

How should we pay for universities? Principles and practice from England

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In the coming decades public budgets will be under serious pressure for reasons we all know about. There is a danger that European universities will be starved of the funding needed to keep them in the forefront of world class institutions.

But quite regardless of the present fiscal climate there are powerful reasons to move away from dependence on traditional tax funding.

There has been a sustained debate about this in the UK over the past two decades and a steady stream of funding changes. As a result, step by step, English universities and their students have come to be funded in quite a new way that differs from that in Scotland and the continent of Europe. It may therefore be useful to look at that debate and the system that will come into place in England next year.

Let us begin with fundamentals. The English position is that the state should:

- Ensure that independent knowledge based institutions prosper. They are necessary for a critical ‘open society’ as well as a prosperous one.
- Enable all citizens to develop their ‘capabilities’ to the full.
- To finance fundamental research.
- Encourage universities to provide high quality teaching, responsive to students’ needs not merely staff’s research agendas.

But these objectives are in tension.*

A balance between them can only be maintained by self governing institutions funded from a *diversity* of sources, including, but not dominantly, the state. This holds whatever the fiscal climate. This means the state should:

- Fund fundamental research in institutions that are good at it. *Public good case*.
- Act as the primary lender to students to remedy *capital market failure*.
- Act as a national insurer against the possibility that some students will not be able to repay. *Risk pooling*.
- Give preferential treatment to students from poorer homes to remedy *information failure*.
- Encourage good teaching - the *efficiency case*.

For a summary of the detail see annex.

*My late colleague Fred Halliday described these tensions as ‘between scholarship and engagement, abstraction and application, teaching and research. Tensions which endure and invite no definitive resolution’ (I am indebted to my colleague Anne Corbett for this quote and other insights.)

Fair?

But would such a solution be fair? The English Government's answer is yes, so long as you restructure the state's role correctly.

- Institutions are assessed periodically (5 years or so) by other academics to judge the quality of their research output and rewarded accordingly. Specific more applied research is funded by a variety of sources including government.
- In England from next year no student, including part time ones, need pay any fees on entering university and can receive state support to cover significant living costs.
 - Students from poorer homes will have their fees waived either by their university or by a scheme of national scholarships.
 - Other students pay tuition fees set by the university, within limits imposed by government, (maximum £9,000) but pay only after graduating and only then when their income crosses a moderate level (over about €25,000 a year). The university receives the funds when the student enters university and the funding gap is bridged by a loan raised by the Student Loans Company a government backed body.
 - Repayments are then proportionate to their income above that threshold (9 per cent of income over the threshold) and paid as an addition to the ex student's income tax bill.
 - A real rate of interest is charged, higher for high earners, less for low earners but on average the cost to the government of borrowing on the market.
 - After 30 years anyone who has not paid off the costs of their study will have that debt wiped out. Most women and lower paid graduates will not ever pay the full sum.

Thus this scheme has very little of the characteristics of a traditional 'debt'. It is wrong to use such a term.

Equity effects: the evidence

- An IFS study (Dearden et al 2011) suggested that in the period 1992-2007 the various increases in fees, up front in 1998, did reduce the take up of places compared to what otherwise might have been expected quite significantly but this happened most among students from higher income homes. The improved maintenance grants and loan support for poorer students increased their participation. This largely compensated for the first decline but not entirely. When university ceased to be a free good students from high income homes who had previously drifted into university decided not to go. (see tables 2 and 3)
- The introduction of the £3,000 fee in England in 2006 enabled places to be increased. It did not reduce the rising demand for places, after a temporary increase in applications the year before the rise was introduced and a temporary fall the year after between 2005/6 -2009/10 entrants rose 12% in England but 10% in Scotland where there was no fee increase. (See table 1) [In England in 2002/3

the participation rate of the top three socio economic groups to the bottom ones was nearly three to one. By 2008/9 the ratio was only 2:1. No such change in Scotland.]

- Simply looking at the fee deterrent effect without looking at the restrictions that lack of funding brings to the availability of places is misleading.
- The most cost effective way to increase access to higher education by children from poor families is to improve provision in pre-school and early years schooling. Virtually the whole of the differential access to higher education in the UK can be explained by differences in children's success at school. In England, where some payment for tuition has been in operation since 1998, there is very little difference between the proportions of young people from different income groups who go on to university who have obtained good school leaving exam results. Well over 90% of those from poorer homes with good end of school exam results enter higher education. In the highest quintile this figure is only a few percentage points higher. This was true in the early 1960s when tuition was free and it is still true today when it is not.
- University fees were abolished in Ireland in 1996 but that did not improve the socio-economic disparity in attendance. (Denny 2011)
- Within any public education budget school and pre -school budgets will always be in competition with universities. When times get tough priority should go to the schools' budgets. The rise in tuition fees has enabled the government in the present crisis to hold the schools budget roughly constant (1% cut).
- Higher earning graduates in the top decile will pay 7 times as much as lower earning graduates.

