

COST-SHARING AND STUDENT SUPPORT

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Introduction¹

Central to any higher education (HE) system is how it is funded and who pays for HE. Perhaps of all aspects of HE this has become the most politicised, emotive, and contested. Across the globe, changes or proposed reforms in funding have led to the downfall of governments and mass student protests. The story of HE funding, how it has evolved and changed over time, is dominated by the prevailing political and ideological currents of a country and the moment, rather than by purely economic and pragmatic considerations. Funding policies are shaped largely by the ideological persuasions of politicians and legislators, the particular histories and cultures of a country. They involve choices about tuition fees and the levels, targets, and forms of financial aid. These choices tend to be less the result of rational cost/benefit analyses and more the result of negotiation among stakeholders with competing interests who hold varying levels of influence and power. However, policy debates about funding are underpinned by the thinking of economists. The language and key concepts used in these debates and in government documents advocating change, rely primarily on those of economists. In turn, these debates raise far broader questions about HE such as: the roles and responsibilities of individuals and the state in relation to HE, the purpose of HE, who are deemed the key beneficiaries of HE, equity, and whether HE is a private or public good.

In recent years many countries are moving from a financing system where the costs of funding HE are shouldered primarily by taxpayers, through government subsidy of higher education institutions (HEIs), to one where students pay a larger share of the costs. This cost-sharing approach, the focus of this chapter, is one of the most significant developments in HE funding. It seeks to alter the balance of public and private funding to HE. This policy shift helps explain the global spread of both tuition fees and student loans – the two most prominent forms of cost-sharing. In some countries, such changes

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occurred gradually, with small, incremental modifications to government policy and market forces. In others, the policy shifts have forced more rapid change, necessitating HEIs to make major adjustments as their sources of revenue shift. Students too, and in some countries their families, have also had to make adjustments as they have been asked to bear a greater burden of the cost of financing their university sector (Heller and Callender, 2013).

This chapter addresses the following key questions: What is cost-sharing in HE, and why and how has it become part of the HE policy landscape? What are the key cost-sharing policies? Have cost-sharing policies met their purported objectives and led to greater financial sustainability, equity, efficiency, and responsiveness of HE systems? It attempts to address these questions from a global perspective rather than relying on evidence from one particular country. It focuses exclusively on funding issues related directly to students so excludes any consideration of for instance, the public and private funding of research.

What is cost-sharing in HE, and why and how has it become part of the HE policy landscape?

One way of financing HE is by sharing its costs. There are two sets of costs directly related to students: tuition and their living costs while studying. Johnstone and Marcucci (2010), key advocates of cost-sharing, assert that these costs can be viewed as being borne primarily by four parties: the government/state/taxpayers; students/graduates; students' families; and individual or institutional donors, or philanthropists. The policy challenges are deciding how these costs, and which costs, are divided between these four groups, and the appropriate balance of financial contributions from each group including the share of private and public contributions. Next are choices about the policy instruments employed to distribute the costs, and their intended and unintended consequences. Essentially, these are ideological and political issues, as well as economic and pragmatic ones.

The sharing of higher education costs has a long history. Public and private funds have come together since the establishment of Oxford and Cambridge in the twelfth and thirteenth centuries. The crown

and the state predominantly supported both universities. By the thirteenth century financial help for poor students was well developed in England and elsewhere in Europe. Students received support from the crown, the church, local benefactors, their colleges and families. Not all Oxbridge students paid fees and some had their fees remitted in return for undertaking college chores. Similarly Harvard College founded in 1636, like Oxford and Cambridge before it, depended on English philanthropy and a mix of private and public funding. Harvard continued to receive subsidies from the Massachusetts legislature until the 1820s (Wilkinson, 2005).

During the post-World War Two period and until the 1973 economic crisis, as HE expanded, public expenditure on HE rose throughout Europe, Australasia, Canada, and in many other developed economies. These systems and the costs of instruction were predominately funded from the public purse with limited contributions from students or their families. The exception was the US, but even here the federal and especially state governments played a major role in the funding of public universities and community colleges which absorb the vast majority of US degree-credit students, and in the provision of financial aid to students in both the private and public university sectors. In the US, states' HE spending continued rising until the 2008 recession (Klein, 2015). However, in many of these countries, students' living expenses were borne by students and their families (Britain was an exception).

The *policy shift* of cost-sharing whereby a *greater* share of the costs of tuition, and to a lesser extent student maintenance, are transferred onto the shoulders of students and their families and away from government and taxpayers, emerges in the 1980s. The shift is directly associated with profound changes in political attitudes towards public expenditure. The post-World War II consensus concerning the role of the state in the funding of public services, including HE, accompanied by high taxation policies to pay for these services, began to break down. This was partly based on the macro-economic view that the fiscal and monetary policies needed to sustain high public expenditure have a damaging effect on national income, and partly on the micro-economic belief that direct subsidies of HEIs is a disincentive for improvements in efficiency (Williams, 1992). In the UK, such thinking is

marked by the election of the Thatcher Conservative government which heralded the end of the post-war 'welfare capitalist consensus' (Chitty, 2009, p.31) and ushered in a revised version of classical market liberalism of the nineteenth century with its idealised notion of the market. Similarly, Ronald Regan's election in the US portended the end of highly progressive income and estate taxes and the dilution of other policies aimed at reducing social inequalities. The shift was further strengthened by the collapse of the Soviet Union and state socialism in Eastern Europe.

