Commission, 2010). These commitments are re-iterated in the Paris (2018) Communiqué, and it is noted:

We recognize that further effort is required to strengthen the social dimension of higher education. In order to meet our commitment that the student body entering and graduating from European higher education institutions should reflect the diversity of Europe’s populations, we will improve access and completion by under-represented and vulnerable groups. (p. 4)

EXPANSION, DIVERSITY AND THE STRUGGLE FOR EQUITY IN ENGLAND

In contrast to most other countries the UK, especially England and Scotland, can be understood to be quite advanced with the agenda of widening participation, and to have achieved a degree of maturity (Thomas, 2020). Over the past 20-plus years many of the challenges associated with widening participation discussed by Amaral (in this volume) have been experienced in England, and national policy instruments have been developed with the intention of addressing the issues arising.

The expansion of the sector and the massification of higher education (Trow, 1970) did not result in equality of participation. The 1963 ‘Robbins Report’ (Committee on Higher Education, 1963), recommended, and resulted in, an expansion of the sector, and established the so-called Robbins principle that higher education places ‘should be available to all who were qualified for them by ability and attainment’, rather than determined by family background and reproducing capitalism and inequality. Subsequently in 1992 the Further and Higher Education Act significantly changed the higher education sector, and in particular 35 polytechnics became universities, and later other institutions applied for and were granted degree awarding powers and university status, thus a unitary rather than a binary higher education system was created. 1997 heralded the publication of the ‘Dearing Report’—the Report of the National Committee of Inquiry into Higher Education, chaired by Ron Dearing (NCIHE), the first major review of higher education since the Robbins Report. Although widening participation was not the primary focus of the Dearing Report, two sections (reports 5 and 6) presented evidence about the participation of different groups in higher education. This analysis, and other data and research from the time, showed that despite significant expansion of the sector in the 1980s and 1990s, students from lower socio-economic groups and ethnic minority groups in particular remained significantly under-represented, especially in the traditional universities, compared to the post-1992 institutions (Thomas, 2001).

These patterns of inequality in participation persisted despite the expansion of the sector and the creation of the unitary system. Students from families that have historically participated in higher education increased their demand for higher education, especially at the traditional and pre-1992 universities. These stratified choices were reinforced by perceptions by universities about the relative quality of students from different

types of schools and backgrounds. In contrast, new students, that is, first-generation entrants from lower socio-economic groups and black and minority ethnic backgrounds, tended to enter 'new' universities that had previously been polytechnics. Thus, expansion of the higher education system in England resulted in maximally maintained inequality, as the extra supply of places were taken up by middle class students, including women, who had been under-represented, but by the end of the 1990s were slightly over-represented (Thomas, 2001). There was also an expansion in mature age students (who were frequently women), and this was distributed across institutional types, with approximately one third participating in traditional universities and two thirds in modern universities (Coffield & Vignoles, 1997, p. 12).

An expansion in the number of undergraduates also resulted in an increase in the supply of graduates entering the labour market, and degree inflation (Berg, 1970) as the characteristic of higher education as a positional good is undermined. In response to these labour market challenges, traditional graduates aimed to differentiate themselves, but not as they had done previously simply by attending higher education, but by ensuring they graduated from elite institutions within the stratified system, and also by pursuing postgraduate study. Various studies show that students from non-traditional groups have poorer progression experiences in both the (graduate) labour market and postgraduate study, (Thomas & Tight, 2011, pp. 256–258). Furthermore, when students from these groups do participate in postgraduate study they are more likely to be taught postgraduate programmes than research degrees. Progression to postgraduate study is affected by financial factors (Stuart et al., 2008) and earlier decisions such as subject studied and institution attended (Wakeling & Kyriacou, 2010). The English higher education sector therefore also exhibited Effectively Maintained Inequality (Lucas, 2001), where students from families that had historically participated in HE favoured traditional, pre-1992 universities to differentiate themselves, particularly in the labour market, in the face of credentialism and degree inflation.

In England a further challenge to delivering equity in higher education has been the shift in responsibility for the cost of higher education from state to students. A partial shift in responsibility was a key outcome of the Dearing Report (NCIHE, 1997), as it was argued that individuals who benefit from HE should bear some of the cost. The then Labour government introduced to England tuition fees of £1000 and student loans to cover fees and maintenance costs, and thus introduced financial

disincentives and barriers to participation for students from lower socio-economic groups, in recognition of the individual financial returns from participating in higher education, but jeopardising the goal of social justice especially for some student groups (see Callender in this volume). The Higher Education Act 2004 introduced variable tuition fees, allowing institutions to charge ‘top-up’ fees, up to a value of £3000. These were increased incrementally, until the Browne Review in 2010, which raised fees to £9000 per year. The introduction of tuition fees in 2004 raised considerable concern about the debt students would incur and the negative impact this would have on the participation of students from lower socio-economic groups. This resulted in the instigation of a regulator—the Director of Fair Access—to ensure that higher education institutions used a proportion of their additional fee income to undertake activities to improve the access of students from lower socio-economic groups to higher education. Most universities therefore undertake outreach work in schools with low rates of progression to HE, and offer financial support for those most in need. These activities often involve HE students as ‘ambassadors’, and aim to increase school pupils’ understanding about the opportunities available in higher education, and how to gain entry. In addition, universities organise various visits and residential activities on campus to provide school pupils with further insight into the world of higher education, and to inform decision making about progression to HE and choice of institution and subjects to be studied. Student mentors often work with school pupils pre-entry, to encourage and support them on their journey towards higher education.

Over time, and as the English approach to widening participation has matured, the focus of the access regulator and the higher education sector has shifted from funded-projects and specialised units to widen access, to embrace the student lifecycle, taking into account not just who enters university, but also issues of equality of outcomes relating to continuation, completion and attainment in higher education, and progression into the labour market and further study. There have also been gradual modifications in the views about what needs to change, early institutional efforts at widening access tended to focus on student deficits, and looking at adjusting, or correcting, their academic aspirations, skills, qualifications and destinations. Currently institutions are exhorted not just to work across the student lifecycle but also to create changes to their own policies and practices, to create more inclusive structures and cultures that facilitate the

success of all students through a whole institution approach (Thomas, 2017). These developments in both focus and approach are presented in Fig. 5.1 (see also Jones & Thomas, 2005; Thomas, 2018).

The remainder of this chapter focuses on research about improving the retention and completion rates of all students, particularly those from under-represented groups, and on how this has been achieved through national approaches.

RESEARCH ABOUT IMPROVING THE SUCCESS OF TRADITIONALLY UNDER-REPRESENTED GROUPS IN HIGHER EDUCATION

Much of the previous research about the factors contributing to students' early withdrawal, or to account for their success, focuses on one or two levels, but not usually three. Here a multi-dimensional, or layered, model is outlined considering the role of students, higher education institutions and the state.

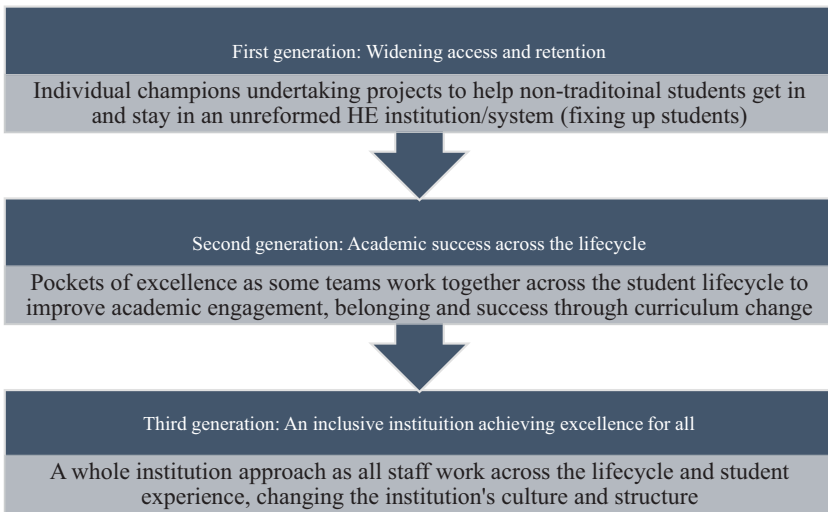


Fig. 5.1 Widening participation maturity model

Students

Many studies focus on the students, and what their short-comings are that prevent them from being successful. For example, Casanova et al. (2018) analysed the decisions of 2970 first year students from a single university in Portugal either to persist/transfer to another course within the same institution, or to withdraw. The study found academic achievement within HE to be a highly significant determining variable, while other factors have a mediating effect, in particular sex, type of course (long or short), studying at first-choice university and mother's educational level. The study concludes:

... it is important to improve reception for students entering university and to identify their learning difficulties. This, together with measures to diagnose and bring students' knowledge up to the appropriate levels, may be important to protect against failure, considering that prior skills and academic achievement are decisive for success and permanence. In addition, students who cannot get onto to their desired degree could get help from teaching staff in terms of specific study techniques and explorations of the vocational projects and employment possibilities open to them thanks to the degree they are starting, improving motivation in students who have to adapt to second choices. (Casanova et al., 2018, p. 413)

This type of analysis is widespread, and indeed these and similar variables are frequently identified as being associated with lower rates of study success, and this is corroborated by Vossensteyn et al. (2015), who go onto note that it is not necessarily these student deficits that are to blame, but rather structural disadvantage:

Much of the research examines the impact of student characteristics on study success, and their intersectionality. It is often not these factors *per se* that affect study success, but their correlation with other factors, such as lack of access to other resources (structural disadvantage). (Vossensteyn et al., 2015, p. 21)

Drawing on this and related literature, the key student characteristics associated with study success or otherwise are socio-economic background, gender, age, ethnic origin, prior academic attainment, student motivation, and educational pathway from school to higher education. In particular, students with lower socio-economic status backgrounds are less

likely to complete their higher education programmes (e.g. Georg, 2009; HEFCE, 2013). Male students have lower participation rates and study success in many countries (e.g. HEFCE, 2013), although in subjects where one gender dominates, the minority gender is more likely to withdraw or transfer to an alternative study programme (Severiens & Dam, 2012). Mature age students (who are defined differently between countries) are more likely to withdraw than young students are, following the typical trajectory from school to higher education. In most countries students who are ethnic minorities compared to the majority are less likely to successfully complete their higher education studies, for example, Meeuwisse et al., 2010; Heublein, 2010.

Previous academic attainment is the strongest predictor of continuation and completion of higher education in England (HEFCE, 2013), and studies in Germany, UK, and Spain demonstrate that students who were low achievers in high school are more likely to leave higher education early (Department for Innovation, Business and Skills, 2014; Heublein et al., 2003; Lassibille & Navarro Gómez, 2008). Student motivation, self-efficacy and related indicators have also been shown to impact on the probability successful completion. In Finland for example, it was found that students who were committed to the content of the study programme, its academic culture, the more instrumental aspects of their study programme and/or their career interests, were more likely to complete their study programme than students who only had low commitment to the programme or career interests (Mäkinen et al., 2004).

A key concern however is how these findings are interpreted and translated into action. In the conclusions cited above from Casanova et al. (2018) it is apparent that the recommendations are largely aimed at the higher education institution introducing targeted interventions to ‘identify their learning difficulties’, ‘bring students’ knowledge up to the appropriate levels’, ‘get help from teaching staff in terms of specific study techniques’ and ‘improve the motivation in [sic] students who have to adapt to second choices’. The responsibility placed on the institution is to act upon the student, rather than to adapt its own systems and practices.

The Role of Higher Education Institutions

As noted above, one of the leading researchers about student retention and success is Vincent Tinto; his model is widely used and highly respected (Kember, 1995). His writing on the topic is starting with his initial model

in 1975, an expanded model in 1993, and more recent amendments and additions. According to Tinto's theory the decision to 'drop out' arises from a combination of student characteristics and the extent of their students' academic, environmental, and social integration into an institution. Student departure arises from a longitudinal process of interactions between an individual with given attributes, skills, financial resources, prior educational experiences, dispositions (intentions and commitments) and integration with other members of the academic and social systems of the institution (Tinto 1993). Students' entry commitment affects the extent of their social and academic interaction within a learning institution, and the extent of their integration, which in turn has an impact on their goals and institutional commitment. Within HE institutions two systems are identified, the academic and the social. In order to continue in HE, students need to be integrated into both systems. This includes participation in formal academic activities, and informal social interaction with peers and academic staff, including taking part in extra and co-curricular activities (Kuh et al., 2010). Other US researchers such as Braxton et al. (2000) have focused on the role of the institution, and in particular academic staff and learning pedagogies, in nurturing academic and social integration (see also Tinto, 1997).

My own research in the UK builds on Tinto's work and applies it to the UK context (Thomas, 2012; Thomas et al., 2017). The What works? Student retention and success programme (2008–12, reported in Thomas, 2012) explored effective approaches to improve student retention and success through seven projects involving 22 higher education institutions. Mixed methods were used to explore interventions, combining qualitative and survey research about student experiences with institutional data about retention and progression. The findings showed the importance of student engagement and belonging through their learning, but did not prescribe specific interventions. Rather effective interventions were found to be within the academic sphere and to have a set of common characteristics, to be: mainstream, proactive, relevant, well-timed and using appropriate media, collaborative and monitored. In addition, changes are required at the institutional level to facilitate and support change in academic programmes, including the use of institutional data, and staff development, recognition and reward. In summary, the study concluded that:

At the heart of successful retention and success is a strong sense of belonging in HE for all students. This is most effectively nurtured through

mainstream activities that all students participate in... The academic sphere is the most important site for nurturing participation of the type which engenders a sense of belonging. (Thomas, 2012, p. 6)

The evidence firmly points to the importance of students having a strong sense of belonging in HE, which is the result of engagement, and this is most effectively nurtured through mainstream activities with an overt academic purpose that all students participate in (Thomas, 2012, p. 12). This approach to improving student retention and progression is informed by the concepts of engagement, belonging and inclusive learning, teaching and assessment. The What works programme of research found that student belonging is an outcome of:

- Supportive peer relations.
- Meaningful interaction between staff and students.
- Developing knowledge, confidence and identity as successful HE learners.
- An HE experience which is relevant to interests and future goals.

These outcomes are closely aligned with ideas about active student engagement in their learning (see e.g. Osterman, 2000). Academic engagement is related to ‘effective learning’, and may be synonymous with, or necessary for ‘deep’ (as opposed to surface) learning (Ramsden, 2003, p. 97). Indeed Chickering and Gamson (1987) identified seven principles of effective practices in undergraduate teaching and learning in the US context, which have widespread applicability in the UK context (Gibbs, 2010). These are:

- student-staff contact;
- active learning;
- prompt feedback;
- time on task;
- high expectations;
- respect for diverse learning styles;
- co-operation among students.

These principles align well with the findings from the What works programme, which found that the following factors contribute to belonging in the academic sphere.

- (a) Staff/student relationships: knowing staff and being able to ask for help. Many students find it difficult to approach academic members of staff, but they value being able to ask for clarification, guidance, and feedback. Students who feel that have a less good relationship with academic members of staff are more likely to think about leaving. Good relationships are based on informal relationships that recognise students as individuals and value their contributions.
- (b) Curricular contents and related opportunities: providing real world learning opportunities which are interesting and relevant to future aspirations motivate students to engage and be successful in higher education.
- (c) Learning and teaching: group based learning and teaching that allows students to interact with each other, share their own experiences and learn by doing. A variety of learning experiences, including work placements, and delivered by enthusiastic lectures were found to be important too.
- (d) Assessment and feedback: clear guidelines about assessment processes and transparency about criteria and feedback to assist students to perform better in the future. Students who have a clear understanding about the assessment process and expectations have higher confidence levels and are less likely to think about leaving early. An understanding of assessment should be developed early, and students need to have positive relationships with staff so that they can ask for clarification. Feedback on assessment needs to be helpful to students, and they need to be guided in how to use it to inform future assessment tasks.
- (e) Personal tutoring: as a means of developing a close relationship with a member of staff who oversees individual progress and takes action if necessary, including direct students to appropriate academic development and pastoral support services.
- (f) Peer relations and cohort identity: having friends to discuss academic and non-academic issues with, both during teaching time and outside of it, and a strong sense cohort identity. Friends and peer relations can have a range of positive impacts on student experience, but this is only recognised by some students and staff. Facilitating social integration in the academic sphere is particularly important as it develops cohort identifying and belonging to the programme; some students do not have opportunities to develop friendships in other spheres. Academic staff can promote social integration through induction activities,

collaborative learning and teaching, field trips, opt-out peer mentoring and staff-organised social events.

- (g) A sense of belonging to a particular place within the university, most usually a departmental building or a small campus, or a hall of residence.

These findings indicate that responsibility for improving retention and success does not just lie with students, but institutions and their teaching and support staff have an obligation to provide the necessary conditions, opportunities and expectations for such engagement to occur (Coates, 2005; Thomas, 2012; Tinto, 2009). Thus institutions can create engaging opportunities (Reason et al., 2005, 2007; Thomas, 2012). Thomas (2012) found that some specific learning and teaching interventions improved retention rates by up to ten percentage points (Thomas, 2012), see also Braxton et al. (2000) and Rhodes and Nevill (2004). What the UK/English research indicates is the importance of the higher education institution to improving student retention and success. This therefore begs the question of what, if any, is the role of the state.

The Role of the State

The literature provides limited evidence about the role of the state in improving student retention and success, but this can be supplemented by the empirical findings from the Higher Education Drop-Out and Completion in Europe (HEDOCE) project (Vossensteyn et al., 2015). A number of contextual issues are important (Thomas & Hovdhaugen, 2014), such as the current rates of participation in higher education, as it might be anticipated that as participation increases, so rates of success decline. The selectivity of HE systems varies significantly across Europe, and this has a direct effect on retention and withdrawal, reflecting different levels of prior academic attainment, and greater student diversity and preparation for higher education (Heublein et al., 2003). Similarly the flexibility of the system varies, in particular the extent to which students can move between programmes and institutions (Houston et al., 2011; Hovdhaugen & Aamodt, 2009), and the other opportunities that are available. A key contextual issue is the cost of higher education; fees and arrangements to cover living costs vary considerably between European countries (OECD, 2011). The evidence about the impact of fees and student finance on drop-out/retention and completion

is ambiguous (Vossensteyn et al., 2015), but engaging in employment has a negative impact on study success (Vossensteyn et al., 2013), particularly when students work a high number of hours (Beerkens et al., 2011; Hovdhaugen, 2014). Despite this lack of evidence about the role of state in improving student retention and success, Vossensteyn (2015) found in the survey of national experts from 35 European countries that in 28 countries study success is high or very high on the policy agenda.

The study collected details of national policies and approaches used to address study success from a ten year period, 2005 to 2015, and approximately two thirds of the countries reviewed had study success policies. In total more than 170 policies that explicitly and intentionally address study success were identified. These were categorised into three broad policy areas: ‘funding and financial incentives’, ‘organisation of higher education’ and ‘information and support for students’, as described below.

- **Funding and financial incentives:** Financial policies often include incentives to encourage (or discourage) specific activity. Such policies can directly target students, for example, through tuition fees, grants, scholarships, or loans; financial incentives can be used to influence students’ study success behaviour, for example by linking financial reward to credits gained. They can also influence HE providers—but here such policies tend to work indirectly by ‘inviting’ HEIs to develop their own policies.
- **Organisation of higher education:** This policy area refers primarily to teaching and learning but can also include structural characteristics such as the duration of programmes or the types of degrees offered. Policy detail can be delegated that is, devolved to HEIs. Organisational regulations can address the quality of teaching and learning (and its accreditation, etc.), and also things such as student-teacher ratios, number of contact hours, assessment regulations, pathways towards a degree or ‘soft selection mechanisms’ such as applicant interviews, and so on to influence who has access to HE courses.
- **Information and support for students:** These policies relate to different stages in the student ‘life-cycle’. Prospective students (and those transferring or thinking about leaving) are provided with information to inform their decisions. Information and support, pre- and post-entry provide course, study and career information, and address academic development and attainment, personal well-being and professional development.

*National Approaches to Improving Success in Higher Education
in England*

The English continuation rate, (which refers to progression from first year of study to second year for full-time students, and is used as a more immediate measure of student completion) is high, currently around 93% (HESA, 2020—<https://www.hesa.ac.uk/data-and-analysis/performance-indicators/non-continuation-1819>). There is a 4.4 percentage points difference between the non-continuation rate of the most and least represented groups in higher education (OfS, 2020—<https://www.officeforstudents.org.uk/about/measures-of-our-success/participation-performance-measures/gap-in-non-continuation-between-most-and-least-represented-groups/>). The rates have remained stable over the past decade or more, although the system has expanded in size, increased in diversity and introduced higher tuition fees. It should be noted however that there are significant variations between institutions, and between student groups. Broadly therefore the English system can be judged to be effective with regards to study success. Comparative analysis of different national approaches (Thomas, 2019) points to the importance of a number of factors within the national system, that act as ‘enablers’ which stimulate and support higher education institutions to proactively improve study success.

In England there is widespread agreement about what study success is; it is almost universally understood as the completion of a degree in a prescribed time period (with up to one year variance from the standard time allowed, i.e. three or four years for full-time degree programmes). The completion rate is defined as ‘the proportion of starters in a year who continue their studies until they obtain their qualification, with no more than one consecutive year out of higher education’; this is complemented with the continuation rate, which is a more immediate measure, calculating the proportion of higher education providers intake which is enrolled in the year following entry. (National Audit Office Report on Retention, 2007, p. 5.). These definitions are not contested, although national bodies and institutions do recognise and aspire to additional elements of study success. For example, the Higher Education Funding Council for England (HEFCE, 2013) has encouraged institutions to consider not just continuation and completion, but also attainment and progression into employment and further study (and work to improve these outcomes for all students is currently being taken forward by the Office for Students).

Institutions and other stakeholders in the sector recognise the value of an extended notion of success, taking account of issues such as personal goals and aspirations, and ‘distance travelled’ or ‘value added’.

In England there is pressure to maintain and improve study success, especially in parts of the sector where it is lower than the national average, or in relation to students from less advantaged groups, in particular through Access and Participation Plans.

Access Agreements/Access and Participation Plans

The Office for Fair Access (OFFA) and the first Director of Fair Access were established by the Higher Education Act 2004, and they began operation in the same year to regulate the work of institutions with regards to promoting social justice. Originally the focus was on access, and ensuring institutions provided support and encouragement to improve the participation of students from low income and other under-represented groups, and in particular to invest in outreach activities and student financial support, and to provide clear and accessible financial information to students, parents, carers and advisers; subsequently the focus shifted to include other stages of the student lifecycle. ‘Access Agreements’, introduced for the academic year 2006–2007, were used as the primary mechanism to ensure institutions met these obligations. In these documents, institutions were required to identify areas for improvement, set themselves achievable targets, and an action plan. Access Agreement documents were submitted to the Director for Fair Access for approval, placed in the public domain, and monitored by OFFA annually. Research found that the process of developing and implementing an Access Agreement had a positive impact on institutional policies, planning and behaviour (Bowes et al., 2013), with most HEIs achieving or exceeding their targets. The process of producing and implementing an Access Agreement has impact on both institutions approach to increasing diversity and improving student success, and to the outcomes for students.

In 2018 Access Agreements were replaced by Access and Participation Plans (APP), which have to be approved by the Office for Students (OfS, which is the independent regulator for higher education, introduced by the Higher Education and Research Act 2017, bringing together a number of organisations and functions, including regulating widening participation, into a single body). Access and Participation Plans take an even more explicit focus on the student lifecycle—access, success

(incorporating retention and attainment) and progression to (graduate) employment and further (postgraduate) study, and are intended to be more challenging for institutions, requiring them to assess their performance in relation to these dimensions and six specific target groups (including socio-economic status, age, ethnicity and disability). While some of the details have changed, the process is similar, but OfS has greater powers than OFFA, and in the first year of operation three public universities had specific conditions relating to access applied to their registration as higher education providers.

The evolution of the focus of Access Agreement and Access and Participation Plans reflects the development of the widening participation agenda more generally in the UK. While initially the focus was on access to higher education, during the 2000s concern extended to success of students within, and beyond higher education. Thus, the focus was both on fairness by changing who participates in higher education, and shifted to inclusion, by considering not just access, but also completion, which Marginson (2011, p. 23) defines as the key elements of equity. This change in emphasis began in the 2000s, but it was reinforced by analysis by the Higher Education Funding Council for England in 2013 (HEFCE, 2013). The study differentiated four outcomes of higher education that could be measured for students: achieving a degree (retention and completion); achieving a first or upper-second class degree (attainment); achieving a degree and continuing to employment or further study; and achieving a degree and continuing to graduate employment (as opposed to any employment) or postgraduate study. The analysis of nationally held institutional data in relation to students from a range of non-traditional groups against these outcome measures demonstrates that students who are less likely to attend higher education are also less likely to be successful against all of these measures (HEFCE, 2013). These insights have informed and heightened concern about differential outcomes for equity groups (see e.g. Mountford-Zimdars et al., 2015 and UUK/NUS, 2019).

Teaching Excellence and Student Outcomes Framework

Subsequently the Teaching Excellence and Student Outcomes Framework (TEF) was developed as a UK-wide government initiative designed to assess ‘excellence’ in undergraduate teaching in higher education across the UK, but it has been more widely adopted in England. It was launched in 2016, but the process was developmental and is still being reviewed

(DfE, 2019), with details for 2020 and beyond still rather sketchy (Kernohan, 2019). A TEF award is required for all higher education providers who wish to charge up to the highest maximum fee level (currently up to £9250 per year); hence the greater level of take up in England. In essence, the process utilizes a number of metrics, and providers also submit a narrative and additional evidence, which may include internally generated evidence, to demonstrate performance against a number of criteria. The metrics data is provided by the OfS, and includes data about students' satisfaction in relation to teaching, assessment and feedback and academic support collected via the National Student Survey; continuation rate data collected by the Higher Education Statistics Agency; and employment outcome measures (collected via the Destination of Leavers from Higher Education until 2018, and subsequently by the Graduate Outcomes survey). All of this data is benchmarked: the aim of benchmarks is to facilitate fair comparison between providers, so a range of factors, such as student characteristics and subjects offered, are taken into account to calculate what level of performance each provider ought to achieve. Key variables are subject mix, entry qualifications, age, and ethnicity of students, while other demographics such as gender, disability and an indicator of socio-economic status are taken into account in some benchmarks. Variation from the benchmark is presented for each metric, and a difference of more than 2.0 is considered significant and flagged, and this feeds into the initial assessment of the quality of the teaching.

An important aspect of the TEF is the emphasis on positive outcomes for *all* students, and the metrics data is broken down in relation to particular under-represented groups, and again this data is benchmarked and flagged. Data is provided in relation to age, disadvantage (low SES using a geographically based measure), ethnicity, disability, and sex. As noted above, the majority of higher education providers in England have participated in TEF, and while there are many criticisms of the process and it uses indicators that do not (directly) measure teaching quality and excellence (Gunn, 2018; Shattock, 2018), it does make a contribution to equity, drawing attention to differences between student groups. Thus, it encourages institutions to review, and if necessary improve the experience, continuation and outcomes of students from under-represented groups.