So both in terms of access to education and in terms of payment for benefits received this is a highly progressive and equitable system.

In Rawls' account of his difference principle he argued,

‘Thus the principle holds that in order to treat all persons equally, to provide genuine equality of opportunity, society must give more attention to those with fewer native assets and to those born into the less favourable social positions.’
(Rawls 1972 p 100.)

That is what I would argue the English system now does.

Efficient provision

If it is fair is it efficient?

First the scheme will enable universities in the England to gain more resources at a time of large overall cuts in public spending.

Second the state has a duty to ensure that universities operate effectively as well as independently. Channelling tuition funding through students will give more power to students who will be likely to choose those that take teaching seriously. Unlike school children students are mostly well informed consumers. New institutional entrants to the university system will be permitted who may offer more experimental methods of teaching. This should increase ‘productive efficiency’.

If students have to face something nearer the full differential cost of courses it will begin to make them take that into account in choosing their course. This should increase the system's allocative efficiency.

[At the moment the life time earnings of non medical science graduates are similar to that of arts and humanities graduates. Yet their costs are much higher. Graduates are therefore currently indifferent to the costs of the course they take.]

Options rejected

One idea I developed myself in 1968 was to simply impose a tax on all graduates graduating after a given date- a graduate tax. (Glennerster 1968).

This has several major disadvantages.

- Revenue comes in only after graduates emerge ie in the next government's term.
- Revenue counts as a tax and university spending as public spending. This means universities still come within the constrained envelope of public spending, taxation and borrowing. This is not so under the present arrangements.
- More importantly a GT leaves the government with power to control universities and does not bring the efficiency gains that flow from giving students financial control with students competing on price and quality – that at least is the argument deployed with some force in the Browne Review and by my colleague Nic Barr.
- The money goes to the Exchequer not universities and does not increase university freedom.

Some good questions

- Why should schooling be free and university not?
 - One key difference is that the former is a matter of state compulsion that applies to every citizen. The latter is a personal choice.
 - Most social welfare expenditure can be classed under the heading of collective insurance against general risks - the risk of being unemployed or sick or retiring from work because of old age. These are income threatening events. They affect us through random and mostly unavoidable chance. Entering higher education is usually an income enhancing benefit that we choose to opt into. In public finance terms this is akin to the state building a road to a country house almost entirely used by the family. From the fourteenth century on such activities attracted special tax status – disproportionate private benefit meant the individuals or groups concerned paid more tax.
- How far will rising costs put off applicants?
 - At the moment the private rate of return for the average graduate is about 15%. Assuming relative graduate salaries remain the same this would fall by a quarter. Still a large return but that may not be understood.
 - The IFS evidence shows that there is a significant fee effect (Dearden 2011). £1,000 increase in fees in the 1990s reduced uptake by 4% other things equal. Other things are not equal, though, as we showed. Access to

universities in the UK has been tightly rationed. Fee income has relaxed that rationing. Nevertheless, the size of the fee increase in 2012 is unprecedented. The compensation at the bottom of the income range not that large. Thus this change, or its speed, is something of a leap in the dark.

- How far will the fees be passed on to employers? Graduates may require a higher price for their labour. The state employing many graduates will find its salary bill rising and not save as much as it hoped.
 - There is a lot in this. But the indiscriminate subsidy of all graduates and not other employees distorts the demand for such labour including by the state.
- Will the high costs of science courses will stop people taking science? The government are continuing to support tuition costs for science, maths and engineering (but at a lower level - see annex). But if the rewards employers pay are not that much greater for scientists why should the state subsidise them?
 - Some potential students may be less risk averse and confident of gaining higher earnings. They will have to pay more in cross subsidies under the present scheme. They may not wish to subsidise poorer students. They may go abroad to European Universities and then take jobs there. Or go to America and pay a up front on a mortgage. This would be good for Europe but not for England??
 - The rules currently make it difficult for rich students to pay up front because their higher repayments help subsidise poorer graduates. It is not clear this is the right approach.
 - Students from Europe are required to pay on similar terms to UK students. But the repayment mechanism of UK income tax is not readily applicable. Legal action to recover is possible but rarely used. A major problem to be solved.

