

8. A graduate tax for the UK?

The funding and future of higher education (HE) in the UK have long been a controversial area of debate. Last year, the Prime Minister said that the government's objective was to see half or more of all those aged under 30 experience HE by 2010,¹ while the Secretary of State for Education and Skills asserted in October that 'our aim is to get more children from less privileged backgrounds into higher education and we hope to better achieve this by changing the combination of family, student and state contributions'.² Given these pronouncements, the debate surrounding HE funding is likely to continue and intensify. Recent suggestions have come from both the Treasury and the Department for Education and Skills (DfES) which may lead to the introduction of a graduate tax in the UK – a supplement to income tax which would be paid by all graduates. In this chapter, we consider the prospects for such a tax. We look first at the recent history of HE funding and the notable changes that have occurred since the early 1990s, before considering some of the economic arguments both for and against a graduate tax system. We then look at where graduates lie in the income distribution and how this may inform the design of a graduate tax system. Finally, we consider what the distributional impact of the introduction of a graduate tax might be.

8.1 A recent history of higher education in the UK

Participation in HE in the UK has increased markedly since the mid-1980s. In 1985–86, less than 15% of all British 18- and 19-year-olds entered HE.³ Over the course of the early 1990s, this figure more than doubled to over 30% by 1994–95. Projections from the DfES suggest that, by 2001–02, the figure will be around 35%. In 1998, expenditure on tertiary education, both public and private, in the UK was just over 1.1% of GDP, compared with around 2.3% in the USA, 1.6% in Australia and a weighted OECD average of 1.6%.⁴ The UK figures are, however, comparable to those of France and Germany, where 1998 expenditures were 1.1% and 1.0% of GDP respectively.

Coupled with this increase in participation have been major changes to the way that HE is funded. Higher education funding covers two key elements: the funding of tuition and the funding of living expenses (usually referred to as 'maintenance'). Before 1990, tuition costs for UK students were funded

¹ Prime Ministerial Speech, 'The government's agenda for the future', 8 February 2001.

² Estelle Morris, Secretary of State for Education and Skills, in DfES Press Release, 4 October 2001 (www.dfes.gov.uk/mediamonitor/DisplayRB.cgi?pn_id=0128).

³ Figures on HE participation from Department for Education and Skills, *Annual Report*, London, various years.

⁴ OECD, *Education at a Glance: OECD Indicators*, Paris, 2001.

entirely by the government, and means-tested maintenance grants were available. Between 1990 and 1997, the government gradually reduced the nominal value of maintenance grants and introduced ‘top-up’ loans at zero real interest rates to make up the shortfall. By 1997, the values of grants and loans were roughly equal. Between 1998 and 2000, a new student support package was phased in. Maintenance grants were entirely abolished and replaced with loans (again at zero real interest rates), repayable once income reached a certain threshold, and part of the cost of tuition was required to be paid by the students or their parents on a means-tested basis. These fees were a flat-rate £1,075 per year in 2001–02 irrespective of the institution attended or the course taken. Scottish and non-UK EU students at Scottish universities do not have to pay tuition fees, although they are expected to contribute up to £2,000 to a graduate endowment fund after graduation. No UK students have to pay fees in their fourth year in Scotland, since there is no fourth year in most undergraduate courses in England and Wales.

8.2 The economic arguments for and against a graduate tax

Before we consider the economic desirability of a graduate tax, it is worth asking why governments feel the need to intervene in the market for higher education at all. There are two broad sets of arguments. First, there are arguments relating to equity considerations – for example, in terms of access to HE for those from low-income backgrounds – which favour means-tested government support. Secondly, there is the argument that the benefits to participation in HE accrue not only to the individual graduate but also to society at large: a better-educated workforce may be able to pass on its skills to less-educated colleagues, for example. However, these ‘external benefits’ to HE may not be considered by the individual when they are deciding whether or not to go to university; instead, they concern themselves only with their private costs and benefits. Thus, from society’s point of view, there will be too little investment in HE. The government should therefore provide some sort of subsidy to HE in order to reduce the costs of entering to students, encouraging them to undertake a socially efficient level of HE.

