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Why should financial aid affect university participation? A review of the literature

Elena Vettoretto, Davide Azzolini, Loris Vergolini

Abstract

This contribution reviews the literature on the role of financial aid in enhancing university participation. This aim will be reached through three main steps. First, we describe a theoretical framework based on rational action theory that could explain the effects exerted by the different measures. Second, we analyse the main forms of financial aid developed by the policy makers in Europe and in the US. More precisely, we look at the role played by: grants, tuition fees, loans and a novel approach in the financial aid debate: asset building. The paper attempts to provide an overview of the different measures' effects on enrolment, academic performance and completion. Third, based on the reviewed literature, the paper tries to derive some general policy implications for the Italian case.

Keywords: Financial aid, asset building, university participation

JEL codes: A23, I22, H52

1. Introduction

Inequality of educational opportunity (IEO henceforth) is still a crucial concern in many advanced countries. Despite a little decrease occurred in the past decades, IEO remains high in many western countries (Breen et al. 2009; Ballarino et al. 2008). Inequalities between social strata are evident in both educational attainment and achievement, determining consequent inequalities in the intergenerational mobility chances. Therefore, increasing participation in higher education of young people from disadvantaged background has been one of major concern for policy makers. The majority of the programmes designed to enhance university participation are designed to provide monetary resources through different kind of programmes such as loans, tax deductions, tuition fees waiver and scholarships. In this paper we aim to review the main form of financial aid to understand which are the channels through they work and which kind of inequalities they should address.

The next section is devoted to the illustration of the theoretical framework that will guide the description of the effects of the different forms of financial aid described in the third section. The final section summarises the results of the review and try to develop some policy lessons.

2. Theoretical background

Financial aid policies assume that lower class students do not enrol at the university because of liquidity constraints. The idea is that they are not in the position to deal with the direct and indirect costs connected with higher education. Hence, the logic behind this kind of policy is to provide economic relief in order to make them able to bear the costs and foster their academic career.

However, liquidity constraints do not fully explain inequalities in education: factors that explain IEO include cultural and economic resources. An important contribution in understanding IEO comes from Boudon (1974) who breaks down the total effect of social origin on educational attainment into *primary* and *secondary effects*. Primary effects refer to all those condition that affect the ability of pupils to more or less well satisfy the learning requirements at school. They are expressed through the association between children's social origins and their school performances: parental class and education affect the educational achievements of children, which in turn predicts the educational career choices. Elaborating on the work of Boudon, children from higher socioeconomic background have better performances in lower secondary schools and this leads them to enrol more often in academic tracks, and consequently to a major participation to tertiary education. Jackson et al. (2007) show that the performance's distributions are differentiated by social class, with children from the salariat performing better than the intermediate and working classes. However, differences in the educational choices occur even when their academic performances are substantially the same. Indeed, educational attainment is deeply influenced by economic resources available for each class. Hence, secondary effects can be understood as the effect of social origins on educational choices keeping constant the educational performances. The idea is that, following the rational action theory (Breen and Goldthorpe 1997; Goldthorpe 2000), children from different social classes will deal differently with the direct and indirect costs of education. The assumption of the so-called Breen-Goldthorpe model is that children and their families in their choices consider the

potential benefit (B) of the educational path weighted by the probability of success (P) and the (direct and indirect) costs (C) of attending this path:

$$U = (P \cdot B) - C$$

A rational actor will choose a path able to maximise their utility: among different educational paths, children would take the one that guarantees higher benefits and higher probability of success and requires lower costs. The mechanism underlying the rational action theory includes the sensitivity to the so-called risk aversion. Students wish first to avoid downward social mobility. Therefore, in order to maintain their social position, children from higher social classes are compelled to attend academic track and afterwards the university. While the offspring of lower social classes tend to enrol in less demanding tracks since the risk of failure the costs linked to this choice are lower and they are sufficient to guarantee intergenerational stability in social position (Breen and Goldthorpe 1997). Moreover, the choice of an academic track for the lower-class families compared to the other classes can result not only in a loss *per se* but also in additional costs whether they shift to a non-academic track. Moreover, in context like Italy, where the access to university is guaranteed independently by the high school track, the choice of a non-academic track could be also a sort of parachute for lower-class students. Indeed, in particular the technical track prepares students for the labour market, but thanks to the curricula centred on scientific subject, a good student can enrol and conclude a remunerative field of study at the university level (Vergolini and Vlach 2017).

