

STUDENT FINANCE POLICIES WORLDWIDE

Leveraging funding for attainment
and equity in higher education

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FOREWORD

Raising participation and attainment rates in higher education and widening participation to previously underserved groups are tasks shared by governments worldwide. Higher rates of graduation increase the supply of skilled labor to the economy, thus pushing up levels of productivity and overall growth; widened participation allows a broader group of people access to the opportunities that go along with higher education, thus making societies more socially inclusive.

The problem facing policymakers worldwide is that there are a number of different routes to achieving these goals. They can fund students—selectively or universally—through various combinations of policies on student fees plus loans and grants. They can also fund institutions to expand their enrollments through larger subsidies, or even provide specific incentives to institutions that succeed in attracting or graduating students from underserved populations. There is, unfortunately, very little in the way of hard empirical evidence with respect to the absolute and relative efficacy of different approaches, mainly because, for reasons both political and administrative, it is very difficult to generate experiments or even quasi-experiments that can get at these questions.

Even in the absence of conclusive evidence about comparative efficacy, however, it is good to be reminded that there is in fact a positive evidence base for many different kinds of interventions. Such evidence may not be generalizable, and the lessons about success of one policy instrument in one jurisdiction may not always be portable to other locations. Nevertheless, a simple compendium of the known effects of specific policy interventions has hitherto eluded us.

It is for this reason that the work of Ariane de Gayardon and Lucia Brajkovic in this report is so welcome. It is no small accomplishment to have assembled a genuinely global overview of the use of various student financial aid instruments, as well as their known impacts. It is likely that this work will be a reference document on global student financial assistance for some time to come, and it will certainly serve as a basis for more sustained inquiry into comparative effectiveness—the key question for policymakers—over the coming years.

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INTRODUCTION

Around the world, higher education is viewed as an engine of social mobility, opening new opportunities for students from disadvantaged backgrounds. There is ample evidence that a postsecondary degree improves earnings and career outcomes over a student's lifetime, but that benefit is not equitably distributed.

Equity and access are often at the forefront of higher education policy agendas, with many efforts directed toward diversifying the composition of student enrollment. While there have been significant improvements in access to higher education all over the world, completion outcomes have not followed suit. When students who are already disadvantaged drop out and fail to attain a degree, often burdened by student loan debt, there is a risk that higher education increases social inequality.

Many national higher education systems have begun to focus on ensuring more equitable enrollment and completion through financial policies that target both students and postsecondary institutions. Evaluating the impact of financial policies on equity and attainment is a complicated task. The policies vary in scope, timing, and specifications, making them unique to each national context. Additionally, governments rarely introduce a new policy in isolation. For instance, the establishment of tuition fees is often linked to a new grant or loan program. The varying national contexts and simultaneous policy shifts contribute to the difficulty of assessing such policies.

This report analyzes national-level higher education financing approaches for a diverse set of countries worldwide, and how each approach relates to equity and attainment. This analysis provides a frame of reference for policymakers to use appropriate funding policies to improve equity and ensure completion.

The report begins with an analysis of cost-sharing funding approaches—policies that determine who pays for higher education. We break national funding policies worldwide into four categories: 1) free tuition (both open and restricted access), 2) low tuition fees, 3) high tuition fees supported by loan schemes (mortgage-style and income-contingent), and 4) dual-track policies.

We then turn to funding approaches designed to improve equity or foster completion and discuss whether these approaches are working. Throughout the report, we draw on examples from many different national systems and look for patterns linking these policies to equity and attainment outcomes for students.

In the conclusion, we consider the future of these policies worldwide and how governments can best use limited resources to ensure that disadvantaged students not only enroll in universities but also complete their degrees.

The central finding of our analysis is that targeting is important. The majority of national cost-sharing policies lack a consistent link with equity and completion. Policies that apply to all students, regardless of their background or means, tend to sustain the status quo in terms of who attains a higher education degree. Non-targeted financial policies subsidize students who do not need it, thus wasting scarce national resources. Policies that target funding directly at disadvantaged students—including grants, loans, and specific tuition fees—have a higher probability of creating a positive impact for those students. Similarly, financial policies that incentivize institutions to improve equity or completion outcomes for marginalized students are promising. The targeting approach, however, raises the important question of how to accomplish it effectively and fairly.

A fair policy would be responsive to students' individual situations, with full and partial relief, so that, for example, a student who exceeds the income threshold by one dollar does not miss out on the entire benefit.

Overall, we see positive changes taking place and innovative approaches sprouting up around the world. However, there is much room for continued refinement. New policies require further evaluation, particularly if we are to determine their impact on increasingly diverse student populations and their potential transferability to other national contexts.

NATIONAL FUNDING POLICIES

National policies organize higher education financing between private stakeholders—such as students and families—and public stakeholders, that is, the government via taxpayers. While some institutions have other means at their disposal for revenue generation, institutions the world over remain mostly reliant on public funding and tuition fees.

Historically, higher education has been publicly funded in most countries, but several forces have shaped changes around the globe. Rising higher education costs at a time of increased enrollment (known as massification), coupled with general government austerity, have led to the increase of cost-sharing (Johnstone and Marcucci 2010). Johnstone (2003) defines cost-sharing as “a shift in the burden of higher education costs from being borne exclusively or predominantly by government, or taxpayers, to being shared with parents and students” (351). Cost-sharing can take many forms, but the most popular is undeniably the establishment and/or increase of tuition fees.

This section focuses on the ways that national cost-sharing policies dictate rules for funding public higher education and their effect on equity, as well as degree attainment. These policies fall into four broad types:

TYPE 1: TUITION-FREE POLICIES

TYPE 2: LOW TUITION FEES

TYPE 3: HIGH TUITION FEES SUPPORTED BY STUDENT LOAN SYSTEMS

TYPE 4: DUAL-TRACK POLICIES

For each type of cost-sharing policy, we provide country examples to illustrate how each policy relates to equity and attainment in higher education. We strike a balance between geographical diversity of examples, and examples for which equity and attainment data are available. The examples show the diversity and complexity behind national cost-sharing approaches, while exposing the importance of the historical, social, political, and cultural contexts in exploring these relationships.

TYPE 1: TUITION-FREE POLICIES

In recent decades, cost-sharing has been the main financing trend in higher education globally, although many countries sustain a system where public higher education is tuition-free (de Gayardon 2018). Geographically, these countries are concentrated in Northern Europe, Eastern Europe, Northern Africa and the Middle East, and Latin America. Revenue for higher education institutions in these countries is entirely covered by the government.

The rationales behind sustaining free higher education are diverse and dependent on the context, including the idea of higher education as a public good or right, the issue of information asymmetry (where the student does not have enough information to make sound decisions about higher education, while the government does), and the need for equal opportunities (de Gayardon 2018). However, the reality is more complex, and there is no clear evidence that free-tuition public higher education systems improve equity or attainment. On the contrary, there is evidence that free-tuition higher education sometimes limits access to the very students that are supposed to benefit from it (Cloete 2015) and can generate high levels of inequality (Guerra Botello et al. 2019). Free-tuition systems are far from exempt from equity issues, indicating that free-tuition policies alone are not sufficient in fostering equity and improving student success.

The following examples are divided in two categories that could have a direct bearing on equity and attainment issues: open-access free-tuition systems and restricted-access free-tuition systems.

Open-access free-tuition systems

Open-access free-tuition systems are becoming rare and limited geographically to three main regions: Latin America, Europe, and the Middle East. In these systems, every high school graduate is guaranteed a seat in the free public higher education system. Although these systems theoretically erect no financial or academic barrier to access and success, equity often remains an issue, and completion is not assured. There is no indication that countries following this funding policy are consistently doing better than other countries when it comes to equity and attainment, despite their seemingly generous financial policies.

Country examples

Latin America

Policy description: Argentina, the Dominican Republic, and Uruguay offer tuition-free higher education to their high school graduates, without entry exams that have become dominant in other parts of Latin America. Table 1 shows participation rates for 18- to 23-year-olds, including equity measures such as gender, income background, and whether students come from a rural or urban area.

TABLE 1: Percent of Students Ages 18–23 Enrolled in Higher Education in Open-Access Countries in Latin America, 2016

	Argentina	Dominican Republic	Uruguay
Net Enrollment Rates	34.4	22.0	24.7
Female	40.6	27.6	31.3
Male	28.3	16.9	18.5
Lowest income quintile	26.6	12.0	5.6
Second income quintile	23.5	14.0	13.3
Third income quintile	34.0	14.7	26.0
Fourth income quintile	41.4	27.8	37.6
Highest income quintile	60.8	46.0	64.3
Disparity Ratio	2.3	3.8	11.5
Rural	--	15.4	20.9
Urban	34.4	25.6	25.0

Source: CEDLAS and The World Bank 2017¹

Outcomes:

Access: General net enrollment rates in these three countries indicate they are at the mass higher education stage, according to Trow (2006), meaning that over 15 percent but less than 50 percent of the age group enroll in higher education. Despite these countries’ open-access and free-tuition policies, they are lagging behind many others worldwide that are now at the universal stage (meaning that over 50 percent of college-age individuals enroll in higher education) and also behind other Latin American countries (Salmi and Sursock 2018).

In all three countries, women’s enrollment rates are significantly higher. The disparity ratio in Uruguay also shows that open-access free-tuition countries can generate high inequity in terms of income background. Finally, there is a divide between urban and rural students, although not as large as in other Latin American countries (see Table 4 below).

Attainment: Completion and attainment data in Latin America are not often readily available. OECD data from Argentina state that only 18 percent of 25- to 34-year-olds are tertiary-educated, well below the OECD average and the average for most other Latin American countries. This is also reflected in the low graduation rate of 30 percent, which is lower than its two Southern Cone neighbors: Chile with 60 percent and Brazil with 51 percent (Bonasegna Kelly 2013). Explanations for this difference include the fact that Chile and Brazil enroll a smaller percentage of the college-age population (thus ensuring that they enroll better academically prepared students), and the fact that only Argentina has a thesis requirement (Bonasegna Kelly and Levy 2013).

1 CEDLAS-SEDLAC is a statistics database created using socioeconomic surveys in Latin America and the Caribbean. It reports net enrollment rates for tertiary education, i.e., the share of college-age individuals who are attending higher education. Other databases might give different estimates (including gross enrollment rates in the U.S. for instance, i.e., the number of individuals enrolled in higher education independently of age as a proportion of the number of college-age individuals). The authors choose to use SEDLAC estimates in this report because of the availability of equity indicators—including income quintiles and urban/rural differentiation—that are essential to the argument made in this report.