Let us now turn to the economic case surrounding the graduate tax itself. Higher education can be viewed as a form of investment by students, under which they forgo current earnings in return for higher earnings in the future. These ‘returns’ are currently taxed as ordinary income; the graduate tax can be seen as an attempt to capture more specifically some of the returns to HE. Evidence from the UK suggests that the returns are substantial: for example, Blundell et al (2000) estimated that the average return to completion of a first degree for a cohort of 33-year-olds in 1991 was around 17% for men and 37% for women compared with people with A levels as their highest qualification.⁵ Whilst a graduate tax clearly accords with the idea that the beneficiary from

⁵ R. Blundell, L. Dearden, A. Goodman and H. Reed, ‘The returns to higher education in Britain: evidence from a British cohort’, *Economic Journal*, vol. 110, pp. F82–9, 2000.

HE should pay for it, it is not the only way to meet this principle since, for example, an income-contingent student loan does just the same. If we decide that this ‘beneficiary-pays’ principle is desirable, the question is then whether the graduate tax is the best way to meet it.

A graduate tax has a number of desirable characteristics. First, it leaves education free at the point of delivery – this has important implications in terms of the access to HE, especially for people from low-income backgrounds and socio-economic groups where participation rates are low. However, this assumes that the tax is used to fund both maintenance and tuition; if most students also have to take out loans at market rates, access problems could still remain. Secondly, a graduate tax is income-contingent: higher earners pay more. If it is the case that high-earning graduates earn more as a result of their degree and we wish to tax these returns, then this income contingency would be seen as desirable. Thirdly, a graduate tax has the potential to generate significant revenue over the long term (as discussed below), which could be used to bring UK expenditure on HE close to the weighted OECD average.

However, there are several potential drawbacks, and the fact that the graduate tax is not a policy that is prevalent in other OECD countries suggests that the problems may be hard to overcome. First, there are short-term transitional problems resulting from several years in which students go through HE but are not yet paying the graduate tax. Secondly, a graduate tax exhibits no relationship between the cost of the course attended and the amount repaid. It therefore introduces no ‘market-based’ element into the HE sector in terms of students choosing between courses and institutions based on the various prices of attending them (which would be related to the costs of the course and the expected returns to students). Of course, students attending the best universities or studying particular courses will expect to earn more as a result of doing so than the average graduate, and so would pay more graduate tax, but it is not clear that the courses offering the highest returns are necessarily the most expensive (for example, studying within London is more expensive than studying outside London by virtue of the costs of operating within the capital).

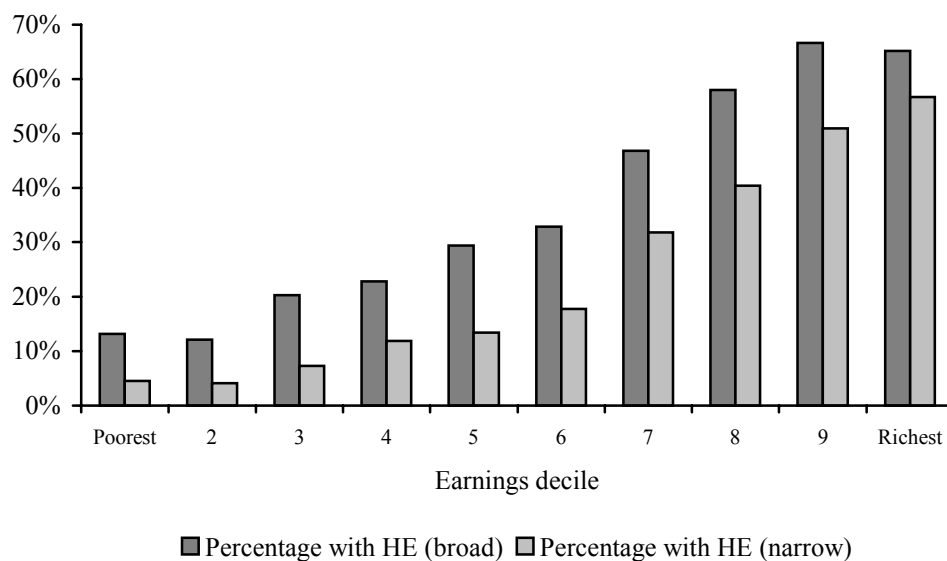
The amount raised would also be highly uncertain since it depends on future graduate earnings (whilst we have figures for average returns to HE, we also know that they are very variable). Universities might therefore be unclear as to how much funding they would receive from the receipts of the graduate tax and this uncertainty could have negative effects on the quality of HE institutions are prepared to offer. For example, an expansion of HE to cover half of young people may, in the long run, depress the earnings premium that graduates receive as they become more prevalent in the workforce. Further, unless the receipts were hypothecated specifically for HE, the revenue would form simply a part of general tax receipts – and there is no tradition of hypothecation in the UK tax system. Indeed, in general, there is no special economic reason for tying HE funding to the receipts from one particular tax. There are also the key issues of how foreign students at UK universities would be treated and how people who move away from the UK after their degree is complete must pay for their course.