Errors to be rectified

Errors include:

- All direct public support to institutions for humanities and social science teaching has been withdrawn. This presumes there are no public good benefits to be derived from this education. This goes too far.
- Places are still rationed – limits to numbers of places offered are still in force though can be relaxed for institutions attracting the most qualified students.
- The income at which graduates begin to repay was set too high and to be raised with average earnings. This benefits higher earning graduates not the lowest earners. Makes scheme too costly.
- Maintenance loan arrangements means tested and very complex. Also give subsidised loans to higher income groups.
- Varied interest rates according to graduate income also complex.
- Universities charging higher fees than £6,000 will have to subsidise lower income students' fees under the National Scholarship which is in any case tiny. Universities charging higher fees than the minimum suggested by government were, were under the Browne proposals, to pay a levy to the government to cover

the costs of some students not repaying the full fee. This was not taken up by the government. Thus high fee institutions will get a higher implicit subsidy.

BUT though the Westminster Government has made some errors in the detail and complexity of the way it has set about reforming higher education finance in England (see Barr 2011 and forthcoming) the essential principles seem to me to be right. However, the logic that has convinced the main political parties in England, if not the students, has not convinced the Scottish, Welsh or Northern Ireland parliaments. The UK will therefore be, indeed already is, an interesting laboratory.

Points for elaboration in discussion

Private rates of return reduced by the new fees

The costs of becoming a graduate are partly the earnings that are foregone by going to university and partly the direct costs of tuition. A graduate's 'private rate of return' expresses the financial gain he or she receives as an annual rate of return on that investment. There is a long literature on this and in a study for the government London Economics calculated the private rate of return enjoyed by UK graduates under the funding regime of 2010 using graduate earnings derived from the Labour Force Survey (Department for Business and Skills 2011). The comparator group were those who left school at 18 but had the same school leaving qualifications as those going to university. If they had the same human capital at that point as those who entered university (give or take some selection bias).

For the average graduate the financial gain resulting from having a degree was expressed as the present value of this additional stream of lifetime earnings. In 2010 prices this was £125,000. That equated to an annual rate of return of 14.9% a year - 15.6% for men and 14.8% for women. (Medicine gains you a return of 19.0%, maths 20.9%, law 19%, history and philosophy 4% for men and 10% for women. (Unless you teach. The returns are then 17 and 22% for those with education qualifications.)

It is difficult to estimate how much these rates of return would fall as fees rise and earnings change given the interactions with the labour market. Fees may be passed on in higher graduate wages and demand for skilled labour in the economy may go on increasing. So the private rate of return may not fall that much but it could fall more if the relative demand for graduates falls.

Assuming the relative graduate earnings profile remains much the same, and it has been remarkably stable over time despite big changes in the supply of graduates, someone paying the median graduate contribution (fee) would have the present value of their average graduate premium reduced by about a quarter. But a woman doctor in the top decile would only have her premium reduced by about 10%, a male doctor by 8.5%.

Capital Market failure

There is a case for the state to be involved in correcting a major capital market failure. Children of poor parents cannot offer sufficient security to attract a loan to enhance their human capital. So the state has an ethical duty as well as an economic one to correct that market failure. This can be done most effectively by the state taking on that function and

using its borrowing power to keep the repayments below any rate an individual would pay in the open market.

This is the basis of the system that is now operating in England – not Scotland, and only in a modified way in Wales and Northern Ireland. This English scheme means that:

- The cost of borrowing for the student is kept low- the rate of interest at which government can borrow on average. (Actually it is nil for lower paid graduates and above the government rate for higher paid graduates introducing a degree of cross subsidisation. It is not clear this is the most fair or rational way to do things.)
- Because the government does the borrowing it is able to put the students into the same risk pool. Thus gives everyone including students from disadvantaged backgrounds access to the cohort risk premium - a clear example of applying the social solidarity principle.
- Non repayment can be kept to a minimum as the tax authorities can trace and impose sanctions on non payers, at least in the UK!
- It removes the arrangement from being anything resembling a normal loan – an individual loses possessions or faces prison if she defaults. Under the scheme in England the transaction becomes an agreement to pay a higher level of tax payable only when income rises above a given level.

Information failure.