With these developments come significant ideological changes in how HE is viewed and in attitudes towards the funding of HE among supranational institutions and governments across the globe (Altbach, 1999). There is a move away from the consensus that HE is primarily a public good benefiting society as a whole for instance, through the economic growth and greater labour market flexibility derived from graduates' skills and the higher taxes they pay, and other positive social externalities such as greater social cohesion, political stability, and crime and poverty reduction. In other words, an individual's efforts to educate themselves, also benefits those around them. This emphasis on the social benefits and positive externalities justifies substantial government intervention. Consequently, society should, and did, bear most of the costs of HE.

However, encouraged, in part, by the World Bank (1986, 1994) HE instead becomes characterised primarily as a private good benefiting the individual more than society.² This reflected the Bank's economic and ideological stance - its 'celebration of human capital theory' and its promotion of the privatisation of education and user charges in the public sector, especially in developing countries (Ball, 2008 p.32). Human capital theory views expenditure on education as an investment which earns a positive return for students in the form of greater earnings than would have been possible otherwise, once costs are deducted. Graduates, when compared to those without a university degree, tend to have increased productivity and higher lifetime earnings, less exposure to unemployment plus greater prestige, status and socio-political influence. The high private rates of return to HE provide the

² The World Bank (1986) argued for a reallocation of public funding away from HE to primary education because of the high rates of return from HE, and for the introduction of tuition fees and student loans.

economic evidence and rationale for charging more of the cost of HE to the beneficiaries, and are a justification for cost-sharing policies. With this new emphasis also comes economists' belief that there is a case on both efficiency and equity grounds for households to meet a significant part of the costs. In terms of equity, non-graduates (non-beneficiaries) who come from poorer backgrounds and do not reap the high financial returns of HE contribute towards what are already an advantaged group. So it was argued that more HE costs should be shouldered by those now seen as the main beneficiaries of HE – students and their families. 'Who benefits pays' became the mantra underpinning cost-sharing policies.

What is the optimum balance of public and private contributions to HE to match these public and private benefits? McMahon (2009) argues that the costs of HE should be shared, irrespective of who benefits the most. He suggests that the greatest efficiency comes when public investment makes up around half of the total funding. But, there is no agreement on what is the 'right' balance – ultimately it is a political decision. Others question the validity of using graduates' earnings to calculate private returns because these earnings reflect a graduate's previous schooling, social background, and networks as much as HE outcomes. So these rates of return, are not in fact measuring the returns to HE, casting doubt upon human capital theory underpinning them (Marginson, 2013). Even so, if HE signals higher ability to employers this strengthens the case for graduates making a larger contribution to its costs, along with the fact that graduates do earn more.

The World Bank's promotion of the private rates of return of HE at the expense of the public returns is indicative of its economic and ideological influence in setting the HE policy agenda. This policy emphasis, which peppered official government reports on funding, illustrates economists' role in shaping the language of funding policies and the thinking informing them. It valorises the private benefits of HE at the expense of its public and social benefits without questioning the private subsidy of public benefits. Moreover, despite underestimating the return of education to society, the arguments in favour of cost-sharing as well as the popularization of human capital theory and the concept of education as an investment have not diminished.

The rise of cost-sharing policies since the 1980s also can be explained by other factors (Johnstone and Marcucci, 2010). First, the expansion of HE, reflecting the rising social demand for HE and its growing importance in globalised knowledge-based economies. The Gross Tertiary Enrolment Ratio³ between 1980 and 2013 increased from 12.2% to 34% worldwide, from 35% to 74% in developed countries, and from 5% to 27% in developing countries (UNESCO, 2016). As Trow (1973 p. 1) argues ‘In every advanced society the problems of HE are problems associated with growth.’ The problems of HE funding relate to increases in ‘the absolute size of systems and individual institutions. And...changes in the proportion of the relevant age grade enrolled in institutions of HE’ (Trow 1973 p 2). Exploring the relationship between expansion, equality, and quality, Trow poses the dilemma of how an expanding HE system can maintain its quality and be affordable. ‘No society, no matter how rich, can afford a system of HE for 20 or 30 percent of the age grade at the cost levels of the elite HE that it formally provided for 5 percent of the population’ (Trow, 1973, p 36). He suggests that either unit costs have to be levelled down, potentially at the expense of quality and standards, or expansion restricted at the expense of equity. Others see greater cost-sharing as a potential solution to these dilemmas - a means of increasing HE’s resources (McMahon, 2009; Johnstone and Marcucci, 2010).

A second factor explaining the ascendancy of cost-sharing policies is the rising costs of HE and per-student costs driven by its expansion, the growth of postgraduate education, and the unmet, and ever increasing, demand for HE (Heller, 2011). But even without expansion or escalating demand, the costs of teaching and per-student costs are significant and constantly rising above inflation due to the labour-intensive and ‘productivity-immune’ (Johnstone and Marcucci, 2010 p15) nature of HE. HE is a service industry, and its ‘product’ relies heavily on human interaction, demands a fixed amount of time with the consumer/student (reducing it would diminish quality), and is run by highly educated individuals commanding high reservation wages. These dynamics lead to rising wages and costs without any increase in outputs or productivity. Nor has the introduction of technology led to

³ This measures total enrolment in tertiary education (ISCED 5 to 8) as a percentage of the total population of the five-year age group following on from secondary school leaving.