Europe

Policy description: Several European countries, including the Nordic countries, Germany, and Greece, have open-access free-tuition policies. These countries are all above the OECD average in participation rates of 20- to 29-year olds, except for Sweden.

Outcomes:

Access: In terms of equity, there is no consistency across these countries, with some above the OECD average and some below in parental education and immigrant status (Table 2). Although all these countries do reasonably well in terms of enrollment rates overall, participation rates of some underrepresented groups remain low in comparison to the OECD average, including students with foreign parents and students whose parents do not have a tertiary degree, despite no apparent barrier to higher education.

TABLE 2: Participation of 20- to 29-Year-Olds, in Percentages

	Denmark	Germany	Greece	Finland	Norway	Sweden	OECD average
General	32	23	26	28	25	21	22
New entrants (Bachelor's degree or equivalent)							
whose parents do not have a tertiary degree	--	48	60	28	43	43	47
with foreign born parents	--	7	9	--	--	17	11

Source: European Commission 2017; Organisation for Economic Co-operation and Development 2017

Attainment: Looking at attainment among 30- to 34-year-olds for these six European countries reveals some interesting trends (Table 3). Except for Germany, they all have above-average attainment rates. Interestingly, these countries consistently show a larger gender disparity favoring women than the average EU country. Except for Sweden, they also all have a bigger gap in attainment between foreign- and domestic-born students. Germany is the exception, with lower attainment rates, but also less inequity on these two measures, than the EU average.

However, the gap in attainment based on parental education tends to be smaller in these countries, except for Greece. In all of the countries, having a parent who completed tertiary education remains a significant advantage for completing a degree. Overall, nearly all European countries display a large disparity in attainment based on gender (in favor of women) and immigrant status.

TABLE 3: Attainment for 30- to 34-Year-Olds, in Percentages, 2016

	Denmark	Germany	Greece	Finland	Iceland	Norway	Sweden	Europe
General*	47.7	33.2	42.7	46.1	48.8	50.1	51	39.1
Males	41	33.4	36.2	38.4	42.2	42.4	43.4	34.4
Females	54.6	33	48.8	54.4	55.8	58.2	59.2	43.9
Native	45.1	34	46.5	47.8	--	--	51.9	39.9
Foreign-born	59.8	30.7	12.3	32.3	--	--	49.2	35.3
Change in likelihood of having tertiary type A or more dependent on*	OECD							
Parents' educational attainment below upper-secondary	-2	-9	-15	-10	--	-14	-9	-13
Parents' educational attainment tertiary	21	26	29	23	--	22	17	27

* Notes: Tertiary type A refers to theory-based programs preparing the students for advanced research and professions. The full definition is available at <https://stats.oecd.org/glossary/detail.asp?ID=5440>. The reference category for the analysis of parental attainment is women ages 40 to 59, whose parents have upper-secondary or post secondary non-tertiary education.

Source: Eurostat: Your Key to European Statistics 2016; Organisation for Economic Co-operation and Development 2017

Restricted access free-tuition systems

Many countries with free-tuition public higher education systems do not have open-access policies. Access is determined by an academic test, which can lead to effectively limiting access of disadvantages students because they are typically less academically prepared. These countries are similar to their open-access counterparts discussed above in terms of general participation and income disparity. In terms of gender parity, women (urban students) still outnumber men but the disparity is generally less pronounced than in open-access countries described above. Overall, these systems seem to foster slightly better gender balance but less rural/urban equity. This could be because rural students are deterred by the higher education entry exams in these countries, and because women are less likely to take the competitive exam (Bertrand 2011).

Country examples

Latin America

Policy description: In Latin America most countries restrict the size of their free public sector. A few examples of such Latin American countries are given below (Table 4). These countries tend to have high private enrollment—over 70 percent in the case of Brazil (Diretoria de Estatísticas Educacionais 2018).

TABLE 4: Percent of Students Ages 18–23 Enrolled in Higher Education in Restricted Access Free-Tuition Latin American Countries

	Bolivia (2017)	Brazil (2015)	Ecuador (2012)	Peru (2016)
Net enrollment rates	32.4	21.2	25.7	43.3
Female	34.7	25.3	28.1	47.5
Male	29.8	17.2	23.3	39.1
Lowest income quintile	21.3	6.2	14.0	21.5
Second income quintile	29.2	10.1	17.8	35.2
Third income quintile	27.9	17.6	22.5	42.2
Fourth income quintile	33.7	28.9	27.1	47.6
Highest income quintile	49.2	56.4	52.2	65.1
Disparity Ratio	2.3	9.2	3.7	3.0
Rural	5.2	7.3	11.1	23.5
Urban	40.4	23.4	31.8	47.6

Source: CEDLAS and The World Bank 2017

Outcomes:

Access: With a highly selective entry exam, only the best and brightest students are accessing free public higher education in Brazil. Those students usually come from the highest strata of society, and their socioeconomic and academic advantages make them more likely to finish their degree. On the other hand, students from lower strata of society, who do not have the academic credential to enter free public higher education or the resources to pay for private higher education (McCowan 2004), are likely to decide not to attend higher education altogether.

Attainment: The two simultaneous trends described above may be allowing for continuation of the high completion rate in Brazil. In general, information about graduation rates is hard to come by for most countries in Latin America, but there are data showing that Brazil’s graduation rate is around 50 percent. This is higher than Argentina’s—which has an open-access policy (Bonasegna Kelly 2013)—and Brazil’s highly selective entrance exam might be a significant factor in explaining this difference.

EVOLVING APPROACHES: CHANGES IN FINANCIAL POLICIES IN ECUADOR

In 2008, Ecuador went from a tuition-fee charging to a fee-free public higher education system, in order to “increase equality of opportunity and to enhance access for all qualified students into the system” (Van Hoof et al. 2013, 349). Faced with increasing costs, the government introduced a 2012 reform to create an entry exam. The reforms produced some interesting impacts on equity indicators. The following graphs show trends in net enrollment before and after the 2008 funding reform and the 2012 access reform. Figure 1 shows total and gender enrollment rates, Figure 2 looks at students’ income background, and Figure 3 shows the proportion of students who live in rural versus urban areas.

FIGURE 1: Participation Rates in Ecuador from 2003 to 2016, by Gender



FIGURE 2: Participation Rates in Ecuador from 2003 to 2016, by Income Quintile

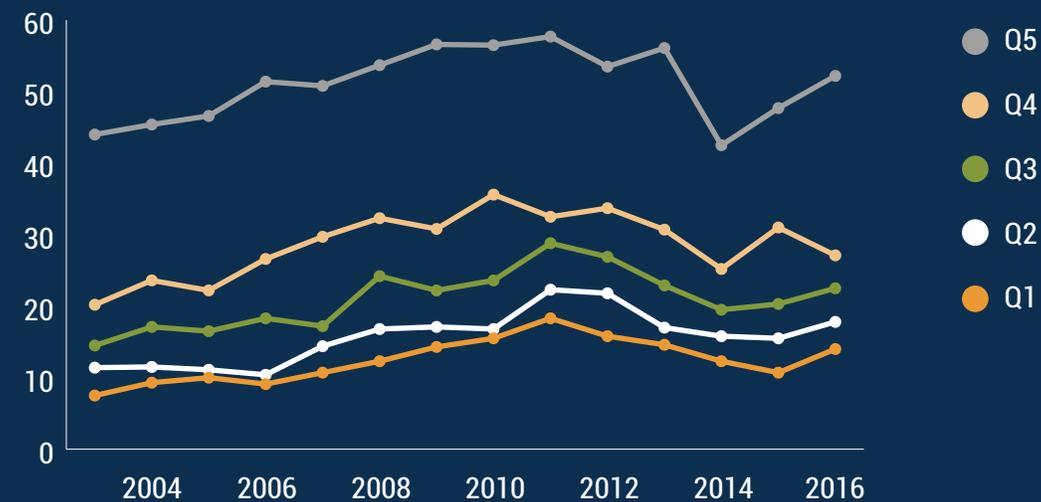


FIGURE 3: Participation Rates in Ecuador from 2003 to 2016, by Urban/Rural Background



Source: CEDLAS and The World Bank 2017

Evidently, the change to free-tuition higher education did little for equitable outcomes in terms of gender, income, and urbanicity in Ecuador, mainly allowing for the perpetuation of existing enrollment gaps. Early reports showed that the gap between disadvantaged and advantaged students actually increased after the reform, specifically between students from poor and non-poor backgrounds, and between students from households speaking Spanish and others (Post 2011).

Conversely, the introduction of the entrance exam in 2012 resulted in declining enrollment for all students, while not significantly changing equity gaps. The case of Ecuador shows the limitation of broad funding policies, even radical ones, in promoting equity. It also shows that wide-ranging access reforms affecting all students have little chance of fostering equity. (Policies targeting specific populations will be addressed in Section 3.)

TYPE 2: LOW TUITION FEES WITHOUT STUDENT LOAN SYSTEMS IN PLACE

Similar to the situation in tuition-free countries, countries with low tuition fees do not necessarily achieve greater access, persistence, or equity for their students. Despite the affordable tuition and fees, this policy fails to account for other expenses—such as room and board, books, and other out-of-pocket expenses—that can prevent low-income and other disadvantaged students from enrolling in tertiary programs.

Historically, loans have been much less prevalent in Europe than in Australia, Canada, New Zealand, and the United States. Exceptions include the Netherlands and the United Kingdom, where loan systems are the most important component of financial aid today. Some European countries tried to set up a student loan scheme, but were not successful. The loan system introduced in France in 1991 was widely considered a failure, as only a limited number of students made use of it. Greece also introduced a student loan system in 1991, only to abolish it in 1995. Spain introduced an experimental loan system as well, but only in the region of Catalonia. Finally, more than a decade ago, Portugal adopted a state-subsidized loan system, but never implemented it (Asplund, Adbelkarim, and Skalli 2008).

Overall, for countries with low tuition and no loan systems there is not a significant difference in enrollment, attainment, or access and equity issues (see Table 5, Table 6, and Table 7 below). Similar to the free-tuition countries, higher education outcomes for low-tuition and no loan systems depend on unique national contexts, the political economy, and other government and institutional policies. In terms of gender equity, the data point to a rather large enrollment disparity in favor of women in each of these countries, and an even larger disparity when it comes to graduation rates. Tertiary educational attainment data also reveal significantly worse outcomes for foreign-born populations in these countries.