8.3 Graduates in the earnings distribution

One of the arguments used in favour of the graduate tax is that there is a financial return to higher education, i.e. graduates earn more than non-graduates (as discussed in the previous section). However, this tells us little about the distribution of the returns to HE. Are all graduates likely to be high earners or is there a wide distribution of returns?

Figure 8.1 shows recent data from the UK Labour Force Survey (LFS) on the position of recent graduates in the earnings distribution. We confine ourselves to 25- to 34-year-olds – men and women who are old enough to have accumulated wage growth through labour market experience, but young enough to have an earnings profile comparable to that facing today’s graduates. Two measures of HE qualification are considered: the ‘narrow’ definition includes only academic degrees and comparable National Vocational Qualifications, whereas the broad measure includes vocational qualifications of comparable level as well as professional qualifications (for example, nursing). Overall, approximately 37% of respondents from the LFS have HE qualifications under the broad definition, and approximately 24% of them under the narrow definition.

Figure 8.1. Percentage of individuals who are HE graduates in each earnings decile (ages 25–34 only)



Note: Earnings deciles are derived by dividing the total population of employees in the UK aged 25–34 into 10 equally sized groups according to hourly earnings. Decile 1 contains the lowest-earning tenth of the population, decile 2 the second lowest and so on, up to the top decile (decile 10), which contains the highest-earning tenth.

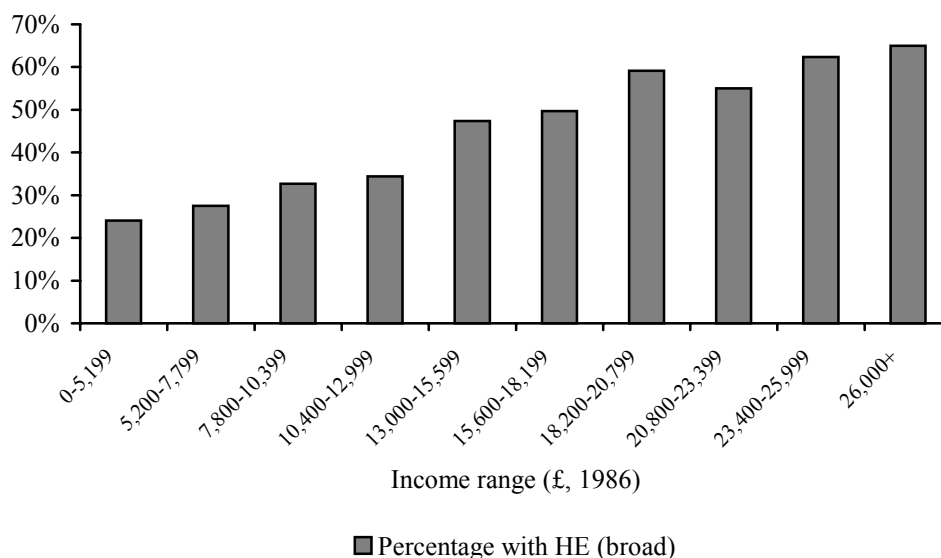
Source: Labour Force Survey, Winter 2000.