increased productivity and lower costs, unlike in other sectors. Rather, it has had the opposite effect ‘technological change and innovation itself are major forces behind rising HE costs’ (Archibald and Feldman, 2011, p16). In addition, competition within the HE sector has increased its costs, contrary to microeconomic theory. Competition within HE is driven by reputation and perceptions of quality not by price - allowing universities to raise their prices. Universities, especially elite ones, to maintain their position in a global HE market, spend to enhance that position. To look better than their competitors, they end up in an arms race of spending to improve facilities, academic staff, students, research, and technology. This is fuelled by international rankings, particularly in elite universities where student demand outstrips supply - providing universities with little incentive to increase their efficiency, reduce costs, and get better substitution (Ehrenberg, 2002). But overall, increasing HE costs reflect the nature of the HE industry and the economic environment within which it operates rather than dysfunctional decision making and inefficiencies within the sector (Archibald and Feldman, 2011).

A third factor contributing to the rise of cost-sharing policies is faltering and falling government revenues and the inability, or unwillingness, of governments to meet HE’s increasing costs through public funds for economic, political and/or ideological reasons. How this is manifested differs considerably by country, but it leads to financial austerity which has implications for the financial sustainability of HE and the sector’s ability to provide high quality courses and equitable access. As Trow (1973) and others (Zumeta et al, 2012) note, as national HE systems grow, they become ‘an increasingly substantial competitor for public expenditures’ (Trow, 1973 p4) and the bigger the HE system the more critical its relationship to the state, especially in Europe where HE is primarily state funded. This funding competition is ongoing, but when combined with macroeconomic factors, which lead to constraints on overall government revenues, particularly during periods of slow economic growth, the competition becomes more acute. It can be seen clearly throughout Europe and North America following the 2008 recession, which led to both falls in tax revenues and considerable cutbacks in public expenditure. Spending on HE competes with, and can be crowded out by, for instance, spending on compulsory education, health, welfare services, and national security.

Ultimately, political factors, which manifest in demands for funding of other services, restrict the funding available for HE. Politicians and policymakers decide how to spend government resources, reflecting their ideological leanings as well as financial considerations. Reducing HE public expenditure is just one choice. However, in zero-sum funding environments, HE is particularly at risk for three main reasons. First, expenditure on HE is often discretionary rather than mandatory unlike other public services. Second, HE 'has a very small, predefined constituency relative to other spending areas' (Delaney and Doyle 2007, p 56). Consequently, it is potentially a less politically contentious policy arena for cutbacks compared to say compulsory education. Thirdly, HE compared with other policy areas presents opportunities for cost-sharing. It can draw on other non-government sources of revenue, primarily tuition fees but also philanthropic giving. Tuition fees or user charges can be levied without undermining the level of service provided (although they might impact on access) unlike other services. These then are some of the components in the political calculus behind augmenting or substituting public revenues with tuition fee income.

The final dynamic that helps explain the rise of cost-sharing is the failure of cost-side solutions alone to solve the problems of 'diverging trajectories of costs and available public revenues' (Johnstone and Marcucci, 2010 p. 44). Examples of cost-side solutions include: reductions in the academic workforce, their working hours, and wages; substituting expensive staff with cheaper junior or casualised, part-time staff; increasing teaching loads; raising staff: student ratios; expenditure cuts on libraries, equipment and other facilities; and deferring costly buildings maintenance. The list is endless. More radical solutions include greater sector differentiation, mergers, and new forms of provision such as online degrees. In the long term, such cost-cutting measures may not lead to greater efficiencies, are likely to have negative impacts on the quality of provision, and to change the nature of the HEIs rendering them less attractive to staff and students. Most significantly, the gap between the ever increasing costs of HE and available revenues is just too wide to close by expenditure cuts. Hence the need for additional, non-government sources of income to supplement insufficient, and often declining, government funds.

What are the key cost-sharing policies?

The main purpose of cost-sharing policies is to increase the total resources available to HE and specifically, from non-governmental or private sources (McMahon, 2009; Johnstone and Marcucci, 2010). They aim to shift a greater share of the costs of both instruction and student maintenance from government and taxpayers to students and their families. Both these costs can be shared in various ways. Countries differ dramatically in how they apportioned them between the government/state/taxpayers; students/graduates; students' families; and philanthropists, despite many countries having very similar HE goals. And, there are a variety of ways in which these costs can be met. In the case of tuition, public subsidies can be paid directly to HE institutions benefiting all students equally, or through tuition fees, or a combination of both. Tuition fees can be paid directly by students' families or students can borrow money and repay pay it out of their post-graduation income, or a mix of both. Students' living costs can also be paid directly by students' families, by government grants, through student loans repaid later, or an amalgamation of all three. So cost-sharing can mean various combinations of ways of meeting these two types of costs.

Cost-sharing can be invoked and configured in numerous ways. The key policy tools for reducing the government's share of HE costs include changes to:

1. Tuition fees and administrative charges: their introduction/reintroduction or large increases. Administrative fees can include registration fees, examination fees or obligatory contributions to student unions.
2. User fees: their introduction or increases, to recover the expenses of institutionally or government provided, and formerly free or subsidised, student services such as housing, catering, and transport (e.g. in the 1990s in Russia and most of Eastern and Central Europe).