Taken together, Access and Participation Plans and the Teaching Excellence and Student Outcomes Framework place widening participation, or fairness and inclusion, at the heart of institutional priorities, rather than on the margins, and create a system-wide framework for improving

the outcomes of all students. The work of the OfS to widen participation and increase equity has two strategic objectives and seven key performance measures (KPMs). The first strategic objective relates to impact, and states: ‘All students, from all backgrounds, with the ability and desire to undertake higher education, are supported to access, succeed in, and progress from higher education.’ (<https://www.officeforstudents.org.uk/about/measures-of-our-success/participation-performance-measures/>). There are five KPMs that are intended to measure the effectiveness of OfS with regards to this, and that institutions must contribute to directly:

- i. Reduce the gap in participation between the most and least represented groups.
- ii. Reduce the gap in participation at higher tariff providers between the most and least represented groups.
- iii. Reduce the gap in non-continuation between the most and least represented groups.
- iv. Reduce the gap in degree outcomes (1sts or 2:1 s) between white students and black students.
- v. Reduce the gap in degree outcomes (1sts or 2:1 s) between disabled and non-disabled students.

APP and TEF operate by encouraging or requiring institutions to address student retention and success in relation to students from under-represented groups. This is supported by recognition that learning and teaching are integral to study success, and indeed much of the institutional funding is used to improve the learning, teaching and assessment experience to improve student engagement, belonging, retention and success (Thomas, 2012). This commitment to learning and teaching is reinforced by national initiatives: the government has contributed to the funding of a number of national organisations to improve learning and teaching: the Institute for Learning and Teaching in Higher Education (2000); Learning and Teaching Support Network (2000); Higher Education Academy (2004); Leadership Foundation (2004); and Advance HE (2018). These organisations, in various ways, have sought to develop and champion high-quality learning and teaching in higher education, including its contribution to study success, through staff training and development, recognition and accreditation, and pedagogical research (Brooks et al., 2014).

The combination of policies in England address study success from different angles, but they are largely reinforcing rather than in tension with

each other. While the introduction of high student fees (approximately £9000 per year) has a negative impact on the participation of students from some equity groups (see Callender in this volume) which needs to be addressed urgently, the impact on study success is more ambiguous. The direct relationship between student numbers and institutional income, together with quality assurance tools that have a focus on the outcomes of non-traditional student groups, is driving higher education institutions to care about improving study success for these students, and the additional fee income which must be spent on equity is providing the required funding. There is little evidence to suggest that increased tuition fees have contributed to greater student withdrawal (SMF, 2017) and Bradley and Magali (2016) found that the introduction of tuition fees reduced the risk of withdrawal.

It should be acknowledged however, that England has a fairly tight admissions system (institutional autonomy has been retained and admission policy is not regulated) which contributes to higher rates of study success. Furthermore, there is a widespread and embedded expectation that completion is possible within three years except for in exceptional circumstances. Institutions and students are not funded for more than the length of the course plus one year, and students and their families do not expect to study for longer than the normal time period. This provides a good basis for retention and completion. National policy, guidance and funding have been directed to maintaining and improving the retention of students in the context of expansion and increased diversity, and improving employability, and more recently the attainment outcomes of students.

CONCLUSIONS

Study success is high on the higher education policy agenda across the UK, and in England in particular. This concern about study success has developed in response to two other policy directions: widening access and the introduction of tuition fees. Overt efforts to diversify the HE student population, or widen access, sparked concern about not just who enters higher education, but also about continuation, completion, attainment and employment outcomes for these non-traditional students. The introduction of tuition fees raised fears about both access to HE, and outcomes, for students from lower socio-economic groups. Steps were therefore implemented at the national level to ensure that tuition fees and

greater reliance on student loans (rather than non-repayable grants) did not have an unintentionally negative impact on study success in general and for students from lower socio-economic groups in particular. Concern about the success of students, especially those from targeted equity groups, has informed the development of further policy tools. For example, Access and Participation Plans, which directly require HE institutions to address the success of students from non-traditional groups; and the TEF which embedded data about the outcomes of students from these groups.

Analysis of the English approach demonstrates a number of strengths of the national approach to widening participation, especially with regards to student retention and success:

1. Clear and widely accepted definition of retention and completion, and target groups.
2. Several policies are aligned to incentivise, require, and support institutions to improve success, these relate to institutional funding, teaching quality, and provision of information and support to students.
3. Institutional performance is measured, and this information is in the public domain.
4. The policy mix encourages institutional responsibility for student success, and is under-pinned by a developing evidence base.

England has arguably been less successful in terms of increasing the participation of students from non-traditional groups, especially to pre-1992 universities that occupy a higher position in the stratified higher education sector. It is therefore not surprising that key performance measures of the Office for Students address participation rates in general, and at high tariff (or elite) institutions in particular. England is only just embarking on the challenges associated with equalising the attainment of graduates from different backgrounds, and this is reflected in the two national KPMs relating to the attainment of black and minority ethnic students and disabled students. The further challenge, that is not included in the KPMs is around progression into graduate employment and post-graduate study, is to reduce the impact of Effectively Maintained Inequality in labour market outcomes, and to genuinely promote social mobility and justice. Many of the positions of power and authority in the UK are still occupied by ‘posh boys’ (Verkaik, 2018).

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Undergraduate Student Funding in England: The Challenges Ahead for Equity

Claire Callender

INTRODUCTION

Since 1990, a series of policies in England have changed how higher education and undergraduate students are funded. These reforms have culminated in a funding system predicated on student loan debt. They have been informed by neo-liberal thinking, especially, ideas underpinning the marketization of higher education. Sustaining these student funding policies and the accompanying policy rhetoric, are a range of unsubstantiated and misplaced assumptions about the impact of the reforms, the benefits of student loans, and their effect on student behaviour.

The new student funding system was designed to improve access to higher education and to promote the wider economic and social benefits associated with higher education. But sometimes the system has the opposite effect especially for the most disadvantaged students. These students' opportunities have been curtailed, highlighting how the funding

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O. Tavares et al. (eds.), *Equity Policies in Global Higher Education*,
Issues in Higher Education,

https://doi.org/10.1007/978-3-030-69691-7_6

system, particularly student loans, can perpetuate existing inequalities rather than ameliorate them.

This chapter focuses on English domiciled undergraduate students studying at a UK higher education institution.¹ The chapter starts with a brief overview of the ideas informing student funding policies globally. Next it explores the changing nature of student funding in England focusing on policies introduced since 2012. It examines the policy rhetoric contained in key government documents, to provide a context for the current provision of student aid, and to highlight a series of predictions and assumptions about the benefits of these policy changes. This section focuses particularly on assumptions about student loans as a policy device for shaping or affecting student and graduate behaviour. Then the chapter explores the veracity of these assumptions calling upon findings from a range of empirical studies.

STUDENT FUNDING POLICIES

Money matters for higher education access (Heller, 1997; Leslie & Brinkman, 1987). Tuition fee increases tend to depress higher education participation, particularly when not underpinned by enhanced student financial support (Dearden et al., 2014). However, the type and mix of that aid is important, especially for disadvantaged groups who are more price sensitive. With the expansion and increasing social demand for higher education, coupled with rising higher education costs, governments have changed the way they subsidise higher education, often shifting more costs onto students and their families (Johnstone & Marcucci, 2010). With that shift is the increasing use of student loans, rather than grant aid, to address resulting financial constraints which may prevent students from investing in higher education.

Economists argue that in the interest of equity, those who benefit from higher education should contribute towards its costs. They claim that it would be regressive if these costs were shouldered exclusively or primarily by the taxpayer because most taxpayers are not graduates and are financially disadvantaged over their lifetimes compared to graduates. In essence,

¹ Higher education policy within the UK is devolved and funding policies have diverged. The reforms discussed relate only to English domiciled students studying at public universities in the UK. Discussion about loans refers exclusively to government-funded loans, which are administered and distributed by the government-owned Student Loans Company.

public subsidies would be used to redistribute wealth from people who are less well-off to those who are better-off. It is these high private rates of return that graduates reap from their higher education that are invoked to justify their private contribution to higher education and which are deemed to render loans fair and affordable.

Loans, in a cost-sharing environment such as England, generate more income for the university sector by facilitating tuition fee increases and by making such increases more politically and socially acceptable (Ziderman, 2013). Proponents of loans argue that they promote higher education access and greater equality. Loans help ensure that liquidity constraints are not a barrier to access.

The disincentive effects [on participation] of up-front tuition fee increases may be offset also by the availability of loans for students that will cover these augmented costs. Loans enable student borrowers to avoid up-front payments for higher education (whether for tuition fees or living expenses) by delaying payment, which will be rendered in manageable instalments out of enhanced earnings after graduation. (Ziderman, 2013, p. 34)

From a government perspective, loans are preferable to grants. They are usually cheaper with some, or all, of the money borrowed being repaid. Together with tuition fee increases, repaid via loans, governments can expand the number of university places because the costs per place are less. In turn, such expansion can help to widen higher education participation.

Others argue that far from promoting higher education participation, widening access, and greater equality, loans have the opposite effect. Opponents of loans stress the considerable public benefits (economic, cultural, intellectual and social) and positive externalities to higher education, in addition to the private returns, which justify high public subsidies. They argue that these public benefits require financial support, for instance, to sustain the highly educated workforce needed for growth and prosperity in globalised knowledge economies. In other words, higher education is more of a public than a private good. Consequently, it should be funded by the state. Others suggest that the higher taxes graduates pay represent a user contribution which is part of a collective public investment and so tuition fees and loans are unnecessary.

A key argument against loans is their potential deterrent effect on higher education participation, especially among disadvantaged groups.

Low-income prospective higher education students are more risk averse than their wealthier peers and are more concerned about building up student loan debt. Opponents of loans also suggest that loans are less effective than grants in encouraging access to higher education among low-income students. They also highlight how loans may be less efficient than anticipated because of the type of loan and the costs of administering, financing, and servicing loans. As Ziderman (2013, p. 43) argues

Since a grant offers a stronger and more direct incentive for access than does a (partially) repayable loan, the apparent advantage of loans over grants is less clear-cut. This highlights a central conundrum in loan policy: at what level of built-in loan subsidy does a grant become a more cost-effective instrument for helping the poor than a subsidized loan (with hidden grants)?

How have these arguments for and against loans played out in practice? To assess the extent to which loans have ameliorated or exacerbated inequalities, we turn to England as a case study.

CHANGING STUDENT FUNDING IN ENGLAND: TUITION FEES AND STUDENT LOANS

This section discusses how these ideas about student funding have been implemented in England by charting the key student financial aid reforms. Prior to 1998, public universities were fully funded by the state and English domiciled full-time undergraduates paid no tuition fees. Low-income students were eligible for maintenance grants provided by the state towards their living costs. In 1990 government-funded mortgage-style maintenance loans were launched for all undergraduates.

Since the 1990s, a series of cost-sharing policies were introduced to address both the escalating costs of higher education associated with expansion and years of government underinvestment in the sector. These reforms sought to cut public expenditure on higher education and to reduce the sector's reliance on public funding while simultaneously boosting and widening higher education participation. It did this through substituting public contributions to higher education with far higher private contributions, primarily through the introduction of tuition fees repaid by government-funded student loans.

Tuition fees, first introduced in 1998 for full-time undergraduate courses, were initially set by the government at £1000 per annum and

were means-tested. Non-means tested tuition fees in England then rose to a maximum of £3000 in 2006/07, to £9000 in 2012/13, and to £9250 in 2017/18 for all full-time undergraduate courses. Maximum tuition fees of £6750 for part-time undergraduate courses were first introduced in England in 2012/13, rising to £6935 in 2017/18.

It was hoped higher education institutions would compete on price by charging different tuition fees for their courses and by offering discounts through institutional aid. Such price competition never appeared. Both the £3000 and the £9000 tuition fee became *de facto* flat rates, as eventually all universities charged the maximum permitted for all their courses. Any competitive advantage of charging lower tuition fees was outweighed by the greater income derived from higher fees and by concerns over the reputational signals lower fees may send to potential students—making England’s full-time tuition fees some of the highest among OECD countries (OECD, 2019a).

By 2012, tuition fee income had replaced most of the money universities had received directly from the state for teaching undergraduate courses. As some argued (Shattock, 2017), in essence, higher education had become privatised. This was a decisive break with the welfare state and the post-war consensus regarding the state’s obligation to fund higher education (Callender, 2014).

These tuition fees are repaid by full and part-time students via government-subsidised income-contingent loans which cover the full cost of their tuition fees. Most full-time undergraduate students are eligible for these loans—they are a universal entitlement rather than being discretionary. In addition, students qualify for loans towards their living costs with the maximum amount a student can borrow depending on their household income, where in the country they study, and where they live during term-time. By 2016/17, these maintenance loans had completely replaced the means-tested grants poorer full-time students had once received towards the living costs. The effects of this policy change on student behaviour are unknown and have not been explored. It is possible that this reform may encourage a larger number of poorer students to live at home with their parents while studying so that they can contain their student loan debt accumulation by reducing the amount of maintenance loan they take out.² Evidence (de Gayardon et al., 2019) suggests that students living in their parental home are less likely to take out maintenance loans

² However, the proportion of students living at home remains largely unchanged.

compared with those living away from home. Consequently, by 2020 the only form of government-funded financial support available to both full and part-time undergraduate students³ was loans. If students want to attend higher education, most have no choice but to borrow.

Student loan repayments in England are income contingent, unlike most student loans elsewhere which are ‘mortgage style’ and not based on students’ ability to repay (see chapter by Dill in this volume for a discussion of ‘mortgage style’ loans in the US). Students start repaying their loans once they graduate and only when earning above an income threshold. For students who started after the 2012 reforms, the repayment threshold (at the time of writing) was £27,295 in April 2021 but it rises every year in line with inflation. Graduates then pay 9% of their salary above this threshold until they have paid off their loans with any outstanding debt written off after 30 years. Interest on the loans also varies by graduates’ earnings.⁴ Loan repayments are deducted directly from graduates’ pay packets—via the tax system. The repayments, therefore, depend on graduates’ earnings—the less they earn, the less they repay, protecting low-earning or unemployed graduates from high repayments, financial hardship, and rendering repayments more affordable and progressive.

Hence, there are numerous strengths to income-contingent loans, especially when compared with ‘mortgage’ style loans where repayments are not linked to a graduate’s capacity to repay. Under mortgage style loans, repayments are calculated for a specified repayment period based on the total amount borrowed plus the interest accrued. The consequences of non-payment, for instance in the United States (US), can be severe including default, forbearance, and loss of credit approval (Barr et al., 2019). By contrast, under income-contingent loans, students cannot default on their repayments. If graduates, for instance, experience low earnings or unemployment, their repayments are adjusted accordingly or cease. Nor does the amount of their monthly loan repayments depend on the total amount borrowed. The total amount increases the time it takes to pay off the loan, not the monthly loan repayments, unlike mortgage style loans.

³ Students studying nursing and subjects allied to medicine can get some grant aid.

⁴ The repayment threshold and period of debt forgiveness have changed over time—see (Belfield et al., 2017b). In Autumn 2021 there were rumours that the student loan system would be changed yet again.

POLICY RHETORIC

This section explores government thinking and the policy rhetoric contained in the government policy documents informing the 2012 reforms, which set out what they hoped to achieve. The rise in tuition fees initially to £9000 repaid via loans represents a radical change and a highpoint in policies promoting student choice and provider competition—hallmarks of the marketization of higher education. Consequently, student funding policies play a pivotal role in meeting the government’s policy objectives and in turning students into investors in higher education.

The government documents also give insights into the predicted effects of the reforms and the role and benefits of income-contingent student loans. The title of 2011 government White Paper—*Student at the Heart of the System* (Department for Business, Innovation and Skills, 2011, para 23) embodies the central policy objective. It argued

Our reforms are designed to deliver a more responsive higher education sector in which funding follows the decisions of learners and successful institutions are freed to thrive; in which there is a new focus on the student experience and the quality of teaching and in which [there is] ... a diverse range of higher education provision. The overall goal is higher education that is more responsive to student choice, that provides a better student experience and that helps improve social mobility.

The reforms aimed to make higher education more financially sustainable by reducing its reliance on direct government funding and replacing this lost income with higher tuition fees repaid via loans. Government block grants to universities to pay for their teaching were portrayed as stifling growth and competition, and limiting student choice, so funding must follow the student. Student loans were to act like educational vouchers that students could redeem at the institution of their choice. As the White Paper claimed, ‘putting financial power into the hands of learners makes student choice meaningful’ (Department for Business, Innovation and Skills, 2011, p. 5). More specifically, it proposed ‘we want to ensure that the new student finance regime supports student choice, and that in turn student choice drives competition, including on price’ (Department for Business, Innovation and Skills, 2011, p. 19). Thus, the reforms sought to change the position and behaviour of students within the higher education system. Higher education institutions, as service providers and

delivery organisations, react to student demand while students are investors in higher education and institutions—and become human capital. Student choice is always portrayed as something positive within the policy rhetoric.

Moreover, by making higher education more financially self-sufficient, it could expand, and the number of places increased. Indeed, the government-set cap on the number of students each higher education institution could recruit was gradually lifted by the White Paper and then abolished completely in 2015/16.⁵ In turn, this expansion, it was argued, would help widening participation: ‘Ultimately, the best way to widen participation is to ensure there are sufficient higher education places available for those qualified’ (Department for Business, Innovation and Skills, 2011, p. 7).

The specific benefits of income-contingent loans, according to the White Paper, were as follows:

graduates do, on average, earn more than non-graduates... So it is fairer to finance the system by expecting graduates to pay, if and when they are in better paid jobs. The proposed repayment system works on a “pay as you earn” basis. Therefore, no first-time undergraduate student will be asked to make a contribution to tuition costs up-front. Instead, graduates will make a contribution based on their actual earnings once they have left their course. Under the new system, borrowers will only begin to repay once their income is above the £21,000 repayment threshold. Repayment will be deducted at nine per cent of any income above this threshold. Linking repayments to a borrower’s income ensures that repayments are based on the ability to repay, rather than the size of their debt. (Department for Business, Innovation and Skills, 2011, p. 17)

Loans are presented as an instrument to achieve fairness. They are fair because those who benefit from higher education contribute towards its costs, when they can afford to do so. The emphasis is on the private economic benefits of higher education and on graduates’ higher earnings.

The quote above contains the sole reference in the 2011 White Paper to student loan debt. It suggests that the amount of debt students accrue is immaterial, and by association, so are concerns about debt

⁵In June 2020 the government reintroduced the cap on student numbers for academic year 2020–21 because of issues facing the higher education sector arising from Covid-19. However, in August 2020 the cap was lifted, and recruitment has been high despite Covid-19.

accumulation. Issues about debt aversion are ignored. In another government document upon which the White paper is based—the 2010 Browne Report (Independent Review of Higher Education Funding and Student Finance, 2010), debt aversion is discussed but similarly dismissed. The Report argues that if students understood how income-contingent loans worked and the loans' inbuilt insurance features, students would not be debt averse, suggesting that debt aversion is irrational.

because the current system is poorly understood—many other students and their families are worried by the fact that they run up debt by going into higher education. In these discussions of debt, student loan obligations are still grouped alongside credit card debts and commercial mortgage style loans, as if they are all the same. (Independent Review of Higher Education Funding and Student Finance, 2010, p. 40)

POLICY PREDICTIONS AND ASSUMPTIONS

Underpinning the policy changes and policy rhetoric examined above, are a range of predictions and assumptions about the impact of the reforms, and the benefits of income-contingent loans for both the higher education sector and students. First, there is the prediction that higher education would expand, participation widen, and social mobility improve. Next is an implicit assumption that all students are eligible for loans, and eligible students will take out the loans. Third, loans are considered fair and repayments affordable because they are linked to earnings and protect graduates from excessive repayments and hence, financial hardship. Fourth, loans are portrayed as risk free because repayments are linked to ability to repay and it is the government, rather than students or their higher education institution that bear the financial risk of low graduate wages and non-payment. Fifth, the total amount of student loan debt a student accumulates is deemed immaterial because repayments are not linked to total borrowing but to earnings. Implicit, in this idea is another assumption—that debt aversion is irrational. For all these reasons, it is supposed that student loans will have no negative effect on prospective students' higher education decisions such as whether to enter higher education and what and where to study. Rather loans will provide students with greater choices. Nor, it is predicted, will loan repayments have adverse effects on students' post-graduation life choices and behaviour such as labour market outcomes, housing, family formation, mental health, savings, and financial security.

And consequently, loans will leave untouched the economic and social benefits associated with higher education.

The impact of student funding reforms in England since 2012—assessing the predictions and assumptions.

In this section we examine how well the policy predictions and assumptions underpinning the most recent student funding reforms have been realised, especially since 2010/11, the last year unaffected by the 2012 reforms.

Expanding and Widening Participation

In 2017/18, an estimated 46.4% of young people living in England would enter full-time higher education for the first time by the age of 30, up from 40.4% in 2010/11, and 35.6% in 2006/07. The equivalent figures for part-time entrants were 3.8% in 2017/18, 5.6% in 2010/11, and 6.1% in 2006/07. Apart from a fluctuation in 2011/12 and 2012/13, coinciding with the introduction of higher tuition fees, there has been a steady rise in the participation rates of full-time students since 2006/07, but a continuous fall for part-time entrants (Department for Education, 2019a). Indeed, other research confirms that the 2012 reforms had little impact on the overall enrolment rate of school leavers, who study full-time, but had a slight negative impact on the enrolment of those from the highest socioeconomic groups (Azmat & Simion, 2017).

The changes in higher education participation rates are borne out by trends in the absolute number of students. The total number of first year UK and EU undergraduates in the UK fell by 17% between 2010/11 and 2018/19, contrary to the 2012 reforms' predictions (Fig. 6.1). The decline was driven largely by drops among part-time entrants. Part-time numbers since 2008/9 have declined year on year. They fell dramatically as a result of the 2012/13 student funding reforms. In 2010/11, there were 301,025 first year part-time undergraduates. By 2018/9, the number had plummeted to 128,535—a fall of 57%. By contrast, full-time numbers have risen continuously since 2005/06, except for temporary dips associated with tuition fee increases, after which numbers subsequently recovered and rose year on year. Between 2010/11 and 2018/19, the number of full-time entrants grew by 7% despite the demographic downturn in the number of 18-year olds over this period. The rise in full-time numbers and fall in part-time numbers meant that, by 2018/19, only 19% of all undergraduates studied part-time compared to 44% in 2006/07.

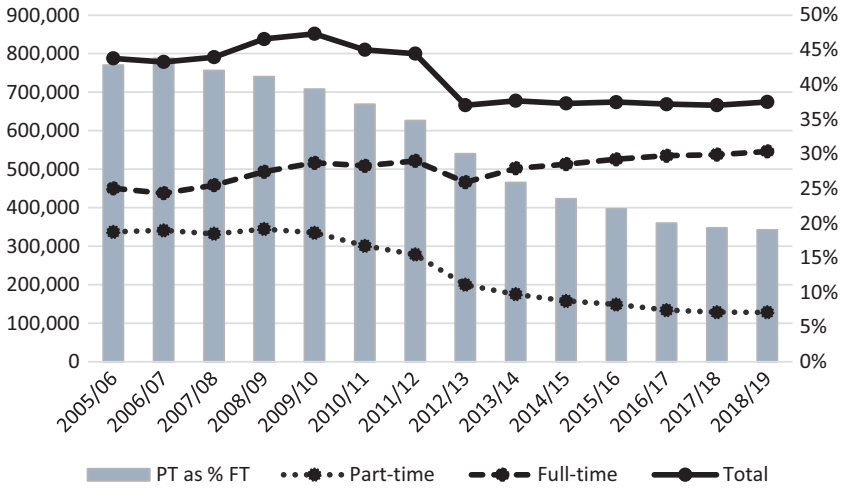


Fig. 6.1 First year undergraduate students by mode of study, 2005/06 to 2018/19, UK

These figures clearly show that higher education has not expanded in line with the policy makers' predictions. Access to higher education has been curtailed while student choice constrained, especially access to part-time study.

Another assumption underpinning the 2012 student funding changes was that higher education participation would widen, creating more opportunities for groups currently under-represented. Yet there is limited evidence that this has happened or that there has been a boost to social mobility in terms of the proportion of those from disadvantaged backgrounds entering higher education relative to those from more advantaged groups.

Globally, there are considerable socioeconomic differences in participation rates. In England, the absolute rate at which those from socioeconomically disadvantaged backgrounds participate in higher education has increased over time. The percentage of 15-year-old school pupils from the poorest households living in England who entered higher education by age 19⁶ rose from 19.8% for the 2010/11 cohort to 26.3% for the

⁶There are numerous debates on what are the best data for measuring disadvantage. Here we opt for an individual, rather than area, level measure based on the percentage of pupils

2017/18 cohort. Over the same period, the rate for their wealthier peers rose from 38.3% to 44.9%. And because participation rates have increased for both social groups, the socioeconomic gap in progression rates has not reduced overtime. By 2017/18, the gap had increased to 18.6 percentage points, the largest gap since 2006/07 (Department for Education, 2019b). Thus, despite the expansion of higher education in England and the growth in higher education participation, inequalities in access by family income have grown over time. As Boliver (2011) has observed, ‘widening participation’ students continue to form a small proportion of all undergraduates and little progress has been made in increasing their share. These findings support the arguments in the opening chapter of this book presented by Amaral. These developments in England point to the idea of Maximally Maintained Inequality (MMI). Higher education expansion has not reduced inequalities in access because students from higher socioeconomic backgrounds have exploited the opportunities provided by higher education expansion, and are the best equipped to do so.

Moreover, there is evidence to suggest the operation of EMI—Effectively Maintained Inequality whereby those students from higher socioeconomic backgrounds have gained access to qualitatively better higher education. Inequalities by household income are evident in terms of the type of higher education institutions students attend. Students from the poorest households are far less likely, compared to their wealthy peers, to enter the most selective and prestigious universities with all the advantages that such universities confer on their students and graduates. Only 3.4% of students from the poorest families had entered these highly selective universities by age 19 by 2017/18, up from 2.5% in 2010/11. By contrast, over the same period, the progression rate for wealthier students rose faster from 9.5% in 2010/11 to 11.2% by 2017/18. Thus the gap in the progression rates between students from the poorest and richest families was 7.8 percentage points by 2017/18, compared with 7.0 percentage points in 2010/11 (Department for Education, 2019b). Consequently, the poorest students have made no progress in gaining access to the most prestigious high-status universities in the past decade despite the promises of the 2012 funding reforms.

Higher education participation rates in 2017/18 by age 19 also were lower for men than women (37.2% compared with 47.4%) with the gender

who were in receipt of Free School Meals at the aged of 15. Free school meals are only available to pupils from low-income families.

gap in university entrance widening over time. In 2017/18, rates were lowest among white students compared with minority ethnic groups, ranging from 38.2% for Whites to 59.9% for Blacks and 63.5% for Asians overall, rising to 77.6% for Chinese students with the largest proportional gains since 2010/11 being made by Black students. When gender, ethnicity and family income are combined, progression rates to higher education in 2017/18 fall to 14% for white men from the poorest families and to just 2% for entry into the most selective universities compared to 10% and 1% respectively in 2010/11 (Department for Education, 2019b).

Another significant difference in participation rates relates to the type of high school students attended at age 17, when applying to enter higher education. By 2017/18, 65.9% of those who studied at public high schools progressed to higher education by age 19 compared with 84.6% from private high schools—bastions of privilege in England (Green & Kynaston, 2019). The gap between those from public and private schools entering higher education has grown since the 2012 student funding reforms, rising from 12.3 percentage points in 2010/11 to 18.6 percentage points in 2017/18. Differences in progression rates to the most selective universities are even starker. For public school pupils it was 18.1% by 2017/18 compared to 56.9% for privately educated pupils—a gap of 38.8 percentage points compared to a gap of 37.6 percentage points in 2010/11. So, privileged students with wealthy parents who can afford to buy their children's education are further privileged by attending the 'best' universities.