Going back to primary effects, they can be explained by means of cultural capital theory (CCT) that is based on three assumptions (Bourdieu, 1986). First, each social stratum in any given society has its own culture, expressed by shared values, lifestyle and language. Second, there is the perception of a shared hierarchy between each culture and the implicit reception of the standards of the upper classes as the dominant cultural standards. Third, dominant cultural standards are taken for granted by educational institution, since they are continually expressed through the teachers and textbooks, both reflecting the high-class standard. Consequently, children of the upper classes have better performances because they are favoured by the proximity between school and family cultural standards. Children coming from a high-class family find it easier to adapt and fulfil educational requirements because of their familiarity with the culture expressed by educational institution. Barone (2006) provides empirical evidence for the CCT, showing that cultural capital conceived in terms of possession and communication has a strong positive influence on reading literacy in all 25 countries examined. Furthermore, van de Werfhorst and Hofstede (2007) provide a test for CCT and RAT to explain IEO in the Netherlands, concluding that differentials in performances are accounted for the CCT rather than the RAT, while ambitions are better explained by RAT.¹ Primary and secondary effects are strongly interdependent so that it is difficult to estimate their separate effect, since they blend with each other at every school transition. Indeed, what we identify as

¹ One of the most widespread alternative to the cultural capital theory is the Pygmalion effect that is linked to the idea of the self-fulfilling prophecy. Teachers have their own expectations concerning the performance of students coming from different social classes: they expect children of the higher classes to perform better and unconsciously act in a way that their expectations are fulfilled, in part devoting major amount of time and effort to high-class students and unfairly evaluating student's performance. Moreover, students on which the expectations are higher tend to behave coherently with the expectations looming on them and thus having better performances compared to those students who are expected to have worse academic results.

primary effects may include underlying secondary mechanisms. Moreover, the intensity of primary and secondary effects can vary according to different educational transitions. At the higher transitions there is a major homogeneity in terms of performance among students from different social classes, because of selection at earlier transitions, hence secondary effects are stronger at higher transitions, while primary effects are stronger at earlier transition, selecting individuals transiting to the higher educational levels.

However, the acknowledge of the division into primary and secondary effects allows for a better understanding of IEO and its causes and thus for the outline of more effective solutions in order to reduce educational differentials between social strata. Therefore, if the policy maker wants to foster participation in higher education, policies should act on both primary and secondary effects, through different kind of programmes. For what concerns primary effects, solutions should compensate early in life deficits in home learning environment through public institutions and to offer support for weak learners. While the solutions that aim to reduce secondary effects should focus mainly on the reduction of the costs of education for students with scarce economic resources. Moreover, policy may aim to reduce the stratification level of the education systems by postponing early selection to different school tracks as well as providing better information about the different educational options.

However, the implementation of a policy requires the availability to sufficient economic resources, contributing to harden the decisional process leading to a valuable solution, because of a lack of resources. Consequently, it seems important to individuate what of the two effects plays a major role in increasing educational inequalities, in order to elaborate the most efficient intervention.

3. Effects of financial aid

In this section we provide an overview of the mostly widespread approaches to the reduction of the costs of tertiary education, conceived both as direct costs (e.g., tuition and books) and indirect costs (e.g., forgone income). More precisely, we are going to look at the role played by tuition, loans, grants and asset building. Even if these measures are intended to reduce the costs connected to the higher education participation, they can work through different mechanisms.

3.1. Tuition

As already mentioned, the costs connected to higher education are a crucial concern for the educational choices of students from low-income families. Indeed, tuition fees represent one of the possible direct costs of education that students have to deal with when they decide to enrol at the university. For what concerns the US, Long (2004) analyses the effect of tuition fees for three cohort of students (1972, 1982 and 1992). She finds that fees are an important determinant for enrolment decision in the oldest cohort, but they do not have explicative power for the more recent cohort. Hemelt and Marcotte (2011) also found a negative relationship with tuition increase and enrolment decisions. More precisely, a \$100 increase in tuition would lead to a decline in enrolment of about 0.25 percent. In line with these results, measures allowing parents to-lock in today's tuition for a future enrolment are found to be positively related to enrolment decisions (Shen 2016). More recently, Chen (2016) confirmed the negative impact of college

costs on student enrolment in a study conducted on full-time resident freshman in a four-year teaching institution in the years 2001-2013.