3. Direct grants, bursaries, scholarships and social security benefits to students for tuition and/or maintenance: their abolition, reduction or freezing (e.g. Russia and many Eastern and Central European countries in 1990s), and/or the narrowing of the eligibility criteria for this aid.
4. Student loans: their introduction to cover tuition fees and their increasing role in replacing student grants, especially for maintenance.
5. Government subsidies on student loans through changing cost recovery strategies: their abolition or reduction. These subsidies vary depending on the design of student loans systems. They can be achieved, for instance, by introducing or increasing student loan interest rates and the period of time interest is charged, lowering the income threshold when income contingent loan repayments start, and abolishing debt forgiveness or increasing the period time before debt forgiveness takes effect (e.g. Australia 2007, England 2012).
6. Tax benefits and family allowances to cover education costs aimed at students' parents: their abolition, reduction or freezing their value. These tax benefits (e.g. Austria, Canada and US) and family allowances (e.g. Czech Republic, France, Germany and in about half of all European countries) tend to be available in those countries where students are considered financial dependants on their parents.
7. Block grants to HEIs: reduced or abolished.
8. Private HE: the development or expansion of unsubsidised or partially subsidised tuition dependent private sector in HE systems which historically have been dominated by a subsidised public sector (e.g. Brazil, Indonesia, Japan, Korea, the Philippines, and other Latin American countries).

The first six policy tools can be applied to all HE students and their families, or to just some of them – practices differ between and within countries. All student financial aid policies, whether for tuition or maintenance involve choices. They implicitly or explicitly have to address the following three questions: who should get the most support? (e.g. needy, virtuous, or able students); why help them?

(e.g. to give the disadvantaged a break, to ease the burdens of the middle classes, to encourage effort or reward talent, to maintain recruitment and encourage retention); and who should provide the financial support? (philanthropists, universities from their general income and other students tuition fees', the government via public funds, graduates through the loans they repay after university) (Wilkinson, 2005). The eligibility criteria for student support, therefore, are numerous and can include for instance: students' academic attainment; family household income; type of institution attended; qualification aim and level of study; mode and subject of study; and country of origin.

The rise of tuition fees

Tuition fees and administrative charges to cover instruction costs are by far the most common form of cost-sharing globally, and the focus of policy debates and ideological struggles. This private contribution to HE is justified by the high private rates of returns. Tuition fees supporters consider them the most attractive cost-sharing policy because fees can provide HE with an 'efficient and robust' income stream 'that is potentially sizeable, [and] continuous' (Johnstone and Marcucci, 2010 p44). Moreover, tuition fees can be introduced 'without simultaneously adding new costs or diverting faculty from their core teaching responsibilities which is generally not the case with supplementing revenues via grants and contracts or other forms of faculty entrepreneurship' (Johnstone and Marcucci, 2010, p 67). Higher tuition fees, argues the OECD (2015 p 264) 'increase the resources available to educational institutions, support their efforts to maintain quality academic programmes and develop new ones, and can help institutions accommodate increases in student enrolment.' Some proponents of tuition fees also argue that because students have to pay them, students make better and more responsible enrolment decisions and are more likely to complete their studies.

Opponents of tuitions fees stress the considerable public benefits and positive externalities to HE which justify high public subsidies (Vossensteyn, 2005). They argue that these require financial support, for instance, to sustain the highly educated workforce needed for growth and prosperity in globalised knowledge economies. Others suggest that the higher taxes graduates pay represents a user

contribution which is part of a collective public investment and so fees are unnecessary (NUS, 2014). Those against fees emphasise too the social mission of universities and their contribution to the amelioration of social inequality. Specifically, that tuition fees may impede access to HE. International research has repeatedly demonstrated that ‘students from more disadvantaged backgrounds are more sensitive to net price changes’ (Santiago et al, 2008 p 182) than those from wealthier backgrounds. This equity argument is frequently used in those countries with low or no tuition. It also is the main reason for the provision of student financial support to defray these and other HE costs. Adversaries also claim that quality and well-considered enrolment decisions can be encouraged in other ways, such as through well-developed quality assurance systems. Finally, they raise concerns that tuition fees, especially when introduced within the context of the marketization of HE, potentially turn HE into a consumer good – undermining the very essence of HE, students’ learning experiences, and the co-production of knowledge (Barnett, 2013).

Tuition fees within the public HE sector can be found across the world’s continents (Marcucci, 2013). They have a long history in the private HE sector and in the public sector in countries like the US. But many countries, especially in Europe, abandoned tuition fees following World War II. However, since the late 1980s tuition fees have become more widespread. They were introduced or reintroduced for instance in Australia in 1989, New Zealand 1990, Hungary 1994, England 1998, China 1998, and Austria 2001. Between 1995 and 2010, 14 out of 25 OECD countries increased their tuition fees, and 10 countries reformed them between 2010 and 2013/14 (OECD, 2015).

As discussed, various forces have encouraged the rise of tuition fees. Yet, it is hard to identify the factors which explain their presence or absence, and the level of fees charged, within a particular country. Broadly, they are linked to a country’s history, politics and ideology. More specifically, they tend to be associated with prevailing beliefs about the appropriate size of government, the proper extent of transfer payments, the acceptable level of direct and indirect taxes, and the role of markets versus government regulation and steering. For instance, the US, England, Australia, and some Canadian provinces, have relatively high public university tuition fees and tend to: embrace the

privatisation of public services generally; have more faith in markets; and endorse smaller governments and lower taxation. Japan and South Korea have similar characteristics but high levels of taxation. At the other end of the political/ideological spectrum, Nordic countries, with their strong welfare economies and acceptance of high levels of taxation, charge no tuition fees and provide help with students' living costs. Their approach reflects deeply rooted social values, such as social equity, the salient cultural value of free education, and the principle that access to tertiary education is a right, rather than a privilege. Most of the rest of Europe has low or no tuition fees⁴ (except the Netherlands, Ireland, Switzerland) and large governments, but provide students with limited help with their maintenance costs (Eurydice, 2015). So among these European countries, there is still an element of cost-sharing, which is long-standing, because rarely do their HE funding systems cover all students' educational and living costs.

