

‘STUDY NOW, PAY LATER’ OR ‘HE FOR FREE’?
AN ASSESSMENT OF ALTERNATIVE PROPOSALS
FOR HIGHER EDUCATION FINANCE

Alissa Goodman
Greg Kaplan

**‘Study now, pay later’ or ‘HE for free’?
An assessment of alternative proposals
for higher education finance**

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Preface

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Executive summary

The government and the Conservative Party have announced starkly different policies for funding higher education (HE). Both want to see higher funding per student, but:

- The government wants students to pay more, through an increase in deferred tuition fees. The Conservatives want to scrap tuition fees altogether.
- The government wants student numbers to increase significantly. The Conservatives are content for student numbers to remain roughly unchanged.

Details of how the two parties' systems would differ are set out in Table 2.1 in Chapter 2.

Economic principles behind the reforms

When young people enter higher education, they are making an investment with short-run costs (tuition fees and living expenses while at university¹) and long-run benefits (higher earnings after graduation). There may also be spillover benefits for the rest of society.

Without government intervention, lack of foresight and difficulty meeting the short-run costs of going to university might mean that some young people would fail to undertake higher education that was in their own long-term interest.

In addition, the government might wish to subsidise higher education to capture spillover benefits for the rest of society or to ensure that young people from low-income families had an equal chance of participating in higher education to those from better-off backgrounds.

One solution is for the government to help students borrow income to pay part of the cost of their higher education. Specifying that the loans need only be repaid when incomes rise above a certain level should help overcome students' reluctance to borrow when they cannot be confident about their future earnings.

Alternatively, the short-term costs could be met from general taxation. This is an expensive and poorly targeted way of intervening, in which graduates, who are predominantly found towards the top of the income distribution, benefit at the expense of everyone else. It seems hard to justify such an approach unless the positive spillover effects to society are very large or unless potential students are highly averse to taking on even income-contingent debt.

The White Paper proposals are broadly in accordance with these principles. Arguably, it could have gone further to meet the short-run costs students face and to give universities greater flexibility to set fees at appropriate levels.

¹ In line with the White Paper (Department for Education and Skills, *The Future of Higher Education*, 2003) and for ease of reading, we use the word 'university' as a substitute for 'higher education institution'.

Students' finances under the White Paper and the Conservatives' proposals

Both sets of reforms would make students better off while they are at university than under the current system, and by exactly the same amount:

- Under the Conservatives' reforms, the abolition of fees would mean that students no longer have to find the cash to pay them from their existing budgets.
- Under the White Paper, fees would be covered by new loans, so that students no longer have to find cash for them while they are at university.
- If universities increased their fees under the White Paper proposals, this would not affect students' finances in the short term. The loans available to students would be increased automatically by the same amount.

Under neither set of proposals would students' total income from loans and grants be sufficient to cover their living expenses as calculated by the National Union of Students.

Graduates' finances under the White Paper and the Conservatives' proposals: the longer term

An example graduate with average-sized loans (and with no career breaks) would make loan repayments for:

- 7 years under the current system,
- 8 years under the Conservative proposals² and
- 10 years under the White Paper proposals.

Because the loans offered by the government under all three systems carry a zero real interest rate, they are heavily subsidised by the government. Because of these subsidies, graduates repaying their loans in full under the White Paper system will pay back about 15 per cent less than if they faced the full cost of their borrowing.

Comparing the total value of the government's contributions to the cost of higher education (via payments towards tuition costs and loan subsidies) with the contributions made by an average graduate over their lifetime, we find that:

- Under the current system, the government contributes around 50 per cent to the total cost of an average student's maintenance and tuition – and 77 per cent to the costs of tuition alone.
- Under the White Paper, the government would still contribute around 50 per cent to the total – and around 69 per cent of the costs of tuition alone (though the total cash amount would be higher than under the current system because bigger loans would imply more subsidy).

² Assuming that the Conservatives raise the threshold for loan repayments from £10,000 to £15,000 as set out in the White Paper; see Table 2.1, note b.

- Under the Conservative reforms, the government would contribute 70 per cent of the total costs of maintenance and tuition for the average graduate – and 100 per cent of their tuition costs alone.

