



Do changes in cost-sharing have an impact on the behaviour of students and higher education institutions?

Evidence from
nine case studies

EXECUTIVE SUMMARY

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A report prepared by:



Dominic Orr
Johannes Wespel



Alex Usher

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Studying cost-sharing in higher education

Higher education systems have been and are still faced with the task of accommodating growing numbers of students without compromising the quality of education, and without creating undesirable inequalities in access and completion. It is in this context that governments have been adjusting the balance of public and private resources with the goal of achieving more inclusive, more effective, and more sustainable higher education systems. Internationally comparative data sets show that over the last two decades, there has been a general shift towards larger shares of private funding of higher education (see Chapter 2). This shift was achieved largely through raising additional or higher revenues from tuition fees (sometimes termed 'student contributions').

The concept of 'cost-sharing' is used here to investigate this shift in the balance of public and private funding. Changes in the way costs are shared can take several forms, including the introduction of tuition fees where they did not previously exist or a sharp increase where they already did. They can also involve a reduction or even a freezing of student grants or student loan subsidies (reductions in student aid also constitute an increase in the private funding necessary to cover educational and living costs), but also public policies that encourage enrolment shifts from a heavily subsidised public sector to a much less subsidised, fee-dependent private sector.

Looking at cost-sharing from the student perspective, the study focusses on student net-costs, i.e. total costs borne by a student after consideration of tuition fees and compensatory study aid. Even in countries without tuition fees, there is still a substantial amount of cost-sharing because no higher education system covers students' educational and living costs completely. It is surmised that an increase in private costs to students will impact on the behaviour of students.

The study also looks at the institutional side of cost-sharing and investigates the changing balance of public and private revenues for higher education institutions (HEIs). From the perspective of HEIs, cost-sharing involves changes to the share of public and private funding as income sources (and thus the respective role of tuition fees, contract income, philanthropic donations, etc. as opposed to state funding). Since a change to this balance affects the relative importance of these sources, it is assumed that it will also change the behaviour of HEIs.

Reflecting on the expected impacts on student and HEI behaviours of changes to the cost-sharing balance, the study is framed by four hypotheses as part of a single comprehensive policy analysis model. The hypotheses pick up on key aspects of sustainability, effectiveness and equity of tuition fee policies in higher education.

- *Hypothesis A:* As private funding increases, total revenue of HEIs increases.
- *Hypothesis B:* As the incentives to earn private funding increase, HEIs become more responsive to student demand.
- *Hypothesis C:* Increasing private funding has a negative effect on student demand.
- *Hypothesis D:* Increasing private funding affects student choice of how and what to study.

To investigate how public and private funding changed and what impact various changes have had on the behaviour of HEIs and students, the authors carried out nine systematic country case studies – seven countries from the European Union and two from outside Europe. This selection of countries provides a variety of settings in which

to investigate the effects. Different countries were chosen according to the following criteria: geographic coverage, economic strength, population size, enrolment numbers, share of students in private higher education, degree of public funding of institutions, changes to private funding, tuition fee policy, and student financial aid provision. The higher education systems covered are: Austria, Canada, England, Finland, Germany, Hungary, Poland, Portugal and South Korea.

It was surmised that the countries with the biggest and most rapid shifts in tuition fee policy would be most interesting for the study, since such shifts could be expected to have greater impact on student and HEI behaviour than a generally stable tuition fee policy. For this reason the cases were split into 'discontinuity countries' (Austria, England, Germany and Portugal) and 'continuity countries' (Canada, Finland, Hungary, Poland and South Korea) for the analysis. The table below presents a summary overview of the country patterns (a detailed overview of the developments can be found in Table 2.2 of the main report).

Overview of tuition fee policy change in the period of investigation

| | | | |
|---------------------------------|---|-----------------|---|
| Share of fee-paying students | | | |
| Increased | | | England 1998 England 2006 Germany 2006/07 Austria 2001 |
| Stayed the same | | Finland | Portugal 2003 (England 2012)* South Korea Canada |
| Decreased | Poland Austria 2009 Germany 2011-2013 | | Hungary |
| Average amount paid per student | Decreased | Stayed the same | Increased |

Note: When no year is given it means that any change was gradual. (England 2012)*: The 2012 tuition fee reform in England is outside the period of investigation of this study, but will be included where data are available and relevant for the purpose of this study.