The average amount of tuition fees charged, ranging from \$0 to \$9,000⁵ in England for a bachelor's degree or equivalent in 2013/14 (OECD, 2015, Table B5.1a and Chart B5.2), not only varies between countries but also within countries depending on: level of education; field of study; students' socio-economic background; students' academic attainment; mode of study; and domicile. Consequently, the proportion of students paying fees and how much they pay also varies across and within countries. Some of these tuition fee differences (e.g. field of study) are justified by the different educational costs associated with providing certain programmes of study and the higher rates of private returns associated with them (e.g. Australia). In other countries, free education is enshrined in the law, but to meet the increasing demand without raising public expenditure, dual track systems have developed. For example, in Russia the most academically able students attending prestigious public universities pay no fees while those with lower prior academic attainment pay full-cost fees mostly at private universities or in the fee-paying tracks in public institutions. In essence, such dual track fees act as government-sponsored merit based scholarships, favouring the most advantaged.

⁴ Other countries, apart from Nordic countries, charging no or very low (under €100) fees include, Cyprus, Estonia, Germany, Greece, Poland, Scotland, the Slovak Republic, Slovenia and Turkey.

⁵ In 2012/13 tuition fees in England for new entrants rose from over \$4,000 to over \$12,500 but only students in their first year of study paid these higher fees, bring the average to \$9,000. In future years this average will rise considerably.

Student financial support and the rise of student loans

Integral to the cost-sharing policy agenda is the increasing use of student loans both for tuition and maintenance. As suggested, one of the key arguments against tuition fees is their potential deterrent effect on HE participation. If countries put the burden for tuition and maintenance costs entirely on the shoulders of families, they risk attracting the wealthiest students but not the brightest, which means not making the most out of their country's talent, perpetuating inequalities, and impeding social mobility. International research has repeatedly demonstrated that raising fees without increasing loans and/or grants by the same value, or more, depresses participation, especially among those from lower socio-economic groups (Dearden et al, 2010). Thus a robust system of student financial support is important for student outcomes and HE access. Also critical is the type of financial assistance - loans and/or grants - and the mix of that aid.

The central objective of government sponsored student loan schemes around the world differ (Ziderman, 2013). Where cost-sharing is the main purpose, loans generate more income for the university sector by facilitating tuition fee increases and making fee hikes more politically and socially acceptable.

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

So loans, like tuition fees, are predicated on the high private returns of HE. They shift more of the costs of HE on to graduates. Loans have to be repaid by students and so are a private cost, unlike non-repayable grants (for tuition and/or living costs) which are a direct subsidy to students and funded 100% by government. Loans, supporters argue, even if subsidised by government are cheaper than

grants and can help reduce public expenditure on HE. They potentially free up more government funds for student financial support so that more students can benefit from such aid, helping to increase overall access to HE.

Opponents of loans suggest that they are less effective than grants in encouraging access to HE among low-income students. They also highlight how loans may be less efficient than anticipated because of the type of loan and the costs of administering, financing, and servicing loans. As Ziderman (2013 p 43), a loans supporter, argues

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

The incentives and risks of investing in HE for both students and governments vary. Adversaries of loans point to research suggesting that some potential students, particularly those from low socio-economic groups, are debt averse and deterred from entering HE by the prospect of student loan debt (Callender and Jackson, 2005). Thus, loans potentially perpetuate socio-economic inequalities in access to HE. Such arguments are often dismissed by economists who argue that debt aversion is irrational given the high financial returns of HE, thus ignoring a social reality.

In theory, the risks students face can be mitigated by the student loans available, although we have limited empirical evidence to prove this definitively. Basically there are two types of student loan repayment arrangements with collections being determined in a set time period - 'mortgage-type' loans (e.g. US, Thailand and Canada), or by the graduate's income - 'income contingent loans' - the less a graduate earns, the less she repays (e.g. England, Australia, New Zealand, Hungary). These repayment arrangements have implications for the loan 'repayment burden' - the proportion of a

graduate's income per period needed to repay their loan. The higher the repayment burden, the lower the graduate's disposable income which can cause financial hardship and affect graduates' physical and emotional well-being (Gallup, Inc. 2014; Dwyer et al, 2011). In addition, greater repayment burdens increase the likelihood that graduates will not repay their loans because of low pay. For instance, in the US student loan defaulters are much more likely to have low incomes (Dynarski, 1994; Gross, et al, 2009). By contrast, income contingent loans are specifically designed to avoid high repayment burdens with the proportion of a graduate's income required to service their student loan debt capped by legislation (Chapman and Lounkaew, 2010). Even so, levels of debt on graduation can still be high even with income contingent loans, which has adverse effects on governments if large numbers of students are unable to repay their loans because of low-earnings (OECD, 2014, Box 5.1).