It is argued by critics that though these arrangements might seem rational in an academic setting and to middle class families those with no experience of borrowing will not understand and be put off taking advantage of the arrangements seeing them as debt. Given that this is an information failure the prime response should be better information. These are after all intelligent adults.

However, to address this fear further the government has required that fees are largely waived for children from poorer homes. Part of the fees paid by richer graduates in England will go to absolve graduates from poorer homes of the need to repay at all. Universities will be expected to provide scholarships for children from poorer homes and a small scheme of state funded scholarships is being introduced with matching university funding.

A total of £50 million is being set aside and matched by universities who participate in the scheme.

- Those students with a household income of less than £25,000 a year can benefit.
- Some fees can be waived and other discounts eg on accommodation can be made.

In addition universities charging above the suggested fee will be required to use some of their income to improve access from those from poorer homes not just by giving bursaries but through various outreach measures to increase intake from poorer households.

The difference principle

Rawls argued that giving more attention or resources to the more gifted is only justified if the process ends up helping the least advantaged. As society becomes more advanced and richer, he argued, so the importance and relative cost of enabling the least advantaged to

enjoy its culture and take part in its affairs would grow. Society would have to work progressively harder at achieving social justice.

In 1972, as I first began to study the relative scale of the resources the state devoted to the least advantaged, I found the inverse of Rawls' principle in operation. The state devoted seventeen times as much to the post school education of a child from a professional class home compared to what it devoted to that of an unskilled worker's child. In 1963 it spent three times as much on an average university student during their time at university as on the average child of a working class family in their whole educational experience. (Social Trends 1971 Table 88)

This was the time of free tuition and generous maintenance allowances that covered the cost of living expenses at university even for relatively well off families. Counting all kinds of staff, each student was serviced by roughly two university employees, as Richard Titmuss pointed out. The figure was roughly one to twenty for children in school. The high taxpayer cost of this policy meant that very few places were funded - four per cent of the age group were allowed to enter university. That translated into only one percent of working class girls reaching university and two per cent of boys. This seemed to me a moral outrage.

Since those days the ratio of annual per pupil spending on primary schools and higher education in the UK has narrowed a lot, though it still favours the university student by nearly 2:1 (1.8 compared to 13.7:1 in 1963). This seems to me a positive move in Rawlsian terms. The percentage of children from working class families going to university has increased ten fold in the case of boys and twenty fold in the case of girls since the 1950s. The overall access rate has quadrupled. This again seems to be a Rawlsian outcome.

Rationing

The great gain from letting students fund more of the system should be that it is students who determine the size of the university sector not governments.

This is not yet the case. The past high cost of funding universities led places to being strictly rationed. The Treasury is still frightened that the cost of subsidising those who cannot re-pay in full will run out of control. However, universities with good applicants will be able to expand at the expense of those who do not. Thus the rationing door is being opened a little.

In the long run borrowing charges could be set high enough to cover the risks the Treasury fear. Or part of the fee could be creamed off to fund the risks higher fees would put on the taxpayer. This was the logic behind the Browne Committee proposals. Then student choice would determine the size and shape of the sector with the state playing some role to ensure some expensive subjects were sustained if it seemed necessary. Under new arrangements that will apply from 2012/13 there will be no limits to the numbers of students a university can take if they gain AAB results at A level. If a university accepts such students the government will pay it a teaching grant (except in the humanities and social sciences!) and numbers will be unlimited by a yearly ration. The aim is to widen the number in this category each year and hence gradually end the administrative rationing system. Institutions that are said to offer good teaching at a low cost will also be free to expand with places taken away from less well performing institutions.

Key documents

Browne Report 2010 *Securing a Sustainable Future for Higher Education*
www.independent.gov.uk/browne-report

Department for Business Innovation and Skills June 2011 *Students at the Heart of the System*. Cm 8122

A guide to financial support for higher education students: Student Finance England
www.direct.gov.uk/studentfinance

Higher Education Funding Council (2011) *Teaching funding and student number controls: Consultation on changes to be implemented in 2012-13*

Other References

Barr, N. (2011) 'Breaking the logjam' Submission to *The Future of Higher Education*, House of Commons Business, Innovation and Skills Committee Session 2010-11 HC 885 and supplementary submission.

Dearden, L., Fitzimonds, E. and Wyness, G. (2011) The Impact of fees and support on University participation in the UK. London: IFS

Denny, K. *The effect of abolishing university tuition costs: evidence from Ireland* IFS Working Paper 05/11

Chowdry, H., Dearden, L. and Wyness G. (2010) *Higher Education Reforms: Progressive but Complicated with Unwelcome Incentive*. IFS Briefing Note 113

Department for Business Innovation and Skills Research Paper No 45 June 2011 *The Returns to Higher Qualifications* .