Student Loan Eligibility and Take-up

The different patterns of higher education participation rates among full and part-time students following the 2012 reforms can largely be explained by the rise in tuition fees, and the availability and take-up of tuition fee loans. The loans were designed to protect students from these tuition fee rises, to make study more affordable, and to safeguard access. However, unlike full-time students, far fewer part-time students are eligible for tuition fee loans than the government anticipated because of the loans' restrictive eligibility criteria. To qualify for loans students must fulfil three main criteria. First, they have to take a qualification that is not at an equivalent or lower level than a qualification (ELQ) they already hold. For instance, if they already have a Bachelor's degree, they cannot get a loan to pay for a second Bachelor's degree. Second, to qualify for a loan

students' have to study at an intensity of greater than 25% of a full-time equivalent course, so they cannot get loans for short courses. Finally, students have to study a full course for a specified qualification—so students studying individual modules are ineligible for loans. These eligibility criteria apply to both full and part-time students but are more likely to affect part-time students who are older, employed, and have existing work and family responsibilities. By 2015, only 47% of all English domiciled part-time entrants to UK universities and Further Education colleges were eligible for a loan (Callender & Thompson, 2018).

Consequently, around a half of part-time entrants do not qualify for loans because of the narrow eligibility criteria—criteria which were designed primarily to suit young school leavers. These ineligible students have to pay their higher tuition fees up-front out of their pocket, or abandon the idea of studying. This makes a mockery of the Browne Report's claim that: 'Higher education will be free at the point of entry for all students, regardless of the mode of study, giving them more choice about how they choose to study—and where' (Independent Review of Higher Education Funding and Student Finance, 2010, p. 36). And, as research in the UK and elsewhere repeatedly shows, up-front tuition fees and fee increases have an adverse impact on participation unless they are accompanied by equivalent increases in student financial support (Dearden et al., 2014).

But even when part-time students are eligible for loans, many do not take them out, unlike their full-time peers. Of those qualifying for tuition fee loans, only 59% of part-timers took them out in 2012 (Callender & Thompson, 2018) compared with over 89% of full-timers (Bolton, 2019). A contributing factor is that the loan-repayment terms are more onerous for part-timers. Part-time students must begin to repay their loans, at the latest, in the April four years after they start their course, even if they are still studying and before they reap any financial benefits of study.⁷ By contrast, full-time students do not have to begin to repay their loans until the April after they leave their course. As a result, many part-time students are reluctant—even if eligible—to take out loans.⁸

⁷The average duration of part-time Bachelor degree courses are 5–6 years.

⁸In 2018, for the first time, maintenance loans were introduced for part-time students, but no data are available on the take-up on these loans.

*Loans Are Fair, and Loan Repayments Are Affordable
and Risk Free*

Part-time students' unwillingness to take out the loans they are eligible for is indicative that they do not necessarily see loans as fair, affordable or risk free. These students are far more price sensitive and debt averse than their younger full-time peers, probably because they are older, have families, and already have financial commitments such as mortgages. Moreover, because most part-timers are already in full-time paid employment, unlike their younger full-time colleagues who are new labour market entrants, they are far less likely to benefit financially from their degree. Part-time graduates' salaries grow at a slower pace and are more likely to stagnate compared with their full-time peers (Callender & Thompson, 2018). Hence, part-time students do not necessarily reap the financial benefits of higher education, upon which student loans are predicated. They may not get salaries increases to cover the additional costs of loan repayments. Consequently, there are very real potential financial 'risks' associated with loans for part-time study. Taking out a student loan and having to pay an additional 9% in marginal tax in loan repayments, is a leap of faith when the returns on their investment are variable and uncertain.

Similarly, there is mounting evidence that loans are not necessarily perceived as affordable or risk free by younger students from disadvantaged backgrounds. Research strongly suggests that such students are concerned about their ability to repay their loans, even when the loans are income contingent (Callender & Mason, 2017). And these students have good reasons to be apprehensive. The unequal socioeconomic patterns in higher education entrance, discussed above, are mirrored once students start their studies, and once they graduate.

University drop-out rates in England are low compared to the US and many other European countries (OECD, 2019b). In 2016/17, around 6.3% of students under the age of 21 taking a first degree did not continue in higher education beyond their first year, compared with 7.6% in 1997/98 (HESA, 2019, Table D). However, students from lower socioeconomic backgrounds are far more likely than their more advantaged peers to drop-out of their studies, not complete their degree within five years, and be awarded a lower class of degree. These differences are present even amongst students with the same prior attainment in school, attending the same universities, and studying the same subjects (Crawford et al., 2016). Thus, these disadvantaged students could end up with high

levels of debt but no qualification, or a poor qualification, and yet still be burdened with loan repayments.

And once students complete their studies, there are significant differences by socioeconomic background in success after leaving university, measured in terms of labour market outcomes such as earnings. These differences are present even amongst students with the same prior attainment in school, attending the same universities, studying the same subjects and graduating with the same degree classes (Crawford et al., 2016). For instance, a recent study on graduate earnings concluded ‘When we take account of different student characteristics, degree subject and institution attended, the [earnings] gap between graduates from higher and lower income households is still a (sic) sizeable, at around 10% at the median’ (Britton et al., 2016, p. 55). However, while young people from poorer backgrounds seem to benefit less from a given university experience than their richer peers, they still reap substantial rewards from going to university compared with those who do not go. Even so, the stronger likelihood of non-completion and lower earnings on graduation makes higher education a risky investment with unknown financial returns.

Rising Student Loan Debt Deemed Immaterial

A key consequence of the student funding reforms has been mounting student loan debt on graduation. Since the increase of tuition fees to £9000 in 2012 and then to £9250 in 2017, repaid via loans, along with the replacement of means-tested maintenance grants with larger maintenance loans in 2016, average student loan debt on graduation (maintenance and tuition fee loans) has risen to an estimated £47,000, up from £24,754 under the pre-2012 funding system (Belfield et al., 2017a). However, since the abolition of grants for low-income students, student loan debt has become unequally distributed. Students from the poorest 40% of families will graduate with debts of around £56,000, compared with £42,000 for students from the richest 30% of families. And most students will never pay off their debt in full because their lifetime earnings will not be high enough. An estimated 83% graduates will not repay their loan in full within 30 years, the point at which outstanding debt is forgiven (Belfield et al., 2017b). Consequently, the majority of graduates will be repaying their loans for most of their working lives—a daunting prospect for some.

*Debt Aversion Is Irrational and Student Loans Enhance
Student Choice*

These levels of debt on graduation amount to nearly double annual median earnings—far more than the poorest students’ parents are likely to earn in a year (Office for National Statistics, 2020). Yet, policy makers argue that the total level of debt is deemed irrelevant by income-contingent loan repayments, which are based on ability to repay rather than the total amount borrowed. And by implication, they suggest that debt aversion is irrational. For example, Barr (2010) argues that income-contingent loans are like a payroll deduction, not credit card debt. ‘Parents do not lie awake worrying about their child’s future tax bill; no more should they worry about loan repayments’ (Barr, 2010, p. 2).

Student loan repayments reduce graduates’ disposable income, potentially creating a financial burden. The loans and the repayments may also have a psychic cost and trigger a psychological burden (Keese, 2012). Research on higher education students’ attitudes towards debt, in the context of income-contingent loans, confirms the many dimensions to their complex attitudes towards debt, including positive attitudes linked to the educational and lifestyle benefits that loans can provide (Harrison et al., 2015) and negative attitudes such as fear of debt.

Negative attitudes towards debt, high debt levels, concerns about repaying the loans, alongside the risks associated with higher education, mean that some prospective students, especially the most disadvantaged, are deterred from entering higher education. For instance, Callender and Mason (2017) found debt aversion affects higher education applications from young working-class students. Analysing a nationally representative survey of students in England who were studying towards higher education entry qualifications, they found that debt aversion among prospective students from working-class backgrounds had grown over time. Such students were significantly more likely to hold negative attitudes towards taking on debt compared to students from upper class backgrounds. Moreover, negative attitudes were significantly predictive of lower intentions to enrol in higher education, even when controlling for gender, race, age, prior academic attainment, and type of secondary school attended (Callender & Mason, 2017).

Clearly, for some working-class students, and many part-time students too, loans are not perceived as risk-free. The total amount of debt accumulated on graduation matters, even where students understand how

income-contingent loans work. Being debt averse is not necessarily an irrational reaction. Students may weigh up the costs and benefits of higher education, but these costs and benefits and their choices are shaped by numerous factors—including, aspirations, socio-psychological identities, and emotional responses which can vary considerably by their social background and their access to human, social and cultural capital (Perna, 2006; Reay et al., 2005).

Student choices are not necessarily enhanced by student loans and ‘putting financial power into the hands of learners’ which apparently ‘makes student choice meaningful’ (Department for Business, Innovation and Skills, 2011, p. 5). Rather student loans can curtail student choices. There is mounting evidence that those who have overcome their initial fear of debt and do apply to higher education adopt a range of strategies to reduce their costs and borrowing. For instance, they may select their higher education institution or their course so that they can economise on their living costs, reduce or minimise their levels of student loan debt, or avoid taking out loans (Clark et al., 2015).

Students’ average living costs while at university amount to over £10,000 a year (Maher et al., 2018), more than average tuition fees. Yet maintenance loans rarely cover these costs in full. However, students do have some discretion over their living costs, unlike their tuition fees. A common strategy employed by students to reduce these costs is living with their parents while studying. This matters in a country like England where around 80% of all undergraduates leave the parental home to go to university.

Ongoing research, based on the same representative survey of prospective students used by Callender and Mason (2017), found that the odds of lower-class students deciding to live at home were 62% higher than for upper class students, after controlling for a variety of other socioeconomic factors. Just as revealing was the finding that the more debt averse the prospective student, the greater the likelihood that they would live at home while studying. A one unit increase in the fear of debt scale was associated with a 47% increase in the odds of living at home while studying, after holding constant other variables in the model.

Other research supports these findings. For instance, a study on loan take-up among current students, confirms the relationship between debt aversion and living at home with parents while studying (de Gayardon et al., 2019). Predictably loan take-up was associated with students’ parental income and other indicators of wealth. However, attitudes towards

debt also played a role. The more debt averse the student, the less likely they were to take out a tuition fee or a maintenance loan. Living at home while studying was a significant debt avoidance strategy. It was more strongly linked with the lower maintenance loan take-up than with lower tuition fee take-up (27% compared with 15%).

Thus, living costs while studying can directly affect students' institutional choice, encouraging lower-income students, first-generation university students, ethnic minority and mature students to consider only, or mainly, local higher education institutions—limiting their options of where and what to study. However, student loan debt and debt aversion adversely affect the choices and the mobility of those student groups who are already disadvantaged, thus exacerbating existing inequalities. This leads to greater social inequality and helps legitimate that inequality.

Loans Have no Adverse Effects on Students' Post-Graduation Life Choices and Behaviour and Leave Untouched the Economic and Social Benefits of Higher Education

There is a growing body of research indicating that student loan debt has a negative impact on various aspects of graduates' behaviour and life choices (for a review see—de Gayardon et al., 2018). This research suggests that there is no consensus about the impact of loan debt on decisions to participate in post-graduate studies, and on graduates' occupational choice and earnings. There is more agreement about the negative relationship between student loan debt and homeownership; marriage and family formation, especially for women; health; and financial wellbeing including savings for retirement. However, most of this research has been conducted in the US. The findings from this US research may not be applicable to graduates in England, who unlike most of their peers in the US, have income-contingent loans.

There is little research in England exploring the relationship between student loans and their outcomes for graduates. The student funding changes introduced since 2012 remain a large social experiment with unknown consequences. New research examines the relationship between student loans—including having borrowed for higher education and attitudes towards debt—and housing tenure at age 25 (de Gayardon et al., 2021). The study finds that graduates who took out a student loan to pay for their higher education are less likely to own their home and are more likely to live with their parents after graduation than both young people

who never went to university and graduates who attended university but did not take out a loan. These results suggest that higher education funding policies and student loan debt play important roles in structuring young people's housing in England.

CONCLUSIONS

Student loans were devised to protect students from tuition fee increases, make higher education study more affordable, encourage higher education participation, and safeguard and widen access. Income-contingent loans in England, by linking loan repayments to graduates' ability to pay, were designed to further these aims. They seek to make borrowing for higher education more attractive by protecting students from large unaffordable loan repayments. These loans, by intent, also have enabled higher education institutions, with the government's full support, to raise their tuition fees. This has helped generate more income for the higher education sector, make it more financially sustainable, and fund expansion. However, tuition fees in England have increased to such high levels that, at the time of writing, they are some of the highest in world. So too is the resulting average amount of student loan debt on graduation. Consequently, the majority of graduates will be repaying their loans for a large part of their working lives. But most will not have paid off their loans completely after 30 years—making loans more costly to government.

Underpinning the 2012 student funding reforms, which promoted these developments, was the desire to create greater student choice and provider competition and to change the behaviour of both higher education institutions and students. This was reflected in a range of predictions and assumptions about the reforms' impact on the higher education sector, and on students. These have only partially been realised by the funding changes.

As anticipated by the reforms, higher education participation has continued to rise for young full-time undergraduates. But participation has fallen among older part-time students, depressing overall levels of participation since 2010. The absolute number of those from the most disadvantaged backgrounds entering higher education has increased, but so has the number of those from more advantaged backgrounds. Consequently, there has been no reduction in the socioeconomic gap in progression rates; in fact, these have grown overtime. Both the absolute and relative

change in access to elite higher education has been left untouched by the 2012 reforms. Neither fairness nor inclusion has been achieved.

Higher education in England remains highly stratified, despite the expansion of full-time undergraduate higher education and a student funding system aimed at widening participation and promoting student mobility. The most prestigious universities and courses in England and in the world, remain dominated by students from the most privileged family backgrounds (Marginson, 2016b). As Marginson (2016a, 421) observes, prior social inequalities determine whether those from low-income families can improve their social circumstances while ‘higher education provides a stratified structure of opportunity’ with students from affluent families dominating ‘high value positions within higher education.’ Full-time higher education expansion and the accompany student funding reforms have not reduced class inequalities in access to elite higher education (Boliver, 2013) and in fact, may exacerbate these inequalities (Marginson, 2016a, 2016b). Indeed, the continued over-representation of socioeconomic elites in the most prestigious universities is central to the way in which inequality is ‘effectively maintained’ (Boliver, 2016).

Student loans have not been embraced equally by all students, as anticipated by the 2012 reforms. There are both financial and psychic costs to borrowing, but only the former are recognised in policy formation and implementation. Loans are not necessarily perceived by students as fair, affordable or risk free. Some students are deterred from participating in higher education because of fear of debt, concerns about loan repayments, and the amount they need to borrow. Uncertainties about the outcomes of higher education including its assumed private financial returns, upon which the loans are predicated, add to some students’ unwillingness or reticence to borrow. Some students end up restricting their choices which limit their higher education and post-graduation opportunities and experiences. Others make sub-optimal choices through no fault of their own. But such occurrences are not randomly distributed throughout the student population; they are socially stratified. Those students who are already disadvantaged are the most likely to be affected. The fallout from Covid-19 may exacerbate these issues too. Thus, arguably, the 2012 reforms have helped to perpetuate, rather than ameliorate existing inequalities.

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Data and Reflections on Access-Transition to Higher Education in Portugal

João Baptista, Cristina Sin, and Orlanda Tavares

INTRODUCTION

This chapter aims to analyse inequalities in the transition from upper secondary to higher education in Portugal, using empirical data from the General-Directorate of Education and Science Statistics (DGEEC). It argues that educational inequalities are already present in Portuguese students' trajectories before higher education and that the transition to higher education therefore reflects these different opportunities.

Similar to other countries where widening access to higher education became a political objective meant to foster social justice and economic development (OECD, 2008), in Portugal, following the democratic revolution of 1974, it was believed that the massification of higher education

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O. Tavares et al. (eds.), *Equity Policies in Global Higher Education*,
Issues in Higher Education,

https://doi.org/10.1007/978-3-030-69691-7_7

could reduce inequalities in higher education participation (Amaral & Magalhães, 2009). To this end, over the following decades, polytechnic institutions were established to offer shorter and more vocational higher education programmes and the private sector was allowed to expand to respond to the increasing demand for higher education. However, the experience and the time elapsed have shown that massification, by itself, has been insufficient to solve the problem of inequalities in access to higher education. Despite the expansion of the system and the diversification of the student body, in Portugal there continue to exist differences in transition rates depending on factors such as the type of secondary education attended, socioeconomic status or gender (Domingos et al., 2016). Inequalities in access are closely linked to the cultural and economic factors that are ‘hard to convert or recast’ (Nata et al., 2014), cumulative in students’ educational paths already during non-tertiary education (Buisson-Fenet & Draelants, 2013; Engberg & Wolniak, 2010; Frempong et al., 2012; OECD, 2008).

Educational inequalities are deeply embedded in Portugal. Data from the last census conducted in 2011 reveal a fragile situation for the country, with 8.5% of the population having no schooling at all, 2.5% with pre-school level, 29.8% with primary education (fourth grade), 26.1% with middle education (fifth to ninth grade), 17.6% with secondary education and 15.4% with higher education. In the same year, the illiteracy rate lay at 5.2%. In order to address this situation, the political agenda for education since the mid-2000s has pursued objectives such as making pre-school education compulsory, diversifying secondary school offerings and providing alternative curricular routes in lower and upper secondary education and making education compulsory until the age of 18 (this latter measure dating from 2012). Similar to other European countries, fighting early educational drop-out became a political priority, manifest in the consolidation of the public sector and in the offer of support to low-income families in order to delay premature entry into the labour market (Amaral et al., 2016).

These political measures appear to have been successful, if OECD data are considered. Regarding upper secondary education, first-time graduation rates below age 25 registered a ‘striking’ increase of 32 percentage points in Portugal between 2005 and 2015 (from 51 to 83%), while the average for countries with available data was an increase of 7 percentage points (OECD, 2017, p. 58). These figures stand as evidence both for the great delay from which Portugal had to recover and for the progress

achieved in a relatively short time-period. According to the most recent comparative data (OECD, 2018), in 2016 upper secondary and post-secondary non-tertiary first-time graduation rates were 80% in Portugal, compared to 87% across the OECD and the EU22 countries.

In parallel to non-tertiary education reforms, access to higher education was widened to include new publics. In a context of demographic decline, the higher education system was further diversified through the creation, in 2014, of short-cycle tertiary courses, non-degree-awarding but meant to attract students with a vocational profile or those students who had not obtained satisfactory grades in the national competition for access to higher education, as well as through the promotion of participation in higher education of mature students (over 23 years old). Nevertheless, tertiary attainment in Portugal among 25–64 year-olds is still 24%, while the OECD average is 30% and the EU22 average is 29% (OECD, 2017).

In what follows, a review of the main factors which represent sources of inequality in the transition to higher education is presented. The chapter then moves on to the Portuguese panorama and discusses findings based on DGEEC data on the key aspects which affect transition to higher education: (1) the type of secondary programme attended by the student; (2) students' characteristics; (3) regional differences; (4) secondary schools' internal grades used in the national competition to enter HE. Finally, the chapter concludes with a summary and discussion of inequalities which still need addressing to ensure fairness in access to higher education.

FROM SECONDARY TO HIGHER EDUCATION: DETERMINANTS OF INEQUALITIES

The literature identifies several factors which influence secondary school graduates' chances of entering higher education (Engberg & Wolniak, 2010; Marginson, 2016; OECD, 2008; Vossensteyn, 2005). Some of the most commonly mentioned ones are reviewed in this section.

Socioeconomic status is one frequently mentioned determinant for the transition to higher education. According to Marginson (2016, p. 421), 'the principal intrinsic limit to social equality of opportunity is the persistence of irreducible differences between families in economic, social and cultural resources'. Socioeconomic status can influence students' decision whether or not to enrol in higher education (Tavares, 2013), as these

evaluate the gains and losses of a certain alternative in relation to a reference point and not as absolute results of a decision (Vossensteyn, 2005). Thus, a student from a family with difficult economic conditions will evaluate the costs and benefits of attending higher education based on his/her family's income as a reference point. If the student comes from a family with a high economic status, the evaluation of gains and losses is likely to be different.

Parents' education, as an indicator of socioeconomic status, is influential for students' participation in higher education (Chesters & Watson, 2013; Cingano, 2014; Marginson, 2016; OECD, 2008; Van de Werfhorst & Hofstede, 2007). Income inequality and parents' educational capital are related. A comparison across the OECD countries (Cingano, 2014) suggests that a rise in income inequality by 6 Gini points is accompanied by a 4% decrease in the probability of individuals with parents of low educational background being in tertiary education. According to Van de Werfhorst and Hofstede (2007), children across all social backgrounds are concerned with avoiding downward mobility; hence, there is a strong correlation between having highly educated parents and the desire to obtain university qualifications. According to OECD data collected through the Survey of Adult Skills (PIAAC), parents' education level has a greater impact than age or gender on the likelihood of attaining a theory-based first degree or an advanced research degree (OECD, 2017). Chesters and Watson (2013), in a study in Australia, found that men with a university-educated father were 2.8 times more likely to have graduated from university than other men and that women with a university-educated father were 3.7 times more likely to have graduated from university than other women.

The comparison between the share of young adults from potentially disadvantaged groups in the overall population and their share among tertiary students is indicative of inequality in higher education (OECD, 2018). For example, a lower share among tertiary students than in the overall population indicates that this demographic group is underrepresented and, therefore, has lower access to higher education. Taking as reference parents' educational attainment, young people whose parents do not have tertiary education are underrepresented among new entrants to bachelor, long first degree or equivalent programmes. On average across OECD countries with available data, these represent 65% of the population aged 18–24, but only 47% of 18–24 year-old new entrants. In Portugal, 18–24 year-olds without tertiary-educated parents represent

79% of the total population of that age group, but only 62% of new entrants (OECD, 2018). Inequality determined by social status is therefore an enduring phenomenon affecting the transition to higher education of young people in OECD countries, Portugal included.

Students with higher academic achievement are more likely to access higher education. The literature often discusses academic achievement in association with socioeconomic status. More precisely, academic achievement is often considered in the literature as influenced by the socioeconomic background (Brynes & Miller, 2007; Chowdry et al., 2008; Davis-Kean, 2005; Engberg & Wolniak, 2010; Sirin, 2005). The socioeconomic status of families has been used as the most consistent predictor of academic achievement, because students from privileged socioeconomic backgrounds seem to have access to higher quality secondary education, tutors, test preparation or better schools than students from lower socioeconomic backgrounds have. Lower achievement may therefore be indicative of lower socioeconomic status.

According to Chowdry et al. (2008), students' academic achievements vary significantly by social class by the time they have completed compulsory education. They found that the socioeconomic gap did not emerge at the point of entry to higher education and that almost all the difference at this stage was explained by the fact that poorer pupils did not achieve as highly in secondary school as their more advantaged counterparts (Chowdry et al., 2008). However, other authors point to a stronger effect of social class. Noble and Davies (2009) found that students with lower levels of cultural capital are less likely to apply to higher education even after taking academic attainment into account.

Previous schooling—completion of compulsory education levels, choice of state or private schools as well as the orientation of secondary education, more academic or more vocational—is another factor responsible for variations in transition rates to higher education. Again, schooling background is discussed in association with socioeconomic status in the literature (Buisson-Fenet & Draelants, 2013; Chowdry et al., 2008; Engberg & Wolniak, 2010; Frempong et al., 2012; Mangan et al., 2010). Noble & Davies (2009, p. 593) refer to social class effects as also 'operating through school attainment and tracking'. Inequality in entry to higher education may therefore be a reflection of inequalities which have accumulated throughout an individual's educational path (OECD, 2008, 2018). Under-representation of disadvantaged students in tertiary programmes can result from obstacles in entering higher education itself or

from obstacles that have kept these individuals from progressing at earlier levels. Many disadvantaged students leave the education system before even reaching the point at which they could enter a tertiary programme. OECD data (OECD, 2018) reveal that in most countries potentially disadvantaged students are less likely to advance through education, as the share of students whose parents have lower educational attainment decreases between the moment of entry to upper secondary education, graduation from upper secondary education within the theoretical duration and, finally, the moment of entry to tertiary education.

Attendance of private (or independent) schools—or schools which enrol students with a high socioeconomic status—appears to favour entry to higher education (Chesters & Watson, 2013; Engberg & Wolniak, 2010; Mangan et al., 2010). These schools usually enrol students coming from economically advantaged families. For instance, Engberg and Wolniak (2010) found that the average socioeconomic status of a high school proved to be a very strong indicator of higher education enrolment in the United States. Similarly, in Canada, Frempong et al. (2012) reported that young people from disadvantaged socioeconomic backgrounds who attend schools with high concentration of similar students are particularly vulnerable to some degree of exclusion from accessing higher education. These socioeconomic impacts remained statistically significant even after adjustment of other student-level and school-level variables (Frempong et al., 2012).

The obstacles to access higher education can also reflect the nature of students' upper secondary degree (OECD, 2018). The separation between academic and vocational education, known as tracking, can also be responsible for inequality in access to higher education (OECD, 2008). In many countries there are upper secondary programmes that do not grant credentials to enter higher education. This is also the case of Portugal, where vocational and professional tracks do not entitle students to automatically apply for higher education without standing the same national exams as those students who followed more academically-oriented tracks. New legislation is being prepared to address this obstacle.

Gender is also reported in the literature to influence participation in higher education (Richardson et al., 2020). Participation in higher education is generally higher among women, which seems to depend on attainment in previous levels of education (Richardson et al., 2020). Women outperform men, as reported by OECD data (2017), with a 72% completion rate of upper secondary education among the former, against 64% for

the latter. In a study conducted in the UK, the differences in attainment already are obvious at age 14–16 years (Crawford & Greaves, 2015). This study also noted differences in aspirations between boys and girls.

The spatial distribution of higher education institutions and the availability of higher education near home is another factor which influences enrolment (as well as choice of higher education institution) (Lourenço et al., 2020; Mangan et al., 2010; OECD, 2008; Sá et al., 2004). Students' behaviour and decisions may be guided by 'the distance discouragement effect' (Sá et al., 2004). Students from low socioeconomic groups are, once again, those who are more likely to see their choices restricted by geographical distance (Christie, 2007; Mangan et al., 2010; Parker et al., 2016). They may, for example, prefer to study at a local institution in order to continue living in their family home, to reduce the cost of study or to maintain participation in local social networks (Mangan et al., 2010). However, these disadvantaged candidates often live in areas with fewer educational opportunities, and are less able to meet the costs associated with migration (Parker et al., 2016). In the absence of local higher education provision, students may thus decide against enrolling. In Portugal, the accessibility of higher education is a pertinent issue since Portuguese students are little mobile and the majority of higher education candidates prefer to remain in their home district (Lourenço et al., 2020).

Transition to higher education can also be affected by selection and admission procedures. The case of internal secondary school grades, particularly in comparison to national exam scores, is discussed here. This discussion is pertinent for the chapter because internal grades and national exam scores are the two elements which contribute to the calculation of the score which counts for selection and entry to higher education in Portugal. Most candidates apply to higher education through a national and centralised competition in which they have to rank their top six preferences of a programme/institution. Their score is the decisive element for the distribution of higher education places.

Generally, there tends to exist a systematic difference between internal grades and national exam scores, as the former also explicitly value homework and behaviour in class, for instance, besides academic performance. Further systematic differences can be explained both by factors affecting internal grades, such as pressures for high-grading or the use of grades as a class management tool, and by annual variations of the national exams' difficulty level, as measured by sometimes significant variations of the national average scores.