For each case study country, a detailed national report assembles all the elements of the respective cost-sharing system to fully portray the balance between public and private sources of revenues (see National Reports in the main appendix).

Main Findings

From the analysis, we can make the following observations with respect to how changes in fees affect students and institutions:

Higher education data systems remain incomplete

The state of the data needed to reasonably assess the state of access to higher education is in many countries fairly poor. In some countries – notably Hungary and Poland – even obtaining simple information about institutional income sources is nearly impossible. Furthermore, even tracking the level of tuition fees which are actually paid remains difficult in some jurisdictions. This situation presents a constraint for policy-based research on a national level, but makes studies aiming to provide a

robust evidence base on a cross-national level even more challenging. The conclusions drawn from this study must be viewed in the light of this fact.

The introduction of tuition fees usually makes the system better-off overall, by increasing the total amount of resources available

The study concludes that as private funding for institutions increased, public revenues did not tend to decrease, bringing about an overall increase in institutional income (Hypothesis A, see Chapter 3). The hypothesis was tested using per-student income from public and private sources as a basic indicator. It was found that for most countries and periods of time, the hypothesis can be verified. The few periods of decreasing public per-student income corresponded to phases of either economic crisis (Canada in the 1990s) or massive enrolment growth (Poland in the 1990s to early 2000s, Austria in the late 2000s). In these specific cases, overall student funding (public and private funding combined) also decreased, i.e. private funding was not used to compensate for this.

Most interesting from a policy evaluation perspective are cases in which governments had the goal of bringing about shifts in the cost-sharing balance. Such attempts were made in four of the case study countries: Austria, England, Germany and Portugal. It was shown that from a purely financial point of view, the tuition fee reforms in Germany and Portugal were comparatively modest in scope. Their aim was to provide the system with more funds, without fundamentally altering the predominance of the public sector in higher education funding. The analysis showed that this objective was achieved in Portugal and to some degree in Germany. In Austria, the initial goal of introducing tuition fees appears to have been to bring about a net shift in the cost-sharing balance rather than to increase the funds available to the system. If this is the correct interpretation of the underlying policy goals, then the Austrian reform can be considered a (short-lived) success: the introduction of tuition fees changed the cost-sharing balance, but did not lead to an increase in overall funds for institutions. In England, in contrast to the other three 'discontinuity countries' studied here, the tuition fee reforms successively transformed the system into a model in which private contributions serve as a mainstay of institutional funding of higher education. Particularly the most recent reform from 2012 (which cannot yet be evaluated sufficiently because it is so recent) shows a clear shift to private funding of higher education – with liquidity and affordability problems being alleviated through a comprehensive public loan scheme.

The resources gained through new fee-derived income are not always invested in ways that would be expected to perceptibly improve the student experience

We note that across a number of case studies, the tendency over time was for students-per-staff ratios to rise, even when institutional income per-student was rising. This is a question of HEI behaviour investigated using Hypothesis B (see Chapter 4). The most extreme example of this was in Canada, where student-teacher ratios rose detrimentally by 20% even as per-student income rose by 40%. Thus, while it may be true that fees make institutions better off, they do not necessarily make for a better student experience, even when per-student income is rising.

There are three main reasons why this is so. Firstly, in some cases, new funds are dedicated to expansion rather than improvements in quality. Thus, new money is devoted to giving the same experience to more people rather than a better experience for the same number of people. This is a legitimate policy goal, but it can lead to claims that "students are paying more but not getting more" – which would be true at

an individual rather than an aggregate level. The second is cost-inflation for academic staff, which increases the costs per student and thus contributes significantly to the phenomenon of extra funds not buying perceptible improvements.