Country examples

France

Policy description: French public universities charge both EU and non-EU students between approximately 200 EUR and 650 EUR per year, depending on the level of study and the degree program. Private universities can charge more, usually between 1,500 and 6,000 EUR per year. France has a need-based grant program to offset the educational costs for low-income students, and the proportion of beneficiaries of these grants is relatively high: 37 percent of students in 2016–17 (Eurydice 2016).

Outcomes:

Attainment: Currently, completion rates in French bachelor's programs are relatively low, and compared with the overall national attainment rates, less than 40 percent of students graduate within four years (DEPP 2016). It is interesting to note that, in France, graduation rates vary widely according to the type of the high school diploma held. The proportion of vocational diploma-holders entering higher education has more than doubled since 2000 (DEPP 2016), thus contributing to an improvement in access to higher education. However, only 6 percent of these students graduate in four years, compared with nearly half of students holding a general high school diploma (European Commission 2017).

Italy

Policy description: Tuition fees in Italy vary across universities, and the amount charged to students depends on family income. In public universities, annual fees range between 850 and 1,000 EUR per year, depending on the university. Some of the most renowned public universities may charge fees higher than 1,000 EUR, while private institutions charge up to 16,000 EUR per year.

Outcomes:

Access: Recently, the Italian government started addressing the issue of student support by introducing tuition waivers and reductions, the so-called “no tax area,” which applies to more than 650,000 students. Additional resources earmarked for student financial aid reached 50 million EUR in 2016 (European

Commission 2017), and the total amount of resources allotted to regional governments for this purpose has risen from EUR 162 to EUR 217 million. However, these changes are too recent to affect the statistics below, which reflect the former regime with low tuition fees and low financial aid.

Attainment: According to the European Commission's 2017 *Education and Training Monitor* report, Italy's tertiary educational attainment rate for 30- to 34-year-olds is one of the lowest in the EU, and the system is marked by high drop-out rates and excessive duration of enrollment. There is also a large gender disparity. The rate of attainment for men was 19.9 percent in 2016 (the EU average for men was 34.4 percent that year), compared with 32.5 percent for women.

Spain

Policy description: In Spain, each regional government sets its own tuition fees for bachelor's degrees, and, in public universities, tuition fees can range between 680 and 1,400 EUR per year. In private universities, a bachelor's program can cost between 5,000 EUR and 12,000 EUR per year (Studyportals 2018).

Outcomes:

Attainment: Enrollment in higher education institutions in Spain has been falling in recent years, as reported by the European Commission's *Education and Training Monitor 2017*. On the other hand, the country's tertiary educational attainment rate is high. In 2016, attainment in Spain reached 40.1 percent, placing it above the EU average but slightly under the Europe 2020 target of 44 percent. The Spanish gender disparity is increasing, with women surpassing men by almost 13 percentage points—46.6 versus 33.5. There is an even wider gap between Spanish- and foreign-born young people. The tertiary educational attainment rate of students born in Spain was 44.8 percent in 2016, double that of students with immigrant backgrounds.

Portugal

Policy description: Public universities and polytechnic institutions in Portugal are free to set their own tuition fees. However, the Ministry of Education establishes a minimum amount that varies each year, depending on the minimum national wage rate. The minimum amount of tuition fees students are required to pay, according to government regulations, is 1.3 times the minimum national wage rate. In general, tuition fees are higher than the minimum recommended. Studyportals (2018) reports that on average, full-time students in bachelor's and master's programs pay a yearly tuition fee of 950 to 1,250 EUR.

Outcomes:

Access: When it comes to equitable access to higher education, as in France, students' paths are largely determined by their choice of upper-secondary education. Since 2016, there have been public debates on how to adjust access policies to respond to the growing diversity of secondary education options, while preserving program quality (CNE 2017). Around 78 percent of general secondary education graduates continue to higher education, whereas only 6 percent of vocational secondary education graduates did so in 2014 (DGEEC 2015). In order to tackle this issue and ensure more equitable access, Portugal introduced a new mechanism to boost enrollment from the upper-secondary vocational education pipeline, through specific training programs called Cursos Tecnicos Superiores Profissionais, or CTeSPs. As of April 2017, 598 CTeSPs have been approved (European Commission 2017).

Attainment: Over the past decade, the country has experienced a significant increase in tertiary attainment; it rose from 14.9 percent in 2003 to 34.6 percent in 2016. Still, the national target of 40 percent by 2020 may be difficult to achieve (European Commission 2017).

TABLE 5: Enrollment Rates (in Percentages) for 20- to 29-Year-Olds, 2015

	Italy	Spain	Portugal	France
Enrollment rates (total)	21.8	31.6	23.5	21.0
Female	24.3	32.6	23.6	22.7
Male	19.5	30.5	23.4	19.4

TABLE 6: Graduation Rates (in Percentages), 2015

	Italy	Spain	Portugal
Graduation rates (total)	34.7	60.4	40.5
Female	41.9	69.8	48.6
Male	27.8	51.5	32.6

Source: OECD data, 2015

TABLE 7: Tertiary Educational Attainment for 30- to 34-Year-Olds

	Italy	Spain	Portugal	France	EU average
Total	26.2	40.1	34.6	43.6	39.1
Native-born	29.5	44.8	35.1	44.3	39.9
Foreign-born	13.4	22.4	29.2	39.1	35.3

Source: European Commission, *Education and Training Monitor 2017*

TYPE 3: HIGH TUITION FEES SUPPORTED BY STUDENT LOAN SYSTEMS

Ziderman (2013) articulates three objectives driving the implementation of student loan systems: cost-sharing, social targeting, and student independence. In this section, we are particularly interested in student loans established, at least in part, to enable cost-sharing. In other words, these are loan systems that enable tuition fee increases, in order to generate income for higher education institutions. Countries with this type of financial policy include Colombia, Australia, Canada, the United States, England, and South Korea (until recently). The social targeting objective will be addressed in Section 3, while student loans for student independence (that is, to enable students to be fully financially independent) are beyond the scope of this report.

At their inception, student loans were born out of a concern for equity. Loans allowed all students to afford tuition fees, including those from low-income or disadvantaged backgrounds (Woodhall 2001). Research has indeed demonstrated that increasing tuition fees without increasing financial aid decreases participation, in particular for low-SES students (Dearden, Fitzsimons, and Wyness 2011). Compared with grants, student loans represent a more sensible solution for financially stressed governments, as they can count on the repayment of at least some of the money. The prospect of repayment also allows governments to be more generous, with loan programs being more widely accessible than grant programs.

However, the reality of loan programs today is that not all students are equal in their ability to borrow or repay debt. It is impossible to discuss student loans in the context of equity without referring to the studies that look at debt aversion. Research shows that debt aversion is more prevalent among minority and low-income students (Boatman, Evans, and Soliz 2017; Callender and Jackson 2005). Students from these backgrounds may be less inclined to take out student loans, or the amount they borrow may be restricted. This behavior directly affects higher education equity and attainment (Goldrick-Rab 2016).

Moreover, student loan programs may extend this inequity beyond the time of study to the period of repayment (Dynarski 2016). This means that students from disadvantaged backgrounds are at higher risk of defaulting on their loans, and that the repayment period may be extended and the amount increased due to accruing interest. This situation may limit students' life choices (de Gayardon et al. 2018).

Two types of student loans exist today: mortgage-style loans (also known as time-based repayment) and income-contingent loans. The remainder of this section addresses the implications for equity and attainment of each loan type with examples from several countries.

High fees and mortgage-style loans

Mortgage-style loans are the most prevalent type of student loans in the world. With a mortgage-style loan, students have to repay the total amount borrowed over a fixed period of time—for instance, 10 years in the United States—through monthly payments. The main issue with most mortgage-style loans is that they do not limit the repayment burden; the amount is decided independently of the student's capacity to repay. This can lead to financial hardship well beyond the formal years of study.

Overall, however, it seems that student loans have helped increase enrollment in higher education. But, it is not clear that they have had an impact on inequity reduction. The three countries described below—United States, Canada, and Japan—have experienced very different trends in equity by income quintile over time, suggesting that loans alone are not a solution. At the same time, all three countries continue to struggle with context-specific inequities, including a gender gap in Japan and Aboriginal-related inequity in Canada. Clearly, cultural and historical factors are important.

Country examples

United States

Policy description: Since 1965, the U.S. government has issued mortgage-style loans, a major feature of U.S. higher education, and has recently added an option to make loans income-contingent.

Outcomes:

Access: A recent report (Cahalan et al. 2017) shows that under this funding policy, and as reliance on student loans has risen, the gap in continuation rate between high school graduates in the lowest and highest income quartiles who enroll in higher education has remained significant. In 2015, the difference was 25 percentage points, down from 31 percentage points in 1990 (Table 8). Although the three-year continuation rate to higher education for high school graduates of all ethnicities has increased over the past 40 years, the ethnicity gap between White and Black and Hispanic has also increased overall and was wider in 2015 than in 1976. It is important to note, however, that the gap was at its widest in the 1990s and has grown smaller over the past 10 years.

Attainment: The same report also analyzes equity in bachelor’s degree attainment over the same period when the number of students borrowing and the amount borrowed have risen. In the United States, attainment by age 24 has increased for students from all income quartiles, although unevenly. The gap between the lowest and highest income quartiles has increased between 1970 (34 percentage points) and 2015 (46 percentage points) (Table 8).

TABLE 8: Three-Year Continuation Rate of High School Graduates and Bachelor’s Attainment by Age 24, by Parental Income Quartile (1970–2015)

	Three-year continuation rate		Bachelor’s degree attainment by age 24	
	1970	2015	1970	2015
Lowest income quartile	46%	61%	6%	12%
Second income quartile	56%	68%	11%	20%
Third income quartile	64%	76%	15%	35%
Highest income quartile	79%	86%	40%	58%

Source: Cahalan et al. 2017

The Cahalan et al. (2017) report also analyzes attainment by low-income and first-generation status, showing little to no progress between the 1996 cohort and the 2004 cohort in six-year graduation rates for first-generation students. The six-year graduation rate for the 2010 cohort also shows significant differences based on race, with Black students having the lowest completion rates at 38 percent, followed by Hispanic at 45.8 percent, compared with 62 percent for White students (Shapiro et al. 2017).

Canada

Policy description: The government of Canada established the Canadian Student Loans Plan in 1964 to provide state-guaranteed loans to all students with financial need. In 2018, 43 percent of students graduated with debt to the government, a percentage that has remained steady since 2012 (Usher 2018). This consistency of student debt levels is probably due to the increasing importance of grants in financial aid awarded in Canada.