The aforementioned factors, however, can have serious implications for the equity of the national competition to access higher education if they affect schools differently. In particular, since both the pressure for high grading and the school's response to it can be very uneven across the system, internal grades can be much higher in some schools than in others, for students who otherwise have similar exam scores. According to Wikström (2005), the schools which are subject to market pressure are more likely to attribute higher grades. This is mostly the case of private schools, striving to offer a competitive advantage to their 'customers' in a context of marketization of education (Ball, 2009). Recent longitudinal research conducted in Portugal found that independent private schools, on average, inflate their students' grades when compared to public and to government-dependent private schools, although this a fairly localised phenomenon observed mostly in schools situated in the northwest region of continental Portugal (Mestre & Baptista, 2016a; Nata et al., 2014). Grade-inflation is understood in these studies as the deviations from the average differential between internal grades and scores in national exams, which represents the baseline. These findings therefore raise a question mark about the fairness of access to higher education and the maintenance of social inequalities through this mechanism (Nata et al., 2014; Neves et al., 2017).

INEQUALITIES IN ACCESS TO PORTUGUESE HIGHER EDUCATION

This section presents and discusses the findings regarding inequalities present already before higher education and inequalities in the transition to higher education.

Inequality in Secondary Education Participation

The two main types of upper secondary education in Portugal, in number of enrolled students, are the scientific-humanistic and the vocational education programmes. Students also enrol in other variants such as artistic education, technological education and apprenticeships, but in much smaller numbers. For instance, in 2017/18, scientific-humanistic programmes, the traditional qualification of those aspiring to enter higher education, accounted for about 60% of upper secondary graduates, while

vocational programmes represented around one third of graduates. Female graduates represented the majority in scientific-humanistic and artistic programmes (58% and, respectively, 72%), while male graduates represented the majority in vocational and technological programmes (54% and, respectively, 52%).

The population of graduates from Portuguese upper secondary education, however, does not mirror the population of the general age cohort. Its composition is quite different from the population of students enrolled in the more universal basic education, with students from disadvantaged socioeconomic backgrounds, as well as boys, being severely underrepresented among upper secondary graduates. This is especially true for graduates in secondary scientific-humanistic programmes, the main recruitment pool for higher education institutions. It is worth noting how the proportion of female students increases as the level of education goes up. Considering 2017/18, females represented 48.1% of students in the last years of lower secondary education (age 12–14), while in scientific-humanistic programmes they amounted to 54.8%. Among the graduates of these programmes (age 17), the percentage of female students went up to 58.3%.

In parallel with the gradual reduction of the percentage of male students, a similar phenomenon takes place with students who benefit from social support. While in the last years of lower secondary education (age 12–14) these latter represented 36% of the student body, their proportion went down to 24% in upper secondary scientific-humanistic programmes and, among graduates from these programmes, they only represented 21%. An explanation for this downward trend is that students from disadvantaged socioeconomic backgrounds navigate through lower secondary education with significantly lower academic performance and lower grades, on average, than other students do (Mestre & Baptista, 2016b). This contributes to different programme choices (vocational versus scientific-humanistic) and different drop-out rates during upper secondary education.

Our main point, thus, is that there exists a strong socioeconomic filter during upper secondary education in Portugal, with roots traceable to different academic performances in basic and lower secondary education. This filter creates a severe imbalance in the population of graduates of secondary scientific-humanistic programmes—the students in the best conditions to enter higher education. The correlation between socioeconomic status and academic performance then appears to become milder

during higher education itself (Engrácia & Baptista, 2018), which raises the hypothesis that the minority of disadvantaged students that reach higher education forms a group of resilient “academic survivors” that, with the help of existent social support, on average does reasonably well during higher education. In Portuguese higher education, thus, most social inequity happens before crossing its gates.

Inequality in Transition from Secondary to Higher Education

The transition rates to HE depend on two main factors: the type of secondary education attended and students’ characteristics. Additionally, in Portugal, students’ region of origin also influences transition to HE.

Type of Secondary Education

The track of secondary education from which students graduate conditions their likelihood of enrolling in higher education. Considering the cohort who graduated from upper secondary education in 2017/18, 80% of graduates from scientific-humanistic programmes were enrolled in higher education one year later, and almost all at the bachelor’s or integrated master’s level. In contrast, only 18% of those who graduated from secondary vocational programmes were enrolled in higher education after one year, two thirds of which in short-cycle programmes. In the case of technological and artistic education graduates, HE enrolments amounted to 58% and, respectively, 57%. These transition rates to HE have been very stable over the past decade.

As for the nature (public or private) of the high-school attended, once the comparison is made separately for scientific-humanistic and vocational programmes, the transition rates to HE after one year were very similar for public and private school graduates in 2014/15. One must bear in mind, however, that the relative similarity is true only for graduates, not for the general enrolled students, since graduation rates are lower in public secondary schools than in private ones, an expression of the socioeconomic filter alluded to in the last section.

Students’ Characteristics

Students’ characteristics also condition transition rates to higher education. Gender, social-economic status and previous academic results are the

characteristics chosen to illustrate their influence on transition to HE, considering the two main types of upper secondary education graduates: those from scientific-humanistic programmes, and those from vocational programmes. Regarding gender, transition rates to higher education are similar for male and female graduates in scientific-humanistic programmes (83% and 84%, respectively). However, since there are more female graduates in these programmes (which are the privileged path to HE), in the end more women go into higher education. In vocational programmes, in contrast, the percentage of male students transitioning to higher education is slightly higher (20% compared to 17% for women).

Regarding socioeconomic status, using social support as a proxy, the evidence, as expected, is that the stronger the level of support, the lower the proportion of graduates that pursued higher education studies in 2014/15, both in scientific-humanistic programmes and in vocational programmes. This is illustrated by Fig. 7.1, comprising graduates of public high-schools only.

This suggests that it is more difficult for students with a lower socioeconomic status to enter higher education. This first level of inequity, however, is greatly reinforced by the fact that disadvantaged students disproportionately enrol in vocational programmes, which, as shown above, have much lower transition rates into higher education.

Using a different proxy for socioeconomic status, the mother's school level, a similar phenomenon is observed in the transition to higher education: the lower the mother's educational level, the lower the proportion of

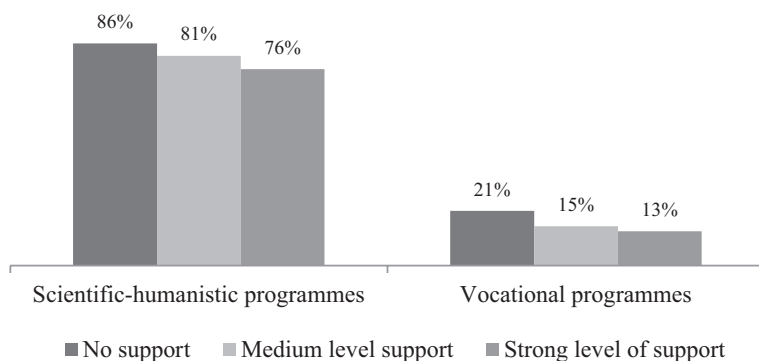


Fig. 7.1 Secondary education graduates that pursued further studies (%), by type of secondary programme and level of social support, in 2014/15

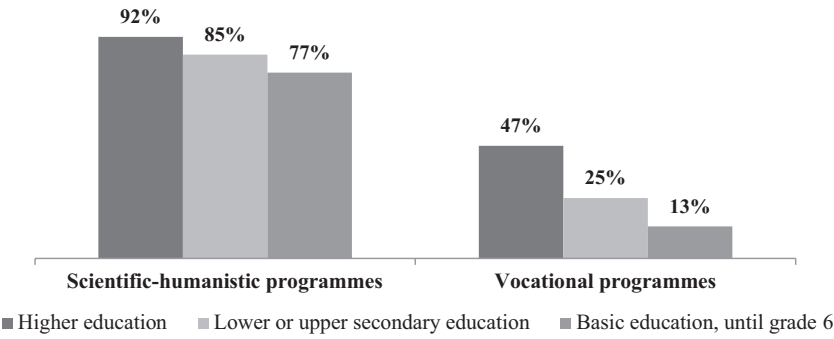


Fig. 7.2 Secondary education graduates that pursued further studies (%), by type of secondary programme and mother's school level

secondary education graduates who pursued further studies in 2014/15 (see Fig. 7.2). Having a mother with higher education makes a big difference in the probability to study further, especially for students graduating from vocational programmes, as 47% pursue further studies in this case compared to 13% in the case of graduates whose mothers have basic education only. Once again, one should bear in mind that this effect, shown here within each secondary programme, is reinforced by the fact that students whose mothers have low educational level disproportionately enrol in vocational programmes.

Previous school results are the last factor considered here that heavily influences transition rates to higher education. Since it is not easy to have a comparable measure of student academic performance across all different programmes in Portuguese upper secondary education (some programmes have national exams, while others do not, or have different exams), the measure used here is the score obtained by the graduate three years earlier, on the national exams of Mathematics and Portuguese of the ninth grade. Since most students now enrolled in upper secondary education, scientific-humanistic or vocational, have done these two exams in the past, their scores can be used as a standard for previous academic performance. With this clarification in mind, the evidence is that, as expected, the better the results obtained by secondary graduate in the ninth grade exams, the higher their rates of enrolment in higher education (see Fig. 7.3).

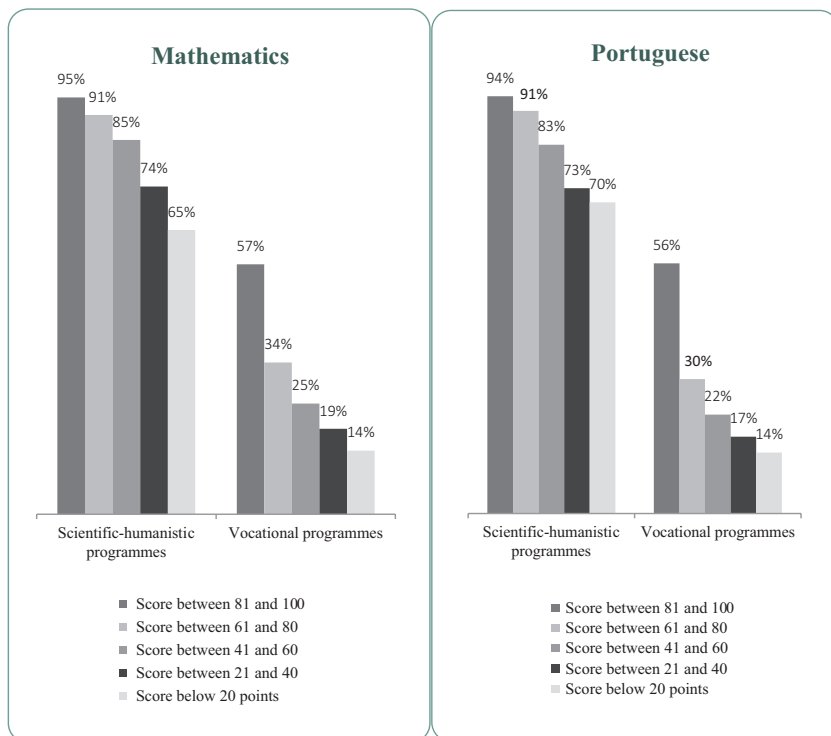


Fig. 7.3 Secondary education graduates that pursued further studies (%), by type of secondary programme and score obtained 3 years earlier in the national exams

It is worth noting, however, that all groups of graduates of vocational programmes have lower transition rates to higher education than their scientific-humanistic peers. Even the vocational graduates who scored very high in the national exams at the end of the ninth grade, three years before, have lower transition rates to higher education than the scientific-humanistic graduates that scored low in the same exams.

This big difference between vocational and scientific-humanistic graduates could happen for two kinds of reasons, whose relative weight is difficult to measure. A first reason is that there are some system barriers to transition from vocational secondary education to higher education in Portugal. One such barrier is the fact that the admission exams to bachelor

HE coincide with national exams of the scientific-humanistic curricula, which means that graduates from vocational programmes have less preparation to take those admission exams than their scientific-humanistic peers do. Another barrier is the fact that short-cycle higher education, although clearly open to vocational education graduates, is still recent in Portugal, still growing and not yet widely known by students or offered by higher education institutions. A second reason is the presumed lower interest of vocational education graduates in pursuing higher education. Students who choose vocational programmes at the beginning of upper secondary education are less inclined to pursue academic-style studies, on average, than their colleagues that enrol in scientific-humanistic programmes, even if they have high grades. Hence, not pursuing academic higher education at the end of secondary education is a decision quite consistent with the students' previous preferences and choices.

Regional Differences

Portugal has a fairly distributed network of HEIs across the territory. The expansion of the Portuguese higher education system contemplated the existence of either a university or a polytechnic institution in the different Portuguese regions, so that these would be easily accessible to local secondary school graduates. However, there are clear differences in the transition rates to higher education among upper secondary graduates from distinct Portuguese regions, especially in the case of graduates of secondary vocational programmes.

Besides socioeconomic and labour market regional asymmetries, which are important but apparently insufficient factors to account for the full effect, a plausible explanation for the widely different transition rates is that available places in higher education programmes and institutions are not equally accessible to local students throughout the country. This can be aggravated by students' unwillingness or inability to move across the country or to pay the fees of a private HEI, a reality likely to be stronger among students with lower socioeconomic status or motivation to pursue HE, such as graduates from secondary vocational programmes, on average. This would help explain why transition rates to HE show more regional asymmetries for vocational graduates than for scientific-humanistic graduates (Fig. 7.4).

But why are places in higher education not equally accessible to local vocational graduates throughout the country? Firstly, the ratio of local HE

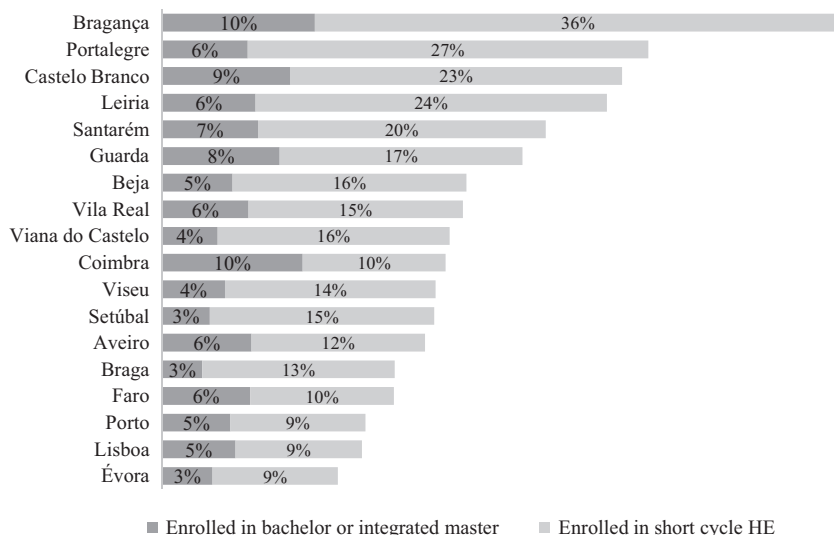


Fig. 7.4 Graduates from secondary vocational programmes that pursued HE studies after 1 year, by district of secondary school, 2017/18

vacancies per local secondary education graduate is not entirely homogeneous, having significant variations across regions, as explored in the chapter by Sá, Tavares and Sin. Secondly, for a number of reasons, public HEIs in Lisbon, Porto and near the northwest coast tend to be considered more attractive by students. These HEIs tend to receive more applications per open vacancy than HEIs in southern and inland continental Portugal. It is therefore more difficult, on average, to be accepted there as a student, and so local vocational graduates from the “attractive” regions can be partially crowded out by students coming in from other regions. Should they be unwilling or unable to move to another region or pay the fees of a local private HEI, these graduates may not go to HE at all. This would help to explain why vocational graduates from the regions of Lisbon and Porto generally appear to have comparatively lower transition rates to HE.

For vocational graduates, there is an additional reason for the regional differences in transition rates to HE: the lack of available public offer of short-cycle tertiary programmes in certain regions. As seen in the graph, the lowest transitions rates to HE are observed in the regions of Évora, Lisbon and Porto. Évora has no public polytechnic institution and no

offer of public short-cycle tertiary programmes. Lisbon has a large public polytechnic, but it decided not to offer short-cycle tertiary programmes. Porto has a large public polytechnic, but for several years, it scarcely offered short-cycle tertiary programmes, and has only recently started offering them in greater numbers. As a result, vocational secondary education graduates from these regions who wish to continue in the vocational track and pursue short-cycle tertiary education face the following choices: enrol in a local private institution, which will be more expensive; move to another region to pursue short-cycle HE (more expensive and inconvenient); or apply to a bachelor programme in their region, in which it will be more difficult to be accepted and which will possibly not match their vocational profile. As figures indicate, faced with these choices, vocational graduates from Lisbon, Porto and Évora also seem to renounce pursuing higher education at higher rates than graduates from other regions do.

Internal Grades

Among the new entrants to higher education in Portugal each year, a majority of young students use the so-called national competition to enter bachelor-level programmes. In this competition, candidates apply to a maximum of six pairs programme/institution of their choice. If there are more candidates than vacancies, candidates are selected using a score (scale 0–20) based on two components: school grades in upper secondary education and scores in national exams in programme-related subjects. These two components have approximately the same weight in the final ranking score to enter higher education, although the precise weights can vary. For the seriation score to be fair, it is important that different secondary schools use approximately the same criteria when attributing internal grades to their students.

However, there is evidence to suggest that some schools tend to give more “generous” grades than others, systematically, for students with comparable ability, as measured by scores in the national exams. As documented by previous research, for instance private schools in northwest Portugal, in the regions of Porto and Braga, tend to attribute higher internal grades than most other schools to students with similar performance in the national exams (Mestre & Baptista, 2016a; Nata et al., 2014; Neves et al., 2017). This may give their students a systematic and unfair edge in the national competition to enter HE. Since these students generally come from privileged socioeconomic backgrounds, these differences in internal

school grade reinforce social inequalities in access to higher education. Fig. 7.5 is illustrative of the mismatch of internal grades for students with the same scores in national exams, in different types of schools. The average size of the mismatch varies between 0.5 and 0.8 points in a grade scale from 0 to 20, with higher grades in private schools.

Although the preceding graph shows national averages, the phenomenon of grade inflation in Portugal is fairly localised in the northwest region of the country, especially in schools around Porto and Braga, where it has propagated also to public schools, albeit on a smaller scale (Fig. 7.6). The local propagation is easy to understand: as the “generous” secondary schools tend to attract the enrolment of an increasing number of students from the region, in search of the “edge”, other local schools feel strongly compelled to follow the same strategy, in order not to lose students and not to put them at a disadvantage to enter HE, thus generating a local “grade race”. The increased control of grade inflation by the Ministry of Education since 2015 has had a visible, though still insufficient, effect in the observed scale of the phenomenon.

Besides significant regional and public/private misalignment in the attribution of internal grades, the data also evidences that slightly different criteria may be used in attributing internal grades to students of different socioeconomic status. More precisely, on average, students who receive higher levels of social support tend to be given lower internal grades, when

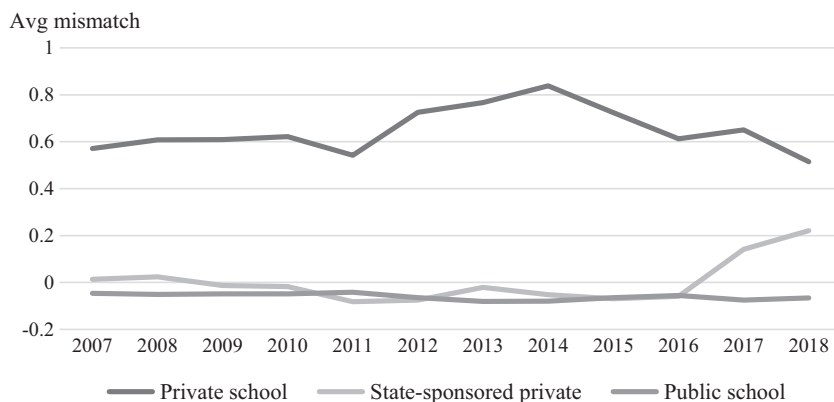


Fig. 7.5 Mismatch of internal grades (scale 0–20) for students with the same scores in the national exams, by type of secondary school

Avg mismatch

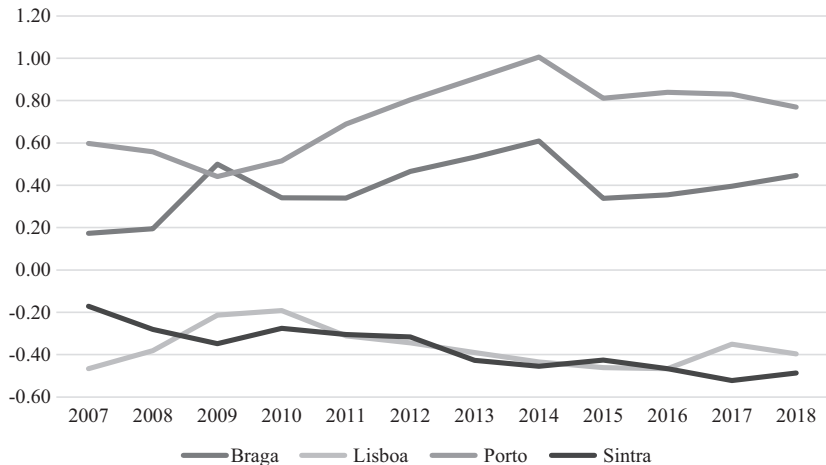


Fig. 7.6 Mismatch of internal grades (scale 0–20) for students with the same scores in the national exams, by municipality

compared to their higher status peers that have similar scores in the national exams. The graph below (Fig. 7.7) illustrates this mismatch of internal grades for students with different levels of social support enrolled in public high schools. The magnitude of the effect is small (about 0,2 points in the scale of grades from 0 to 20), but quite stable in time.

At least four plausible, non-exclusive, explanations can be advanced for the observed mismatch of internal grades attributed to students of different socioeconomic backgrounds:

1. Teachers' academic expectations for students may (involuntarily) be influenced by the student's socioeconomic background, and different expectations can lead to different grading criteria through a confirmation bias.
2. Higher status parents may be more vocal or effective in pressuring teachers into being more "generous".
3. Internal grades are different from national exams scores, in the sense that they also value homework and behaviour in class, for instance, besides academic performance. The difference in grades between

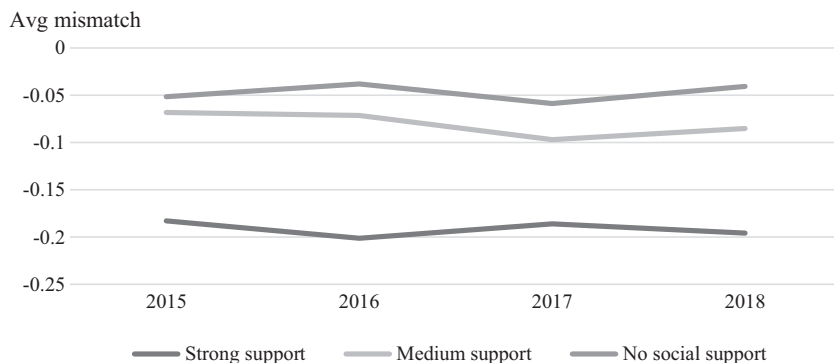


Fig. 7.7 Mismatch of internal grades (scale 0–20) for students with the same scores in the national exams, by level of student social support—public schools

lower and higher status students can thus come from the behavioural components of the internal grade.

4. Not all public schools have the same criteria for attributing internal grades. Being more mobile and informed, higher status students may seek and enrol more often in the “generous” schools, thus benefiting from its “generous” grades.

Unfortunately, we do not have data about expectations, parents’ pressure or student behaviour in class in Portuguese public schools to empirically test the explanatory power of the first three hypotheses. The first two explanations seem entirely out of reach of a methodology based on the analysis of data registered by schools on national databases. As for the third explanation, it could in principle be tested through more readily available, or at least collectable, data on student (mis)behaviour in class. Bear in mind, however, that when comparing data of high and low socioeconomic status students, one should compare students with similar levels of academic performance (for instance, with similar scores on national exams). Once this condition is imposed, it is no longer obvious that lower status students will, on average, be more misbehaved or show less interest in class.

Finally, regarding the fourth explanation, we do seem to have enough data to exclude that it plays a major role in the reported internal grade mismatch. In fact, if the main cause of the mismatch were that high status

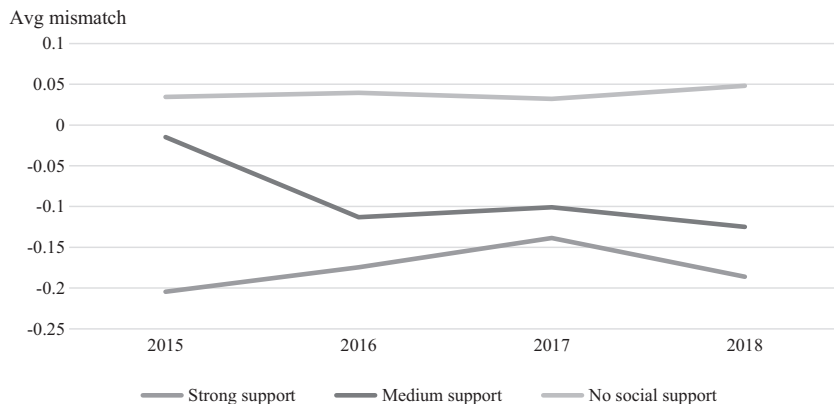


Fig. 7.8 Mismatch of internal grades (scale 0–20) for students of the same school with the same scores in the national exams, by level of social support—public schools

students attend more “generous” public schools, on average, than low status students, then one should not observe any significant internal grade mismatch within the same school, only between different schools. This is not the case, however: comparing the internal grades attributed to students of different socioeconomic backgrounds that obtained similar scores in the national exams and are enrolled in the *very same school*, we observe that the internal grade mismatches are still present, being even slightly stronger. Averaging the internal mismatches over all public schools in continental Portugal, one obtains the data depicted in Fig. 7.8.

CONCLUSION

This chapter analyses inequalities in the transition from upper secondary to higher education in Portugal, resorting to an analysis of national data of the General-Directorate of Education and Science Statistics (DGEEC). The central argument of this chapter is that socioeconomic status is the most important aspect that directly or indirectly conditions transition to higher education in Portugal, and thus is the primary source of inequality in participation. The socioeconomic filter is measurable at the moment of transition to higher education, through different transition rates among upper secondary graduates coming from distinct socioeconomic

backgrounds. However, this filter acts at its strongest a few years earlier, during secondary education itself, when different levels of academic achievement and different choices of educational tracks heavily condition the probability of disadvantaged students to graduate and adequately compete with their peers for entrance in the higher education system.

The findings also point to other factors similar to those already highlighted in the literature as responsible for inequalities in access to higher education: previous schooling, gender, different regional opportunities and selection and admission criteria, with socioeconomic status appearing to be transversal to and/or aggravate the influence of most of these other factors (except gender).

As in other countries, previous schooling influences transition rates to higher education. The socioeconomic filter in upper secondary education has origins in students' trajectories and academic performance in basic and lower secondary education, with tracking playing an important role. In Portugal there are two main tracks in secondary education, the scientific-humanistic and the vocational, the latter having much lower transition rates and being mainly chosen by students from lower socioeconomic backgrounds.