In some countries there is a third factor at work – expenditure has increased on non-instructional activities. This was particularly true in Canada and England. This expenditure may be for administrative or management tasks. Research activities have also taken on greater importance for both governments and institutions over the past fifteen years or so, partly as a response to economic changes favouring knowledge-intensive sectors and partly in response to prestige-competition that has emerged with the arrival of research-centred global rankings. Undoubtedly, greater investment in these areas is beneficial for faculty, can contribute to scientific advances and may lead to important economic spin-offs. However, to the extent that these greater investments are effectively being subsidised by higher student fees, this can be seen as a diversion of resources from what students perceive as the task at hand – namely, educating undergraduates.

HEIs' behaviour is not necessarily affected by the availability of fee income

One common argument on the effect of fees is that they make higher education institutions more responsive to market demand. However, this is likely based on a simplistic view of the value and incentive structures of higher education institutions and especially universities. According to evidence collated through Hypothesis B (see Chapter 3), our case studies do not support this assumption – or at least not universally. The determining factor is not the mere presence of fees, but the structural incentives which surround the fees.

In essence, the likelihood of HEIs increasing efforts to attract new students once fees are introduced depends on the following external factors:

- *The shape of competing financial incentives.* Where institutions are already funded on some kind of a per-student basis, fees are unlikely to change behaviour much, since institutions will already be geared towards attracting students.
- *The shape of competing prestige incentives.* Universities are not really income-maximising institutions; rather they are prestige-maximising institutions. In some countries, those two goals go hand in hand, since money can translate into prestige in a number of different ways. In Canada, England and South Korea, for instance, institutions seem quite willing to engage in commercial behaviour in order to increase income. But in Austria and Germany, where institutions have considerable freedom to raise income through teaching continuing and professional education courses, they have chosen not to do so despite its revenue-enhancing potential, because it is seen as largely outside of their mission and not prestige-enhancing.
- *The continuity of government policy-making.* In Austria, Finland and Germany, we heard that higher education institutions delayed the pursuit of major investments to ensure success under new government plans (e.g. in expanded international recruitment in Finland), because the institutions did not expect the policy change to be permanent. In the cases of Austria and Germany, policy did indeed change, whilst the final decision on international student recruitment will not be made in Finland until 2015, when a trial period in selected fee-charging programmes will have ended.

Real responsiveness does not result from putting private funding into public university systems; it comes from permitting new institutions to evolve

The findings do not fully support the assumption that HEIs, which receive more funds from private users, become more responsive to their needs and requirements

(Hypothesis B, see Chapter 3). It should be noted that in Austria and Germany, two of the discontinuity countries, increasing responsiveness was not an explicit objective of the tuition fee reforms.

On the whole, few indications of increased responsiveness were found, using the proxies available to investigate this issue. This applies to countries with continuous and discontinuous cost-sharing policies alike. At the same time, the study found that HEIs rarely have the high level of autonomy that would allow them to alter their patterns of provision or activities in a radical way. Another way to see this is that institutional steering at a distance makes it possible for higher education policy to retain a certain amount of control over HEIs in jurisdictions with some elements of market forces in the higher education system and/or with market-like mechanisms in public funding models of HEIs.

Rather, it is the planned introduction of either private universities or new, specific types of public institutions which seem to make the most difference in this area. One can see this with respect to private universities in Hungary, Poland and South Korea; in all three of these countries, significant fluctuations in enrolments by fields of study were evident, apparently all labour-market driven. But introducing private universities is not the only way to achieve this. In Finland, an entirely new system of polytechnics (*ammattikorkeakoulu*) was introduced. These new institutions taught a very different set of subjects and absorbed roughly four-fifths of system growth between 1995 and 2010. In Austria, well before the introduction of tuition fees, *Fachhochschulen* based on the German model were introduced, and this accounted for roughly two-thirds of all system growth. As in Finland, these institutions offered a different palette of programs and hence changed the overall profile of higher education. And in Germany, by design, enrolments in *Fachhochschulen* grew much faster than those of universities, with similar results to Austria. Thus, in these cases, changing user demand tended to be accommodated at system level rather than through increased responsiveness of existing HEIs.