Outcomes:

Access: A 2017 report analyzed enrollment by income quintile and showed an overall increase across all income backgrounds between 2001 and 2014, the highest improvement being for low-income students (Frenette 2017).

Attainment: OECD data for Canada indicate that the rate of tertiary-educated 25- to 34-year olds has increased from 48 percent in 2000 to 61 percent in 2016. This is in large part due to an increase in attainment among women: the gap between attainment of men and women has nearly doubled in 16 years, from 11 to 19 percentage points. This happened at a time when the percentage of students resourcing to student loans was decreasing (Statistics Canada, n.d.; Usher 2018), and would be consistent with research showing that women are more debt averse (Bates et al. 2009) and therefore are more willing to use other financial instruments.

Of particular importance to Canada is the Aboriginal population, whose attainment significantly lags behind that of the entire population. A 2008 report found that the tertiary attainment of 25- to 34-year old Aboriginals was 35 percent, compared with 51 percent for the rest of the population (Gallop and Bas-

tien 2016). However, the Aboriginal population in Canada has been gaining ground, albeit slowly: 10.9 percent of Aboriginals ages 25 to 64 years had a bachelor's degree in 2016, compared with 7.7 percent in 2006, with an advantage for those living off reserve (Statistics Canada 2017). This is probably due in part to students living on reserve being less academically prepared for higher education (Thorp 2013). Financial reasons are one of the main explanations for non-completion of higher education for Aboriginal students—including inadequate financial resources and the need to work to afford their studies. This is, in part, due to ineligibility issues faced by Aboriginal students (Usher 2009).

Japan

Policy description: Japan's student loan system was designed to help families afford rising tuition fees at a time of income stagnation. There are two student loan types. One is interest-free (type 1) and has been available since 1968. The other is low-interest (type 2) and was introduced in 1984. While the prevalence of type 1 loans has been constant over the years, the number of students receiving type 2 loans has risen exponentially, especially after the relaxation of requirements in 1999. Student loans have become critical to the affordability of higher education in Japan. In 2017, Japan introduced an income-contingent loan system, but the figures provided here pertain to the older system of mortgage-style loans.

Outcomes:

Access: Data from the Ministry of Education in Japan show an overall improvement of higher education enrollment rates over time, and especially as loans were made available. Enrollment increased from 37.4 percent of 18-year olds in 1980 to 55.1 percent in 2013 (Ministry of Education, Culture, Sports, Science and Technology 2018). On the other hand, a 2017 report (Kobayashi and Armstrong 2017) shows evidence of significant inequity in Japan's higher education system, fueled in part by rising debt burdens. In 2006, 35 percent of high school graduates from the lowest income quintile continued to higher education, while as much as 61 percent of those from the highest income quintile did. This disparity has increased over time. While it was confined to private universities in 2006, by 2016 there was a similar disparity for students enrolled at national universities, with students from the two lowest income quintiles being close to half as likely to enroll as those from the three highest income quintiles.

Attainment: A study by Kariya compared bachelor's degree attainment across several Japanese cohorts and found overall improvement from 27 percent for those who graduated high school between 1985 and 1990 to 47 percent for those who graduated high school between 1998 and 2005. This was fueled in part by increasing student attainment in private institutions (Kariya 2011). The same study shows that higher education attainment is largely influenced by parental education and parental occupation. Gender inequity favoring men is also a persistent feature of higher education in Japan (Kariya 2011).

The two tables below summarize equity and attainment data available for the three countries discussed above (Table 9, Table 10).

TABLE 9: Enrollment Data for Countries with Mortgage-Style Loans, in Percentages

	United States* (2015)	Canada (2014)	Japan (2006)
Lowest income quintile	61	47	35
Second income quintile	68	57	--
Third income quintile	76	65	--
Fourth income quintile	86	71	--
Highest income quintile	--	79	61
Disparity ratio	1.4	1.7	1.7

*Note: U.S. data are displayed in quartiles instead of quintiles

Source: Cahalan et al. 2017; Frenette 2017; Kobayashi and Armstrong 2017

TABLE 10: Attainment Data for Countries with Mortgage-Style Loans, 25- to 34-Year-Olds, in Percentages

	United States	Canada	Japan
2000	38	48	48
2016	48	61	60
Male	43	52	59
Women	52	70	62
Change in likelihood of having tertiary type A or more dependent on*			
Parents' educational attainment below upper-secondary	-17	-8	-13
Parents' educational attainment tertiary	28	25	23

*Notes: These data refer to the years 2012 or 2015. Tertiary type A refers to theory-based programs preparing the students for advanced research and professions. The full definition is available at <https://stats.oecd.org/glossary/detail.asp?ID=5440>. The reference category for the analysis of parental attainment is women ages 40 to 59, whose parents have upper-secondary or postsecondary non-tertiary education.

Source: Organisation for Economic Co-operation and Development 2017, 2018

High fees and income-contingent loans

Australia first created income-contingent loans (ICLs) in 1989, and since then other countries worldwide have adopted them. However, only recently have these types of loans attracted the interest of governments in countries such as Brazil, Colombia, and Japan. Income-contingent loans are designed to protect the borrower from default by tying repayment to income. After leaving higher education, employed adults repay a fixed percentage of their income toward their student loans, while those who are unemployed or with low incomes are exempt from repayment. Employed graduates either repay the full loan amount or, in some cases, they repay for a fixed number of years after leaving higher education when the loan is forgiven.

Although income contingent loans were designed with equity in mind, they do not seem to automatically engender equity in a higher education system (Table 11). This can be seen particularly through examples of Hungary and England described below, where the increase of student fees accompanied the introduction of ICLs. In Australia, while ICLs have helped improve participation, it is not yet clear how these financial tools can also improve student success.

Country examples

Australia

Policy description: As of 2018, HELP (Higher Education Loan Program) provides loans to students covering their tuition fees. Students repay a flat percentage of their entire income (if it exceeds AUS\$51,957) until repayment. The percentage of income repaid toward student loans is on a sliding scale between 2 and 8 percent, depending on income.

Australian student loans are still expanding significantly. In 2009, 368,679 students took out student loans for Commonwealth subsidized places. In 2016, 601,054 students took out these loans—a 63 percent increase over seven years (Ey 2018). In 2017, 87.7 percent of Australian students were supported by the Commonwealth—meaning they paid a lower course fee—and deferred these fees through the loan program (Universities Australia 2018).

Outcomes:

Access: Since this loan system has been in place, the enrollment of low-SES students has risen by 55 percent between 2008 and 2017, while the enrollment of all domestic students increased by 38 percent (Australian Government Department of Education and Training 2018). Similarly, there was a 48 percent increase of regional and remote students, a 106 percent increase for students with disability, and an 86 percent increase for Indigenous students (Universities Australia 2018). Based on enrollment figures, the student loan regime improved equity for many traditionally underrepresented student groups in Australia.

Attainment: Australia's degree attainment rate has also been improving, with an increase of 27 percent in 2004 to 39 percent in 2017 of 25- to 34-year olds. However, the overall increase in attainment has not benefited all students equally. For instance, 28- to 34-year olds in major cities are twice as likely to hold a tertiary degree as those in other areas (Universities Australia 2018). Analysis of the six-year completion rate of the 2010 cohort also reveals gender disparity: 62.8 percent of men have graduated after six years, compared with 68.1 percent of women, with these rates remaining stable and even slightly decreasing over six cohorts (2005 to 2010 entry years). Only 40.5 percent of Indigenous students from the 2010 cohort had graduated after six years, compared with 66.4 percent of non-Indigenous students. Similar to the gender variable, these rates have remained stable over the past six years, with a slight decrease. Finally, students from low-SES background had a 60.6 percent six-year graduation rate compared with 70.5 percent for those from high-SES backgrounds (Australian Government Department of Education and Training 2018).

While the student loan system in Australia seems to have contributed to improvements in postsecondary participation for all populations, outcomes remain inequitable for higher education completion, particularly among minorities.

England

Policy description: In 1998, nearly 10 years after Australia, England adopted a similar income-contingent loan system, but with a somewhat different motive. In England, income contingent loans were intended to help students cover the cost of living at a time when tuition fees for higher education were tied to parental income. This type of loans is referred to as a “maintenance loan.” Later, in 2006, England introduced tuition fee loans when tuition fees rose to £3,000 per year (and then increased to £9,000 in 2012), regardless

of students' backgrounds or ability to pay. As of 2018, students pay 9 percent of their annual income over £25,000 toward their student loan debt, with all outstanding balance forgiven after 30 years. The English higher education system now depends upon student loans to cover tuition fees and cost of living, with 90 percent of students taking out maintenance loans in 2015–16, and 93 percent taking out tuition fee loans (Bolton 2019).

Outcomes:

Access: Reforms in England have usually combined increases in tuition fees with increases in loan and grant availability, making it hard to evaluate each component separately. The fact that higher education participation rates have risen since loans were introduced, even for the most economically disadvantaged groups, points to the effectiveness of England's funding system in allowing increases in tuition fees while shielding access. Between 2006 and 2014, English 18-year-olds in advantaged areas of the country went from being 3.83 to 2.53 times more likely to enter higher education than their peers from disadvantaged areas (Department for Business, Innovation and Skills 2015). However, this rise in equity can probably best be explained by the availability of means-tested grants, i.e., grants that are awarded and whose amount vary based on parental income, which, until recently, have shielded low-income students from the burden of student loans (Azmat and Simion 2017).²

Hungary

Policy description: The Hungarian student loan system was first introduced in 2001 and is unique in its combination of four features: it is universal, income-contingent, self-sustaining, and privately funded (Berlinger 2009). Initially, the loans supported only cost of living, but in 2012–13, the program was extended to cover tuition fees of self-financing students in the dual-track tuition system. The Hungarian higher education system is divided into two tracks: in the first, students are fully financed by the government, and in the second, students pay tuition fees (we discuss other countries with dual track tuition systems in the following section). The Hungarian tuition fees loan scheme applies to the second category of students. Hungarian students repay six percent of the national minimum wage, or 6 percent of their actual monthly income, whichever is higher. Private lenders make loan funding available and can choose to increase the repayment rate to 8 percent.

Outcomes:

Access: When looking at equity trends in Hungary after 2012–13, it is important to note that other reforms accompanied changes in the student loan system, including the possibility of higher fees and stricter requirements for state-funded students (Berács et al. 2017), meaning that observed changes in participation and attainment could be due to any feature of the financial package. However, there is indication that low-income students in Hungary are more likely to take out a loan. One in four students also declare that without a student loan they would not have been able to graduate (Ferreira and Farkas 2009). In 2012–13, the number of students started to decline and in fact, decreased by nearly 30 percent between 2011 and 2013, when it stabilized. This reflected drops in the number of both state and self-funded students (European Commission 2017).