However, these studies, carried out in North America, analyse the effect of tuition increases from already high tuition costs, while we have little knowledge about the relationship between moderate tuition and enrolment decision in European countries. Hübner (2012), exploiting the introduction of tuition fees in some German *Länder* as a natural experiment, tries to fill this gap. He finds that this discontinuity in the costs of tertiary education at an annual rate of 1000€ has a negative effect on enrolment decisions in the *Länder* which introduced tuition fees. In the UK, Sà (2014) stresses that enrolment decrease in response to higher tuition fees and the relationship is stronger according to the field of study: graduate courses with lower expected salaries and employment chances after graduation have fewer application when the tuition fees increase. Moreover, Sà also finds that there is no evidence of a larger effect for students from lower class families. While Geven (2012), analysing the impact of the increase of undergraduate tuition fees to £9,000 (€11.000), highlights a decrease in the enrolments by 15% in the treated groups as a result of the tuition fee increase. The increase of tuition fees has particularly negative consequences for students coming from service class families, while the decline in enrolments is not visible for students from the working class. More evidence of the negative effect that tuition fees have on participation comes also from Dearden et al. (2011): an increase of £1,000 in fees results in a decline in participation of 3.9 percentage points. Furthermore, contrarily Karay and Matthes (2016), analysing the effect of tuitions on Cologne medical students, find no effect on discontinuation rate or study duration. However, there is a significant increase in time spent on earning money.

In the last years, several countries have considered to introduce tuition fees in tertiary education institutions, while other economies are increasing them. In particular, the Anglo-Saxon educational system has always had the tendency to fix student tuition fees, resulting in a more competitive model and with higher rates than the other countries (Escardibul Ferrà et al. 2017). However, it is crucial that the policy maker that wants to increase or introduce the tuition fees considers the negative impact of this decision on academic choices. Moreover, he/she should also plan the implementation or the strengthening of specific measures (i.e., financial aid) intended to mitigate the negative effects of tuition fees. Indeed, Rivard and Raymond (2004) reveal that in Canada the tuition levels do not have a negative impact on transitions from school to post-secondary education due to the presence of well-designed financial aid.

3.2. Loans

In the US over the past twenty years, loans have become increasingly prominent as a means of financing tertiary education, until the point of raising concern about their efficacy and about the risk of huge indebtedment for the students who cannot afford the university costs.

Students who do not qualify for need-based financial aid programmes, due to a higher Expected Family Contribution (EFC), are usually eligible for federal loan programmes (Long and Riley 2007). The largest and most studied loan program is the Stafford Loan Programme, half of which are need-based subsidized loans, whose interests are paid by the government, while the other half are unsubsidized (Dynarski and Scott-Clayton 2006). Furthermore, another need-based federal programme is the Perkins Loan Programme, which is managed directly by the Universities and it was cancelled on 30 September 2017. Finally, another widespread Loan

Programme is the PLUS Loan Programme (Parent Loan for Undergraduate Students), which is given to families of a dependent undergraduate students. What all these loan programmes have in common is that at the end of the academic career, students have to repay the accumulated debt, even if they are not able to graduate (Long and Riley 2007).

However, loans are the most controversial among all kind of financial aid programmes. Therefore, independently from the academic outcomes, borrowing can have dangerous consequences on students' future lives. According to Dynarski (2016), US graduates owe \$1.3 trillion in student loans, seven million borrowers are in default and even more in arrears. Repayment burdens (RB) are indeed very large, moreover low-earner graduate students struggle even more, particularly in their early career. However, as Barr et al. (2017) point out a well-designed loan can protect low-earning graduates from defaulting or experiencing financial distress, while simultaneously ensuring that taxpayer subsidies are kept low. Indeed, concerns about RB do not arise in countries with income-contingent loan (ICL) because the inherent design of these systems imposes an upper bound on RBs and hence avoids repayment problems. ICLs ensure consumption smoothing and provide insurance against the adverse exigencies that can lead to default (Barr et al. 2017).

However, as mentioned, empirical evidence provides controversial results, for both enrolment and performance. For what concerns enrolment, in the US Malcom and Dowd (2012), in a study conducted on STEM bachelor's degree holders, show that undergraduate debt has a negative effect on immediate post-baccalaureate investments. While in Germany, Baumgartner and Steiner (2005) analysed the effect of a policy shift in federal student aid in Germany introduced by the BAföG (Berufsausbildungsfoerderungsgesetz) reform in 1990. It ratified a change of the repayment regulations by reducing the debt burden by 50 percent. The underlying assumption was that enrolment rates would raise together with the participation of low-income students, but the results show that there is no effect of the reform on enrolment.