Short-term distributional impact of the White Paper and the Conservatives' proposals

The White Paper and the Conservatives' proposals would both redistribute income towards lower-income households compared with the current system of HE finance (i.e. they are progressive compared with the current system). This is because:

- Both sets of reforms would direct more funds into higher education than under the current system. Poorer families would benefit most as a proportion of their income from this, since the value of HE tuition and loan subsidies represents a greater share of a lower-income family's budget.
- Labour (and maybe the Conservatives) would reintroduce the maintenance grant, which would only benefit students from lower-income families.

But the White Paper proposals are more progressive than the Tory proposals. This means that if we moved from the White Paper system to the Conservative one, there would be a redistribution of income from poorer to richer households. This is because:

- Graduates tend to be further up the income distribution than non-graduates. This means that graduate repayments from deferred loans – which pay for the increase in tuition costs under the White Paper – would be drawn more heavily from higher-income households than revenue from general taxation – which pays for the increase in tuition costs under the Conservatives.
- New entrants into universities under the White Paper reforms may be drawn from lower-income households.

Public expenditure implications of the White Paper proposals

By the time full expansion in student numbers is reached, the White Paper proposals would require an estimated additional £1.8 billion per year of funding relative to the current funding arrangements. The Conservative proposals would require an estimated additional £1.7 billion per year of funding relative to the current funding arrangements once this same time had passed.

In the short term, the Conservative proposals could cost more than the White Paper, implying that, for a time, student numbers might need to drop from their current levels unless funding per student fell or the shortfall were to be made up from elsewhere. This higher short-term cost arises because the number of students is likely to be increased gradually under the White Paper, implying that the full costs to government would not be incurred for a number of years.

In the longer term, once both systems had had a chance to bed themselves in, the Conservative proposals do not necessarily imply a decline in HE student numbers from their current level. However, although the Conservatives might not need more money to

fund higher education than the White Paper, if some students who would have gone into higher education under Labour go into vocational courses instead, as the Tories have suggested, this could also involve significant public subsidy.

1. Introduction

Graduates derive substantial benefits from having gained a degree. ... given these benefits to an individual ... the government has decided that it is fair to allow universities, if they so determine, to ask students to make an increased contribution.

Department for Education and Skills, 2003

Labour's university tuition fees are a tax on learning ... leaving young people with huge debts when they start work. ... The Conservatives are promising to abolish university tuition fees.

Conservative Party News, 2003

This Commentary examines the government's proposed reforms to the system of higher education (HE) finance in England set out in its recent White Paper, comparing the reforms with the alternative proposals outlined by the Conservative Party in May.³

At their root, both sets of proposals aim to increase the level of funding per university student.⁴ But the ways in which this will be achieved are diametrically opposed. The government wants to see a continued expansion in student numbers, with students paying more through deferred tuition fees. Under this scenario, the taxpayer will also pay considerably more, both to fund new students and to subsidise loans.

The Conservatives, by contrast, do not want the number of students to rise; instead, they propose to divert the extra taxpayers' money that the government would need to pay for the White Paper reforms to abolish tuition fees altogether, restoring the system to one very similar to that in operation before 1998.

First, we set out in more detail the different proposals by the two parties. We go on to consider the economic principles behind these suggested reforms and then set out the likely impact of these different funding regimes on student finances in the short term and on graduates' incomes in the longer term. One important difference in the funding regimes will be in their short-term distributional impacts, and we set out the gainers and losers under both regimes. We also examine the possible public expenditure implications of the alternative proposals.⁵ We end with our conclusions.

³ We do not consider the Liberal Democrats' proposals for HE finance here.

⁴ In line with Department for Education and Skills (2003) and for ease of reading, we use the word 'university' as a substitute for 'higher education institution'.

⁵ Barr (2002, 2003a and 2003b) also provides a detailed critique of the proposed reforms.

2. Background: the White Paper and the Conservatives' proposals

2.1 The White Paper reforms

The White Paper reforms represent the second major shake-up to student financing arrangements since the Labour government came to power in 1997. These latest reforms propose to increase tuition fees and extend their coverage, whilst at the same time extending the system of subsidised student loans to cover these fees. Maintenance grants will also be reintroduced for students from lower-income families.