Across OECD countries, most have introduced their loan systems since the late 1980s. Just as different countries' approach to tuition fees varies considerably, so does their use and the penetration of student loans for tuition, maintenance, or both. Also loan eligibility criteria, the type of loans available, and the terms and conditions attached to them such as loan repayments, interest rates charged, and debt forgiveness, differ enormously (OECD, 2015 Table B5.4). Again it is difficult to explain these variations. Loans are well developed in countries with high tuition fees (e.g. Australia, England, US) and have high take-up rates but they are also well established in Nordic countries that charge no tuition fees and are used to cover students' living costs. Loans in countries like England and the US are also available for both the costs of tuition and maintenance. Across the OECD in 2013/14, the value of loans ranged from \$1,458 per annum in Belgium to over \$10,000 in Norway and over \$16,000 (\$5,612 maintenance and \$10,824 tuition) in England while the average among 20 countries exceeded \$4,000 (OECD, 2015, Table B5.4). Generally, the larger the proportion of students with loans, the higher the average value of their loans.

As suggested, the increasing reliance on loans is in part, associated with the rise to tuition fees, but as also discussed, loans and tuition fees do not always go hand in hand. Another recent development has been the substitution of loans for grants in meeting students' living costs as a means of reducing

government expenditure. For instance, loans are replacing existing grants in countries like Canada, the Netherlands, England, and in the US since the late 1970s. Again, more of the costs of HE are being placed directly on the shoulders of students.

Have cost-sharing policies met their purported objectives?

The ascendancy of cost-sharing policies and the theoretical rationale underpinning them, as we have seen, is primarily informed by market orientated neo-liberal economics. In line with this thinking, in theory, cost-sharing should lead to greater financial sustainability, equity, efficiency, and responsiveness of HE systems (Greenaway and Haynes, 2003). It is beyond the scope of this chapter to assess the achievement of these purported benefits in any detail but it can point to some general trends and highlight the nature of the empirical questions that need to be addressed for a more thorough assessment.

Financial sustainability

The key aim of cost-sharing is to increase HE's total resources and its income from private sources so it no longer has to compete with other public services and demands on government spending. This reduced dependence on shrinking public resources is considered central to financial sustainability.

In theory, cost-sharing and tuition fees, should make the HE better-off overall while the costs of HE to government should fall or remain stable. In turn, this raises the following empirical questions.

- Has cost-sharing led to a change in the share of HE's income from private and public sources and does a greater share now come from private sources?
- Have HEI's total income improved or remained the same as a result of cost-sharing?
- Has public expenditure on HE fallen and private expenditure risen?

There is plenty of evidence of decreases in governments' share of funding to HE relative to funding from private sources as well as real falls in government funding overall and government per student funding across Europe and the US (Geiger and Heller, 2010). For example, among 20 OECD countries, the average share of public funding for tertiary institutions decreased from 68.8% in 2000 to 64.5% in 2012 primarily because of changes in tuition fees. Conversely, between 2000 and 2012, the proportion of private funding for tertiary education increased in 17 out of 22 OECD countries. The average private share was 30% in 2012, but ranged from less than 5% in Nordic countries to 70.7% in Korea, largely reflecting the level of tuition fees charged (OECD, 2015, Table B3.2b).

Between 2000 and 2012, private expenditure on educational institutions tended to rise faster than public expenditure. However, public investment in tertiary education also increased in most countries over this period, regardless of the changes in private spending, and so these HE systems were better off financially. In some countries, tuition fees just offset the loss in revenues from the falls in public funding, and so did not increase the sector's overall revenues. In Portugal and England the prime goal of tuition fee reforms were to bring about a net shift in the cost-sharing balance. The 2012 changes in England, particularly demonstrate a clear shift towards the private funding of HE – with liquidity and affordability constraints assuaged through loans, underpinned by government funding. So HE public funding has been almost entirely replaced by private financing through fees and loans. However, the public costs of financing these loans are very high, adding to national debt and the public contribution (McGettigan, 2015). This raises the broader question of whether government-funded loans are classified as public or private funding. Practices vary in different countries, adding to the complexity of interpreting comparative OECD data.

Equity

The equity assertion is aligned to cost-sharing's mantra of 'who benefits pays'. To recap, students reap a range of private individual benefits from their HE qualification while those without such a

qualification do not despite the fact that they, and all taxpayers, contribute towards the costs of government-subsidised HE. Importantly, the main beneficiaries of HE, those mostly likely to participate, are people from middle and higher income backgrounds. Thus a tax is imposed on low-income individuals to privilege an already privileged group. In essence, public subsidies are being used to redistribute wealth from people who are less well-off to those who are better-off. This is considered unfair and inequitable (Glennester et al, 1995).

Government subsidies to HEIs and grants to students do result in most of the money benefitting students from already relatively privileged families. However, as suggested, this discourse ignores the public benefits and social positive externalities of HE, despite the fact that these may outweigh the costs of a mainly publically funded system of HE due to the tax revenues and social contributions accrued from graduates (OECD, 2015, Chart A7.3). For instance, research on the financial returns to HE in England shows that ‘the private benefit of a degree, in terms of lifetime earnings net of tax and loan repayments, is large - in the order of £168k (£252k) for men (women) on average. The social benefit to the government is also large (of the order of £264k (£318k) from men (women) graduates – *far in excess of likely exchequer cost.* (Walker and Zhu, 2013, p 5 italics added).