Figure 8.1 shows that the upper deciles of the earnings distribution for 25 to 34 year olds contain very high proportions of graduates – about 55% in the top decile for the narrow HE definition and about 65% on the broad definition. In contrast, less than 5% of people in the poorest two deciles are graduates,

narrowly defined. This shows that graduates are largely concentrated towards the top of the earnings distribution.

What about the argument that the current loans system deters entry by lower-income pupils? Figure 8.2 analyses the family background of a representative sample of graduates from the late 1980s – before the loans system had even been introduced – using data from the British Cohort Study (BCS), a survey of everyone in the UK born in one week during 1970. The graph tabulates the proportion of HE graduates (defined on the broad measure by the year 2000, when the cohort were 30 years old), against the combined income of each cohort member’s parents back in 1986 – a time when the cohort members were presumably making the decision about whether to take A levels.

Figure 8.2. Percentage of HE graduates among 30-year-olds by parents’ income when the person was aged 16



Source: British Cohort Study, 16-year-old and 30-year-old sweeps.

Figure 8.2 shows that whilst over 60% of men and women in the BCS whose combined parental income totalled more than £26,000 in 1986 ended up getting degrees, the proportion in households where income was less than £5,200 was less than 25%. This indicates that the likelihood of getting a degree is certainly correlated with parental income, although by itself this does not tell us anything about the *causal impact* of low parental income in childhood on the likelihood of entering HE. For example, it could be that the likelihood of entering HE is affected by some measure of ability that is genetic and transmitted down through generations. However, the data do show that, even before student loans were introduced, access to university was greater for children from higher-income backgrounds.

8.4 The design of a graduate tax

As already stated, a graduate tax is simply an income tax supplement payable by all graduates. However, there are a number of issues that need to be considered in the design of a graduate tax system:

- At what rate should the graduate tax be set?
- Should it be payable on total income or just earnings?
- At what threshold of income should the graduate tax be payable – should it be the same as the income tax thresholds or not? Should the tax rate vary with income above this threshold?
- Should the graduate tax be payable for life or for only a set period? Should repayments cease once the cost of tuition has been met? Should the rates differ for people with postgraduate qualifications?
- Should it apply retrospectively to current graduates?

If we wanted to finance higher education (or at least the costs of tuition) entirely from a graduate tax, it would clearly have to be set at a rate such that the funds it generates can pay for not only the existing system of HE but also an expanded HE sector in accordance with the government's target. However, the higher the rate at which the graduate tax is set, the greater the disincentive effect to participate in HE will be, and so these considerations will need to be weighed up against one another.

Administratively, it would be simplest if the graduate tax were aligned with the existing tax system: then the payment could be triggered by a different tax code for graduates and non-graduates. This would be facilitated further if the graduate tax applied to earned income only. Alternatively, one might argue that the graduate tax should not become effective until the graduate starts to earn income above the national average, and therefore sees some 'return' on their HE investment. If the government believes that people who do very well from HE ought to pay more, then the rate could be progressive: that is, the supplement paid by graduates could increase as their earnings rise above certain threshold levels. This again would generate a trade-off between revenue-raising and incentives that is common to all income taxation.

There is also the question of whether repayments should be 'open-ended' or capped. A graduate tax payable for life or for a set period would effectively mean that there was no link between the cost of the HE course undertaken and the amount repaid. However, a system where payment stops once the cost of the course is repaid is effectively an income-contingent loan system rather than a true graduate tax. Such a system is in place in Australia.

Finally, the question of whether the tax should apply retrospectively is a difficult one. If a switch to a graduate tax were implemented immediately, then, as we argued above, there would be a period of several years where there was no revenue for the HE system to replace the lost fees, creating transitional problems that could be overcome by imposing it on current graduates. However, this would be very difficult both politically and in terms of

identifying current graduates in the tax system. It may be that some other transitional rules would need to be applied instead.