2 See England policy example box for more on the English means-tested grants.

Attainment: With an estimated dropout rate of 36 percent for undergraduate students in 2015, this situation could have a profound impact on academic attainment in Hungary in the future. Some initial effects of the 2012–13 reform are already reflected in early measurement of attainment: while Hungary had more than doubled the rate of 25- to 34-year olds educated to the tertiary level—from 15 percent in 2000 to 32 percent in 2015—the 2016 figure shows a decrease to 30 percent (Organisation for Economic Co-operation and Development 2017).

TABLE 11: Attainment Data for Countries with Income Contingent Loans, 25- to 34-Year-Olds, in Percentages

	Australia	UK	Hungary
2000	31	29	15
2016	49	52	30
Share of women among first-time graduates	56	56	59
Change in likelihood of having tertiary type A or more dependent on*			
Parents' educational attainment below upper-secondary	-9	-13'	--
Parents' educational attainment tertiary	29	31'	--

*Notes: These data refer to the years 2012 or 2015. Tertiary type A refers to theory-based programs preparing the students for advanced research and professions. The full definition is available at <https://stats.oecd.org/glossary/detail.asp?ID=5440>. The reference category for the analysis of parental attainment is women ages 40 to 59, whose parents have upper-secondary or postsecondary non-tertiary education.

Source: Organisation for Economic Co-operation and Development 2017

TYPE 4: DUAL-TRACK TUITION SYSTEMS

As noted in the previous section, dual-track tuition systems offer restricted, merit-based entry to free (or very low cost) higher education for a limited pool of applicants, and fee-based entry for a second pool of applicants. The dual track policies reflect the government's or institution's need to limit the number of tuition-free places for financial, political, and/or legal reasons, generally by using a single-entry examination. Such entry exams have a cut-off point, where students who score above the cut-off receive free tuition, and those who score below the cut-off but still do relatively well on the exam can enroll at the university as tuition-paying students. Generally, this approach is likely to achieve significant revenue supplementation but with problematic impacts on equality (Marcucci and Johnstone 2007), since minority and lower SES students are likely to be less academically prepared than more affluent students, thus end up being the ones paying tuition.

Most of the countries of the former Soviet Union, as well as most of the former Socialist Bloc countries of Central and Eastern Europe employ dual track tuition systems (Mateju and Simonova 2003). China sustained this policy until 1997, when it was replaced with a nearly universal tuition fee expectation (Li and Min 2000). Many countries in Africa also have dual track systems, as they are politically (and sometimes legally) obligated to provide free or nearly free higher education but lack the revenue for successful implementation of such approach (Sawyer 2002; Johnstone 2004).

In general, dual-track tuition policies seem to have a positive impact on increasing institutional capacity and access. They also have a positive impact on institutional financial stability, by introducing additional revenue streams from tuition fees. However, there is no clear evidence that this has a bearing on equity, and students from high-income backgrounds seem to be advantaged twice in these systems: they are most likely to be awarded a subsidized place on merit, and can afford non-subsidized places.

Country examples

Russian Federation

Policy description: In 1992, with passing of a new education law, Russian universities were allowed to open new educational programs and offer commercial services. This resulted in the introduction of a dual-track tuition system. Even though the idea of paying tuition fees was not widespread before 1998–2000, the dual-track tuition system gradually became an important instrument for Russian universities, since the government does not exercise as much control over funding generated by market activities as it does over public funding (National Research University Higher School of Economics 2014).

In many ways, Russia still supports the ideal of free higher education, yet more than 50 percent of university students paid tuition fees in 2008. By 2014, tuition fees made up two-fifths of overall university revenue. This growth in resources was accompanied by an increase in per-student public spending.

Outcomes:

Access: Despite the revenue growth and increased spending, social inequity still characterizes the Russian system. In particular, students from highly educated families are overrepresented in the higher education system, as well as in the best institutions. Eurostudent data from 2011 show that Russia is one of the most inequitable higher education systems in Europe, with high social immobility based on parental education and social class. Moreover, there is little difference between students' backgrounds in free or fee-paying tracks, meaning that both tracks favor students from advantaged backgrounds (Smolentseva 2017).

Attainment: Following the increase in revenue, Russia also experienced a massive rise in tertiary attainment in the two decades following 1990 (National Research University Higher School of Economics 2014). In 2012, the Russian Federation had the largest percentage of 25- to 64-year olds who had attained tertiary education out of all OECD and partner countries with available data: 53 percent, compared with the OECD average of 32 percent and a G20 average of 27 percent (Organisation for Economic Co-operation and Development 2014).

EVOLVING APPROACHES: DUAL-TRACK TUITION SYSTEM IN EAST AFRICA

Following independence movements in Kenya, Uganda, and Tanzania, these countries awarded support to higher education students in the form of free room and board, free tuition, and spending money (with the exception of Tanzania, where bursaries were only introduced in 1967). One of the reasons for these benefits was the general expectation that most students would join their country's civil service after finishing their studies, thus replacing the departing colonial administrators. Following this rationale, governments invested heavily in higher education during that era.

The situation began changing in the late 1980s, when external aid providers and donors, such as the World Bank, started emphasizing the importance of primary and secondary education for spurring economic development, which led to a relative decrease in higher education funding. For example, between 1985 and 1989, 17 percent of the World Bank's worldwide education spending involved higher education, and 10 years later the proportion had declined to 7 percent (Bloom, Canning, and Chan 2006). At the same time, the demand for higher education increased dramatically due to demographic growth, as well as growing rates of secondary education completion. In order to tackle this issue, governments and universities in East Africa introduced dual-track tuition policies, with the hope of expanding higher education capacity without introducing politically unpopular tuition fees.

In terms of university admissions, in Uganda there is no set cut-off point that determines who pays tuition fees. The cut-off point for admission into each program is determined by the score of the last person accepted into that program. A government quota limits the number of non-paying students, but there are no legal limitations on the number of tuition-paying students. Universities themselves determine the proportion of students that they accept. The capacity of higher education in Uganda was significantly broadened by the introduction of dual-track tuition policies; however, survey data (Carrol 2004) suggest that they may have also reinforced income-based inequities in access and attainment. In reality, there is very little difference in socioeconomic status between the government-sponsored and tuition-paying students, both coming from relatively affluent families (Marcucci, Johnstone, and Ngolovoi 2008).

TABLE 12: Types of Funding Policies

Type 1: TUITION-FREE POLICIES	Revenue for higher education institutions is entirely covered by the government, using tax-payers' money.	Northern Europe, Eastern Europe, Northern Africa and the Middle East, and Latin America
Open-access free-tuition systems	All high school graduates are guaranteed a seat in the free public higher education system.	Latin America, Europe, and the Middle East
Restricted access free-tuition systems	Access to public higher education system is determined on the basis of an academic test.	Latin America: e.g., Bolivia, Peru, Ecuador, Brazil
Type 2: LOW TUITION FEES	Affordable tuition and fees, but no provisions for other expenses—such as cost of room and board, books, and other out-of-pocket expenses.	Europe: e.g., France, Italy, Portugal, Spain
Type 3: HIGH TUITION FEES SUPPORTED BY STUDENT LOAN SYSTEMS	Student loans are established to enable cost-sharing and offset high tuition fees.	E.g., Colombia, Australia, Canada, U.S., England, and South Korea (until recently)
High fees and mortgage-style loans	Students have to repay the total amount borrowed over a fixed period of time through monthly payments, the amount is decided independently of the person's capacity to repay.	E.g., U.S., Canada, Japan
High fees and income-contingent loans	Designed to protect the borrower from default by tying repayment to income. After leaving higher education, adults in employment repay a fixed percentage of their income, while those in unemployment or with low incomes do not.	E.g., Australia, England, Colombia, Hungary
Type 4: DUAL-TRACK TUITION SYSTEM	Tuition policy is characterized by a restricted, merit-based entry to free (or very low cost) higher education for a limited pool of applicants, accompanied with another pool of applicants who are allowed entry on a fee-paying basis.	E.g., Russian Federation, Kenya, Uganda, Tanzania, Romania

TARGETED FINANCIAL PROGRAMS AND POLICIES

STUDENT-LEVEL: PROGRAMS TARGETING EQUITY IN ACCESS AND ATTAINMENT

To address equity issues, many countries have turned toward targeted financial aid policies. These policies restrict eligibility criteria to students from underserved groups, thus providing additional financial help to specific categories of people. In a way, these policies constitute positive discrimination to achieve better equity in higher education, by giving more to the populations who need it. By definition, these policies favor equity over equality, and are therefore important in the debate over higher education financing and equity.

Targeting can take different forms and represents the priorities of a higher education system in terms of equity. Targeting criteria often include socioeconomic factors (for example, parental income, number of siblings, and eligibility for free school meals), but can also include ethnicity, gender, or disability variables. These criteria, however, mostly apply to grants. The vast majority of other targeted schemes, like loans and discriminated tuition fees, tend to use income background.

This section analyzes three different types of state-funded targeted financial aid: grants or scholarships for specific students, loans that are only available to some of the student population, and targeted tuition fees in which fees vary depending on students' backgrounds. This section analyzes only those programs developed for the specific purpose of equity, while recognizing that similar programs exist with other purposes, such as fee differentiation to increase enrollment in specific fields.

Targeted grants

Targeted grants are probably the most widely used financial aid program to address equity issues. Unlike other types of financial aid detailed below, grants awarded to students use a wide variety of eligibility criteria and, as a result, can be targeted to many different groups. Eligible students receive grants directly from the government or a private funder to help cover the cost of their higher education.

While these types of grants have been widespread globally, there is little evaluation of their efficacy outside of the United States. The numerous different grant programs in the United States, in particular at the state level, have been the focus of many research pieces. Some of these research pieces are highlighted below.

Country examples

Australia

Program description: High on the agenda for Australian higher education is the need to guarantee equal opportunities and success for students from Indigenous backgrounds. In 1990, Australia established the first funding stream for Indigenous higher education—the Aboriginal Participation Incentive (Zacharias et al. 2016). It later became the Commonwealth Indigenous Scholarship to help low-income Indigenous students with the costs of relocation and study. This program was replaced in 2017 with the Indigenous Student Success Program, which provides two scholarships: the Indigenous Commonwealth Education Costs Scholarship (ICECS), whose value was AUS\$2,676 for the year 2018, and the Indigenous Common-

wealth Accommodation Scholarship (ICAS), whose value was AUS\$5,355. Indigenous students can often add targeted institutional scholarships to these government scholarships.