These high private financial returns to HE assumed in the equity argument need further scrutiny. On the one hand, Walker and Zhu’s (2013) calculations reaffirm cost-sharing thinking and the high returns. On the other hand, they and others also provide evidence potentially undermining this premise, and point to rising inequality. Specifically, research highlights the substantial variation in graduate earnings, across and within nations, which have increased over time, paralleled with rising ‘over-education’ (Green and Zhu, 2010). There is mixed evidence on the extent to which the ‘graduate premium’ is holding up as HE expands, more graduates enter the labour market, and markets in graduate labour change. Studies measuring the private returns produce large variations in estimates, and contradictory trends with both growth and falls (Walker & Zhu 2013; Jenkins et al. 2012; Gregg et al. 2014). Significantly, those least likely to reap high financial benefits and to gain ‘graduate jobs’, tend to come from lower socio-economic backgrounds and to have attended the least prestigious

universities (Boliver, 2011). These are also the graduates most likely to leave HE with the largest student loan debt, especially in countries with high tuition fees. For such graduates, the returns may be low - there may be no link between the cost of their degree and its later value in the labour market. Consequently, the extent of ensuing social mobility arising from HE – an implicit assumption within the cost-sharing debate - is unclear. Some studies suggest high levels that have not deteriorated over time (Gorard 2008; Goldthorpe 2012, Saunders 2012; OECD, 2015 Chart 4.1) others low levels (Blanden 2011; Jantti et al 2006).

Another issue concerning the equity of provision and tuition fees is whether fee levels are set nationally or whether each university is able to set its own fee. This effects the extent of the variation in tuition fee charged by different HEIs within a country, and how high fees may inhibit or deter access to the most expensive and prestigious universities due to liquidity or affordability constraints.

The equity argument also poses other empirical questions including:

- Has cost-sharing had an impact on HE participation rates?
- Has the composition of the student body changed?
- Have students changed their behaviour to limit their HE costs?

Some argue that cost-sharing far from creating greater equality actual leads to inequality because tuition fees are a barrier to HE access, especially for poorer students. This is because tuition fees reduce the real, or perceived, rate of return for HE whereby individuals no longer want to invest in HE or because individuals face liquidity-constraints and fees are unaffordable. These constraints are likely to have varying effects on different student groups. For example, US research suggests that students from lower socio-economic groups strongly react to the gross (sticker) price of tuition fees and not the net price after student support. Hence, tuition increases – even with commensurate increases in financial aid – will discourage them. Consequently, even if the overall demand stays constant, there may still be an effect on the overall composition of the student body.

The general consensus in the research is that aggregate demand for HE amongst 'traditional' age students is relatively insensitive to increases in price at an aggregate level (Dynarski, 1994). For instance, Orr et al's, (2014) study of seven countries from the European Union and two from outside Europe (Austria, Canada, England, Finland, Germany, Hungary, Poland, Portugal and South Korea) explored the relationship between tuition fees rises and their effects on aggregate demand and enrolment between 1995 and 2010. They conclude that among the case study countries, participation rates continued to rise regardless of fees policies and only exceptionally large fee increases had any negative impact on participation. Similarly, the OECD argues that there is 'no strong cross-country relationship between levels of fees and participation in tertiary education. However, among countries with high tuition fees, student financial support systems that offer loans with income-contingent repayment combined with means-tested grants may help to promote access and equity while sharing the costs of HE between the state and students' (OECD, 2015, p 263).

Yet, with all such studies, the full effects of tuition fee increases are unknown because we do not know what would have happened to enrolments in the absence of reforms. Indeed, establishing causality is a major methodological challenge when examining the impact of tuition fees and student support on HE participation.

Why is it that HE participation rates continue growing despite high and rapidly rising private costs? One reason maybe that young people's other options are becoming more limited and less desirable. Indeed, it was for this reason that Trow (1973) classified HE participation rates of 50% and over as universal. The penalties attached to non-participation are too high. If young people do not enter tertiary education, the threat of poverty is much greater. 'As income inequalities escalate, the cost of failing to secure a place in the top half of society rises, and so the perceived benefits of a university education rise in turn. If future UK society [and many others] is to have a few more princes and many more paupers, then the risk of taking on student debt may be less than the risk of not going to university' (Dorling, 2014).

The impact of cost-sharing on the total number of people participating in HE is just one part of the access story. As important is who enters, and whether the composition of the student body has changed over time. Comparable international data charting changes over time are unavailable. Orr et al's (2014) limited data and analysis suggest that fee reforms have no effect on the gender composition of the student body and little to no effect on the proportion of students drawn from lower socio-economic or minority ethnic backgrounds (Orr et al, 2014, p.12). However, as evidenced in England, after the 2012 tuition fees hike, there have been falls in demand among older students and those studying part-time (Callender, 2013). Moreover, as discussed, fee increases without equivalent increases in student aid tend to cause declines in participation, especially among poorer students. The deterrent impact of tuition fees on enrolment is about twice as strong as the attractive power of grants (Vossensteyn, 2005), while grants have a stronger influence on participation than loans (Ziderman, 2013). Thus, any changes in tuition fee levels must be examined alongside student financial support in order to understand the impact of cost-sharing policies on both participation and study behaviour.