In the transition to higher education, the weight of socioeconomic status is visible when using the social support from which students benefit as a proxy for socioeconomic status. Data shows that the higher the social support students have, the lower their enrolment rates in higher education are. The effect of socioeconomic status is also visible using as proxy the education level of the students' mother. The higher the educational level of students' mothers is, the higher their enrolment rates in higher education are. Previous academic achievement, related in the literature to socioeconomic status, also conditions transition rates: the better the results obtained by secondary graduates in the ninth grade exams, the higher their rates of enrolment in higher education. We also observed, however, that the vocational graduates that scored high in the ninth grade exams, three years before, have lower transition rates to higher education than the scientific-humanistic graduates that scored low in the same exams. It seems, therefore, that the general correlation between low socioeconomic status and low academic achievement, as a barrier to enter higher education, is compounded by the fact that disadvantaged students disproportionately enrol in vocational programmes, which have much lower transition rates into higher education.

Students' socioeconomic status appears to be closely intertwined with the other factors influencing transition to higher education. One such factor is the type of secondary school attended by students. While public schools enrol students of all socioeconomic levels, private schools in the scientific-humanistic track tend to enrol students from families with a high socioeconomic status. Although transition rates to higher education are similar for scientific-humanistic graduates of both public and private schools, inequality remains present because public schools have lower graduation rates than private ones.

There is also evidence that some schools tend to give more "generous" internal grades than others, systematically, for students with comparable ability, as measured by scores in the standardised national exams, thus potentially offering an additional advantage to their graduates in the national competition to enter higher education. This phenomenon is not random with respect to region and socioeconomic background, as it appears to be especially concentrated in private schools in the northwest region of Portugal, which seem to be using high grades as a tool to attract local students of privileged backgrounds. With a much smaller effect size, there is also evidence that, even within the same school, students of higher socioeconomic backgrounds tend to be given higher internal grades than their lower status peers who, otherwise, score similarly in the national exams. This could be a consequence of different academic expectations that teachers involuntarily may have for each type of student, through a confirmation bias, or could be explained by a higher effectiveness of high status parents in pressuring teachers into being relatively benign with their child, but the data and methodology used do not allow testing the different hypotheses. In any case, the internal grade mismatches do seem to be reinforcing the disadvantages of low status students when trying to access higher education.

Finally, the regional asymmetries observed in the transition to higher education are also indicative of socioeconomic inequalities, since the differences are related, at least in part, to the availability of tertiary education provision in the vicinity of the place of residence (OECD, 2008, p. 45), which has a bigger impact in the (comparatively less mobile) population of disadvantaged students. The observed regional differences in transition rates to higher education are higher in the case of graduates of vocational tracks, who tend to come from more disadvantaged backgrounds. These students are less likely to be willing or able to move across the country or

to pay the fees of a private HEI, thus further reducing their chances of attending higher education.

To sum up, in Portugal, inequalities begin much earlier than the moment of transition to higher education, as socioeconomic status plays a major role in students' educational progress and choices throughout their trajectories. Disadvantaged students who manage to surmount all the different obstacles and reach higher education belong to a group of resilient "academic survivors". Future research could explore the characteristics of these academic survivors in order to inform policies that could foster the enlarged participation of students from low socioeconomic backgrounds.

Based on the findings of this study, several areas of intervention could be proposed. First, and most importantly, the strong socioeconomic bias of academic achievement now observed during lower and upper secondary education should be addressed and mitigated as a precondition to obtain an equitable access to higher education. Second, in order to increase education levels of the Portuguese population, since parents' education influences rates of enrolment in higher education, there should be continued investment in and promotion of lifelong learning. Third, regarding the regional asymmetries in the transition to higher education, the territorial coverage of public short-cycle tertiary education should be reinforced in regions that are presently underserved, such as Évora, Lisbon and Porto, where graduates of vocational secondary education have the lowest transition rates to HE. A more balanced regional ratio of HE places per secondary education graduate could also be envisaged, including perhaps the allocation of a small regional quota for local students.

Finally, in order to control grade inflation and avoid that some students from privileged backgrounds are given an unfair "edge" in the competition for higher education places, several possibilities could be considered. Firstly, the ministry of education, besides monitoring the phenomenon, could make more forceful interventions to discipline the small number of transgressing schools, because unbounded school autonomy in grading is not compatible with general fairness and equity. A second possibility would be that the national competition for higher education, on its own initiative, stops accepting as equally valid grades attributed by schools with a proven track record of grade inflation. The competition could announce that, from now on, students that enrol in schools that systematically exceed a given limit of grade inflation, may have their internal grades readjusted, according to a transparent formula, for the purpose of calculating final scores for entry in HE. As in other countries, a third possibility would be

to establish, for all students, a more elaborate formula to calculate the final scores for entry in HE, a formula that would involve, besides the student's school and exam grades, also corrective coefficients for the student's percentile within the class and the observed level of internal grade mismatch within the class.

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CHAPTER 8

Who Is Left Out? Inequalities in Higher Education Admissions and Placements in Portugal

Carla Sá, Orlanda Tavares, and Cristina Sin

INTRODUCTION

Access to higher education is an important area of state regulation which has the potential to impact the social and economic development of a country (Magalhães et al., 2009), being used to fulfil different political goals. Despite corresponding to the democratic ideal of social justice, equality is not the same as equity (Espinoza, 2007). While the former

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O. Tavares et al. (eds.), *Equity Policies in Global Higher Education*,
Issues in Higher Education,

https://doi.org/10.1007/978-3-030-69691-7_8

implies giving equal opportunities regardless of background and condition, equity implies equal shares determined by need, expended effort, ability to pay, achieved results, ascription to any group or resources and opportunities available (Larkin & Statton, 2001). Therefore, in many cases, more ‘equity’ may require different treatment and consequently less ‘equality’ (Rawls, 2009).

After the 1974 democratic revolution, Portuguese governments assumed equality as a political goal and took the responsibility of expanding higher education, leaving behind an elitist system. The expansion was followed by a period of ‘normalisation’ (Magalhães et al., 2009) between 1976 and 1986. As public universities were not able to accommodate the increasing number of students, coming from different socioeconomic backgrounds, Portuguese higher education was the object of a process of diversification. Polytechnics and private institutions were created and launched, having economic and social development as a political goal.

Due to a combination of factors, such as a diminishing number of students graduating from secondary education, a decline in birth rates and more demanding access rules, the mid-1990s was marked by a decreasing number of candidates in higher education. Consolidation, through attention to the quality of provision, became the new political goal (Magalhães et al., 2009).

The number of places in public higher education institutions has been higher than the number of candidates, except in 2017 (DGES, 2018). However, if private provision is also considered, the number of places in the higher education system as a whole exceeds the number of candidates. Students are, in principle, able to choose a university or a polytechnic, a public or a private institution and a particular study programme from a wide range of alternatives (Sá & Tavares, 2018; Tavares, 2013; Tavares & Cardoso, 2013). In such context, one would expect inequalities to be significantly reduced. However, the expectation that democratisation of higher education would be achieved through massification has failed to materialise (Magalhães et al., 2009).

A large proportion of potential candidates is left out, either because they do not apply or because their application has not been successful (Sá & Tavares, 2018). Indeed, 41% of 19 and 20-year olds in 2017 were enrolled in higher education, above the OECD and EU23, while for 21-year olds and above the Portuguese average is below the OECD and the EU23 ones (CNE, 2019). Moreover, there are candidates that, although applying and entering higher education, are not allocated to

their top preferences, as places are conditioned by *numeri clausi* and by competition for the most reputed institutions or study programmes. This signals a possible selectivity and stratification of Portuguese higher education, which might be indicative of persisting inequalities. In fact, as argued by Magalhães et al. (2009), a stratified higher education system seems to prevail in Portugal, and it prevents students from choosing some institutions and some study programmes. Moreover, Portuguese higher education is not yet achieving European standards, especially in terms of the percentage of graduates. According to Eurostat data, in 2017, Portugal lied below the average of the European Union in terms of tertiary education attainment for the age group of 30 to 34 years old, with 33.9% compared to 39.7%.

This chapter analyses why inequalities might persist in access to higher education and in the choice of the more selective institutions or programmes. It aims to (i) identify and characterise the group of unsuccessful applicants; (ii) analyse the probability of a student being placed in his/her preferred study programme/institution; and (iii) determine the influence of cultural and socioeconomic background on entry to the most selective study programmes. For the first two aims, the study draws on a dataset containing all applicants to Portuguese public HEIs, from 2012 to 2018. Gender, region and grade point average will be used as explanatory variables. Regarding the socioeconomic background, the chapter relies on a dataset from 2017/18 with the students enrolled in the first year, that contains information on the parents' educational background and whether or not they get scholarships.

First, the chapter gives an overview of the persistence of inequalities in Portugal, relating them with the two theoretical hypotheses, the Maximally Maintained Inequality (MMI) and the Effectively Maintained Inequality (EMI). Both hypotheses can be useful when approaching inequalities in access to and within higher education. Second, the chapter shows the methodological steps taken to treat data. Then the main findings are presented and discussed also through the lens of MMI and EMI on inequalities. A final conclusion is drawn.

PERSISTENCE OF EDUCATIONAL INEQUALITIES IN PORTUGAL

The massification of participation in education was expected to reduce the advantage that students from privileged socioeconomic backgrounds had over students of lower socioeconomic status. Nonetheless, this

expectation failed to materialise because educational inequalities persisted despite the expansion of schooling at pre-tertiary (Halsey et al., 1980) and tertiary levels (Chesters & Watson, 2013; Lynch & O’riordan, 1998; Tsui, 2003). According to Amaral (this volume), the Maximally Maintained Inequality theory (Raftery & Hout, 1993) posits that the persistence of inequalities derives from the fact that the lower classes can only take advantage of opportunities offered by expansion when the needs of the upper classes are fully satisfied. In Portugal this was evident when students from lower backgrounds could only access higher education when the system expanded to include new universities, polytechnic institutions and a private sector. The expectation was that higher education would cover the entire Portuguese territory, thus reducing regional asymmetries. However, what happened was that regional coverage happened much more through polytechnics, which offered more vocational and short-term education, while the private sector ended up concentrated in large coastal urban regions, with greater population density, neglecting inland regions, where low demand made its sustainability problematic. Therefore, the country’s regional coverage ended up being ensured mainly through the polytechnic institutions.

This diversification of higher education has improved the chances of students of low socioeconomic status to study at tertiary level. Students were, in principle, able to choose a university or a polytechnic institution, a public or a private institution and a specific study programme from a wide variety of alternatives (Sá & Tavares, 2018; Tavares, 2013; Tavares & Cardoso, 2013). However, what has happened is that only a few students can actually choose, that is, those who have the best grade point averages (GPA). An average student, with an average application grade, cannot choose a medical degree or an engineering and industrial management study programme as the *numerus clausus* system turns these programmes very selective.

Therefore, the system has become socially stratified, with disadvantaged students participating mostly in institutions and programmes which are less reputed and less sought for by students from affluent backgrounds. The expectation that diversification would also expand choices was not achieved. The Effectively Maintained Inequality hypothesis (Lucas, 2001) explains this phenomenon by arguing that when quantitative advantages no longer apply, students from privileged backgrounds seek qualitative advantages in the form of positional goods (Marginson, 1998).

Inequality is therefore noticeable both in the choice of the institution and in the choice of the study programme. Regarding the choice of institution, whether a university or a polytechnic, the influence of family background comes to the fore in the fact that students from families with higher levels of education tend to prefer universities (Tavares, 2013), as these latter are perceived to be at the top of the most prestigious higher education institutions in Portugal (Tavares & Cardoso, 2013). On the other hand, polytechnic institutions are perceived as less reputed institutions, but contrary to universities, they enrol a more diversified student body, which turns these institutions more equitable than universities and also more representative of the composition of the student population in Portugal. According to recent data of the General Directorate for Education and Science Statistics (DGEEC), it is in universities, public and private, that higher percentages of students whose parents have higher qualification levels can be found (Fig. 8.1).

Similarly, the influence of the family's socioeconomic background is visible in the percentage of scholarship holders in universities, compared to those in polytechnics. Scholarships are attributed to students coming from low-income families. According to the most recent data from the

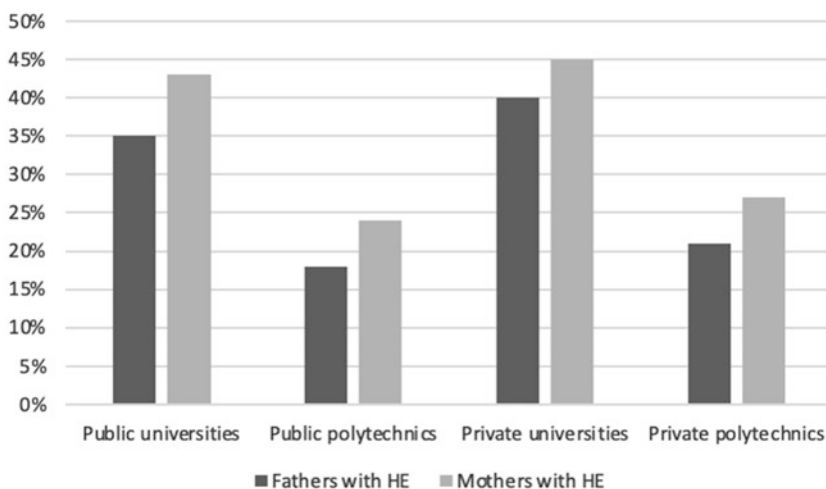


Fig. 8.1 Percentage of students enrolled in the first year in 2017/2018, by type of institution, whose parents have a higher education qualification. Source: DGEEC

General Directorate for Higher Education for 2018/19, 31.49% of all students enrolled in the first year were granted a scholarship. However, more scholarships were granted proportionally to students enrolled in polytechnic institutions (37.38%), compared to those enrolled in universities (28.14%), which suggests that it may be more difficult for students of lower socioeconomic background to enter universities (Fig. 8.2).

The segregation by socioeconomic background is also evident in the choice of study programme, since highly selective programmes enrol a much higher percentage of students from advantaged backgrounds. For instance, a previous study (Tavares et al., 2008) highlighted the case of Medicine, which enrolled about 75% students from advantaged backgrounds, against 25% of disadvantaged students. In contrast, the percentage of students from disadvantaged backgrounds enrolled in less prestigious programmes, such as Nursing, was about 75% against 25% of students from advantaged backgrounds (Tavares et al., 2008). More recently, data show that 73.2% of medical students (university) have parents with higher education, while 73.0% of students in nursing and health technologies (polytechnic) have parents with qualifications below higher education (DGEEC, 2016). It is in the areas of education and business (Marketing, Accounting, Management, etc.) that we find most students from families with less education: 39% and 20% of students in these areas, respectively,

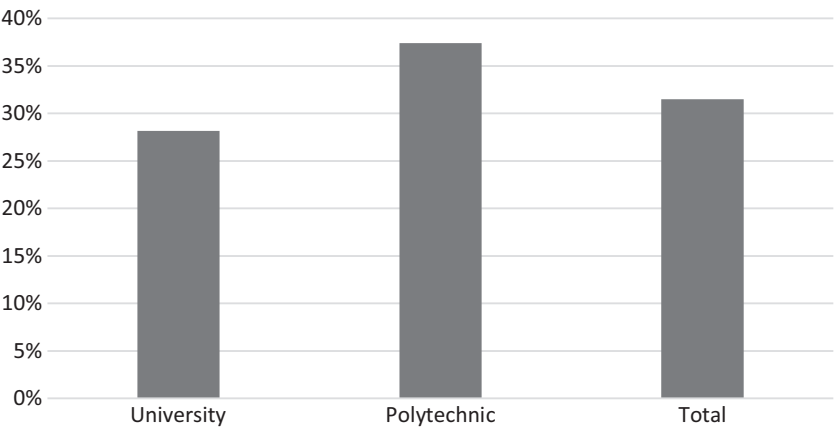


Fig. 8.2 Percentage of first-year students awarded a scholarship by type of institution, 2019. Source: DGES

are from families with educational levels corresponding to primary education. On the other hand, Law, Fine Arts and Sciences are preferred disciplines for families with a higher educational level. Similar to what happens in the case of institutions, study programmes also differ in the percentage of scholarship holders they enrol. Comparing similar study programmes belonging to the same broad disciplinary areas, some of which are more selective and offered in universities, while others are less selective and taught in polytechnics, the proportions of scholarship holders are illustrative of the inequalities in participation, as indicated by the Effectively Maintained Inequality hypothesis. For instance, the polytechnic programmes of Solicitor studies (50%), Design (44.30%), Pharmacy (44.24%) and Nursing (40.44%) present higher percentages of scholarship holders than the university programmes of Law (28.33%), Design (28.87%), Pharmaceutical Sciences (27.98%) and Medicine (15.11%). Figure 8.3 shows the higher selectivity of university education and particularly of very competitive areas such as Medicine.

In brief, although there are sufficient places for all higher education applicants, many fail to enter higher education, and among those who

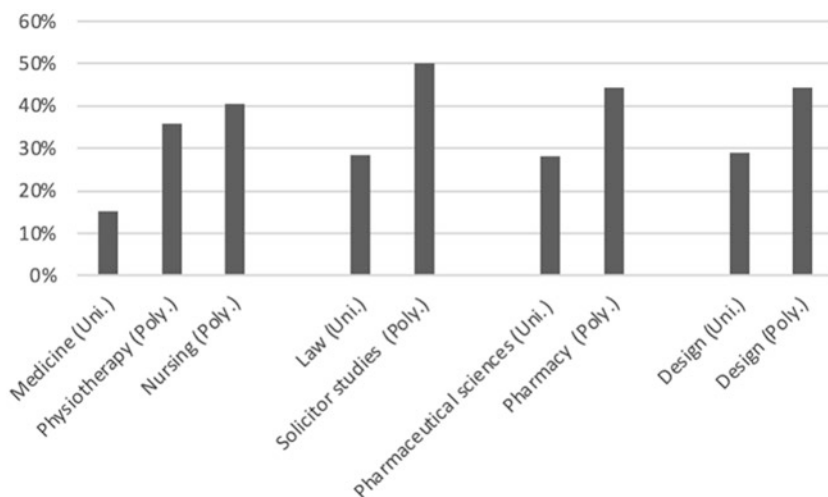


Fig. 8.3 Percentage of first-year students awarded a scholarship in similar disciplinary areas, taught in universities and polytechnics, 2019. Source: DGES

enter, many are not placed in their preferred programmes and institutions in a context of intense competition for those degrees, which represent the most wanted positional goods. The fact that Portugal still has a competitive and stratified higher education system justifies analysing in more detail the factors which contributes to the persistence of inequalities.

DATA AND METHODS

The empirical analysis of the present chapter is based on two datasets: one containing data on individual candidates to public higher education and another one containing programme/institution level data.

The individual candidate dataset resulted from the application process and contains information on all individuals that applied for a place in public higher education institutions. For this reason, the data does not allow addressing the possible barriers that prevented other potential candidates from applying, which would certainly provide a clearer picture of inequalities. For each and every candidate, data provide the hierarchy of alternatives he/she applied for, a general classification of the field of study, the corresponding application GPA, gender and the region of origin. This dataset was made available by the Ministry of Science, Technology and Higher Education, for the years from 2012 to 2018. All the candidates of the first phase of the national contest are considered, which corresponds to a working sample of more than 330 thousand individuals.

The programme/institution level dataset has been built based on information provided by DGEEC and refers to 2017/18. The unit of analysis is the pair programme/institution and contains all programme/institutions that could be matched with those present in the individual candidate dataset. For this reason, the data analysed in the chapter leaves out private higher education provision. This dataset combines information on the proportions of candidates to income-based scholarship and scholarship holders, as well as on the enrolled students' parental educational levels (mother and father, separately). Additional information has been taken from the application process dataset, namely the minimum admission GPA and admission exams, for each pair programme/institution.

Based on these two datasets, the empirical strategy is as follows. First, the group of students who are not allocated a place in any programme/

institution are analysed in detail, looking for possible differences due to gender, region of origin and preferred field of study.

Second, possible differences and/or inequalities among the candidates who are offered a place are analysed. As the number of available places in public higher education was close to or higher than the number of candidates who applied through the national contest in the period under analysis, the likelihood of getting a place in higher education was very high, and the issue of access inequality moved from having/not having an opportunity to study in higher education to the type of programmes and institutions to which candidates were allocated. It has been shown in previous studies (such as Tavares, 2013; Tavares & Cardoso, 2013) that students perceive universities as socially more prestigious than polytechnics. Based on this perception, a series of models intending to look at possible inequalities among placed candidates are estimated. In Model (1), the main determinants of a successful application are identified. An application is considered successful if the candidate is placed and even more successful if the candidate is placed in the first best alternative. A logit model on the probability of being placed in the first best alternative is estimated and gender, application GPA and possible differences over time, regions of origin, as well as fields of study are examined. The Model (2) to be estimated is a logit model on the probability of being offered a place in a university institution versus a polytechnic institute.

Third, at the programme/institution level, two models have been estimated, both trying to identify the main characteristics of the programmes that explain the minimum admission GPA. To begin with, a multiple regression model on the minimum GPA for each programme is estimated, using as regressors: proportion of female students, proportion of mothers with higher education qualifications, proportion of fathers with higher education qualifications, proportion of scholarship candidates, proportion of registered students who took the Mathematics A exam, and dummy variables for programmes offered by universities and for each and every field of study. In order to analyse how these effects potentially change the GPA distribution, a quantile regression model, with the same dependent and independent variables, is estimated. In both models, standard errors adjusted for 33 clusters in institutions are computed.

FINDINGS AND DISCUSSION

Who Is Left Out?

Despite massification and the fact that the expansion of the Portuguese system has reached a point in which the number of places in public higher education is close to the number of candidates, a proportion of candidates is still left out of the public system (11.6% in the period from 2012 to 2018, see Table 8.1). Although the number of these candidates is lower than it used to be, its persistence is worrisome. It is therefore relevant to understand whether they have characteristics which signal inequalities in access to higher education.

Among the candidates who are left out (Table 8.1) women represent 58.6%, although they are also the majority of candidates (58.1%). The fact that there are more female than male candidates for higher education can be justified by school performance, which is overall better for females than for males (Sá & Tavares, 2018).

Candidates who were left out of the system had a GPA of 131.6/200, about 13 points below the average performance of all candidates (144.6). Academic achievement, as measured by the GPA, is often considered in the literature as strongly influenced by the socioeconomic background (Aikens & Barbarin, 2008; Brynes & Miller, 2007; Davis-Kean, 2005; Gerdes, 1988; Kitchen, 2015; Sirin, 2005). The socioeconomic status of families has been used as the most consistent predictor of academic achievement, because students from privileged socioeconomic backgrounds seem to have access to higher quality secondary education, tutors, test preparation, or schools—thus better GPA—than students from lower socioeconomic backgrounds. Lower GPA may therefore be indicative of lower socioeconomic status. As MMI has hypothesised, expansion has been, in the Portuguese case, unable to eliminate inequalities because students with higher GPAs, and likely from more advantaged socioeconomic backgrounds are better placed to take advantage of new educational opportunities.

Candidates who prefer programmes in the areas of Social Sciences, Business and Law, have the hardest time getting a place. Although they represent the larger share of applications (32.5%), 47.4% of unsuccessful candidates are found in these areas. These disciplinary areas are popular among candidates because most of them (except for Economics, Management and Finance) do not require the mathematics exam as a

Table 8.1 Descriptive statistics on the main attributes of the non-placed candidates and on the total (pooled) sample

	<i>Total sample</i>	<i>Candidates not placed</i>	<i>Regions</i>	<i>Total sample</i>	<i>Candidates not placed</i>
Female	58.1%	58.6%	Azores	2.0%	0.5%
GPA	144.6	131.6	Aveiro	5.2%	4.7%
Education	2.0%	1.2%	Beja	1.0%	0.5%
Arts & Humanities	12.5%	13.0%	Braga	9.9%	9.2%
Social Sciences, Business & Law	32.5%	47.4%	Bragança	1.0%	0.5%
Maths and Computer Sciences	9.3%	5.7%	Castelo Branco	1.7%	1.0%
Eng., Industry & Manufacturing	18.3%	9.1%	Coimbra	5.3%	4.2%
Agriculture	1.6%	1.3%	Évora	1.6%	1.1%
Health & Social Protection	17.0%	15.7%	Faro	3.2%	2.1%
Medicine	3.9%	5.3%	Guarda	1.2%	0.6%
Nursing	4.5%	3.4%	Leiria	4.7%	2.6%
Pharmacy	2.1%	1.1%	Lisbon	24.5%	33.9%
Services	6.8%	6.6%	Madeira	2.8%	1.9%
			Portalegre	0.8%	0.4%
			Porto	20.0%	26.1%
			Santarém	3.4%	2.1%
			Serúbal	3.8%	3.8%
			Viana do Castelo	2.3%	1.3%
			Vila Real	2.2%	1.7%
			Viseu	3.4%	1.8%
Nr observations	327,061	37,865	Candidates (%)	11.6%	

Note: Two proportions are reported for each variable. The first column refers to the proportion of each group in the total sample, whereas in the second column the proportions computed within the group of non-placed candidates are reported.

compulsory admission criterion, a discipline in which achievement is generally poor, as measured by the OECD's PISA study (PISA, 2015). Medicine is also an area where the unsuccessful candidates are overrepresented in relation to those who have applied (see Table 8.1), but in this case, it is due to the selective and demanding nature of the admission

criteria, which require not only a very high GPA, but also a greater number of exams (Mathematics, Biology and Physics/Chemistry).

In terms of region of origin, candidates from Lisbon and Porto are clearly overrepresented among those not placed in public higher education (see Table 8.1). As these are the two most populated urban areas in Portugal, the demand for places is higher in these regions. In 2015 the ratio of the number of local candidates over the number of available local places was 1.31 in Porto and 0.90 in Lisbon. However, these two main urban areas attract a large number of candidates from other areas, which represent 45% of candidates in Porto and 60% in Lisbon.¹

Inequalities Within the Public Higher Education System

As implied by the EMI, once higher education becomes nearly universal, the socioeconomically advantaged seek for qualitative differences and use their advantages to secure quantitatively similar but qualitatively better education (Lucas, 2001). Inequalities may arise in their placement in the first preference of programme/institution, and in the access to a more selective type of institution or study programme (see Table 8.2).

First Preferences and Type of Institutions

The model on the probability of a candidate being placed in his/her first preference [model (1), Table 8.2] shows that female candidates are less likely to be placed in their first preference. The better the previous performance, as measured by the GPA, the more likely the candidate is placed in the first preference. The lowest probability of being placed in the first preference goes for candidates in Engineering, Industry and Construction, followed by Social Sciences, Business and Law and finally Health Sciences. The probability of getting into the preferred programme/institution is lowest for students living in the Porto region, when compared to any other region. This may be due to the fact that this is one of the regions where not only the ratio of local candidates to places is the highest but also one that attracts more candidates from other regions.

There are also (potential) inequalities regarding the type of institution. From the results of model (2), in Table 8.2, it is possible to claim that women are less likely to attend university than men. Better performing students are more likely to go to university programmes. Differences

¹ Authors' computations based on the dataset used in the paper.