What proposals have there been?

Unfortunately, few concrete details have emerged from the government about the possible design of a graduate tax for the UK. Indeed, in the light of recent press comment, it is unclear whether the proposal is likely in the near future. Such emergent details as there are suggest that two alternative proposals have been mooted, one from the Treasury and the other from the DfES. Common to each is the restoration of maintenance grants, coupled with the replacement of 'soft' student loans at zero real interest rates with 'hard' loans at commercial rates. No administrative details have been forthcoming, and at present we have no figures for the size of the graduate tax or the value of the maintenance grant that would be reintroduced. If the government is seriously considering the possibility of introducing a graduate tax for the UK, then the issue should be addressed as soon as possible in a consultation document. Without more details, it is difficult to answer questions about the administrative burden that the graduate tax would impose – for example, 'Would it be left to employers to determine who was liable to pay it?' and 'How would the PAYE system need to be reformed?'. However, given that the graduate tax would not *replace* any part of the current system of HE funding, it is likely that its introduction would create some new administrative cost.

8.5 The distributional impact of introducing a graduate tax

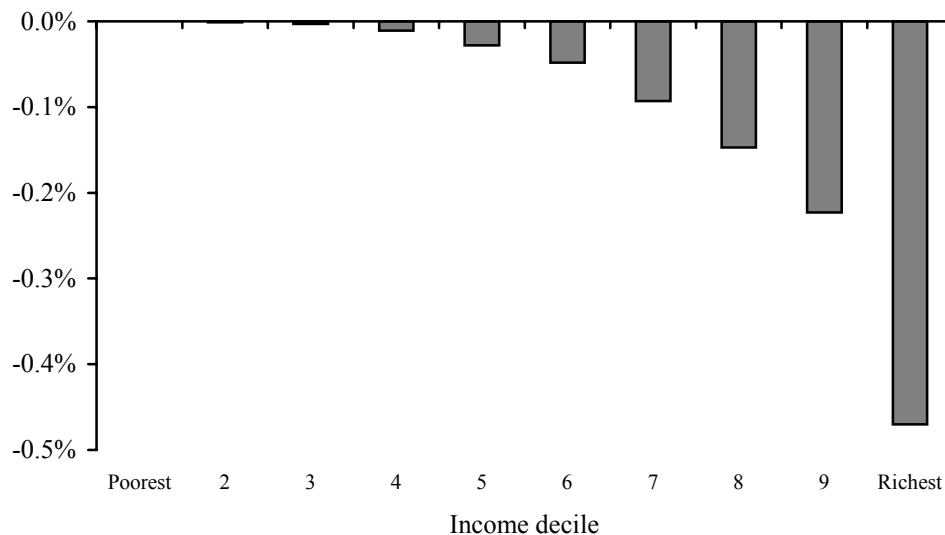
Having established that graduates are more likely to be in the upper echelons of the earnings distribution and come from relatively high-income families, we now turn to evaluate what the impact of a graduate tax scheme might be on the distribution of income in Great Britain. Of course, since it is unlikely that the tax would be imposed retrospectively on people who have already graduated, ideally we would wish to model the impact of the tax on *future* graduates, given some assumption about their future earnings and employment profiles and the future structure of the tax system. However, this exercise is tricky and would require a host of possibly arbitrary assumptions. Instead, we have modelled the imposition of a graduate tax on the current stock of graduates, treating the scheme as if it had been in operation for several decades and had attained some kind of 'steady state'. Thus we do not try to model any changes in the behaviour of prospective graduates arising from the decision to impose the graduate tax, only a suggestion of what the distributional effects might be if it had no effect on behaviour.