The ICECS and ICAS are particularly valuable for Indigenous students, as their expenses are greater than those of non-Indigenous students. This is due, in part, to the fact that one-third of Indigenous students are supporting dependents. At the same time, Indigenous students are less likely to receive financial support from their family to contribute toward their studies (Universities Australia 2018).

Outcomes:

Access: Between 2007 and 2015, there was a 69 percent increase in the number of Indigenous students in higher education in Australia, and a 77 percent increase in commencing Indigenous students. This positive trend is likely associated with the scholarship system, as well as the many other policies in place to help Indigenous students.

Attainment: Persistent inequity, however, is most visible in degree completion data, with 17.5 percent of the Indigenous population leaving after one year, compared with 7.6 percent of the non-Indigenous student population. Similarly, only 47.3 percent of Indigenous students ever complete their studies, compared with 73.9 percent for non-Indigenous students (Smith et al. 2018).

A 2016 report (Zacharias et al. 2016) analyzed the effect of equity scholarships at Queensland University of Technology, including the Commonwealth Indigenous Scholarship. It showed that overall scholarship holders had higher retention rates than non-scholarship holders. This was particularly true for Indigenous scholarship holders, who had a 6.7 percentage point higher retention rate than other Indigenous students. The report also looked at student success rates (i.e., graduation rates) and found variable results across all equity groups, with scholarship holders having lower success rates overall than the general population. However, this was not true for Indigenous students, who had higher success rates if they received a scholarship: 2.8 percentage points higher than Indigenous students as a whole.

While the Commonwealth Indigenous Scholarship may be helping Indigenous students enroll in Australian higher education, its effect on graduation rates seems limited. There are many factors involved in success and retention of students beyond financial ones, which could explain the difference (Kerby 2015).

United States

Program description: The United States provides the most extensive evaluation of the impact of different grants and scholarships on students. The Pell Grant is a need-based financial aid available to domestic students enrolling in higher education in the United States. It is the main federal financial aid program aimed at helping low-income students with the cost of study. The Pell Grant amount depends on two main criteria: the expected family contribution (EFC) based on parental income and the cost of attendance. In 2018–2019, the maximum Pell Grant was \$6,095 per year.

Outcomes:

Access and Attainment: Analyses of Pell Grants conclude that they increase access to higher education and have a positive impact on completion (Bettinger 2004; Denning, Marx, and Turner 2017; Dynarski 2002; Mundel and Rice 2008). However, a recent study showed that Pell Grant holders still have a lower average graduation rate than those who did not receive a Pell Grant (Kelchen 2017). This means that the Pell Grant program in itself is insufficient to bridge the gap in completion between students from rich and poor backgrounds.

Program description: As highlighted above, many studies on the efficacy of grants come from the United States and examine changes implemented at the state level. The results of a selection of recent research studies focusing on state-level grant programs are highlighted below.

Outcomes:

Access and attainment:

Using data from the Florida Access Grant, Castleman and Long (2016) found that recipients had higher enrollment, especially in four-year colleges, as well as 22 percent higher completion rates over six years.

Data from a private need-based grant program in Wisconsin also show that these grants are positively linked with four-year completion rates (Goldrick-Rab et al. 2016).

EVOLVING APPROACHES: ENGLAND—ON AND OFF WITH MEANS-TESTED STUDENT GRANTS

England is possibly one of the most interesting case studies globally to look at the impact of means-tested grants on equity in higher education. Indeed, England has somewhat of an interesting history, with student grants having been abolished twice in the past 30 years and re-established in the years between. In 1998, as England introduced tuition fees and expanded its loan system, it abolished previously offered grants aimed at helping students with the cost of living. Such grants were re-introduced in 2004, in isolation of any other reform and two years prior to a hike in tuition fees. These actions were followed by incentives created in 2006 to increase grants given by institutions (called institutional bursaries in England). More recently, means-tested maintenance grants were again abolished in 2017.

Examining the re-introduction of means-tested grants in 2004, Dearden, Fitzsimons, and Wyness (2014) showed that a £1,000 increase in student grants leads to a nearly four percentage point increase in the participation of eligible (i.e., low-income) students.

Murphy and Wyness (2016) added information on student completion by analyzing the incentive established in 2006 by the English government to increase institutional bursaries. They found that a £1,000 increase in bursary raised the probability of completion of the first year by 1.4 percentage points, 1.6 for the second year, and 1.9 for the third year.

The case of England seems to be pointing to a positive impact of means-tested grants on both participation and completion of low-income students.

Targeted loans

This section examines student loan programs for social targeting (Ziderman 2013). These student loans are directed specifically at poor or disadvantaged students to help them afford the costs of higher education, thus contributing to social equity.

Country examples

South Africa

Program description: South African banks offer student loan packages and guarantee their availability to all. However, a parent or a guardian is needed as a guarantor of these loans, making them unattainable for some students. A government-backed program—the National Student Financial Aid Scheme (NSFAS)—was created in 1991 and is limited to students from disadvantaged backgrounds. The loan amount depends on family income following a sliding scale, and the loan is income-contingent.

Outcomes:

Access: In its first 10 years, NSFAS provided aid to more than 500,000 students, 99 percent of whom were Black. Students that received NSFAS aid passed 73 percent of their undergraduate courses (Jackson 2002). A 2016 report (Van Broekhuizen, Van der Berg, and Hofmeyr 2016) looked at access for the 2008 cohort in South Africa across many equity measures. Black students who graduate from high school are comparatively less likely to enroll in university than White students, even after controlling for a range of factors. They are also less likely to complete a degree. There also is a difference in enrollment rates between students from schools in the three poorest quintiles and others, but it is relatively small.

Attainment: Interestingly, the 2016 report also analyzed completion data from the 2008 NSFAS cohort. It provides both dropout and completion rates for students undertaking undergraduate studies who come from the poorest secondary schools (belonging to the first three quintiles of secondary schools). The report clearly shows that receiving NSFAS aid is positively associated with completion. More specifically, receiving NSFAS aid is consistently associated with a lower dropout rate throughout the years of study. Similarly, receiving NSFAS leads to higher completion rate, and the gap widens with the years of study, cumulating to a more than 10 percentage point difference in completion rates six years after entry. These results must, however, be considered in light of academic requirements to continue receiving NSFAS aid. A multivariate analysis in the report confirms the positive effect of NSFAS funding on six-year completion probability, and its negative effect on five-year dropout probability (Van Broekhuizen, Van der Berg, and Hofmeyr 2016).

South Korea

Program description: Since student loans were introduced in the 1950s, they have had an important equity mission in South Korea and have been mostly targeted at low-income students. Historically, different government entities, including most recently the Korea Student Aid Foundation (KOSAF), have managed student loan schemes in conjunction with banks. Commercial banks have managed the loans and repayment, while the government subsidizes interest and guarantees the loans. Since 2011, two different student loan systems have run in parallel. The student loan-backed security scheme was established in 2005 and is nominally available to all students. The government-provided interest subsidy varies by family income level

(divided into 10 categories) and is nonexistent for the two highest categories, basically making it a private loan for students from the richest families (Hong and Chae 2011).

In 2010, South Korea introduced an income-contingent student loan program targeted at students from the eight poorest income categories (seven initially) (Kim and Park 2018). Unlike previous student loan schemes in Korea, this loan program does not rely on banks but is financed directly by the government. Repayment is 20 percent of income over a threshold equivalent to the minimum income for a four-member family (Hong and Chae 2011).

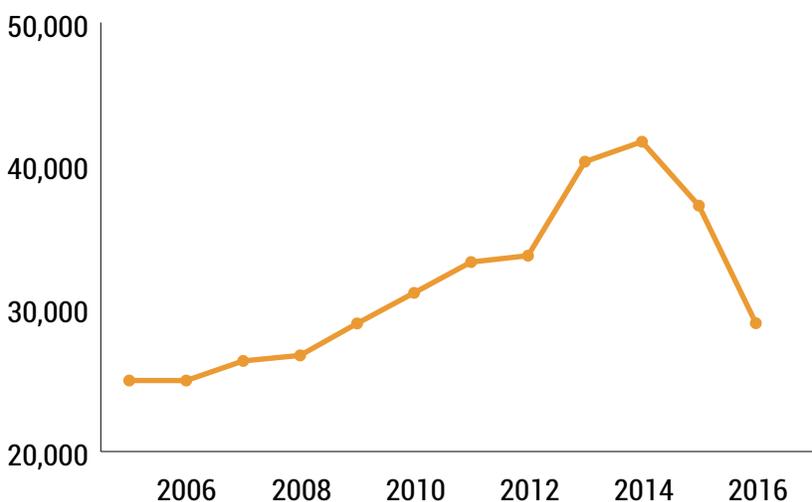
KOSAF is also responsible for the student loan scheme targeting students from rural areas, created in 1999 without the participation of commercial banks. The loan scheme targets students whose parents have a permanent address in an agricultural/farming or fishery area. The loans cover tuition fees and other educational fees, are interest-free, and include a two-year grace period after leaving higher education.

Outcomes:

Access: Figure 4 shows that these loans were quite successful until 2014. Between 2005 and 2015, the number of loans awarded grew 65 percent, largely exceeding 1.6 percent growth in the total number of Korean students (Department of Education, Korean Educational Development Institute 2017). The number of loans awarded fell steeply after 2014, possibly due to declining enrollment numbers in South Korea, as well as migration to urban areas.

Academic performance: Evidence shows that students receiving loans from the student loan-backed security scheme do not perform as well academically as students who received income-contingent loans, even after controlling for parental income. This means that for two students from the same income background, choosing an income contingent loan over a security scheme loan has a positive relationship with academic performance (Han 2016).

FIGURE 4: Number of Student Loans for Students from Rural Areas Awarded Between 2005 and 2016



Sources: Korea Student Aid Foundation 2010, 2013, 2017

Thailand

Program description: Thailand established its student loan program, the Student Loans Fund, in 1996, to increase opportunities for students from low-income backgrounds. The Student Loans Fund is an extensive loan package, covering tuition fees, education expenses, and cost of living. It is available only to students whose families earn less than some US\$4,600 per year (150,000 baht). Repayment occurs over 15 years, with rates of repayment increasing over time. The loans accrue no interest during the course of study and first year of repayment, and then the interest rate is one percent. Repayment is progressive as a percentage of the total loan size, starting at 1.5 percent the first year of repayment and ending at 13 percent in the 15th and last year (Tangkitvanich and Manasboonphempool 2010).