Students may change their behaviour to limit their HE costs and debt by taking particular decisions about how, what and where to study (Callender, 2006). For instance, they may switch from full-time to part-time study, choose cheaper or shorter courses or subjects of study with higher financial returns, decide to live at home rather than away, or engage in more paid term-time employment. Most such choices potentially have negative consequences or limit opportunities, creating further inequalities amongst the study body. There is some evidence of such changed behaviour in various countries, especially the US. For instance, increases in tuition fees have gradually driven low-income and ethnic minority students away from four year university programs and instead towards less prestigious two-year colleges (Duffy & Goldberg, 1998; Kinzie et al., 2004; McPherson et al., 1993). However, both the limited amount of research on the impact of cost-sharing on students' decisions plus an absence of comparable international data make firm conclusions difficult to draw.

Efficiency and responsiveness

The final assumption informing cost-sharing is that it leads to greater producer responsiveness which drives greater efficiency. As private funding increases, the HE sector is motivated to maximise its private revenue which in turn increases its responsiveness to student demand and its efficiency. This is in contrast to direct public subsidies which are considered a disincentive for improvements in efficiency. Again, these ideas are underpinned by economic thinking - the notion that tuition fees represent the price of a valuable commodity in high demand and so bring to HE some of the virtues of the market. Together, they make consumers more discerning while universities seek their place in the HE market. Markets, through competition and user choice, are assumed to improve quality.

Theoretically, competition drives up teaching quality while driving down prices through efficiency gains. This of course begs the question as to whether HE is, or can ever operate purely as a market or quasi-market. It points to some of the negative consequences arising from attempts to create a HE market (Brown, 2013).

This raises the following empirical questions:

- Are HEIs maximising their revenue from private sources?
- Is HE provision becoming more diverse, in response to student demand?
- Has the quality of the student experience improved?

There is limited research on the impact of increasing shares of private funding on HE's responsiveness and a lack of readily comparable international data and indicators to assess its effects.

To adequately address these questions demands detailed data on for instance; whether HEIs are focusing on programmes that are popular or cheaper to deliver; whether the number of institutions, programmes have increased while staff: student ratios decreased ; and whether HEIs are spending more on students.

Such assumptions may be overly simplistic. Institutional responsiveness to user demand is conditional on the attractiveness of these private revenues and whether increasing them has trade-off effects for the overall behaviour or prestige of HEIs. For instance, maximising private contributions via expansion, might as Trow (1974) observed, lead to poorer quality provision, or dilute the elite nature of some universities. The likelihood of HEIs increasing their efforts to attract new and more students will depend on the incentive structures which surround tuition fees which might favour other behaviours such as the maximisation of public over private funding. Moreover, the ability of HEIs to diversify their provision by for instance, increasing student numbers, changing programme provision, and dictating fee levels depends on high levels of institutional autonomy and a light touch regulatory framework. Universities in many European countries have limited (but growing) autonomy, but their funding models are often designed to stimulate user responsiveness. Elsewhere such as in England and the US, the policy thrust has been towards a de-regulated HE quasi-market with high levels of institutional autonomy but with growing and new forms of performance and accountability measures.

Orr et al's (2014) overview of these issues in nine, mainly European, countries produces little to support these benefits attributed to cost-sharing. They conclude that: HEIs' behaviour is not necessarily affected by the availability of fee income; real responsiveness does not result from putting private funding into public university systems but comes from permitting new institutions both public and private to evolve; and the resources gained through new fee-derived income are not always invested in ways that would be expected to perceptibly improve the student experience.

Conclusions

This chapter has argued that cost-sharing policies are now an entrenched feature of the global HE funding landscape, fuelling expansion. They seek to alter the balance of public and private contributions to HE so that more of HE's costs are borne by students. But cost-sharing is not simply a transfer of the costs of higher education to private consumers. There is more to cost sharing than a shift to fees, possibly underwritten by loans. And this is clear when we consider the two distinctive

types of HE costs – tuition and students’ living expenses. These costs are often treated very differently and cost-sharing can mean various combinations of ways of meeting the two types of costs. The ascendancy of sharing the costs of tuition in the 1980s is primarily associated with profound political and ideological shifts in attitudes towards public expenditure and the funding of HE. Specifically, HE was no longer viewed primarily as a public good benefiting all in society, but instead as a private good mostly benefiting the individual. ‘Who benefits pays’, based on popularized human capital theory and rates of return, became the new language of HE funding and the mantra reinforcing cost-sharing policies. Other more pragmatic forces encouraging cost-sharing’s rise were the expansion of HE, its rising costs, and declining government revenues and the failure of costs solution to meet these increasing costs.

There are numerous cost-sharing policies but the most prominent and widespread are tuition fees and student loans. Economic thinking and concepts have helped inform their development, rationale, and design. However, as this chapter shows, the presence and absence of these policies, their scale and scope, level, reach, and form, within and across countries, can be attributed to the prevailing political and ideological currents of a country and the moment, and the particular histories and cultures of a country. The espoused virtues of cost-sharing policies in promoting financial sustainability, equity, and greater efficiency and sector responsiveness are similarly informed by economic reasoning. Yet, their overall effectiveness in delivering these is open to question. On the whole, cost-sharing has increased the total resource available to HE and prompted a shift in the share of income from public to private sources. However, as Johnstone and Marcucci (2010) warn ‘Cost-sharing is no miracle cure’ (p.282). They continue ‘...our advocacy of cost-sharing is always an advocacy for its ability to supplement and augment government revenues, never to replace it.’ (p. 283). In these times of austerity, there is a very real danger of such substitution. And all these policies may well be at the cost of more widely drawn notions of equity.

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