Table 2.1 shows how the new system proposed by the government compares with the existing system of fees, loans and grants. There are four main changes to the system of fees:

- The reforms will increase the amount that students are required to pay towards their tuition, starting from 2006. Under the current system (introduced in 1998), tuition fees are fixed across universities and courses at £1,100 p.a. (for new entrants in Autumn 2002), and only students from families whose income exceeds £30,000 are required to pay these fees in full (those on incomes below £20,000 are fully exempted). From 2006, universities will be free to set tuition fees up to a maximum of £3,000 p.a.
- Fees will not only be increased, but also extended to a larger number of students. Students whose family income is up to £20,000 – who have hitherto been exempt – will be liable for fees of up to £1,900 per year.
- The reforms will change the timing of fee payment. Unlike the current system, no fees will be payable upfront by the student. Instead, fees will be covered by a system of subsidised loans. The loan system, labelled the Graduate Contribution Scheme (GCS), will operate in a similar way to the current system of maintenance loans: the loans will be set at a zero real interest rate and will only be repayable once the (former) student starts earning an income above £15,000 p.a. Repayments will be linked to income and will be made through the tax system as a payroll deduction. Students from poorer backgrounds will be able to take out a loan under the GCS to cover their fees, just as students from richer backgrounds do. It is important to realise that the GCS loans will be different from traditional mortgage-style loans and credit-card debt: the interest rates will be restricted to the rate of inflation and repayments will be determined by the individual's income rather than by the amount of loan outstanding.
- Universities will have discretion to set differential fees, up to the maximum cited above of £3,000 per year, with increases above £1,100 subject to a signed 'Access Agreement' between universities and a newly appointed 'Access Regulator'. This agreement must certify that the university is taking steps to widen participation in higher education by students from lower socio-economic groups and non-traditional backgrounds. Fees would also be allowed to vary not just across institutions but also within institutions for different courses. Again, these 'top-up fees' will be payable not

upfront⁶ but only after the student has graduated and started earning above a fixed income threshold.

In addition to the reforms to the system of fees, the White Paper proposes some changes to the student loan scheme for living costs. The government intends to increase the income threshold at which repayments start from £10,000 p.a. to £15,000 p.a., in line with the terms offered under the GCS.

The White Paper also reversed previous government policy on grants, by announcing the reintroduction of maintenance grants for the poorest students. Starting in Autumn 2004, students whose families have incomes of £10,000 p.a. or less will be entitled to about £1,000 per year in grant. This amount will be tapered away between family income of £10,000 and £20,000, with those with family income above £20,000 having zero entitlement. The level of the maintenance grant will be considerably lower (in real terms) than the level of maintenance grants available before their phased reduction began in the late 1980s (see Appendix A). The levels of grants, loans and thresholds announced in the White Paper are all subject to review.

Finally, a key difference between the government's and the Conservatives' proposals is the view that they take regarding the number of students they wish to see in higher education. The White Paper reforms envisage participation in higher education rising from 43 per cent to 50 per cent of 18- to 30-year-olds.⁷ In contrast, the Conservatives' proposals view the prevailing participation rate of 43 per cent as sufficient. The Conservatives argue that many of those who Labour would like to see entering higher education would be better off doing more vocational courses.

2.2 The Conservatives' proposals

The proposals set out by the Conservatives in May this year were less detailed than those contained in the government's White Paper. Rather than extending fees, as the White Paper proposed to do, the Conservatives proposed to abolish them altogether, effectively restoring the system to the one that prevailed prior to 1998 (see Table 2.1 again). These proposals envisage using the funds saved by abolishing the plans for expansion to offset the costs of abolishing fees.

Though the Conservatives were not explicit about whether or not they would introduce the maintenance grants promised by the White Paper, their costings make no mention of any public expenditure savings from abandoning the idea. For this reason, in the analysis that follows, we assume that maintenance grants would be paid in their system. We also assume that the system of maintenance loans would also be changed in line with the White Paper proposals (i.e. with repayments starting once graduates' incomes reach £15,000 rather than £10,000 as in the current system).

⁶ Though students may choose to pay some or all of their fees upfront if they wish.

⁷ These figures relate to the initial entry rate, which measures the proportion of young English people who enter full- or part-time higher education by the age of 30.