Unless the magnitude of change is exceptionally large, rises in fees seemingly have no detectable negative effect on aggregate demand and enrolment

The negative effects of rising private costs to student demand are much smaller than is commonly assumed (Hypothesis C, see Chapter 4). Almost without exception among the case studies, participation rates rose throughout the analysis period regardless of fees policy; to the extent that when declines in actual enrolments were detected, they were nearly always the result of demographic change rather than a negative change in participation rates. Indeed, in some countries (notably Poland and South Korea), the ability of HEIs to charge fees quite clearly facilitated quantitative expansion to higher education. The only places and times where participation rates do not seem to have increased in the period covered by the study are Hungary between 2005-2010, where a dual fee structure was in place but no real change in fees occurred, and Finland in the same period and where no fees were payable. Therefore, the balance of evidence accumulated through case studies suggests that, given the high level of personal benefits of higher education, relatively small movements in fees have little to no negative effect on participation rates. On the contrary, to the extent these funds are re-invested in creating more spaces, they can have a beneficial impact. The only clear-cut example of a fee rise affecting demand is England in 2012 (outside the main period covered by the study), following a fee increase of over €8000.

Accessibility is not just a question of how many people attend higher education; it is also a question of who gets to attend. One might reasonably expect that even if fees

had little to no effect on overall participation rates, they still might have had effects on the composition of the student body. This is not a hypothesis that can be entirely ruled out; unfortunately, most countries' national statistical systems are weak when it comes to measuring participation by sub-groups such as family background, social class or ethnicity. However, available data suggest that changes in fees i) have no effect with respect to the gender composition of the student body (female numbers rose faster than males ones in all nine countries), ii) have little to no effect on the proportion of students drawn from lower socio-economic backgrounds, and iii) have little to no effect on the ethnic composition of the student body.

With respect to the age composition of the student body, we find very little evidence of change in eight of our nine case studies. However, in England, the data shows that in the extreme case of a nearly €8000 increase in fees, while the effects among 18 year-olds are close to nil, they are strongly negative for older age categories. This is to some degree consistent with human capital theory, i.e. assuming that prospective students make decisions based on their estimates of future returns on their investment. However, in contrast to this theory, the effect does not appear to worsen with age (i.e. the effect on 19-20 year-olds was about the same as it was for 40 year-olds). To the extent that students who delay attending university come disproportionately from lower social groups, this age-related effect of fees may in fact be a socio-economic effect in disguise.

The question of the effects of fees on student persistence (completion of studies) was also investigated. Only four countries were able to provide any data at all on this question; where data was available, there was no indication that fees had a negative impact on persistence. The only country where a negative tendency could be perceived was in Finland, and since this country has no fees, other factors must be at work.

Study aid matters

In the context of investigating student enrolment (Hypothesis C), we looked at enrolment in connection with changes to the net costs for students (i.e. total costs minus study aid of various forms). As has been noted already, increases in fees have had few effects either on total enrolments or on most vulnerable populations such as students from low social backgrounds. This may be explained by the fact that, with few exceptions, rises in fees tend to have been accompanied by rises in offsetting forms of study aid. In England, for instance, rises in tuition fees were fully offset by loans; in Canada, rises were for the most part offset by changes in grants and tax credits. Poland and South Korea also had significant increases in study aid (grants in the former, loans in the latter) during the period under consideration. In Austria, all recipients of need-based grants were eligible for an additional type of aid refunding tuition fees. Finnish HEIs charge no fees at all, but the country has a substantial student support system, which is certainly one reason why participation rates in Finland are among the highest in Europe. In short, the evidence amassed in this research confirms that looking at (changing) fee levels in isolation is insufficient to explain (changes in) participation or study behaviour; at the aggregate level, it would appear that students are more sensitive to the balance of fees on the one hand and student aid on the other hand.

Cost-sharing strategies call for integrative approaches to institutional funding and student aid

This study made an effort to bring together the institutional and the student side of cost-sharing in higher education. Importantly, each of these components, even when considered separately, is embedded in a structure of interrelated factors conditioning

institutional and individual behaviour. Few of the cost-sharing systems investigated in this study give the impression of pursuing policies in which these interrelations are fully acknowledged. A central consideration for policy development is, therefore, how to draw-up comprehensive cost-sharing strategies, which coordinate the regulative and incentive structures effective for institutions and students (and, ultimately, other stakeholders) in a coherent fashion.