Although there is evidence that increasing non-repayable assistance leads to an increase in enrolment probability, loans appear to increase only the probability of youth living away from their parents' house while studying. This group has a very high probability of receiving the maximum student loan, given their higher assessed living expenses. Students whose parents have relatively low education levels are also affected to a significant extent, while those whose parents have relatively high education levels are not affected at all (Neill, 2008).

Studies about the effects of loans on persistence in the community colleges find that borrowing during the first year has a positive effect on persistence at the end of the first year, but it exerts a negative effect on persistence measured three and 6 years after initial enrolment (McKinney and Burrige 2015). Moreover, loans do not contribute to higher persistence and attainment rates. Indeed, has been observed that loans have a negative effect on persistence and no effect on degree attainment (Dowd and Coury 2006). On the other side there is some evidence about the positive effects of loans on credits and GPA: with a \$4000 loan resulting in a 3.7 credit and a 0.6 GPA increase over the academic year (Marx and Turner 2017)

3.3. Grants

Previous studies on the effects of grants on academic outcomes provide ambiguous results. This is due to the differences in context in which the programmes are implemented and the eligibility rules implied (see Herbaut and Geven (2019) for a detailed review). As for the former, the

differences in the costs of education across countries and the variety of economic incentives which support university students, make it difficult to compare studies in different countries. While the latter may have important consequences in terms of social inequalities, since they are crucial in determining who should benefit from the programme. Here we divide eligibility into two categories: merit-based and need-based. The former may advantage students from higher social strata due to the strong positive association between social origins and educational attainment. On the other side, the need-based grants could push towards higher education even those students who lack of motivation and ability.

In the US, Dynarski (2000) and Cornwell et al. (2006) show that HOPE, which is a merit-based grant, has a positive effect on higher education attendance, while Goodman (2008) finds that the Massachusetts' Adams Scholarship has a non-significant effect on college enrolment rate, but it positively influences students in choosing a public college instead of a private one.

On the other side, the studies on the need-based grants are more widespread than those based on merit and the results are similarly ambiguous. Hansen (1983) and Kane (1994, 1995) find no significant effects for the Pell grant, while Manski and Wise (1983) and Seftor and Turner (2002) find a significant effect of the Pell grant. Moreover, Dynarski (2003) finds significant effects for the Social Security Student Benefit Programme that was addressed to children of deceased or retired social security beneficiaries. Similarly, Bettinger (2015) and Castleman and Long (2016) show a positive effect on college attendance at public four-year institutions together with an increased early persistence and the cumulative number of credits and students earned in their first year at college. Furthermore, Castleman and Long (2016) show also that the Florida Student Assistance Grant programme increased the likelihood of obtaining a bachelor's degree within six years in a public university. Goldrick-Rab (2016) states that grant aid contributes to the attenuation of inequality in college graduation. Indeed, she provides new experimental evidence indicating that increasing need-based grant aid is an effective tool for inducing students to remain in college, earn more credits and better grades and to graduate on time. According to Broton et al. (2016), an additional grant offered in Wisconsin succeed in reducing the likelihood to work and the working hours of students from low-income families. Moreover, for those who decide to work despite this grant, the programme was able to improve the quality of work. Indeed, eligible students start to work less during the morning hours, or overnight.

At the same time, financial aid combining merit and need show a positive relationship with several academic outcomes. Angrist et al. (2016) finds positive effects on college enrolment and persistence. The scholarship recipients were more likely to enrol, and the gains are larger for non-white applicants, first generation college-goers and students with the lowest grades and test scores in the eligible applicant pool. Scholarships also shift many students from two- to four-year colleges. Despite their substantial gains in four-year college enrolment, the recipients were less likely to graduate on time than controls, suggesting that scholarship may delay degree completion for some students. Moreover, Boatman and Long (2016) show a positive effect on a few academic and social engagement behaviours of recipients of the Gates Millennium Scholars (GMS) Programme. They find weak evidence that the scholarship influences college performances, but the results indicate that GMS has a positive effect on the time students spend interacting with peers and performing community service.

Contrasting results are found also in Europe where the cost of attending university is substantially lower. Lauer (2002) and Steiner and Wrohlich (2012) stress that the monetary benefits supplied by the BAföG programme positively influenced the enrolment rates of German students. The effectiveness of BAföG is not so clear because Baumgartner and Steiner (2005) find non-significant effects of the programme on the student decision of attending university.