Table 2.1. Details of the White Paper and the Conservatives' systems

	Current system	White Paper system	Conservatives' system
UPFRONT FEES	£1,100 p.a. upfront Fixed across courses and institutions Full exemption if family income < £20,000 Partial exemption if family income < £30,000	No upfront fee (from 2006–07)	No upfront fee
DEFERRED FEES	No deferred fee	Set by university, initial cap of £3,000 p.a. Full exemption on fee up to £1,100 if family income < £20,000 Partial exemption on fee up to £1,100 if family income < £30,000	No deferred fee
LOANS FOR FEES	None	Graduate Contribution Scheme (GCS) – repayment terms as for maintenance loans (from 2006)	None
MAINTENANCE LOANS	£3,905 if family income < £30,000 75% of £3,905 if family income > £30,000 (tapered) ^a	As in current system	As in current system
REPAYMENT OF LOANS	9% of income above £10,000 Zero real interest rate	9% of income above £15,000 (threshold raised from 2005) Zero real interest rate	As in White Paper ^b Zero real interest rate
MAINTENANCE GRANTS	None	£1,000 if family income < £10,000 (from 2004) Taper to zero at family income of £20,000	As in White Paper ^b

^a The range of income above £30,000 over which tapering operates varies by local education authority.

^b This is not explicit in the Conservatives' plans, but we assume that it would be the same as in the White Paper, since the Conservatives' calculations of the public expenditure implications of their plans compared with the White Paper do not include any expenditure savings from not including this.

Note: Loan amounts are for a first-year student living away from home outside London in the academic year 2002–03.

Sources: Department for Education and Skills, 2003; Conservative Party News, 2003.

3. Economic principles behind the alternative HE reforms⁸

3.1 Who should pay for the costs of tuition?

The most fundamental way in which the White Paper proposals and the proposals set out by the Conservatives diverge is in who pays for the costs of tuition. By requiring students from all backgrounds to pay additional fees if universities choose to charge them, the government's proposals represent an extension of the principle that those who benefit from higher education should bear some of the cost of it. The Conservatives' proposals abandon this principle altogether, returning the system of finance to one where the taxpayer foots the entire bill.

What economic principles underlie the question of who should pay for higher education? First, it is important to be clear that higher education is never free, whether the costs are met upfront by students, later in life by graduates or in an ongoing way by taxpayers in general. Altering the system of HE finance changes the incidence and the timing of payments but does not change the fact that the cost of university education must be paid for in one way or another.

With no intervention in the market for higher education, all students would bear the full costs of their higher education upfront and in full. Although there is clear evidence that individuals stand to gain from attending university⁹ – both from increased likelihood of employment and from higher earnings once in employment – at least five different sorts of problems might justify government intervention:

- Capital markets may not develop to allow students to borrow enough money to cover the costs of their tuition and maintenance. This could lead to an inefficient number or mix of participation in higher education.
- Students may lack the information they need to make rational, informed choices.
- Young people could be too short-sighted or too debt-averse to make the choices the government thinks are best for them; government might then deem it appropriate to intervene to affect education choices for paternalistic reasons.
- There may be social returns to education that young people have little incentive to take account of when deciding whether to go to university.
- There may also be cause for intervention on equity grounds. For example, if capital market failings or lack of information impact more heavily on young people from poorer backgrounds, then this could provide added justification for intervening. Similarly, if those from poorer backgrounds are more likely to be too short-sighted or debt-averse, then the government might want to intervene to prevent the inequality of outcomes that would ensue if it did not intervene. A government may also wish to influence the balance of participation in higher education to prevent widening inequality, even if this might result in an overall efficiency loss.

⁸ For more detailed analysis of the economic principles, see Barr (2001, chs 10–12).

⁹ For example, see Blundell et al. (2000).

Given these problems, we might expect the government to alter who should pay, how much and when, so as to generate what it regards as the best level of investment in education for the individuals involved and for society as a whole. In order to understand more closely what the appropriate policy responses to the different problems could be, we examine reasons for intervention in the credit market and for subsidising the cost of higher education in more detail below.

3.2 Helping students raise the money to pay for higher education

The first and arguably the most important aspect of the market for higher education that makes it different from other goods is that attending university represents an investment. Even if there are some consumption elements to attending university – if people enjoy learning or other aspects of student life – in general, the main benefits of higher education, in the form of higher earnings potential later in life, are not realised until some time after the costs of being educated are incurred.

This means that in the absence of government intervention, it is only if students can somehow raise the money to pay for their higher education that they can undertake this investment. Some young people might work part-time or be given or loaned money by their parents to pay for university. But, in general, students, particularly those from lower-income families, must be prepared to borrow. Then capital markets must operate efficiently in order for an optimal level of investment in higher education to take place.