Table 8.2 Marginal effects of the models on the probability of being placed in the first option and on the probability of getting a place at a university

<i>Variables</i>	(1)	(2)
	<i>Pr(first option)</i>	<i>Pr(placed university)</i>
Female	-0.0037* (0.0019)	-0.0044*** (0.0016)
GPA	0.0060*** (4.41e-05)	0.0100*** (0.00003)
Education	0.1232*** (0.0060)	0.3066*** (0.0049)
Arts & Humanities	0.0901*** (0.0033)	0.3337*** (0.0028)
Social Sciences, Business & Law	-0.0087*** (0.0027)	0.2318*** (0.0024)
Sciences, Math & Informatics	0.0063* (0.0037)	0.5504*** (0.0024)
Engineering, Industry & Construction	-0.0312*** (0.0031)	0.3418*** (0.0027)
Agriculture	0.0437*** (0.0074)	0.3702*** (0.0063)
Health & Social Protection	Baseline category	Baseline Category
Services	0.1152*** (0.0040)	0.1304*** (0.0037)
Azores	0.3460*** (0.0053)	0.3161*** (0.0040)
Aveiro	0.0861*** (0.0044)	0.0926*** (0.0037)
Beja	0.2200*** (0.0086)	0.1025*** (0.0075)
Braga	0.0458*** (0.0035)	0.1162*** (0.0030)
Bragança	0.149*** (0.0090)	0.0803*** (0.0076)
Castelo Branco	0.220*** (0.0067)	0.1947*** (0.0054)
Coimbra	0.176*** (0.0043)	0.0992*** (0.0036)
Évora	0.203*** (0.0070)	0.2815*** (0.0050)
Faro	0.2390*** (0.0050)	0.1154*** (0.0043)

(continued)

Table 8.2 (continued)

<i>Variables</i>	(1)	(2)
	<i>Pr(first option)</i>	<i>Pr(placed university)</i>
Guarda	0.1527*** (0.0079)	0.1487*** (0.0065)
Leiria	0.2047*** (0.0044)	-0.0246*** (0.0039)
Lisbon	0.0644*** (0.0028)	0.1656*** (0.0023)
Madeira	0.2263*** (0.0053)	0.2944*** (0.0038)
Portalegre	0.2052*** (0.0093)	0.1298*** (0.0078)
Santarém	0.1751*** (0.0051)	0.0839*** (0.0043)
Setúbal	0.1553*** (0.0050)	0.0568*** (0.0042)
Viana do Castelo	0.1115*** (0.0061)	0.0348* (0.0052)
Vila Real	0.0925*** (0.0063)	0.2051*** (0.0049)
Viseu	0.1664*** (0.0051)	0.0410*** (0.0044)
2013	0.0657*** (0.0034)	0.0306*** (0.0028)
2014	0.0030 (0.0034)	0.01931*** (0.0028)
2015	-0.0381*** (0.0033)	-0.0074*** (0.0027)
2016	-0.0330*** (0.0033)	-0.0161*** (0.0027)
2017	-0.0631*** (0.0033)	-0.0481*** (0.00274)
2018	-0.0023 (0.0033)	-0.0438*** (0.0027)
Log-likelihood	-187961.32	-138683.84

Notes: Standard errors in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Column (1) reports the marginal effects of the logit model on the probability of a candidate being allocated to his first option (rather than being allocated to a second-best alternative). Column (2) presents the marginal effects of the logit model on the probability of being placed in a university programme (rather than a polytechnic institute programme). Marginal effects in columns (1) and (2) are computed as derivatives for continuous variables, and as differences in probabilities for dummy variables. In all sets of results, year dummies are included as controls, but estimates are not reported in the table. The baseline category is 2012 for year dummies, and Porto for regional dummies

across fields of study are evident: candidates to Health areas are less likely to go to university, which may be due to the highly selective nature of the Health programmes offered in the university sector. Medicine is exclusively offered by universities, whereas most of the programmes in Health are only offered in polytechnic institutes or, at least, offered in both sectors. Candidates from Leiria, followed by those from Porto, have the lowest probability of attending a university. It is worth noting that among the regions with the most selective polytechnic institutes (Porto, Lisbon, Coimbra and Leiria), Leiria is the only one where there is no public university alternative. This fact, combined with the apparent spatial immobility of Portuguese candidates (Lourenço et al., 2020) may explain this result. Universities seem therefore to be more selective than polytechnics. Some of the results in Table 8.2 are easier to understand and to quantify by computing the estimated probabilities of each outcome, in several alternative situations (Table 8.3). Gender specific probabilities are presented. It follows that females face slightly lower probabilities of being allocated to a first preference programme/institution. Probabilities are computed for candidates from Porto, Lisbon and Faro: Porto emerges in the marginal effects estimates as the region where the candidates' entrance is the hardest; Lisbon is the country's capital, and the most populated region; and, finally, Faro is an example of a peripheral and low population region.

Candidates from Porto have the lowest probability of being placed in their first alternative. In fact, Porto is one of the regions where the pressure of demand is the highest. In 2017, the number of vacancies per thousand inhabitants aged between 15 and 24 was 39.4 in the metropolitan region of Porto, whereas in the metropolitan region of Lisbon it was about

Table 8.3 Estimated probabilities of being placed in the first option

	<i>Health</i>			<i>Social Sciences, Business and Law</i>			<i>Engineering, Industry and Construction</i>		
	<i>Porto</i>	<i>Lisbon</i>	<i>Faro</i>	<i>Porto</i>	<i>Lisbon</i>	<i>Faro</i>	<i>Porto</i>	<i>Lisbon</i>	<i>Faro</i>
Male	38.3%	45.0%	64.0%	37.4%	44.1%	63.1%	35.1%	41.7%	60.8%
Female	37.9%	44.6%	63.6%	37.0%	43.7%	62.7%	34.8%	41.3%	60.4%

Note: Probabilities estimated for year 2015 and candidates who have a GPA equal to the sample mean.

47.² This implies that a student from Porto is more likely to have to move away from home to get a place in public higher education and, consequently, higher education is more expensive for these students. The analogous probabilities for Lisbon candidates are bigger, and much bigger for those coming from Faro. Such pattern is found in the three disciplinary areas used as examples, although differences in magnitude apply. Namely, the probabilities of first preference placement are lower in Engineering, Industry and Construction.

Selectivity of Study Programmes

Table 8.4 contains the estimation results of the models that aim at identifying variables that could potentially influence the minimum GPA for admission into a specific programme/institution. Model (1) reports the results of the multiple linear regression model, that is, it shows the average effect of each explanatory variable on the minimum GPA. The minimum GPA to be admitted to a programme is higher when the proportions of female students, of students who took the Mathematics A exam, and of students whose parents (mother and father) hold a higher education degree are higher. The effect of the mother's tertiary education attainment appears stronger than the one of the father's. This suggests that parental education attainment makes a difference regarding the candidates' success as measured by the required admission GPA, which is possibly due to the fact that better educated parents are more likely to provide the right incentives to study, as well as better access to educational resources. In Portugal, tertiary attainment has also been associated with higher income (Almeida et al., 2017), which suggests that a favourable financial situation, usually very much related to the educational background of the parents, positively influences candidates' success.

The effect of the disciplinary area on the minimum GPA was also tested. Programmes in Social Sciences, Business & Law have, on average, a higher minimum admission GPA than programmes in Health and Social Protection. For the other disciplinary areas (except Humanities, where differences were not statistically different), the minimum GPA is on average lower than in Health and Social Protection programmes. These two (Health and Social Protection and Social Sciences, Business and Law) are the most selective disciplinary areas in Portugal.

²Demand pressure in Porto and Lisbon has been computed as the ratio of vacancies offered in the district and the population (in thousands) in the metropolitan region.

Table 8.4 Minimum admission GPA estimation results

<i>Variables</i>	(1)	(2)			
	<i>MinGPA</i>	<i>Quantile regression</i>			
		<i>q25</i>	<i>q50</i>	<i>q75</i>	<i>q95</i>
Female	17.735*** (2.536)	11.917*** (3.206)	15.654*** (3.944)	21.561*** (4.179)	27.245*** (3.319)
Proportion of fathers with HE	24.372*** (6.530)	7.634 (13.319)	32.666** (13.791)	28.855** (12.664)	41.273*** (10.045)
Proportion of mothers with HE	42.901*** (5.898)	49.700*** (13.163)	41.902*** (12.064)	42.438*** (9.767)	35.692*** (6.126)
University programme	5.536*** (1.136)	5.739*** (2.043)	5.798*** (1.726)	7.592*** (1.442)	5.327*** (1.909)
Maths A Exam	8.548*** (1.859)	10.980*** (4.014)	6.448*** (2.416)	6.055 (3.832)	11.194*** (3.358)
Education	-8.495*** (3.090)	-3.655 (3.963)	-9.531*** (1.847)	-15.025*** (4.737)	-9.718* (5.732)
Arts & Humanities	-0.688 (1.964)	0.613 (2.995)	-0.721 (2.907)	-0.447 (2.705)	3.206 (2.699)
Social Sciences, Business & Law	5.002*** (1.707)	5.542** (2.607)	3.846** (1.956)	3.906 (3.172)	7.974*** (1.532)
Sciences, Math & informatics	-6.110*** (2.251)	-6.909 (4.724)	-6.819** (2.993)	-4.567 (3.287)	-3.654 (4.446)
Engineering, Industry & Construction	-4.791** (2.246)	-8.747* (4.498)	-6.090* (3.264)	-0.772 (4.153)	2.228 (3.140)
Agriculture	-9.322*** (3.203)	-9.113 (6.039)	-9.557** (4.777)	-8.199 (5.113)	-6.108** (2.477)
Services	-4.454** (2.240)	-5.778* (3.427)	-3.294 (3.098)	-3.743 (3.617)	-0.336 (4.790)
Constant	-6.581 (14.897)	8.323* (4.259)	-10.433*** (2.146)	-19.093*** (3.007)	-30.363*** (2.965)
Observations	978	978			
R-squared/Pseudo R-squared	0.447	0.181	0.259	0.329	0.391

Notes: Standard errors adjusted for 33 clusters in HEIs in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The explained variable is the minimum GPA for admission in a given programme/institution

Model (2) of Table 8.4 shows the results of the quantile regression model, looking at the distribution of the minimum GPA for admission. Study programmes were organised in ascending order of the minimum GPA. The following percentiles were chosen: q25, q50, q75 and q95, where q25 represents the 25% of programmes with lowest admission GPA (less selective programmes) and q95 represents the top 5% of programmes with the highest admission GPA (the most selective programmes—the minimum GPA was 166 out of 200). The results seem to confirm the ones of Model (1): the higher the percentage of female students in a programme, the higher the minimum admission GPA. This effect is stronger in the study programmes which require higher admission GPA (q95) than in study programmes with lower admission GPA (q25). Although the proportion of mothers with higher education attainment has again been confirmed to be related to higher admission GPA, this effect gets weaker as the selectivity of the programmes increases. In this case, the effect of fathers' tertiary attainment gets stronger than that of mothers' as study programmes become more selective. Therefore, in the case of the most selective programmes, the effect of fathers' higher education qualifications is stronger than that of mothers.

The proportion of students who took the Mathematics A exam is associated with higher minimum GPA and this effect is stronger in the most selective courses. This model (2) confirms the results of model (1) regarding the different disciplinary areas. It adds, however a further piece of information: the difference in the minimum GPA between Social Sciences, Business & Law and Health and Social Protection programmes gets stronger in the most selective courses compared to the less selective ones.

Parental education appears to be very relevant to the access to the top ranked programmes as measured by the minimum access GPA. The proportion of fathers/mothers with higher education diplomas has often been seen as a very good indicator of the socioeconomic background of the students. The same models have been estimated using the proportion of scholarship applicants by programme, rather than parental education variables, as a robustness check. The sign and the significance of the estimated coefficients are in line with those reported in Table 8.5 (see Appendix). Less selective programmes tend to show the highest shares of scholarship applicants, giving strength to the conclusion that socioeconomic background is a key factor in access to the best higher education programmes. This means that inequalities persist even among those who apply and get a place in higher education.

Table 8.5 Minimum admission GPA estimation results (alternative specification)

<i>Variables</i>	(1)	(2)			
	<i>Min GPA</i>	<i>Quantile regression</i>			
		<i>q25</i>	<i>q50</i>	<i>q75</i>	<i>q95</i>
Female	20.356*** (2.978)	12.925*** (4.841)	16.892*** (6.357)	28.451*** (7.282)	33.174*** (5.836)
Proportion of scholarship applicants	-19.898*** (3.360)	-10.509* (5.624)	-14.835** (6.858)	-25.160*** (5.937)	-32.371*** (4.412)
University programme	12.467*** (1.204)	10.864*** (2.042)	13.247*** (1.555)	14.121*** (1.647)	10.531*** (2.210)
Maths A Exam	17.567*** (2.054)	17.814*** (4.463)	19.388*** (3.258)	18.486*** (3.408)	19.693*** (3.630)
Education	-12.825*** (3.526)	-6.961** (3.350)	-12.511** (4.876)	-20.600*** (4.469)	-17.547*** (5.466)
Arts & Humanities	0.750 (2.237)	0.792 (2.203)	-0.021 (2.793)	0.364 (4.101)	7.477** (3.359)
Social Sciences, Business & Law	4.445** (1.934)	4.274 (2.882)	4.811* (2.825)	2.100 (3.664)	6.061** (2.547)
Sciences, Math & informatics	-7.873*** (2.555)	-7.058** (3.229)	-9.862** (4.005)	-9.999** (4.724)	-4.629* (2.374)
Engineering, Industry & Construction	-4.395* (2.571)	-7.829* (4.022)	-10.120** (4.550)	-3.923 (6.343)	5.823* (3.435)
Agriculture	-7.989** (3.617)	-11.801*** (4.466)	-11.338* (5.976)	-4.179 (9.348)	0.917 (3.414)
Services	-2.156 (2.550)	-2.005 (3.619)	-1.687 (4.570)	-3.430 (5.212)	-1.206 (4.650)
Constant	3.155 (16.843)	18.979*** (2.671)	3.619 (3.839)	-13.005*** (4.248)	-21.022*** (2.849)
Observations	963	963			
R-squared/Pseudo R-squared	0.293	0.181	0.259	0.329	0.391

Notes: Standard errors adjusted for 33 clusters in HEIs in parentheses. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. The explained variable is the minimum GPA for admission in a given programme/institution. Information on scholarship applications is not available for all programmes

CONCLUSIONS

This chapter has analysed inequalities in access to higher education and to the more selective institutions and programmes. Despite the high number of places available in public universities and polytechnics (close to the total number of candidates), there are still students who are left out. Having lower GPA, applying to Social Sciences, Business and Law and to Medicine, as well as being from Lisbon and Porto seems to weigh negatively in access to higher education, determining unsuccessful applications. As the GPA (Sá & Tavares, 2018) is affected by the socioeconomic status (Aikens & Barbarin, 2008; Brynes & Miller, 2007; Davis-Kean, 2005; Gerdes, 1988; Kitchen, 2015), it is arguable that a lower GPA is associated with lower socioeconomic backgrounds. Therefore, socioeconomic status may be playing a significant role in the persistence of access inequalities. Results also indicate that some disciplinary areas are more selective than others and that there are differences between regions of the country, as getting a place in Porto, for instance, is harder than it is in other regions.

These inequalities are also embedded within the higher education system. Indeed, findings indicate that public universities are more selective than polytechnics and that Social Sciences, Business and Law, followed by Health programmes, are more selective than the other disciplinary areas. In order to secure a place in universities and in these programmes, which are perceived as providing better educational outcomes (Sá & Tavares, 2018; Tavares, 2013), candidates need to be in an advantage position. Being male, having a high GPA or belonging to a region of Portugal where the number of candidates is lower than the number of places increases the likelihood of being placed in the most wanted institutions and study programmes.

The argument that higher GPA is associated with a higher socioeconomic status is partly confirmed by the results obtained when the unit of analysis was the programme/institution. In fact, a higher proportion of students whose parents hold higher education qualifications increases the minimum GPA of a study programme. Both fathers' and mothers' tertiary attainment has a positive effect on the minimum GPA. However, in the most selective programmes with the highest GPA, it is the fathers' tertiary attainment that has more weight. It seems, therefore, as hypothesised by the MMI and EMI theories, that students with lower GPA, with a lower social status, will only get a place in the more selective programmes or institutions when the needs of the socially advantaged students are fully

satisfied, or when these latter have secured for themselves both quantitatively and qualitatively better outcomes (Lucas, 2001).

The study has some limitations because it does not cover the group of students who did not apply to higher education, which is an important group to explore inequalities. Despite this, the study contributes to the literature on equity in access to higher education, highlighting variables which determine both success in entering higher education and success in getting a place of preference. It also provides relevant information for future policies aimed at diminishing inequalities. For instance, it is necessary to take measures aimed at widening the recruitment base of higher education institutions by diversifying admission routes in order to encourage students who rarely apply to do so (mostly those from professional secondary tracks, which correspond to approximately 40% of the total number of secondary-school students). Additionally, tailored pedagogical support to improve the academic performance of the groups who encounter more obstacles to enter higher education might be considered. Finally, since the demand pressure for higher education places in Lisbon and Porto is among the highest, the recent Portuguese Ministry's measure which reduced the available places these urban areas in order to encourage higher education students' geographic mobility from the big cities to more peripheral regions should be carefully assessed because it might have significant effects on access inequalities.

APPENDIX

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CHAPTER 9

An Equality Paradox? The Northern European Case

Per Olaf Aamodt

INTRODUCTION

From an outsider perspective, the Nordic countries are probably regarded as similar to one another and unique compared to other regions. In particular, Nordic welfare states' policies, which have aimed to reduce differences in living conditions in general and establish conditions for 'education for all', have seen the Nordic countries establish themselves as a world-leading region in progress on equality and educational access. However, despite relatively low levels of inequality, comprehensive school systems, tuition-free education and generous economic student support, there is still a considerable degree of inequality in access to higher education. This apparent paradox is the topic of the present paper: how can we explain the limited success in achieving educational equality, even in what appear to be particularly promising conditions?

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O. Tavares et al. (eds.), *Equity Policies in Global Higher Education*,
Issues in Higher Education,

https://doi.org/10.1007/978-3-030-69691-7_9

The main purpose of the present paper is to focus on inequality in higher education in the Nordic countries. To do so, it is necessary to place these countries in a broader comparative context and to take a broad sweep of literature and prior research. The research results are based on different data and methodologies, and it is not possible to treat them in a strictly comparative way. In addition, most of the recent research is based on advanced statistical methods producing indicators which may be difficult to explain. Therefore, the paper mainly presents a narrative review of the results. Most research data come from single countries, but some comparative data exist. Only research covering Denmark, Finland, Norway and Sweden is included in the paper. Iceland is excluded since almost half of its students' study abroad.

In this chapter, I will try to answer three main questions based on a review of international research:

1. To what degree are the Nordic welfare states exceptional examples of equality in higher education?
2. Is there a Nordic model with strong equality similarities between the countries?
3. To what degree are the developments in the Nordic countries in line with the MMI and EMI theories?

In addressing the concept of 'equality in education' it is important to consider that this may be understood in several ways, as discussed by Amaral (this volume), and as is clear historically, with meanings shifting from: *formal equality* when education is no longer offered according to social status; *resource equality*, that is, entry into education should be independent of family economy; and *equality of results*, implying the introduction of compensatory measures (Hernes, 1974; Hernes & Knudsen, 1976). Today, formal equality exists more or less on a global level; measures for resource equality exist in most countries to a varying degree and in different forms, while equality of results is less developed. The term 'equality of opportunity' is often used, but James Coleman, a leading sociologist, finds the term misleading, '... because it suggests that equal educational opportunity, defined in something other than a purely formal (input) way, is achievable, while it is not. A proper formulation would use the term 'reduction in inequality' rather than 'equality' (Coleman, 1990).

WHY STUDY INEQUALITY IN EDUCATION?

Several supranational organisations have put equality in education on their agenda (Amaral, this volume), and educational inequality (especially by social class) has for many decades been a dominant topic of research. One obvious reason for this interest is that education is a positional good (Marginson, 1998) and important differences in living conditions (employment status, job satisfaction, income, political and organisational participation and health) are related to level of education. In their writings on social inequality in education in Sweden, Robert Erikson and Jan O. Jonsson list some other arguments against social inequality in educational enrolment (Erikson & Jonsson, 1993, 1996).

Their first argument is that social inequality in educational enrolment is **socially ineffective**, resulting in a waste of talent, hindering processes where the ‘right person ends up in the right place’. The rationale behind many of the school reforms in the Nordic countries since 1900 has generally been to increase the chances for the poor to be educated. The Human Capital theory, which was formulated around 1960 (Becker, 1964; Mincer, 1962; Schultz, 1961), gave new momentum to the policy, as a way to better utilize the talent reserves in the population; the same rationale underpinned many of the arguments for the expansion of higher education.

Unfairness, the second dominating argument against socially biased enrolment, is based on the premise that not everyone has the chance for an education according to her or his abilities. Class differences in educational attainment imply that children from different social classes do not have equal life-chances. Liberals and social democrats attacked the schools of the early twentieth century from this perspective, as drivers of the reproduction and maintenance of class divides, and several educational reforms have been motivated by this argument.

Social discord may result if children from different classes go to different schools, leading to reinforced class differences. Additionally, some have argued that children who would be expected to cooperate in their later working lives should not start by being separated into different schools. This may also lead to a lack of social cohesion.

Lack of representativeness. Others argue that it might be problematic if all people with higher education, holding leading positions in society, are recruited from a narrow social elite. Important decisions should be made by people who are representative of the population. Such arguments are mainly raised today about the representation of women, as well as

various minority groups. These arguments have been important in the Nordic context, but are also relevant in a broader context.

THE NORDIC CONTEXT

The five Nordic countries are rather small, with populations of ca. 10 million (Sweden), 5.8 million (Denmark), 5.5 million (Finland and Norway), and Iceland with less than 350,000. Together, the region has about 27 million inhabitants.

The Nordic countries are usually characterised in terms of their high living conditions and high scores on international surveys of life satisfaction (Ramstedt, 2009). From a comparative perspective, income differences measured by Gini-coefficients are still small (OECD, 2016). There are several similarities and commonalities between the Nordic countries, but also substantial differences. With the exception of Iceland, the Nordic countries are situated close to each other, but their geography and history is still highly diversified, differences which also are important for the economy and industry.

Denmark is a flat fertile country with highly developed agriculture, Finland is dominated by forests, Norway is dominated by its long coastline and fjords and mountains and Iceland is dominated by arid volcanic fields as well as a long coastline. Sweden has the strongest industrial history based on iron, but industrial development has also been strong in Denmark, Finland and Norway. Fishery, and more recently fish-farming, is important in Iceland and Norway, and both these countries have strong energy resources from thermal and hydropower respectively. During the last 50 years, Norway in particular has had considerable income from oil and gas production (Fig. 9.1).

There is a range of similarities between these countries in terms of history, culture and political systems, and they have developed a close cooperation since 1945. But there are also significant differences. These variations in histories have complex influences on one of the central 'missions' of nation-states: the development and reform of a national education system. Denmark, Norway, Sweden and Iceland have been connected historically and culturally, and they belong to the same language family. People in Denmark, Norway and Sweden can easily communicate. Finland, on the other hand, has a very different language, but also has a Swedish-speaking minority. There are also significant historical differences.



Fig. 9.1 Map of the Nordic countries

Denmark and Sweden have been independent monarchies since the middle ages, while Norway became independent from Denmark in 1814 and from Sweden in 1905. Iceland got its independence from Denmark in just 1944. Finland has had a turbulent history, alternatively occupied by Sweden and Russia, before being granted independence from Russia in 1917. Denmark, Finland and Norway were strongly affected by World War II, and had to start rebuilding their economy post-1945. In recent years, the five countries have chosen different paths in European cooperation: Finland, Denmark and Sweden are EU-members; Iceland and Norway are not.

During the nineteenth and twentieth century the Nordic countries developed their democracy and, in the post-war period, they have had a strong economic development. Denmark, Sweden and Norway were long dominated by social democratic governments, and all five countries

developed welfare state systems. The welfare state model in the Nordic countries is important for understanding the development of their educational systems. Among others, Esping-Andersen (1990) distinguishes between three different welfare state systems: **the liberal model** (e.g., USA, Canada, Australia), characterised by targeted contributions to low-income groups, and provision of typical welfare services via private actors; **the conservative model** (e.g., Austria, Germany, France and Italy), with typically less emphasis on market mechanisms than the liberal model, and marginal elements of distribution mechanisms based around traditional family patterns; and **the social democratic model** (the Nordic countries), characterised by redistribution policies and universalistic contribution mechanisms. The retention and ongoing development of relatively robust, universalistic welfare state policies has been widely argued to mark the Nordic region as something of an outlier from other European countries or Western democracies globally.

As in most other countries, higher education has expanded significantly in the Nordic countries, and student numbers are 20–25 times higher today than in 1950. There have been two large phases of expansion, the first in the 1960s, and the second in the 1990s and early 2000s. The first wave of expansion took place in a period of extended, stable economic growth and increasing demand for more skilled manpower, as well as of demographic growth due to the post-war baby-boom. The second expansion occurred in a time of economic stagnation (Börjesson et al., 2014) and started earlier in Sweden than in the other countries. Due to its small population, Iceland has not been able to offer higher education for all, despite rising demand, so almost half of its students study abroad.

EDUCATIONAL POLICIES IN THE NORDIC COUNTRIES

From the mid-nineteenth century, the school systems were reformed in the Nordic countries (Norway—Tønnesen, 2011), (Denmark—Gjerløff & Faye Jacobsen, 2014) (Sweden—Erikson & Jonsson, 1996); these waves of reforms continued for almost 100 years. The reforms had their origin in the modernisation and democratisation of society (Tønnesen, 2011) and were also based on the idea that it was unfair that a person's life chances should be dependent on the status of the family he/she was born into (Erikson & Jonsson, 1996). During these reforms, parallel school systems, with different schools for rich and poor, were gradually replaced by a comprehensive school. The last major reforms in compulsory

schooling took place in the 1950s–1960s when lower secondary education was included in the nine years of compulsory schooling, and hence abolished the selection between primary and lower schooling. Continuous reforms of the Nordic school system, over more than 150 years, gradually widened the entry into higher education, but did not lead to any immediate expansion in higher education enrolment. The school reforms were nevertheless an important prerequisite for the expansion of higher education that would start after World War II.

Educational policy in the Nordic countries is closely connected to the social democratic welfare state policy. Most schools and tertiary education institutions are public and, as in Germany, there are no or very low tuition fees in higher education. Unlike most other countries, the introduction of tuition fees in tertiary education is not even part of the political agenda at the moment. Equality arguments in the Nordic countries are still robust and widely accepted: fees are seen as unfair, leading to social differences in higher education attendance. In many other countries, such arguments have been inverted: it is socially unfair that families with ordinary incomes should contribute to pay for higher education, when the majority of its students come from well-off families, and the same students can look forward to high incomes after graduation. This debate in itself reveals a great deal about how complex and contested the notions of ‘fairness’, ‘justice’ and ‘equality’ become when they are used to support reforms and interventions in higher education systems.

In addition to tuition-free higher education, prior to 1950 the Nordic countries established state-run student support systems. Student support in the Nordic countries is offered through a combination of loans and grants and is intended to make students independent of family income. Student support varies among the Nordic countries both in the balance between loans and grants and in other regulations, but all of them support students economically during their studies, and also provide incentives or impose restrictions that encourage students to complete their studies without significant delay. Danish student support has the highest proportion given as grants and is therefore considered to be the most favourable for students, but all the systems can be characterised as generous from a global perspective.