To keep matters simple, we model the graduate tax as an extra 1p in every pound of income taxed at the basic rate and above. So, whereas the basic and higher rates of tax for earned income in the tax system are currently 22% and 40%, in our graduate tax system they rise to 23% and 41% for people with higher-education qualifications. We assume that this payment applies to graduates in England, Wales and Scotland (the Family Resources Survey does

not contain data for Northern Ireland). Furthermore, we assume that graduates carry on paying income tax at these higher rates for life, rather than over a fixed repayment period or until some fixed amount of graduate tax has been paid. This is for simplicity of exposition rather than because we think that any actual implementation of a graduate tax would necessarily involve a payment for life.

The simulation was carried out using IFS's tax and benefit micro-simulation model, TAXBEN, run on recent data from the UK Family Resources Survey. Figure 8.3 divides families in the British population into deciles by income, taking account of family size, and shows the distributional impact of this simple graduate tax.

Figure 8.3. Average change in weekly income from a 1p-in-the-pound 'graduate tax'



Note: Income deciles are derived by dividing the total population into 10 equally sized groups according to household income adjusted for family size. Decile 1 contains the poorest tenth of the population, decile 2 the second poorest and so on, up to the top decile (decile 10), which contains the richest tenth.

Source: IFS tax and benefit model, TAXBEN, run using data from the 1998–99 Family Resources Survey.

As one might expect, given the earlier findings over the position of graduates within the earnings distribution, the graduate tax is strongly progressive. This is reinforced by the fact that most people in the poorest deciles of the income distribution do not have high enough incomes to pay any income tax at the basic rate. The richest 10% of families pay far more, on average, than any other decile, followed by the next-richest decile.

How much could a graduate tax raise?

TAXBEN estimates that the overall yield to the exchequer from a 1p graduate tax would be in the region of £1 billion per year. Considering maintenance payments first of all, figures from the Student Loans Company show that

around £2.2 billion was spent on loan payments to students in the 2000–01 academic year.⁶ However, current students comprise about one-third of their age group, whereas in the working-age population as a whole, the proportion of graduates is only one-fifth. If we correct for this discrepancy by assuming a constant proportion of graduates all the way up the age distribution (as one might expect in a ‘steady state’), then a graduate tax of around 1.3 pence at basic and higher rates would fund the costs of student maintenance fully. As for tuition costs, there are around 1.1 million ‘full-time equivalent’ publicly funded higher-education students currently studying.⁷ Assuming a 25% contribution towards fees for each of them at the current level of £1,075 per year, the cost would be around £300 million per year.⁸ This suggests that a graduate tax of around 1.6 pence on basic and higher rates would be required to replace the current portion of student maintenance and tuition costs that is met by fees and loans with funding from a graduate tax. To fund the entire costs of tuition through a graduate tax would require a total graduate tax of around 2.5 pence on basic and higher rates.

8.6 Conclusion

The recent interest in the graduate tax as a potential means of funding higher education is just the latest instalment of a debate on student finance that has been running for over a decade in the UK. As yet, it is unclear whether a formal consultation will be undertaken on the issue or whether any concrete policy proposals will be issued by the government, let alone whether a scheme will be adopted. This chapter has merely sought to shed some light on what the potential impact of a graduate tax scheme might be. Analysis of recent data shows that graduates are relatively well off, on average, compared with the rest of the population, and that they tend to come from families with above-average incomes. Further, a graduate tax scheme operating through increases in the basic and higher rates of income tax would have strongly progressive effects. Of course, there remains some debate as to how much of the HE budget we would wish to fund through a graduate tax and how much through loans or fees; in terms of the efficiency of the system, this depends on the size of the externalities to HE compared with the private benefits, although distributional concerns may entail higher rates of subsidy. However, there remain a number of important issues regarding the optimal design of a graduate tax, and the administration of payments, that the government has not yet addressed.

Alissa Goodman, Andrew Leicester and Howard Reed

⁶ Source: Student Loans Company, *Annual Report 2000–01* (www.slc.co.uk).

⁷ Source: Department for Education and Skills, *Annual Report*, 2001. The ‘full-time equivalent’ figure counts a part-time student as 0.35 of a full-time student.

⁸ Ibid.