The returns to this investment are also uncertain. Though some people stand to gain a great deal in terms of future income and consumption from their higher education, others do not gain so much or at all. This cannot be known in advance with certainty. If people are risk-averse, then this means that capital markets must be able to incorporate some degree of risk, through some form of insurance mechanism, in order for an optimal amount of higher education to take place.

In principle, we might expect capital markets to develop to help people to pay for their higher education – even if the returns are uncertain – allowing an efficient level of educational investment to take place without the government stepping in. However, in practice, there are some common reasons why capital markets fail.

Most importantly, they are prone to problems of asymmetric information. If banks or other potential lenders lack sufficient information about the potential future earning power of applicants for loans, then the market may either deliver too few loans or break down altogether. (Such a problem is often referred to as the problem of adverse selection.)

Alternatively, if people realise that they can avoid paying back their loans – for example, by not earning sufficient income to repay them or by declaring bankruptcy¹⁰ – and lenders lack the information to monitor their behaviour closely enough, then the market again may break down. (This problem is often referred to as moral hazard.)

¹⁰ See *Guardian*, 14 June 2003, 'Is going bankrupt the way to stay afloat?', for evidence that some students have declared bankruptcy in order to avoid paying debts.

In many markets where banks or other financial institutions provide loans, individuals are required to offer collateral against the loan to overcome these informational problems. However, in the case of loans for higher education, just as with other investments in human capital, there is no obvious collateral that an individual can put forward against the value of the loan – lenders do not have property rights over students' future earnings and slavery is illegal. This makes it less likely that a fully effective credit market for loans will develop without the government intervening.

What do these credit market failures suggest about who should pay for university tuition? One possible approach a government could take would be to remove the requirement for students to pay for their fees, as in the Conservative proposals. This would certainly remove any short-term financial constraints preventing students from attending university. But while the presence of credit market failures might justify action by governments to make it easier for students to borrow sufficient money to cover the cost, it does not justify exempting them from all or part of that cost. The level of government subsidy under the sort of intervention proposed by the Conservatives is higher than the presence of credit constraints alone would dictate and cannot be justified solely on these grounds. In fact, credit constraints alone do not imply *any* subsidy, only policies aimed at overcoming the capital market failures.

A more direct approach to alleviating credit constraints is to intervene in the credit market directly – for example, through the provision of loans at a fair market interest rate. The government's White Paper proposals, by allowing all fees to be deferred until later in life, more closely resemble the sort of intervention that credit market failures alone would dictate.

Moreover, a loan system could also be designed to provide protection against the uncertainty involved with investment in higher education. Without some sort of protection against low future earnings, students may be deterred from taking out loans for the costs of their higher education even if loans were readily available. Depending on his/her degree of risk aversion, an individual who stands to gain from university may choose not to borrow to cover the costs if he/she is sensitive to the possibility of not realising future financial benefits. This could result in an inefficient allocation of higher education, or an inequitable allocation if students from poorer backgrounds are more risk-averse or more debt-averse. To overcome this sort of market failure, it is necessary that some sort of mechanism is provided to smooth the returns to higher education across individuals. One way of doing this is to make repayment of loans contingent on realised income,¹¹ as in the White Paper proposals.

3.3 Lowering the price faced by students

Over and above helping students to raise the capital they require, governments might also want to encourage more people to go to university than would choose to go at the market price. This could be for paternalistic reasons – the government might believe that people will not make the right choices for themselves if they face the full costs of their tuition and maintenance (even if they are able to borrow to cover the costs).

¹¹ GCS loans will be repayable as a fraction of income once the graduate starts earning over £15,000. See Chapter 5.

For example, if the government believes that people are too short-sighted or too averse to running up debt to take out loans to go to university, then intervention may be appropriate. One particular concern is that young people from lower-income backgrounds may both discount the future especially highly (i.e. be unprepared to forgo current income for future gains) and be more averse to borrowing in order to maintain their current income while they study. They may have less information at their disposal to enable them to make an informed decision as to whether to accrue debts or income-contingent loans. This would mean that fewer students from these backgrounds would go to university than is deemed optimal by the government.

The government might also want to encourage more people to go to university than would choose to go at the market price if it thought that there were social returns to higher education that individuals do not take into account when making their education choices. For example, benefits to some forms of research and innovation facilitated by higher education may be large, with the benefits to society outweighing the amount that any individual or firm can capture. An example could be scientific research for which the benefits to society are larger than the financial benefits captured by patents. There may also be benefits to society of a better-educated population, such as lower crime rates.