In Italy, there are few studies about the effectiveness of financial aid. For what concerns the main national programme (the Right to Education), Mealli and Rampichini (2012) provide evidence of a positive effect of Italian university grants on reducing drop-out from tertiary education in four Italian universities. While Agasisti and Murtinu (2016) find that financial aid positively affects students' performances and completion in a substantial and statistically robust way, suggesting that the scholarship design contributes to reducing the probability of delayed graduation. These results are confirming by two recent papers that exploit datasets at national level (Modena et al. 2018; Facchini et al. 2019)

Looking at programmes that combine eligibility rules (merit and need), Covizzi et al. (2012), Vergolini and Zanini (2013, 2015) and Vergolini et al. (2014) analyse the impact of a grant implementation in the Italian province of Trento. They find out that the programme does not have any effect on enrolment, but it has a significant influence in enrolling in a university outside the province of Trento. Exploring the heterogeneity of this effect, the effect is higher for students who moved to another region for studying and students attending the medical field.

3.4. Asset Building Programmes

Asset building programmes are incentivized savings programmes that help individuals and families building long-term assets such as post-secondary education. This kind of programmes are substantially different from other more traditional financial aid solutions. Low-income families participating in these programmes are incentivized to save regularly a minimum amount of money before their children enter college. A private donor or a public institution will then multiply the final amount saved. Some of these programmes requires that all the expenses must be related to educational purposes. The difference with traditional financial aid lies in the active involvement of students and their families in the process, well before the decision to go to college is taken. This involvement could enhance students' motivation in participating to higher education. This means that the possible effect of an asset building programme can affect educational choices through two different channels. The first operates reducing the liquidity constraints, while the second works in enhancing motivation and in creating a sort of college-bound identity (Elliot et al. 2011; Beverly et al. 2013).

Asset building programmes are mid- and long-term intervention, born in the US in the '80 and today widespread in other Anglo-Saxon countries and addressed to the economically weak segments of the population, they emerged as a tool for fighting poverty and social exclusion through the integrated savings mechanism.

An example of asset building in education is the Individual Development Accounts (IDAs), that is a special savings accounts with savings subsidized for low-income families (Sherraden 2014). To assess the impact of IDAs, the American Dream Demonstration (ADD) was developed. This project shows that an IDA programme can have significant positive impacts on asset building among low-income individuals. Indeed, the average monthly net

savings is over 16\$ for the treatment group and significantly higher for those defined as “active savers” (Schreiner and Sherraden 2007). It is relevant to stress that also students from low-income families tend to save and they save higher proportions of their incomes than students from wealthy families.

Another IDA experiment has been carried out in Canada and it known as Learn\$ave. It targets asset building for education and livelihoods (Kingwell et al. 2004). Low-income Canadians recruited into Learn\$ave widely use the accounts and financial incentives offered by the project. Nearly all opened an account, most saved something and indeed average deposits amounted to about \$1,100 over three years, and most used the matched credits. The Learn\$ave project also shows that a matched saving programme can be effective in promoting regular saving behaviour and financial integration among low income people. Learn\$ave demonstrates that an IDA programme with a generous incentive to induce savings could contribute to increase the number of low-income Canadians enrolling in education in a non-negligible way.

In Australia the Saver Plus programme provides evidence of high levels of continued saving behaviour, better financial management and improved quality of life. This study also shows the programme benefits to their children and family when financial skills and saving habits were shared (Russel et al. 2008).

Similarly, to the IDA programmes, Individual Development Accounts (CDA) policies are focused on asset building as well, but targeted to children development, education and lifelong well-being. However, saving behaviour is not its primary focus, more attention is dedicated to the effects of the programme on asset building for child development in terms of education achievement and attainment (Sherraden 2014).

Even if asset building programmes in education are available now in several countries (Loke and Sherraden 2009; Beverly et al. 2013), the evidence about their effectiveness is still poor. The few studies that try to evaluate the effects of these programmes find remarkable positive impacts on financial literacy and saving behaviour (Russel et al. 2008; Leckie et al. 2010; Elliot and Sherraden 2013; Mills et al. 2016) and on postsecondary education enrolment rates (Leckie et al. 2010; Cheatham and Elliot 2013; Grinstein-Weiss et al. 2013). In the United States, the number asset building programmes targeted to children’s educational attainment (Children’s Savings Account, CSA) is on the rise, but robust evidence on their effectiveness is limited to important, yet intermediate, outcomes, such savings behaviours, child social emotional wellbeing and parental educational expectations (Markoff et al. 2018).