Outcomes:

Access: A 2010 study (Tangkitvanich and Manasboonphempool 2010) evaluated the effectiveness of the Student Loans Fund in improving equity in the Thai higher education system. It showed that receiving a student loan does not increase the probability of participation in higher education for the overall student population. However, it does increase the probability of participation among the 13 percent of students who come from very low-income backgrounds (i.e., with income lower than approximately US\$900).

Income-targeted free tuition

Income-targeted free-tuition financial aid policy has only recently been introduced in some higher education systems around the globe. Income-targeted free tuition consists of abolishing tuition fees in public institutions for students from low-income backgrounds, with the aim of improving access for those students. It was implemented in Chile and in the Canadian province of Ontario two years ago, and most recently in Italy, Japan, South Africa, the province of New Brunswick in Canada and the U.S. state of New York (Usher and Burroughs 2018). Because it is quite recent, there is little evidence of its impact on equity or attainment. Limited evidence for early adopters is presented below, but the aim of this section is primarily to inform the readers about this new approach.

Country examples

Chile

Program description: In 2016, Chile took the first step toward its full free-tuition policy. This consisted of offering free tuition to 50 percent of students from the poorest backgrounds. In 2018, Chile extended the opportunity to 60 percent of students from the poorest backgrounds.

Outcomes:

Access: Early estimates from the Ministry of Education show that 15 percent of entrants in 2016 would not have enrolled if it were not for the free-tuition program (Delisle and Bernasconi 2018). However, there is concern that as Chile continues expanding the program to students from richer backgrounds, low-income students will be crowded out. Bucarey (2018) estimates that Chile could experience as much as a 20 percent decline in low-income student enrollment compared with the era before free tuition was introduced. Therefore, in Chile, income-targeted free tuition might be more efficient in terms of equity than the government's financial aid policy of free tuition for all.

Ontario

Program description: Since 2016, Ontario has implemented a financial aid policy—the Ontario Student Assistance Program (OSAP)—in which the government pays the average provincial tuition fees for students with family income below CAN\$50,000. Contrary to Chile that has only one income threshold, Ontario’s program provides for partial relief for students with incomes between CAN\$50,000 and CAN\$160,000. In 2017, one-third of Ontario’s students went to college without paying tuition fees (Rushowy 2017; Usher and Burroughs 2018).

Outcomes:

Access: Data on participation rates since the financial aid reform are not available, but the number of applicants for financial aid has increased, particularly among Indigenous students—a good first indicator of the program’s reach (Chiose 2017). In early 2018, the government of Ontario announced changes to its funding system, including a 10 percent reduction of tuition fees in all programs receiving public subsidies and a reduction in grant amount offered through OSAP. Because in effect the grant will be reduced by a larger amount than tuition fees, Ontario is effectively ending its free-tuition program (Usher 2019a).

New York State

Program description: In April 2017, the governor of New York announced the establishment of a new funding program called the Excelsior Scholarship for the CUNY and SUNY systems. This scholarship is targeted at students whose families earn less than \$110,000 (2018–2019 threshold). In practice, it covers the outstanding amount on tuition fees once other grants are taken into account, making it a last-dollar program.

Outcomes:

Access: Students from lower-income families have low to no benefit from this scholarship because their tuition fees are already fully covered by other programs. The beneficiaries are students from families at the upper bound of the income limit. As a consequence, less than half of the 45,000 students who were eligible in 2017–2018 actually received Excelsior funding (Usher and Burroughs 2018). This means that only 3.2 percent of undergraduates in the state of New York were funded through this program—a relatively small proportion (Hilliard 2018).

In addition, the program has been widely criticized both for its coverage span—it fails to cover student expenses beyond tuition fees—and for its selectivity, in particular the requirement that students have to earn 30 credits per year in order to remain eligible for receiving program funds. In 2017–18, the credit requirement was the basis of 83 percent of rejections, taking into account a nearly 70 percent rejection rate overall for the program (Hilliard 2018).

However, communication around free tuition through the Excelsior program has had an early positive impact on enrollment and credit load. As of December 2017, the number of applications to the CUNY and SUNY systems for fall 2018 had increased by 11 and 9 percent, respectively, compared with fall 2017. Similarly, the number of first-year students taking more than 15 credits in their first semester in both systems has increased significantly—by 11 percent at SUNY and 39 percent at CUNY in fall 2017 compared with fall 2016 (New York State 2018).

EVOLVING APPROACHES: UNIQUE “LINEAR TUITION” SYSTEM IN CROATIA

As discussed earlier, Croatia employed a dual-track tuition system until 2009, when students organized massive protests demanding free higher education for all. Despite the fact that this request has not been fully approved by the Croatian Government, as a result a unique “linear” tuition model has been adopted (Brajkovic 2015).

Beginning with the 2010–2011 academic year, admitted undergraduate and graduate students pay no tuition fees during their first year of studies. The government’s rationale for this new system is that more students have a chance to study without paying tuition than in the previous dual-track system. After the first year, students are charged tuition fees depending on performance, according to a linear model based on the accumulated European Credit Transfer and Accumulation System (ECTS) measuring student progress. After the first year of study the government subsidizes institutions in the amount of €487 per student per year for students who met the minimum quota of 55 ECTS in the previous year (standard full-time annual course load is 60 credits). Students who meet this criterion continue to study tuition-free; those who do not are charged different tuition fee amounts proportionate to the number of ECTS they are missing below the 55-credit minimum.

This entirely meritocratic system does not address differing levels of academic preparation among students from lower and higher socioeconomic backgrounds, which affect their ability to obtain the required number of ECTS. Another problem for Croatian students is that need-based grants covering a small portion of tuition and living expenses are also tied to merit-based criteria (Doolan, Dolenc, and Domazet 2012). Additionally, a student loan system does not exist in Croatia. For these reasons, low-income students may be less likely to get free-tuition higher education beyond the second year, and might then drop out for financial reasons. Finally, there is no provision for part-time students, who must pay tuition fees.

Croatia’s credits accumulation-based tuition model represents one of the most innovative approaches within the Bologna system. However, there is a lack of comparative data from other countries and institutional-level student data in Croatia are still not readily available, which makes the impacts of this policy on students as well as higher education institutions difficult to assess. Still, this approach may be promising for countries with inadequate or no student aid and loan programs, which is often the case in post-socialist societies of Central and Eastern Europe (Brajkovic 2015).

INSTITUTION-LEVEL: PERFORMANCE-BASED POLICIES TARGETING ATTAINMENT

With access becoming universal or close to universal in many countries globally, completion has taken prominence on higher education policymakers' agendas. As ever more students enroll in higher education institutions, the focus has moved to making sure that these students leave higher education with a degree. Dropout rates, retention, persistence, completion, and attainment have therefore been the subject of many policy debates in recent years. Financial policies, and in particular performance-based financing, have been one of the main levers used by governments in an attempt to improve completion rates and address equity concerns (Vossensteyn et al. 2015). Incidentally, some financial policies primarily targeted at access have been found to also improve persistence (for example, need-based grants) (Bettinger 2004; Dynarski 2002).

Financial policies to advance both of these goals target students and/or institutions. At the individual level, many financial aid programs make renewal conditional upon credits earned and/or grade point average, to encourage progression for students on their way to completion. At the institutional level, performance-based funding policies incorporate output criteria—in particular, graduation rates—to incentivize institutions to support students through to degree attainment.

Theoretical frameworks trying to explain higher education drop-out and completion support both approaches. Students' persistence has indeed been linked to institutional attributes such as integration, institutional culture, and support (Terenzini and Reason 2005). But individual student characteristics, including but not limited to their socioeconomic background, gender, and motivation also matter (Vossensteyn et al. 2015).

Performance-based funding is a model in which public higher education institutions' budgets depend on institutional performance. Various funding formulas are used to determine funding allocations, mostly based on the results achieved in the recent past. In contrast to such an ex-post approach, a "performance agreement" usually is associated with a funding system that rewards institutions based on the expected results in the near future (De Boer et al. 2015).

In some states and countries, the number of enrolled students—when taken as a funding parameter—can be considered a performance indicator (e.g., in the German state of Thuringia). Other common indicators related to higher education equity and attainment include the number of students from underrepresented groups (e.g., in Australia, Ireland, Thuringia, and Tennessee), and study duration (e.g., in Austria, Denmark, the Netherlands, and Tennessee).

The impact of performance-based funding has been deemed positive in some cases, as in Louisiana, Tennessee, and Denmark, where graduation rates have improved significantly. However, it is important to note that performance-based funding policies and agreements are typically used alongside other policy instruments, and the interplay between them needs to be considered carefully, as it may produce unintended consequences (De Boer et al. 2015). For example, in order to meet the performance targets institutions may adjust their admission policies. They could become less restrictive to allow greater access or, alternatively, more restrictive favoring students likely to reach graduation targets.

Additionally, recent research has shown that policies linking student outcomes to a relatively high percentage of base funding (over 5 percent) for community colleges lead, on average, to more short-term certificates completed and fewer associate degrees completed. These results suggest potentially damaging consequences

for students, because short-term certificates tend to lead to negative or minimal wage gains, while associate degrees offer substantial wage gains (Li, Kennedy, and Sebastian 2018) and a pathway to further study.

Finally, some researchers argue that performance-based funding could potentially negatively influence the overall quality of education, as universities shift their focus and priorities in order to meet performance targets (Hansen 2011).

Country examples

Denmark

Policy description: Performance-based funding for higher education in Denmark measures outputs related to student activity, such as the number of exams passed (De Boer et al. 2015). For research universities, public funding is mixed: 40 percent is a fixed amount, and 60 percent is based on performance. Additionally, universities receive a completion bonus, which depends on the duration of their students' study. A recent reform to Denmark's funding structure includes a new "completion agreement" stipulating that by 2020, universities will lose funding if students do not complete their studies on time (De Boer et al. 2015).

In addition to tuition-free higher education, the Danish government provides a monthly stipend to help students with their living expenses (Ahola et al. 2014; Johnstone 2014). The State Educational Grant, known as the SU, awards approximately US\$950 per month to students who are living away from home during college. Although higher education subsidies in Denmark are in line with the Nordic economic model—a comprehensive welfare state promoting economic security and social mobility—the current funding levels are widely considered unsustainable. Many think that Denmark is providing students with a level of financial support that exceeds the estimated future amount of taxes they will pay (DØRS 2018). This is particularly true because of the prolonged time to degree in Denmark, which has led to high government expenditures (Ahola et al. 2014).