Glennerster, H. (1968) 'A Graduate Tax' *Higher Education Review* Vol 1 No 1 and Vol 35 No 2 (2003) reprinted.

Rawls, J. (1972) *A Theory of Justice* Oxford: Oxford University Press

Sen, A. (2009) *The Idea of Justice* London: Allen Lane

Annex The new scheme in England

	Current system	2012 system
Tuition fees	£3,470 per year	Up to £9,000*
Maintenance grant	£2,990 a year if parental income less than £25,000. Tapers to zero at £50,000	£3,340 a year if parental income less than £25,000. Tapers to zero at £42,000.
Maintenance Loan	£3,590 a year if parental income less than £25,000. Maximum of £5,060 if parental income £50,000 reducing up to incomes of £60,000 then capped at £3,750.	£3,980 a year if parental income less than £25,000. Increases to £5,620 as parental income rises and then falls again capped at £62,500.
Scholarships	Universities must add to the maintenance grant for the poorest students.	A national scholarship scheme. The university pays the first year fees if student was eligible to receive free school meals at school. Govt pays third year fees.
Repayment real interest rate	0%	Tapered from 0% if graduate earns below a threshold rising to 3% if earning over £36,780.
Repayment tax rate	9%	9%
Repayment income threshold	£15,000	£21,000
Up-rating of threshold	Annually with inflation.	Annually with earnings from 2016.
Repayment period	25 years maximum	30 years maximum
Repayment method	UK: addition to income tax European students: Personal contract	UK : addition to income tax European students: as before but under review.

* 61 universities have opted to charge the maximum £9,000, 15 to charge £8,500 and 34 less than that. (BBC 16th Sept 2011.)

Source: Adapted from Chowdry et al (2010)

Universities in Scotland, Wales and Northern Ireland will be able to charge English students but their home students will be unaffected.

Welsh students will pay £3,465 (the fee under old Blair legislation).

Scottish students do not have to pay fees but students from elsewhere in the UK will have to pay up to £9,000 for a place in a Scottish university.

Central government tuition funding per student 2009/10 by price group

A (clinical stages of medicine) £15, 788

B (laboratory based ie science engineering and pre clinical medicine) £ £6.710

C Field work studio based (art, geography) £5,131

D Humanities and social sciences £3,947

2012/13 (likely)

A £10,000

B £1,500

Other (Humanities and social sciences) 0

Table 1 UK Higher education full time entrants 2005/6-2009/10

Country	2005/6	2006/7	2007/8	2008/9	2009/10
England	391,005	373,500	388,225	415,310	436,090
Wales	26,220	26,920	26,645	27,400	30,370
Scotland	45,695	45,165	43,990	45,730	47,380
Northern Ireland	11,750	10,795	11,195	11,375	12,135

Table 2 UK Applicants percentage of total by occupational category

Socio-economic status	2003	2004	2005	2006	2007	2008
Higher Managerial and professional	17.0	17.0	15.7	15.6	15.6	15.0
Lower managerial and professional	24.5	24.9	23.8	22.6	22.6	21.6
Intermediate occupations	12.2	12.2	11.8	10.8	10.7	10.9
Small employers and own account	6.0	6.0	5.7	5.7	5.7	5.5
Lower supervisory occupations	4.0	3.9	3.7	3.5	3.5	3.2
Semi routine	10.9	11.1	11.4	10.6	11.0	13.2
Routine	4.7	4.7	4.6	4.5	4.6	4.9
Not classified	20.7	20.4	23.4	26.8	26.4	26.4
Total	100.0	100.0	100.0	100.0	100.0	100.0

Table 3 Entry rate by socio economic group: % English 18 year olds entering Higher Education*

Socio Economic Groups	2002/3	2003/4	2004/5	2005/6	2006/7	2007/8	2008/9
NS-SECs 1,2,3	28.4	26.0	27.0	28.3	26.9	26.7	27.8
NS-SECs 4,5,6,7	10.5	11.1	11.2	12.7	12.3	12.9	13.7
Gap %	17.8	14.9	15.8	15.6	14.7	13.8	14.1

*18-20 year olds participation rate entry nearer 40% overall but slightly less reliable – shows same trend. UCAS figures

Net present value of repayments by decile given current graduate life time earnings: current scheme and 2010 and after 2012