In Italy, a randomized controlled trial, called ACHAB (Affording College with the Help of Asset Building) was conducted to assess the effects of subsidized savings on college enrolment and performance (Azzolini et al. 2018). Students and their families can save up to € 2000 that will be supplemented with a 4:1 matching multiplier by a private donor. The results of the experiment show a positive and huge effect on both enrolment and persistence (i.e. a decline in the drop-out risks)

Asset building applied to education has several strengths. First, it foresees a mixed of public and private resources that fit well with the idea that higher education can be intended at the same time as a private and public good. Indeed, people invest in education in order to have higher income, but at the same time, a high share of tertiary educated people is connected with economic development (Hanushek and Woessmann 2015) and “civicness” (Almond and Verba 1963). Moreover, the possibility if saving for the university during the high school could lead

to a change in behaviours and attitudes toward school by the participant and their families. The idea, as stressed before, is that asset building could enhance students' motivation in pursuing their studies beyond high school and at the same time to increase parental involvement: all factors positively connected with university enrolment.

Despite these favourable points, a weakness point that should be taken into consideration by policy makers and programme staff is the risk of regressivity embedded in such programmes. The capability of saving is not equal for all the families below the income threshold established by the policy maker. More precisely, poorest families could have more problems in saving even small amounts of money leading to further social inequalities: the poorest will have also the smallest benefit. To ensure equity in these programmes, it is important, that these programmes are targeted to the most-in-need population and/or that these programmes entail some extra support for the poorest households (e.g., higher match rates or the provision of an initial seed).

4. Conclusions

In this paper we reviewed the literature on the effects of the main policies and programmes centred on monetary subsidies aimed at enhancing university participation. From a theoretical point of view, as highlighted in section 2, all these measures are intended to reduce the so-called secondary effects being focused only on the costs' reduction for students from lower socio-economic backgrounds. In general, the decision to enrol at the university can be seen as a function of three distinct elements: i) costs; ii) expected returns; and iii) probability of success. Financial aid is capable of modify only the first factor and nothing can do on the other two. In particular, expected returns are linked primarily to the chosen field of study (Triventi et al. 2017) and to the economic situation (Vergolini 2018), while the probability of success strongly depends on the previous school career in terms of grade retention, marks and above all in terms of high school tracking. It is well known that graduating from an academic track provides higher chances to enrol at the university than having studied in a technical or vocational track (Azzolini and Vergolini 2014). Moreover, the choice of the tracking is deeply influenced by social origins (Panichella and Triventi 2014; Romito 2016; Guetto and Vergolini 2017).

Given this state of affairs, it is clear why financial aid tends to perform better in the US, where tuition fees and, in general, the direct costs are very high. For other contexts, such as Italy, it becomes fundamental to design accurately the policies in order to target the right population (i.e. those students who can benefit more from the measure). On this point, the policy maker has to be clear about the rationale of the policy: does he/she want to reward the merit or does he/she want to increase university participation? In the first case, grants should be awarded only on the basis of merit, measured through academic and school performances. In the second situation, the access to the programme has to be granted on the basis of financial need to identify the so-called marginal students. The targeting procedure is a fundamental step to reduce the deadweight: the share of students that would go at the university even in the absence of the incentive. For these students a grant is useless and it will be a waste of money.

Furthermore, a monetary benefit granted via standard financial aid programmes could not be enough to modify people choices for two reasons. First, the choice to enrol at the university is not taken at the very last moment, where the decision to enrol in a financial aid programme is taken. Parents and their children form their higher education expectations and

their beliefs concerning the affordability of college well before. Hence, it is important that financial aid takes up an early commitment strategy and that involves individuals when they are still in high school or even before. In this regard, the potential of asset-building approaches like Children's Savings Accounts is evident as they give families a higher certainty concerning college financial affordability and help them form higher and more realistic educational expectations (Markoff et al. 2018). . Finally, students from disadvantaged socio-economic backgrounds could have a biased perception of the economic returns of university, as well as the necessary workload to complete the university. These beliefs have a strong influence in the formation of risk aversion and they could be changed implementing guidance or counselling interventions addressed to students and their families (Barone et al. 2017; Elhert et al. 2017). These programmes should guide them through a better understanding of the university offer and of the returns to education and of higher education in particular correcting in this way student misperceptions. In other words, programmes based on information and guidance can be particularly useful in helping children from disadvantaged socio-economic backgrounds to navigate the higher education landscape.

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