It is easy to see how the Nordic model of education is closely linked to the social democratic welfare state model in being universal (not needs-based). Students are regarded as independent individuals, and financial support is given directly to the student. The student’s family is not

expected to contribute, as is the case in countries with a conservative welfare model. A comparative study covering the Czech Republic, England, Germany, the Netherlands, Norway, and Spain shows that while England, Spain and Norway allocate all financial support directly to students, Germany and the Czech Republic allocate a substantial part to their parents (Schwarzenberger & Opheim, 2009), which is in line with the conservative welfare state model. In Germany, for example, only some students receive direct financial support, which is dependent on their parents' income. A high proportion of Norwegian students live away from home, and they fund a larger proportion of their cost of living from paid work during their studies. The total public share of support to Norwegian students is therefore not especially high. The universalistic principle of the Norwegian model is also illustrated by the absence of means-testing: support does not vary according to social background. This is a major contrast to England, where most of the economic support is allocated to students from low and medium income backgrounds.

This is not to say the higher education systems in the Nordic countries are essentially the same. They differ from one another and have changed over time, in particular in how the HE sector is structured and the presence of binary divides or other ways of distinguishing academic and vocationally oriented higher education. In Denmark, higher education is carried out in business academies (offering short-cycle programmes), university colleges (offering medium-cycle programmes) and universities (offering long-cycle programmes). In Finland, there are 13 universities and 23 universities of applied sciences in the Ministry of Education and Culture sector. Higher education institutions are mainly multi-field institutions. In Norway, higher education was organised in a relatively clear binary model (universities and university colleges) until the mid-1990s. After several reforms, upgrades and mergers, there are now 10 universities (enrolling two thirds of all students) and six specialised universities (enrolling the rest). The university sector has changed from four 'traditional' universities to more hybrid institutions. There are only five university colleges remaining, of which two can be expected to be awarded university status within a few years. In Sweden, the majority of higher education and research is carried out at the 14 state universities and 17 state university colleges. First and second cycle (undergraduate) education is given at an equivalent level at university colleges and universities.

ANALYTIC APPROACH

For a long time, it was expected that the expansion of higher education would level out social inequalities in access and outcomes. However, the research presented in this paper shows that this substantial expansion has only led to marginal equalisation. This confounding pattern must be considered if we continue to aim for, and reform in the name of, greater equality. Boudon (1974) expected that once higher education attendance reached a certain high level among the upper classes and the attendance of lower classes continued to increase, inequality would be reduced. As presented in Amaral (this volume), Raftery and Hout (1993) introduced the theory of ‘maximally maintained inequality’ (MMI), which hypothesises that the gap between the participation rates of the upper and lower classes will only diminish when the participation rate in the upper classes approaches saturation. Lucas (2001) elaborated this further into ‘effectively maintained inequality’ (EMI), distinguishing between institutions and study programmes, stating that privileged groups will seek out specific prestigious study options once the advantages of reaching a certain level no longer apply.

The MMI and the EMI models are good illustrations of the patterns of inequality, but do not really explain how these patterns are shaped by individual preferences and acts, as well as contextual factors. Inequalities in higher education have their origins in earlier stages in the educational system as well as the entrance points to higher education (Baptista, Sin and Tavares [this volume]). Efforts to unpack and map the multiple factors for inequality have proliferated. Mare (1980, 1981) launched a model of transition points in the educational career. Boudon (1974) introduced the concepts of ‘primary effects’ and ‘secondary effects’. Primary effects (also termed ability-effects) describe the linear relation between parental social status and children’s measured ability, as well as school grades, whether based on genetic or socio-cultural factors. In most social research, the genetic factor is not denied, but few attempts are made to distinguish between what are inherited personal abilities, and what are the results of the influence of the family or school.

Secondary effects (or choice-effects) are active when students from different social classes make different educational choices, even when their school achievement is at the same level (Aamodt, 1982; Erikson & Jonsson, 1996; Hernes & Knudsen, 1976; Jackson et al., 2007). At each transition point in the educational system, when students have to make a

choice, whether to continue or not, or to enter academic or vocational tracks, these secondary effects tend to lead children from different social origins to make different choices. The transitions between levels in educational systems are also affected by intake regulations, usually based on grades as well as the strength of competition among applicants. Both the choices made and the selection mechanisms in place lead to increasingly social-biased enrolment patterns at each step. Jackson et al. (2007), based on a study of transitions into A-level courses in England and Wales, conclude that it is a serious error to ignore Boudon's distinction between primary and secondary effects.

These primary and secondary effects are well-illustrated by recent Norwegian data (Hansen, 2019): Among pupils with the best grades, almost all continue to academic upper secondary education, regardless of family background. Among those who get the lowest grades, a considerable proportion of students from the upper classes continue, but almost none from the lower classes. And among students with average grades, 90 per cent of students from the higher classes continue to academic upper secondary education, but only 50 per cent from the lower classes. Students from lower classes tend to choose vocational upper secondary schooling. Furthermore, students from upper classes have a higher chance of completing and getting better grades in upper secondary education, and also in the transition from upper secondary to tertiary education. The totality of these many decisions and selection patterns combine to result in the remarkable persistence of tendencies for family background (class) to shape how far, and where, individuals in any given educational system eventually end up.

It should be added that selection in the education system is not unintended or an anomaly. One of the roles of the school system is to contribute to the allocation of the young generations into different occupations based on merit rather than on inheritance. This role, where schools are understood as creating and potentially recreating social structures in various ways, again underpins the centrality of debates about what educational equality is and how far it can or should be achieved. A range of theories has been developed to clarify this role of schools and explain why there are socially based inequalities in education. Boudon (1974) divided these theories into three categories: value theory, culture theory and social position theory. The presentation of these theories is partly based on Helland (2004).

The value theory was developed in the 1950s and is based on the assumption that social differences in education arise because youth from different

classes value education differently and that youth from lower classes act against their individual interests. Boudon (1974) rejects the value theory since value-based actions are traditional and not purpose-rational. However, Grøgaard (1997) finds evidence for class-specific values that guide educational choices.

The culture theory is mainly focused on differences in school achievement which are thought to be related to cultural differences. Bernstein (1969) stated that children from upper classes acquire a more advanced language which is favourable within the school. The cultural theory of Pierre Bourdieu (Bourdieu & Passeron, 1990) describes the mechanisms behind social reproduction using the concepts *habitus* and *cultural capital*. The upper classes have acquired both a certain habitus and cultural capital which is favourable for succeeding in the educational system.

The social position theory (Boudon, 1974) is often seen as an opposition to Bourdieu's theories. It suggests that choices made in education are based on relativistic comparisons between costs and benefits of education and education aspiration and ambitions which are assessed from the perspective of one's social position; this explains, among other things, the tendency for young people to aim for at least as much education as their parents. According to Boudon (1974), the culture theory may contribute to the understanding of the primary mechanisms that lead school achievement to differ between social classes, while the social position theory may explain the secondary effects. The social position theory was later developed towards a pure theory of rational choices, leaving out cultural elements for example, by Goldthorpe and Breen (2000). One of the important concepts within this theory is *risk aversion*: the concern about downward social mobility is stronger among youth from higher classes than is the wish for upward mobility among lower classes.

All of these theories may contribute to the understanding of inequality, but it is difficult to accept that transitions in education are not based on some sort of rationality, even if this is limited due to a lack of information about future consequences (Elster, 1989). The title of Diego Gambetta's book (1987) *Were They Pushed or Did They Jump?* is illustrative of the dilemma around rational choice interpretations of school selection and transitions.

Erikson and Jonsson (1996, p. 55) sum up explanations of social inequality in education as follows:

1. Academic performance is better among children from higher social classes (genetic or culture)
2. Actual educational costs are higher for lower classes, primarily affecting transitions to higher education
3. Actual probabilities of success (at a given achievement level) are higher, the higher the parents' education, help and support during school
4. Perceived benefits of education are greater for children from higher classes, because the negative value they place on downward mobility outweighs the positive value of the corresponding social ascent for children from lower classes
5. Perceived probabilities of success are lower for children from lower classes at the earliest educational choice

Of these points, Erikson and Jonsson regard the first to be the most important.

The possible explanations for inequality in higher education presented above have their focus on individual ability and actions, but these do not operate in a vacuum, but depend on educational systems, national policies on education and, in general, on economy and class structure. The different welfare state models presented above can be related to funding models of higher education and student support models. The higher education model in the Nordic countries differs considerably from most other European countries and the US, being free of tuition and offering generous public student support. In addition, there is less of a difference in prestige between higher education institutions in the Nordic countries.

HIGHER EDUCATION IN THE NORDIC COUNTRIES FROM A COMPARATIVE PERSPECTIVE

Comparing enrolment trends and patterns between countries is complicated, partly due to the lack of genuinely comparative data, but also as the topic may be approached and understood in several ways. It also raises new questions: Which countries should be compared, and which educational levels should be included? Are we looking at enrolment patterns in a specific period or trends over time? How can we make sense of changes in educational access and attainment when social structures and stratification

are changing, too? How do we account for changes in higher education systems when we look at these trends?

We will first present a small (but important) sample of comparative research. In these comparisons, Sweden is the only Nordic country represented. As one of the first comparative projects in this field, the book by Shavit and Blossfeld (1993) has long been a point of reference. The book is based on comparative data from 13 countries: USA, the Federal Republic of Germany, the Netherlands, Sweden, England/Wales, Italy, Switzerland, Taiwan, Japan, Poland, Hungary, Czechoslovakia and Israel. In all countries, except Taiwan, Japan, and England/Wales the data included both women and men. In all countries, cohorts over a long time span were studied, comprising those born from around 1900 until the 1960s. The book does not focus specifically on higher education, as transitions between all major levels were studied.

Some of the main conclusions in the book are:

- In all thirteen countries there was a marked educational expansion during the observed period.
- In Sweden and the Netherlands there was a clear overall decline in the effect of social background, while the expansion did not lead to equalisation in the other countries.
- The effect of social origin was strong at the beginning of the educational career and declined for later transitions.
- In the countries where data were available for both men and women, there was a marked reduction in gender differences.
- The impact of educational reforms on educational stratification seemed to be negligible.

Following the book from Shavit and Blossfeld (1993), a large number of articles and books were published which responded to these claims. Some of these contributions contested the conclusions of Shavit and Blossfeld, based on more recent data and more sophisticated statistical methods (Breen et al., 2009; Breen & Jonsson, 2005). Arum et al. (2007) also conducted a comparative study, mainly directed at higher education, covering many more countries than Shavit and Blossfeld (1993). They found that in four countries (Japan, Korea, Taiwan and Sweden) inequality in the eligibility for higher education had declined, and in Italy and Israel the inequalities in the transition from secondary to tertiary

education had declined. In the rest of the countries, inequality was more or less stable or even increasing.

Breen et al. (2009) found that, in general, inequality had declined between 1950 and 1975 and, at the same time, the disadvantaged classes tended to shrink. Furthermore, they found that the transition from primary to secondary education had been equalised and, since the inequalities in transition from secondary to tertiary education remained unchanged, enrolment to tertiary education had become more equal.

INEQUALITY IN THE NORDIC COUNTRIES

Studies in educational inequality have a long history in the Nordic countries, especially in Sweden, where Gunnar Boalt (1947) was a pioneer, using survey data. After 1970, all Nordic countries developed population register statistics which increased research possibilities significantly, since transitions over educational careers could be followed for entire cohorts.

Erikson and Jonsson (1996), in their conclusions, stated that changes in educational inequalities were difficult to analyse and that results for Sweden may be interpreted in different directions. But they concluded that equalisation in Sweden, after all, had been quite substantial. Inequalities decreased between 1930 and 1970, while the pattern was stable before and after this period. In a more recent study, Jonsson and Erikson (2007) concluded that there was little evidence to support tertiary education expansion as an effective means for educational equalisation. In certain conditions, if expansion is combined with lowering very high admission requirements, some degree of equalisation may occur. Additionally, expanding tertiary education by establishing new institutions with lower academic status may lead to equalisation, but also to increasing stratification within the tertiary sector.

Finnish data covering higher education enrolment from 1970 to 2000 (Kivinen et al., 2007) indicates a development towards decreasing inequalities in Finland. The odds ratio for differences in participation in university education between those from academic and non-academic families shrank from 19 to 8, and this reduction is stronger for men than women. During these three decades, Finnish higher education was transformed from an elite system into a mass system. At the start of this period, the system favoured males with background in academic families, whereas today women are in the majority and the effect of family background has weakened.

Based on register data from Statistics Norway for the cohorts born from 1951 to 1960, Aamodt (1982) analysed transitions after compulsory schooling and enrolment in higher education in 1974 and 1978. Comparisons were also made with previous Norwegian research (Vangsnes, 1967) covering the period from 1951 to 1963. The analyses showed that there had been a strong expansion in the numbers of students eligible for entry into higher education by completing the academic track in upper secondary education (matriculation examination). Comparisons between socioeconomic groups based on the father's occupation showed that in the social group 'superior employees, professionals and teachers', the percentage completing academic upper secondary education increased from 47.9 to 62.1 during the analysed period between 1951 and 1978, while in the social group 'workers and foremen' the percentage increased from 3.5 to 20.8. In other words, differences were considerably reduced.

Transition to university from the academic upper secondary education five years after graduation could only be observed for the 1951 to the 1974 cohort. The differences between social groups in this transition were considerably smaller than in the matriculation examination completion mentioned above. In the 1974 school leaving cohort the percentages were 54.0 and 34.3 for the two social groups, 'superior employees, professionals and teachers' and 'workers and foremen' respectively. This shows that most of the social inequality in university enrolment was established already before students left upper secondary education. But while recruitment to academic upper secondary education became less socially biased during the observed period, the differences increased in the transition to university. In the social group 'workers and foremen' the percentage increased from 30.9 in the 1951-cohort to 34.3 in the 1974-cohort, whereas the increase was from 43.9 to 54.0 in the social group 'superior employees, professionals and teachers'. In other words, there are indications that during the massification of education, selection moves up one level.

Enrolment in the non-university sector is less socially biased than enrolment in universities. Measuring family effect by father's education, 32.2 per cent of the relevant age group having fathers with a university degree were enrolled in a university in 1975, against 2.5 per cent if the father had only compulsory education. In the non-university sector, the figures were 9.6 and 3.0, respectively.

In the early 1990s, Norway experienced a strong increase in applicants and stronger competition for entry into higher education due to high

youth unemployment, and it was a concern that this would lead to increasing social inequality. A study based on register data for 1980 and 1990 showed that this was not the case; on the contrary, inequality had decreased in higher education as a whole, especially in the non-university sector, while the enrolment pattern in universities had been stable (Knudsen et al., 1993).

Like Knudsen et al. (1993), Hansen (1999) showed an increasing social segmentation between different tracks in Norwegian higher education. In her study, based on register data for the age cohorts born between 1962 and 1973, she made a distinction between university colleges offering mainly short vocational education (e.g., nursing, teaching, undergraduate engineering), open university programmes, and selective elite university programmes (law, medicine, dentistry, veterinary medicine, graduate engineering, business administration and architecture). While the two first options had expanded considerably in the studied period, the third had a more stable enrolment. As expected, enrolment differences by social class had been reduced in the university college sector, but the expansion of the open university programmes had not led to any trends towards equalisation. And finally, the strong social differences in enrolment of the elite programmes had continued. Family income had an additional effect on enrolment probabilities and was strongest for the choice of elite education.

More recent results are presented in Fig. 9.2 which shows the percentage of 19–24 year olds enrolled in higher education, by parents' educational level. While the participation rate among those who have parents

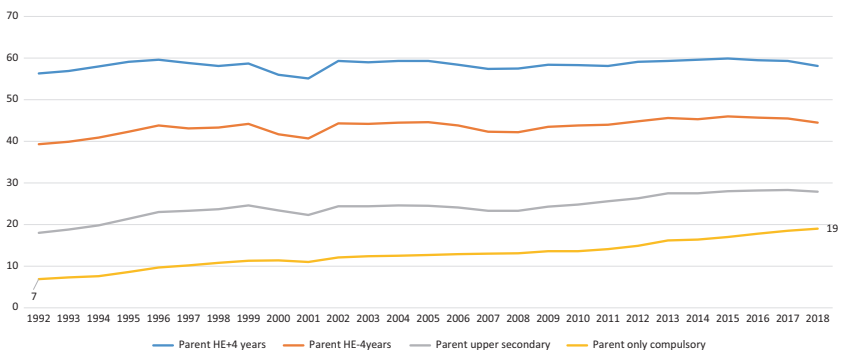


Fig. 9.2 Percentage of 19–24 year olds in Norway enrolled in higher education by educational level of parents. 1992–2018

with more than four years of higher education is more or less stable from 1992 to 2018, the participation rate among those whose parents have only compulsory education more than doubled, from 7 to 19 per cent. The ratios between the two groups have decreased from 8:1 to 3:1, indicating a clear trend towards decreasing inequality, but still the difference is large. From 1992 to 2018, the percentage of the parents' generation (40–49 years) with higher education in total increased from 23 to 44 per cent, while those with only compulsory schooling went down from 25 to 16 per cent.

Recently, Thomsen (2015) conducted a study based on register data from Denmark on educational status for the entire population aged 25 for each year from 1984 to 2010. He used information about parents' highest education level and income to measure cultural and economic capital respectively. He furthermore classified Danish higher education programmes into four types: selective liberal arts university programmes, selective applied university programmes, non-selective liberal arts university programmes and non-selective applied university programmes. During the period from 1984 to 2010, higher education expanded significantly, and attendance rates increased for almost all groups and study programmes. In 1984 sons of higher educated parents were about four times more likely to attend higher education than sons of lower educated parents were, and in 2010, this ratio had fallen to 3:1. The corresponding ratio for daughters was lower in the whole period and only 2:1 in 2010. While participation rates have become more equal between sons and daughters of parents with high or low education, there is a slight tendency towards the opposite development when comparing family income. Thomsen concludes that when looking at access to higher education in general, culturally privileged groups (children with higher-educated parents) have not maintained their relative advantage. Inequality has, however, been maintained by the economically privileged groups, but the level of inequality is much lower. Furthermore, Thomsen (2015) found clear disparities in participation ratios in different types of programmes; inequality was strongest in access to selective liberal arts programmes, where students with higher-educated parents had 8–9 times higher attendance rates than students with lower-educated parents. And while the non-selective programmes moved towards less inequality from 1984 to 2010, inequality in the access to the selective liberal arts programmes was still high, and even slightly increasing. These findings support those of Hansen (1999) arguing that expansion has led to reduced inequality in higher education

as a whole, due to the channelling of students from lower-educated families towards less prestigious programmes.

In the comparative research contributions presented in the previous section, Sweden is alone in representing the Nordic countries. A Nordic model has often been taken for granted, with similar enrolment patterns as well as levels of educational inequalities. To represent the 'Nordic model', Sweden has almost exclusively been used as a proxy for the Nordic countries. Furthermore, it has proven to be difficult to make comparisons between the Nordic countries based on previous national studies because of differences in time periods, operationalization and methods. Thomsen et al. (2017) therefore tried to address these research gaps in comparing higher education attendance by social origin, by setting up a truly comparative database covering Denmark, Finland, Norway and Sweden. They drew data from national administrative registers, classified all variables in the same way, used the same time periods and applied the same methods and models. Their article is therefore the first full-scale comparison of changes in the four Nordic countries across several decades.

Their starting point was that the Nordic higher education systems are embedded in the social democratic welfare state model, as presented above, characterised by universalist policies aimed at reducing inequalities and increasing opportunities. An overview of the higher education systems in the four countries, however, shows a number of differences in both the institutional landscape and the degree structure, even if the systems have converged after the Bologna process.

Thomsen et al. (2017) conducted their study by implementing three models: First, they focused on the overall higher education participation, second, they turned their attention to the upper tertiary level (which is not identical with university), and third, they looked at differences by study programmes. Contrary to the general impression of strong similarities between the Nordic countries, they found substantial differences in the enrolment pattern of sons and daughters from families with high and low education between the four countries. There were, so to speak, no signs of a 'Nordic model of higher education', as social inequalities in participation patterns differed, with Finland and Sweden at the extremes. This means that using Sweden as a proxy for the Nordic countries is problematic. Looking at changes in higher education generally, inequality in Finland and Norway was reduced from 1985 to 2010 in tandem with expansion, while Denmark had a more modest development. In Sweden, at the other end, there is no sign that expansion closed the gap in higher education

between students from families with high and low education (this is in line with Jonsson & Erikson, 2007). The stable level of inequality in Sweden may be related to the fact that the Swedish level of inequality was initially at a lower level than in the other Nordic countries in 1985.

There are great variations in inequality between educational fields, but enrolments in most fields in the Nordic countries equalised from 1985 to 2010. However, the most prestigious professional university programmes, such as law and medicine, still favour socially privileged students, even if the social gap has been narrowed in Finland and Norway. Hence, all Nordic research contributions presented above support the EMI model (Lucas, 2001).

DISCUSSION

It is one of the most consistent findings in social science that those students who come from families of high social status, whether economic or cultural, are more strongly represented in higher education than other students. This class bias has long historical roots and still persists in spite of the massive increase in higher education enrolment worldwide since the 1950s. The picture is, however, less consistent when it comes to the question of changes over time and differences between countries. This should not be a surprise: it is far more complicated to conduct comparative social research between countries and over time—and hence even more difficult to analyse differences in trends between countries. Furthermore, researchers use different types of data, methodology, time periods and theoretical approaches.

It was long taken more or less for granted, based on the book of Shavit and Blossfeld from 1993, that in most countries there were no signs of equalisation, but that the Netherlands and especially Sweden deviated from this general picture with a significant tendency towards equalisation. Later research contested these conclusions, and most recent research has concluded that there have been significant movements towards decreasing inequality in many countries. But still, the signs of equalisation are less visible than the remaining differences.

Our first research question was: *To what degree are the Nordic welfare states exceptional examples of equality in higher education?*

In the examples from broad comparative research presented in this chapter, only Sweden is included, and the findings of both Shavit and Blossfeld (1993) and Arum et al. (2007) show that Sweden is among the

countries with the lowest inequality. Within the Nordic region, however, Sweden is the country that has reduced inequality the least, suggesting that the other Nordic countries have made even greater progress than Sweden towards equality in higher education participation. Although enrolment in higher education both in Sweden and in the other Nordic countries is still far from being equal between social groups, one may tentatively argue that the Nordic countries stand out globally in the progress they have made. Even if the general welfare state policy and the higher education systems in the Nordic countries may be regarded as favourable for reducing inequality, other countries with different systems and policies have moved in the same direction.

Our second research question was: *Is there a Nordic model with strong equality similarities between the countries?*

Recent comparative research on the Nordic countries (Thomsen et al., 2017), covering the period from 1985 to 2010, showed considerable differences between the four Nordic countries both in levels of inequality and in changes over time. While Finland and Norway have developed towards reduced inequality, the changes in Denmark are more modest, while the situation in Sweden is stable. These differences may be due to differences in policies and higher education systems, and that the starting situation in Sweden was more equitable.

Our third research question was: *To what degree is the development in the Nordic countries in line with the MMI and EMI theories?*

Enrolment patterns in the Nordic countries clearly support the theory of maximally maintained inequality (Raftery & Hout, 1993) and the theory of effectively maintained inequality (Lucas, 2001). As higher education has moved from a privilege for the few to comprising close to half of the age groups, and also the institutional structure has changed with the establishment of less prestigious higher education institutions beside universities, many researchers have shown that these new sectors have a more 'democratic' enrolment than the universities. This has, on the one hand, led to a certain equalisation of higher education as a whole. However, at the same time, the upper classes have kept their position at universities and to an even higher degree in the most prestigious and selective programmes like law and medicine. This has resulted in a stronger segmentation in enrolment between types of institutions and study programmes: entry into tertiary education in general has been equalised, but inequality is now present in the selection into prestigious institutions and study programmes.

Some of the equality differences between the Nordic countries may be related to differences and changes in the higher education institutional structure. All Nordic countries have developed binary systems, establishing university colleges as alternatives to universities. However, this development happened in different stages: in Norway university colleges were established in 1970, in Finland in the early 1990s, and in Denmark in 2007 (Börjesson et al., 2014). There have been several national reforms and today, for example, in Norway, almost all former university colleges have been awarded university status or merged with a university. It is, however, not possible to prove a strict relationship between higher education systems and reforms. Compared to, for example, the USA, UK and France, there are less prestige differences between universities in the Nordic countries, but a relatively clear distinction between universities and university colleges exists.

As highlighted above, inequality in access to higher education is to a large degree a result of achievements and choices made in earlier stages of schooling. The PISA survey from 2015 shows that in Finland, Denmark and Norway, together with Japan, Estonia, Canada and Australia, the relationship between social class and PISA scores in natural sciences is weaker than in other countries. In Norway, 8 per cent of the variance in achievement may be related to socioeconomic background against 20 per cent in France (Kjærnsli & Jensen, 2016). This may suggest that access to higher education in the Nordic countries is relatively equal between different social classes, even if this is difficult to prove empirically.

This chapter focuses on inequality by social class and parents' education, not on gender, geography and ethnicity. It is, however, remarkable that while social class differences persist, the participation pattern by gender has changed considerably in most countries. From being strongly male-dominated in the 1960s, today women are the majority in most countries. The development in Norway is probably relatively representative. As late as 1971, only 30 per cent of the student population was female; today it is 60 per cent. Changes in enrolment in the elite professional university programmes is especially visible. In 1964 women made up 8 per cent of law enrolments and 17 per cent of medicine. Today female students are the majority in both law and medicine with 65 and 69 percent, respectively. Today, only technical programmes are male-dominated.

When comparing country differences and changes in social class differences in higher education participation over time, one should take into

consideration that class structure and the educational level of parents differ between countries and over time. The most visible change is the strong increase in the educational level of the parental generation. The percentage of parents with higher education has increased strongly during educational expansion, and the percentage of those with only compulsory schooling has gone down; in the same period, both the farming populations and the number of industrial workers have been reduced. This must obviously have changed the effect on participation by social origin, but we will leave the answer open on how this has happened.

According to Marginson (1998, 2004), the value and attractiveness of education is related to the benefits of education later in life, especially for employment and social status. This relationship varies, not only between type of institutions and study programme, but also between countries. Since there are relatively small income differences in the Nordic countries as measured by Gini-coefficients, the relative value of higher education in terms of economic outcomes is lower than in many other countries. In spite of this, higher education is still attractive among the youth in the Nordic countries. Relatively low income advantages from higher education may also affect the relative economic benefits of a prestigious higher degree versus an undergraduate professional degree in for example, nursing and social work. How this affects inequality in enrolment is a potentially interesting research topic.

POLICIES FOR EQUALISATION

National educational systems vary between countries, since they reflect different cultures, history and political profiles, and there is probably no universal agreement about the most efficient policy to reduce inequalities. However, based on recommendations from the OECD report on equity (Field et al., 2007, p. 9) and Erikson and Jonsson (1993), the following suggestions may be formulated:

- Due to the strong impact of school achievement in primary education, early childhood education should be given priority. It is important to support learning so that as many students as possible reach a satisfactory performance level. Special support should be given to students who fall behind and their families. Year repetitions should be reduced.

- Children who perform well in compulsory school should be encouraged to continue into the academic tracks in secondary schools. This may be a dilemma since the best possible vocational options should also be available.
- One should limit early tracking and postpone selection.
- Choice of schools should be managed in a way to avoid socially segregated schools.
- In upper secondary education, one should remove dead ends and prevent dropout. Second chances should be offered.
- Entry regulations in the transition between levels of education, as much as possible, should be based on objective criteria.
- Access to higher education should be open for students from all upper secondary programmes, possibly facilitated through specific courses.
- Higher education should give access to all who have obtained the formal entry qualifications.
- A generous student support system should exist, based on a combination of loans and grants. Indirect support for cost of living may supplement direct economic support to students.