Outcomes:

Access: Even though recent widening participation policies have enabled inclusion of first-generation students in Denmark, an opportunity gap still exists, as the majority of these students enroll in less prestigious programs (Isopahkala-Bouret et al. 2018)

Attainment: Over the past decade, Denmark has seen increasingly higher levels of educational attainment. According to the Statistical Yearbook, 71 percent of 30- to 69-year olds in 2016 had completed professional qualifications (including vocational), up from 66 percent in 2006 (Statistics Denmark 2017). For higher education completion among 25- to 64-year olds, Denmark comes in at 37 percent, above the OECD average of 35 percent (Statistics Denmark 2017).

To improve on-time degree completion, Denmark introduced the Study Progress Reform in 2013. The goal was to reduce the average completion delay by 4.3 months by 2020. This was to be achieved by requiring students to register for a minimum number of ECTS (credits) each semester and removing the option of postponing courses. In addition, students were prevented from taking an excessive number of courses outside their degree program (Ahola et al. 2014; Redder 2017). Although the reform was met by resistance from both students and universities and considered a failure by many, it reduced completion time by an average of four months (Redder 2017).

Tennessee

Policy description: In 2010, the state of Tennessee in the United States passed the Complete College Tennessee Act (CCTA), which introduced an outcomes-based funding formula to find “an equitable way to fund institutions of higher education in a manner that is stable and yet also prompts institutions to be more productive and efficient” (Tennessee Higher Education Commission, n.d.). With this system, institutions compete to get a share of state appropriations by showing progress in outcomes such as degree and certificate completion, student transfer, and graduation rates of full-time students.

CCTA rewards institutions for high educational attainment in particular. The program has two formulas, one for community colleges and one for universities. In the university formula, outcomes include student progression measured by the number of students reaching specific credit hour thresholds, number of degrees awarded at all levels, rate of completion, expenditures on research and services, transfer out with at least 12 credit hours, and six-year graduation rate. Additional indicators of progression are calculated specifically for focus populations—namely, adult students and Pell eligible students—as indicators of equity, and premiums are included to encourage the completion of these students. The formula for community college takes into account the specific mission of these institutions. It includes student progression measured by the number of students reaching specific credit hour thresholds (lower than for university), work force training, dual-enrollment students, associate degrees and certificates granted, rate of awards granted, job placements, transfer out with at least 12 credit hours, and remedial and developmental success (Johnson and Yanagiura 2016; Tennessee Higher Education Commission, n.d.).

Institutions have responded by switching their strategic focus from enrollment to completion, in line with the state strategy. As a result, they have implemented new student services, enhanced advising possibilities, and established new student affairs policies. In the case of the University of Tennessee, Knoxville, it led to a change in institutional financial aid to encourage completion in four years (Ness, Deupree, and Gandara 2015).

Outcomes:

Access: The 2010 reform has led to significant changes for higher education in Tennessee, with mixed results for different groups of students. Enrollment of Pell Grant students in community colleges and universities has increased. However, enrollment of underrepresented minority students (Black and Hispanic) has actually decreased.

While the program has led to greater enrollment overall, the outcomes suggest the benefit may be greatest to students who least need state support—an important point regarding performance-based funding is the possibility that it may incentivize institutions to restrict admissions to students who are most likely to complete a degree. This phenomenon has not been formally recorded in Tennessee. However, the 2015 version of the funding formula addressed this concern by adding a third sub-population for community colleges: academically underprepared students (De Boer et al. 2015; Tennessee Higher Education Commission, n.d.).

Attainment: Progression toward degree improved for students enrolled in community colleges after 2010, but only for full-time students; the reform had an overall *negative* impact on part-time community college students. In universities, progression and attainment rates have increased among full-time students. However, no significant difference was found for Pell students in universities, nor for underrepresented minority students (except for two-year progression) (Callahan et al. 2017).

EVOLVING APPROACHES: COMPACTS IN AUSTRALIA

Compacts are three-year agreements between the Commonwealth and universities in Australia—part of a comprehensive reform of Australia's higher education system. Individual compacts include specific indicators for performance, and institutions are required to report their performance annually to the Department of Industry, Innovation, Science, Research and Tertiary Education (DIISRTE). Each institution specifies indicators that are relevant to its objectives. However, some performance dimensions the DIISRTE specifies as essential indicators, such as participation by disadvantaged groups (De Boer et al. 2015). Examples of such indicators include number of all Aboriginal and Torres Strait Islander student enrollments; number of all Aboriginal and Torres Strait Islander student completions; number of all Aboriginal and Torres Strait Islander academic staff, and similar measures (Center for Higher Education Policy Studies 2015). There is a comprehensive assessment of institutional performance every three years, when institutions negotiate a new agreement.

There is a rising sentiment in Australia that performance-based policies amount to a considerable bureaucratic burden with few positive effects on institutional behavior. As noted in the 2015 report by De Boer et al., several Australian university representatives have cast doubt on the need for compacts in the future, claiming, for example, that they risk becoming a way for universities “[...] doing deals with the government rather than just doing their stuff according to clear rules.” Compacts might also have the “potential to be used for any negotiated ‘soft capping’ (i.e., restricting) of student numbers,” a sort of unofficial repeal of the recent uncapping policy (38).

TABLE 13: Targeted Financial Programs and Policies

STUDENT LEVEL: PROGRAMS TARGETING EQUITY IN ACCESS AND ATTAINMENT	These programs restrict eligibility criteria to what are perceived to be underserved minorities, thus providing additional financial help to specific categories of people. In a way, they constitute positive discrimination to achieve better equity in higher education, by giving more to the populations who need it.	
Targeted student grants	Widely used financial aid program to address equity issues. These grants use a wide variety of eligibility criteria and as a result can be targeted at many different groups. Eligible students receive grants directly from the government or a private funder.	E.g., Australia, U.S., England
Targeted student loans	These student loans are directed specifically at poor or disadvantaged students to help them afford the costs of higher education, thus contributing to social equity.	E.g., South Africa, South Korea, Thailand
Income-targeted free tuition	A very recent policy, consists of abolishing tuition fees in public institutions for students from low-income backgrounds. The aim of this policy is to improve access for students from economically disadvantaged background.	E.g., Chile, Canadian province of Ontario, Japan, South Africa, State of New York
INSTITUTION-LEVEL: PERFORMANCE-BASED POLICIES TARGETING ATTAINMENT	Performance funding policies incorporating output criteria, including completion rates, aimed at supporting institutions in their effort to ensure that students who enter higher education attain their degrees.	E.g., Australia, Denmark, Austria, state of Tennessee, state of Louisiana

CONCLUDING REMARKS: RAISING EQUITY IN ACCESS AND ATTAINMENT THROUGH TARGETED FINANCING APPROACHES

The era of massification in higher education has contributed to ever-rising costs, which run parallel to increasing government austerity worldwide. In addition to introducing cost-sharing between governments and students and their families—mostly in the form of tuition fees—financial austerity has also imposed greater accountability on governments in order to maximize taxpayers’ contributions. This means that governments around the world are considering financial policies that can help achieve their goals more efficiently, including addressing equity and attainment issues.

The overall analysis conducted in this report suggests that targeted approaches—loans, grants, tuition fees, or specific performance funding indicators—are more effective in increasing enrollment and attainment among low-income and underrepresented student populations than universal/blanket policies. Income-targeted tuition, for example, appears to be a promising policy option adaptable to a variety of national contexts, although it still needs to be properly evaluated in the years to come.

The high-fee/high-aid system represents a variation of this approach. But the targeted free-tuition (TFT) system recently implemented in Chile, Canada, Italy, South Africa, and the U.S. state of New York presents a less cumbersome system in terms of resources and support structures needed for implementation on a national level. The TFT model also offers a compelling political and economic argument by providing benefits to those who need it, thus addressing equity issues, without unnecessarily subsidizing students who can pay for their education (Usher 2018). However, the adoption of such a system would require a major shift in many countries from the concept of equality (a universal policy affecting all students) to the concept of equity (targeted resources aimed at students who need them).

Research and practice suggest there is no one-size-fits-all financial policy to achieve goals for equity and attainment, and that the overarching national context matters greatly. As noted by Usher (2018), policies tend to be embedded in larger and more complex systems and may not always translate well from one system to another. Despite the lack of direct transferability of specific approaches, it is worthwhile examining what works and does not work in multiple national systems, in order to learn about “the implicit trade-offs involved in policy making rather than to engage in cherry-picking policies from potentially incompatible systems” (Usher 2019b). This report provides such insights and facilitates a comparison of both innovative and traditional approaches to setting tuition fees and providing student financial aid around the world, with particular attention to the impact of each approach on equity and attainment.

Political climate and social values influence higher education policymaking worldwide, and often guide policy independent of economic rationales or equity considerations. An example of a politically driven policy is free higher education for all students. Despite its promise of offering universal higher education, to date there is no evidence that free-tuition higher education systems improve either equity or attainment. The evidence actually suggests just the opposite; such systems may even limit access for vulnerable and underrepresented student populations. Similar to countries with free-tuition policies, those employing low tuition fees with no financial aid also do not guarantee greater access, attainment, or equity to their students. The out-of-pocket expenses—such as room, board, and books—can effectively deter low-income and other disadvantaged students from accessing higher education.

High tuition-high aid systems, such as the one used in the United States, seem to allow for greater access in general. The existence of a robust financial aid system—including loans as well as grants at the federal, state, and institutional levels—has been successful in addressing equity considerations up to a point. Student loans enable wider participation of individuals from low-income or disadvantaged backgrounds during the era of rising tuition fees, but debt aversion still poses a major concern. An income-contingent loan system, therefore, is often seen as the “ideal type” of repayment setup, though its success is often predicated upon certain features of a nation’s tax system that are not necessarily exportable to other countries (Usher 2019b).

While this report focuses on national-level policies, it is also important to recognize the role of higher education institutions in ensuring equity and student success through merit-based and other forms of financial aid to their students. Furthermore, although financial policies are crucial in addressing both attainment and equity, they are not sufficiently effective on their own. For example, the retention and completion of various student populations depend on many other factors, such as successful integration, available student support services, and quality of instruction, that also need to be the focus of policymaking at the institutional level.

Finally, the future design of funding models will require, in addition to creativity and hard work, a solid knowledge of unique national systems and approaches in order to conceive the right mix of policies suited to the specific national context. Our hope is that this report provides useful information and analysis that can be used by various stakeholders in the global higher education policy arena.

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