Due to country differences in economy, class structure, general policy as well as in educational systems and educational policies, the suggestions for equitable education presented above are probably not equally relevant in all national contexts. We see a number of differences and similarities in enrolment patterns across national systems; for instance, there is a relatively diverse pattern between the four Nordic countries. Nevertheless, these suggestions reflect some guiding principles which should be considered in policy development.

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Conclusion: Learning from the Past to Shape Future Policies Towards Equity in Higher Education

Orlanda Tavares, Cristina Sin, and Carla Sá

INTRODUCTION

Equity in higher education remains a widespread international concern (James et al., 2008). Higher education is often described as both a private and a public good (Deem & McCowan, 2018; Dunham, 2018; Marginson, 2011a). As it is assumed to benefit students individually (personal development, social status, career prospects and lifetime earnings), and the

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O. Tavares et al. (eds.), *Equity Policies in Global Higher Education*,
Issues in Higher Education,
https://doi.org/10.1007/978-3-030-69691-7_10

society as a whole, it is seen as crucial for national development. Encouraging higher education participation of disadvantaged groups is deemed vital for their long-term social and economic integration, being associated with lifelong wellbeing and poverty prevention (McNamara et al., 2019). Therefore, widening participation and boosting intergenerational social mobility is alleged to lead to more cohesive and more economically successful societies (James et al., 2008). That is why the level of access to higher education, in many countries, is often presented as an indicator of the level of development and the capacity to produce knowledge, as well as of a workforce adapted to the economic and social development (Goastellec, 2008).

Globally, the issue of equity in higher education emerged on the political agendas as a consequence of the combined effect of three types of pressures: demography, the economic pressure to efficiency and the political call for the diversification of the student body (Goastellec, 2008). However, as Marginson (2011b) argues, the strategies to improve socioeconomic equity in higher education are driven by different goals: fairness or inclusion. While fairness implies changing the composition of participation, aligning higher education with the ideal model of a socially representative system, inclusion involves broadening the access and completion of under-represented groups. When the goal is inclusion, each improvement in the participation of people from disadvantaged groups is understood as a move forward, regardless of whether the participation of the middle class has also progressed. Yet, inclusion does not necessarily lead to a socially representative system, especially when under-represented groups can only take advantage of opportunities offered by expansion when the needs of the upper classes are fully satisfied, as proposed by the Maximally Maintained Inequality hypothesis (Raftery & Hout, 1993). Indeed, inclusion may bring to higher education more people from disadvantaged groups, but, as more does not mean they are fully represented, higher education systems which solely foster inclusion cannot be labelled as fair. For this reason, in spite of the massive increase in the number of students worldwide (Marginson, 2016), no significant change in class-specific inequality relations can be observed (Wakeling, 2018). The consequences of unequal opportunities to access scarce positional goods (Marginson, 1998) reflect on people's ability to access the labour market and thus to individual life chances (Blome et al., 2019).

The term "equity" used in this book is therefore close to "fairness". Indeed, it may be fair to treat people differently (e.g. admission criteria or admission exams) when it is recognised that there are groups with specific

needs and facing barriers of different natures (McCowan, 2016). Whereas concerns on equity are somehow convergent across many national systems, there are divergences on what a fair system is. Some of these divergences are evident in political debates about equity and efficiency, public versus private, academic versus vocational and views on human ability and potential (Ibidem). Whether unequal opportunities arise on the basis of gender, social class, race/ethnicity, among others, is somehow related to specific historical factors of different contexts (McCowan, 2016). Above all, the principle of social justice requires that class, ethnicity, geographical location or other personal characteristics should not determine access to and success in higher education (James et al., 2008).

POLICIES TO PROMOTE EQUITY AND TO REDUCE INEQUALITIES IN ACCESS AND SUCCESS

The chapters integrated in this volume have revealed a variety of policies that have been taken in different national contexts to tackle inequality in enrolment and attainment in higher education. Although the majority stem from national initiatives, probably due to the high degree of national regulation of the higher education sector in most countries, there are also examples of institutional initiatives in the case of the United States, showing that institutions can also be proactive in addressing educational inequality.

To begin with, it is worth noting that achieving equality in higher education participation and attainment is a rather impossible task if reforms fail (or have failed) to equally target primary and secondary education. Thus, a first set of policies have addressed achievement in previous education levels. As Aamodt's chapter showed, the Nordic countries—which have gone a long way in addressing equity in higher education—started to reform the school system already in the mid-nineteenth century, based on the belief that an individual's life chances could not depend on their family's socioeconomic status. Given the significance of education for social emancipation, the segregation between schools for the rich and the poor was gradually eliminated and compulsory education was extended already in the 1960s with the inclusion of lower secondary education in the 9 years' compulsory schooling, thus abolishing the selection between primary and lower schooling. The chapter by Baptista et al. on the transition to higher education in Portugal also refers to political measures at previous education levels, taken in recent decades, such as fighting early

educational drop-out by consolidating the public sector and offering support to low income families (Amaral et al., 2016), the diversification of secondary school offerings, the provision of alternative curricular routes in lower and upper-secondary education or making education compulsory until the age of 18. Tackling equity in higher education has therefore acknowledged that achievement and choices in previous levels of education have a direct bearing on higher education participation and success.

Increasing participation in higher education also depends on the availability of sufficient educational offerings. Consequently, a second category of policies was aimed at the expansion of higher education systems as a necessary condition for widening access to new publics. This has been achieved, among others, through the diversification of higher education provision by fostering the growth of private education (Brazil and Portugal) and the creation of binary systems (Portugal and the Nordic countries). More recently, Portugal also saw the creation of short-cycle tertiary courses which aim to attract students with a vocational profile or students who have not got satisfactory grades in the national competition for access to higher education. However, these non-degree awarding programmes can afterwards be used as entry points to a HE degree. Dill's chapter draws attention to the fact that policies for the expansion of the higher education system need to be accompanied by effective quality assurance policies in order to ensure that the new educational opportunities are valid. This is especially the case following the emergence of for-profit higher education institutions in the United States which have targeted mainly poorly informed students from low economic backgrounds or with no family tradition of higher education participation. Quality assurance policies could protect these students from the danger of enrolling in programmes with low completion rates, poor graduate prospects and high default rates on federal loans. Measures in this sense were taken by the Obama administration, but the Trump administration subsequently reversed these quality assurance policies affecting for-profit high education institutions (see chapter by Dill).

In addition to expanding higher education, other policies intended to create conditions to allow the democratisation of access by fostering the participation of under-represented groups. The chapters on the United States (by Dill) and Brazil (by Bertolin and McCowan) provide examples of widening participation by means of affirmative action policies. Such policies aim to promote inclusion by increasing the participation of under-represented and disadvantaged groups in higher education. In the United

States, according to Dill, affirmative action goes back to the 1964 Civil Rights Act, which outlawed discrimination based on race, colour, religion, sex or national origin and which at the time led many colleges and universities to adopt policies aimed at increasing the recruitment of students from racial minorities. However, more recently, these policies have caused mounting opposition, with consequences going as far as, for instance, banning race-based affirmative action in admissions in California's selective public universities, which resulted in a decrease in the enrolment of under-represented racial and ethnic minority students. Very recently, Brazil also adopted affirmative action public policies in order to democratise access. The Quotas Law of 2012 established a 50 per cent quota for public school students (usually of socioeconomically disadvantaged backgrounds) in all courses in federal institutions, in addition to sub-quotas for lower-income, black, mixed-race and indigenous students.

In her chapter on England, Thomas, quoting Tinto (2008), invokes the argument that diversifying the student population but failing to support non-traditional students to succeed does not contribute to reducing social inequality or increasing social justice. Thus, in England, equity policies have taken a step further and now contemplate the whole student life-cycle, including progression and attainment. This has become even more pertinent in a context in which the state has progressively transferred the cost of higher education teaching to students through the introduction of student fees in the late 1990s and their consecutive increases over the next two decades. National regulators have been urging institutions to employ the additional income from fees to promote social justice. Policy instruments were created, currently in the form of the Access and Participation Plans, to monitor institutional commitment to equality in participation and to equality of outcomes, focusing on access, success (incorporating retention and attainment) and progression to (graduate) employment and further (postgraduate) study. Institutions are required to self-assess their performance in relation to these dimensions and six specific target groups (including socioeconomic status, age, ethnicity and disability). According to Thomas (this book), such measures place fairness and inclusion 'at the heart of institutional priorities, rather than on the margins, and create a system-wide framework for improving the outcomes of all students'.

Student support policies in the form of grants and loans represent another set of political measures aimed at increasing participation in higher education. Grants can be universal, as in the Nordic countries, or

means-tested depending on family income, as in Germany (see Aamodt's chapter for more detail). The Brazilian case presents another example of non-refundable credits (Prouni) offered, since 2005, to students attending higher education courses in private colleges and universities. Economic circumstances, race and disability are criteria for the attribution of this type of financial support. Scholarships are given to students with low family incomes who attended public secondary schools or received scholarships to attend private secondary schools. Additionally, institutions are required to set aside quotas for students with disabilities and those self-declaring as black and indigenous, matching the respective proportions in the population according to the most recent census. In exchange for the scholarships, institutions are exempt from a given set of taxes and fees. Merit-based aid programmes in the United States are another example of student support (see chapter by David Dill). This is financial aid offered by a number of US states for their residents further to the escalating costs of higher education (Page & Scott-Clayton, 2016). However, while effective in increasing overall enrolment, academic performance and degree attainment, these merit-based state aid policies are also inequitable, as they do not benefit those most in need. A high-proportion of the in-state students receiving this aid come from well-off families who could afford higher education.

Student loans, too, can help increase participation although some argue that they are less effective than grants in encouraging poorer students to access higher education. For governments, they are cheaper than grants, especially in a situation of mounting costs due to the expansion of the sector, because at least some of the money borrowed is repaid. This was probably the logic which guided the replacement of maintenance grants for poorer students in England with maintenance loans (see chapter by Callender). As a form of refundable financing, the major difference between national contexts is represented by the repayment conditions, which are more or less favourable. In Brazil, for instance, students who benefit from the Higher Education Student Fund (FIES) public scheme have to return the funds after graduation at below-market interest rates.

Loans are often discussed in relation to tuition fees, especially in those higher education systems where high fees pose a potential obstacle to participation (see chapters on England by Callender and on the United States by Dill). Consensus is lacking among researchers and policy-makers as to whether tuition fees represent a source of inequality. Some consider that fees act as a barrier for the participation of low income students, while

others claim that they are necessary precisely as a way to avoid benefiting the more economically advantaged classes. The latter argument applies mostly in countries with low or no tuition fees in public institutions, which are more prestigious and selective and, therefore, attract those students who are academically best prepared. Most of these happen to come from a high socioeconomic background and whose families have the resources to invest in their education in order to reach a level that allows them to enter the most competitive institutions (e.g. the case of Brazil described by Bertolin and McCowan or of Portugal described by Sá et al.).

The policies on tuition fees differ by country and, as argued by Aamodt, they are most probably associated with the type of society and welfare state model characteristic of each country (Esping-Andersen, 1990). In the Nordic nations, where the social democratic model in place favours redistribution of wealth and income differences are small, tuition fees are deemed to be unfair and are absent from the political agenda. In contrast, countries with liberal models, such as England or the United States, have tended to limit public expenditure on higher education and to resort to tuition fees as a means of cost-sharing. According to Callender, the revenue from tuition fees had, by 2012, replaced most of the funding universities used to receive from the state for the teaching of undergraduate courses, which to some is equivalent to the privatisation of higher education (Shattock, 2017). However, while in England loan repayments are income-contingent, thus protecting graduates with low earnings from high repayments and financial constraints, in the United States they are “mortgage style”, aggravating the risk of high debt and default (see chapter by Dill). In this sense, Dill refers to Barr’s recommendation (Barr, 2009) on caps on tuition and income-contingent repayments on loans.

A final set of measures adopted to promote equity in higher education participation are related to information provision, acknowledging the fact that imbalances exist between students from disadvantaged backgrounds and more privileged students regarding the access to and the ability to understand information. These examples come from the United States (see chapter by Dill). One refers to an institutional initiative meant to ensure a better understanding among disadvantaged students of the information on financial aid, by making publicly obvious the fact that a family bears no formal responsibility for college financial support. According to Dill, this had a positive influence on parent and student behaviour on access to higher education. A second and recent initiative came in the form of rankings based on social and economic diversity, meant to support

choice for students from lower socioeconomic backgrounds. The College Access Index indicates how many low and middle-income students in each college or university receive a specific federal scholarship awarded to students from the bottom 50 or 40 per cent of the income distribution (the Pell Grant) and how much these students pay for their education. This has had the expected impact, resulting in more diverse socioeconomic backgrounds.

PERSISTENT (SOCIAL) INEQUALITIES

Despite these policies to promote equity in participation and to reduce inequalities in access and success, equity issues are still a major problem in higher education systems worldwide, as it was recognised in all chapters.

The goals of fairness and inclusion, the two main dimensions of social equity, have hardly been accomplished, no matter the stage of the massification process the country is in and irrespective of the implemented policies. Although England has been seen as advanced in reaching the goal of widening participation, students from lower socioeconomic groups and ethnic minority groups are considerably under-represented in higher education, especially in traditional universities when compared to the post-1992 institutions, revealing stratified choices (Thomas, in this book). The gender gap in university entrance has widened over time, with men showing lower participation rates than women, and being the highest among white students when compared with minority ethnic groups. As concluded in the chapter by Callender (this book), neither fairness nor inclusion has been achieved.

Expansion of higher education systems was believed to contribute significantly to reduce socioeconomic inequalities, but it appears most countries have not been successful in diminishing educational inequality and promoting social mobility. Although this has progressed to a different extent in different countries, the fact is that the most privileged students are not only taking the most, but also the best opportunities in higher education, consistent with the so-called Maximally Maintained Inequality and Effectively Maintained Inequality hypotheses outlined by Amaral (this book). In England, for instance, the extra supply that followed higher education expansion was mainly taken up by middle class students. The first generation of students from the poorest households and ethnic backgrounds tend to enter new universities that used to be polytechnics, whereas their wealthier peers are more likely to go to the most selective

and prestigious institutions, enjoying all the present and future benefits which these institutions provide their graduates (Callender, in this book; Thomas, in this book).

In Portugal, it was evident that non-privileged students could only access higher education when the system expanded to include new universities, polytechnics and the private sector (Sá, Tavares & Sin, in this book). Socioeconomic inequalities are apparent in both the choice of higher education institution and of study programme. Students from privileged families tend to prefer universities, perceived as more reputed institutions than polytechnics, and are admitted in the most prestigious programmes (like Medicine, e.g.). Students who are the first generation in higher education, from poorer households, go more to polytechnic institutions, which reveal a more diversified student body that better mimics the Portuguese social composition.

Although to a different extent, a similar picture is found in the Nordic countries. Known to rank high on educational access and low levels of inequality, there is still a non-negligible degree of inequality in access to higher education in Denmark, Finland, Norway and Sweden (Aamodt, in this book). Their higher education systems have globally moved to more equalised systems of access, which has been accompanied by a change in the institutional structure, with new less prestigious institutions coexisting with universities. Upper class students keep attending the most prestigious institutions and programmes (like Law and Medicine), whereas low income students attend the less prestigious institutions that receive a more diverse student body, resulting in increasing stratification within higher education.

Several explanations might be pointed out to justify the social inequalities in higher education that the under-representation of students from disadvantaged socioeconomic backgrounds makes evident. Cognitive and other attributes shaped since the early years in family and educational contexts are key determinants of ability, and consequently are of major significance for higher education participation. This means that inequalities may start well before students cross the higher education gate, as shown throughout the chapters in this book. Most Brazilian students attend public secondary schools, but their outcomes are clearly worse than their privileged background peers' who go to private schools, as they experience lower participation rates and tend to enrol in programmes with lower perceived social status (Bertolin & McCowan, in this book). Higher income Portuguese students are more likely to follow the secondary education

academic track that puts them in better situation to have a successful higher education application (Sá, Tavares & Sin, in this book). Their families can afford private high schools, usually offering better education and higher grades (Batista, Sin & Tavares., in this book). Privileged English students who are sent to private high schools show higher participation rates and are more likely to attend the best universities than their poorer peers (Callender, in this book). Even in Nordic countries, where the relationship between social class and student performance tends to be weaker, low income students tend to choose more the vocational upper secondary track, which makes them more vulnerable in access and less likely to successfully complete higher education (Aamodt, in this book). Also, James et al. (2008) consider that inequalities in higher education participation tend to echo endemic educational disadvantage that starts in the earliest years of schooling. Therefore, people from low socioeconomic backgrounds are more prone to develop worse perceptions of the attainability of a university place, less confidence in the personal and career relevance of higher education and may be more likely to experience alienation from the cultures of universities.

Individuals from poorer families face higher costs of attending higher education, which are relevant for both the *whether to go* decision and the *where to go* choice. Financial aid seems to be crucial for these students, especially in contexts such as the American and the English characterised by rapid rising costs, but generates inequities in itself. High achieving, low income students often face difficulties in dealing with the complexity of the application process that discourage them to apply (Dill, in this book). Even among those who overcome the application process barriers, debt aversion seems to constrain choices, and it frequently happens that the choice of a programme and an institution is made considering the option that minimises living costs (Callender, in this book). Thus, as families and students are not fully aware of all costs and benefits associated to each option, namely the characteristics of each institution and programme, as well as graduation and labour market outcomes, they are unlikely to choose the option that benefits them the most. Callender concludes that loans are not necessarily perceived by students as fair, affordable or risk free. On the contrary, some students are deterred from participating in higher education because of fear of debt, concerns about loan repayments and the amount they need to borrow. Hence, in many countries like the UK, the shift from public funds to individual fees is likely to remain a financial barrier for those from poorer economic backgrounds, which in

turn reflects on employment, as lower socioeconomic and minority ethnic backgrounds keep on earning significantly less than the average (Burke, 2017).

Low income students are confronted with information and behaviour constraints that push them towards choices that are not the most beneficial for them. They are often the first generation of applicants to higher education, so they cannot benefit from parents' knowledge of the process itself, and of the mechanisms of acceptance (e.g. the advantages of applying simultaneously to alternative institutions). Other high achieving students that are likely to apply to selective institutions mostly do not take part in their high school peer network. Without any role model or any guidance through the process of choosing the higher education institution and the programme, they end up attending programmes and institutions that do not match their skills and needs. Without help and support, these students even become the target of very low performance institutions, such as for-profit higher education institutions in the US (Dill, in this book).

Access rules and practices can also drive social inequalities in higher education, of which the United States is a good example. As highlighted by Dill (in this book), equity and fairness of some of the access practices in place in the United States have been publicly questioned and some prestigious and selective colleges and universities have been accused of biased admission procedures that favoured athletes, children of both alumni and faculty members, and under-represented minorities. Furthermore, higher education institutions, in response to the need to improve their quality rankings, are more inclined to select the highest-performing students to improve success measures and the wealthiest candidates to pay high tuition fees.

Equity is about opportunities in higher education, but it is also about educational outcomes and performance. Thus, a further issue is whether different groups perform and achieve differently in the educational system. As students from lower socioeconomic groups gain access to higher education, new challenges emerge. As mentioned by Bertolin & McCowan (this book), the new life in academia is usually very different from the one they are familiar with, and scholarship students are often discriminated based on their cultural and socio economic status. Therefore, it should come as no surprise that Brazilian students from lower income households face higher failure chances and drop-out rates and graduate from lower quality institutions, programmes and modes of education (e.g. in private

distance education). Social inequalities by no means disappear when students enter higher education; inequalities persist within the higher education system and even after graduation. According to Callender (this book), labour market returns differ considerably by socioeconomic background, even when comparing with peers with the same prior attainment and attending the same higher education institution and programme. Students from non-traditional groups, in turn, experience poorer progression to the labour market and, when deciding to continue studying after graduation, they tend to prefer postgraduate programmes to research degrees. In the United States, low income and first-generation students have been attracted by for-profit private higher education institutions, which perform poorly in completion rates, labour market returns to graduates and default rates on student federal loans (Dill, in this book). The actual probabilities of success are higher among high achieving students, as they may benefit directly from the support and help of their educated parents, but also indirectly when families provide their children access to the best educational institutions and programmes.

MOVING FORWARD

The evidence presented in the chapters of this book confirms that individuals' social class is one of the most important predictors of their educational path and success. Although several countries have made some progress towards reducing inequalities and ensuring no one is left behind, it is imperative to learn from their past experiences and those of other countries, designing new policies to address persistent inequalities in access and success.

As mentioned earlier, under-representation of disadvantaged students in higher education is partly the result of lower levels of educational achievement in schools, lower educational aspirations and poorer school completion rates. Therefore, new policies to address this inequality are needed. Aamodt (in this book) acknowledged the problem of the strong impact of school achievement in primary education, and therefore argues that early childhood education should be given priority, supporting learning so that as many students as possible reach a satisfactory performance level.

As cultural factors are also involved in access equity, recent debates have put forward the discussion of what has been called as 'epistemic access' (Stevenson et al., 2014). Because curricula and institutional cultures seem

to favour socially dominant groups, it is discussed, then, whether or not disadvantaged groups, when accessing higher education, are in fact meaningfully accessing the curriculum or converting acquired knowledge into better opportunities in the labour market or in life.

Financial factors also play an important role in the persistence of inequalities. However, since broader social, educational and cultural factors are involved, scholarships, bursaries, loans and fee remissions are not the entire solution to increasing access. Therefore, as Burke (2017) argues, it is important that equity-promoting policies move away from a utilitarian, individualistic and instrumental plan, mainly driven by economic imperatives, and get closer to a broader project fuelled by social justice principles and concerns. This implies, in her perspective, a reconceptualisation of access and widening participation as a project of transforming educational cultures, practices, and structures, as well as understanding the complex nature of the reproduction of social inequalities in, through and beyond HE (Burke, 2017).

The three principles proposed by McCowan (2016), namely availability, accessibility and horizontality, are very helpful in assessing whether policies that have been developed over time are equitable or not. Availability refers to the existence of available places for students who want to get a higher education degree. Accessibility is related to students' opportunity to actually enrol and occupy those available places. Horizontality is the opposite of stratification and occurs when institutional differentiation is solely based on orientation, area or mission, rather than on quality or on the existence of positional goods. Expansion of higher education systems, which occurred more or less everywhere, contributed highly to availability and less so to accessibility or horizontally. Indeed, the increment of places in higher education does not mean that these places are accessible to all individuals or groups, because many barriers hinder specific groups from accessing higher education: tuition fees, high admission standards, competitive exams that put in a disadvantage position those who had poorer performance in earlier schooling, geographic location, along with other limitations such as language, culture or identity. Of course, the strategies to overcome these barriers and ensure accessibility are different according to the nature of the barriers and to the history of different countries. When accessibility is ensured, the problem of horizontality still remains, as most higher education systems are stratified. Within stratified systems, some institutions and some study programmes enjoy greater prestige and higher quality, and disadvantaged students tend to enrol in lower ranked

institutions. The application of the principle of horizontality, then, would neutralise the effectively maintained inequality hypothesis, according to which students from privileged socioeconomic backgrounds are better placed than others to obtain a qualitatively better kind of education at any given level (Lucas, 2001). Horizontality implies the inexistence of qualitatively better kind of education. Quality agencies, in this respect, assume a central role in guaranteeing quality of all higher education institutions and programmes. However, as quality agencies ensure that study programmes comply with minimum quality standards, they do not possess the power to avoid institutional hierarchy and ranking based on cultural or historic reasons. Many of the hierarchies between institutions and study programmes are raised by the quality of employment that they give access to.

While a significant evolution regarding availability is evident from the cases presented in this book and policies have been developed to increase accessibility, it is less obvious that efforts are being made to ensure horizontality. Higher education systems seem more on a trajectory towards the marketization of access, economisation of curriculum and stratification of institutional type, with inequalities persisting within the system, as consistent with the effectively maintained inequality hypothesis (Lucas, 2001; McCowan, 2016).

The responsibility to improve equity, especially referring to horizontality, does not lie exclusively with the state. In fact, as Goastellec (2008) argues, the responsibility of fair access is shifting, since public authorities are making institutions more accountable and transparent regarding the role they play in reproducing the social structure and in promoting social mobility (see Dill's chapter on the example of selective United States colleges). The responsibility must lie, as Fradella (2018) argues, across all levels of administration rather than on a 'top-down' approach. In this sense, department chairs and school directors should be a part of the overall institutional strategy. Thomas (in this book) goes even further, claiming that the responsibility for improving retention and success lies with institutions and their teaching and support staff, who have an obligation to provide the necessary conditions, opportunities and expectations for such engagement to occur. Higher education institutions should therefore introduce targeted interventions to identify students' learning difficulties, bringing their knowledge up to the appropriate levels, getting help from teaching staff in terms of specific study techniques and improving motivation. Therefore, the responsibility placed on the institution is supposed to act at student level. On the other hand, public authorities and

nation-states are being scrutinised in the international arena according to the level of democracy that their higher education systems present. Democratic warrant is, therefore, as Goastellec (2008) argues, the core global referential to describe higher education systems.

Equity in access and success as an essential condition to ensure that higher education is democratic needs embedding in several structures and changing processes, which bring consequences for research and policies. In order to comprehend these multidimensional processes, it is necessary to bring together multiple research approaches (Goastellec & Välimaa, 2019). Moreover, as the processes producing inequalities are continuously evolving, the way towards equity must be seen as a continuous journey that requires ongoing and critical reflection.

Without radical transformation of institutional environments, curriculum or pedagogy, widening access might be a ‘vaunted concept’ (Dear, 2019). As the under-represented student population is expected to grow (Shah & McKay, 2018), it is imperative to reformulate funding models which have proven to fail the equity as fairness goal (see Callender’s chapter in this book), to create new strategies, structures and reforms to accommodate the needs of these students.

Several challenges are still to accomplish, although with different achievement levels. First, it is necessary to continue to widen participation in higher education in order to guarantee availability, but expansion should be accompanied by effective quality assurance to protect students from substandard provision. Second, accessibility needs to be reinforced through a set of measures that might include investment in earlier schooling (see Aamodt’s chapter in this book), affirmative action (see Dill’s & Bertolin and McCowan’s chapters in this book), financial aid (through grants and scholarships and less so through loans, as Callender argued in her chapter), or changes in admission criteria (see Baptista et al. and Sá et al. in this book). Finally, multiple actors—from national authorities to institutions and staff—could actively contribute to horizontality. Horizontality, the ultimate stage of equity as fairness, may be fostered through institutional policies targeting the representativeness of their student body, providing identical success opportunities for students with different academic and socioeconomic backgrounds (for instance, by adapting pedagogies or the curriculum). Although horizontality may be out of reach, it is important that higher education policies hold it as an ideal in order to ensure a gradual process towards more and more fairness in access, participation and success.

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Correction to: Equity Policies in Global Higher Education

*Orlanda Tavares, Carla Sá, Cristina Sin,
and Alberto Amaral*

CORRECTION TO:

O. Tavares et al. (eds.), *Equity Policies in Global Higher Education*, Issues in Higher Education,
<https://doi.org/10.1007/978-3-030-69691-7>

The book was inadvertently published without a funder. The funder of the book is LYRASIS book partnership.

The updated original version for this book can be found at
<https://doi.org/10.1007/978-3-030-69691-7>

© The Author(s) 2023
O. Tavares et al. (eds.), *Equity Policies in Global Higher Education*,
Issues in Higher Education,
https://doi.org/10.1007/978-3-030-69691-7_11

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