If this is the case, governments may not just want to intervene to facilitate borrowing, but may also want to lower the direct costs of university education, so as to encourage more people to take it up. The exact level of the subsidy called for in this case depends entirely on how much the government wants to encourage participation.

Both the White Paper proposals and the Conservatives' proposals would combine the easing of short-term financial constraints with heavy subsidies to the cost of tuition. The White Paper moves in the direction of expecting students to pay more towards teaching costs than they currently do (from about 23 per cent to about 31 per cent on average¹²), whilst, conversely, the Conservatives' reforms expect students to pay less, returning the direct costs of tuition to zero. Interestingly, this is not because the Tories believe that more young people should go to university, since their Press Release explicitly states that their aim is to curb expansion in higher education.

However, even if the government believes that the costs of higher education are so high as to deter some parts of the population who would stand to gain from university from applying, this in itself does not justify the removal of fees for all students. The fact that a good – be it food, health services or education – is considered a necessity that should be available to the whole population is not reason enough for its cost to be entirely borne by the government. Such subsidies tend to be expensive and can be poorly targeted, disproportionately benefiting those who use the good more intensively. In the case of higher education, it is those from the upper and middle parts of the income distribution who would benefit the most from the scrapping of fees. (Chapter 6 shows this, setting out the likely short-term distributional impact of the Conservative proposals compared with the White Paper reforms.)

¹² This is shown in Chapter 5.

Rather, targeted subsidies and targeted transfers are a more effective way to encourage participation in higher education amongst those individuals who are deterred by fees, at a lower overall cost. If the reason for intervention is to reduce the price faced by certain groups of individuals, then it makes sense to target these groups directly, through either fee exemption or direct transfers, rather than providing fee exemptions for the entire population.

3.4 How many students should go to university?

The other fundamental way in which the two parties diverge is in the vision for the number of people who go to university. Why should government care about numbers? The government currently sets the price of tuition faced by students at a rate below the market price and so may need to ration the quantity of higher education available. Ideally, a government would be able to set the price of higher education at exactly the right level to attract the correct number of students from a paternalistic viewpoint, or to balance the costs and benefits for society as a whole. In practice, it is unlikely to be able to set this price exactly. With the price set below this market-clearing level, government will need to determine the overall level of demand for places through quotas, written into its overall public expenditure limits.

In other words, in order to get value for money, a government may wish to limit the number of places available so that only those individuals for whom the expected return is larger than the cost of subsidising their higher education will participate. Clearly, the benefits of an expansion of participation in higher education (having a better-educated population) would have to be weighed against the financial burden of subsidising the costs of that expansion.

The two parties differ on their view over the appropriate number of HE places to make available. In order to judge which view is closer to the optimum, we would need data on the potential returns to higher education for different individuals in the population, as well as information regarding the costs of different-sized HE sectors. This Commentary does not deal with the question of what the appropriate size of the HE sector is for England.

3.5 Will students be deterred by the higher cost?

Whether students would be deterred from going to university as a result of higher fees will depend on a number of factors – whether the fees have to be paid upfront or whether they are covered by a loan; the type of loan system that is in place; whether students understand the fee and loan system; whether there is unmet demand for university places at the current level of fees; and whether the increase in fees is combined with an increase in the quality of higher education being received.

This last point is particularly important. A simple downward-sloping aggregate demand curve for higher education would indicate that an increase in the price faced by students would represent a move up the curve and result in a lower quantity demanded. However, the White Paper proposals combine the increase in fees with an increase in funding per student. This is equivalent to an outward shift of the demand curve, meaning that it is

entirely possible that the quantity of higher education demanded by students could increase as a result of the White Paper plans.

On the other hand, the overall effect of the Tory proposals is equally unclear. They seek to reduce the number of students in higher education. But reducing the price being charged will lead to movement down the aggregate demand curve, increasing the quantity of higher education demanded. To overcome this problem, the Conservatives will have to introduce a quota on the number of university places available, creating an undersupply that will have to be rationed. How this rationing takes places will determine which students are able to go to university.

Marketing, information and perception are also crucial in this regard. Whether or not students, especially those from poorer backgrounds, are deterred as a result of increased fees will depend on how successful the government is in explaining to young people the nature of the investment that higher education represents and the mechanics of the income-contingent loan system.

3.6 Why should higher education be funded differently from healthcare?

Parallels have often been drawn between the provision of healthcare and the provision of education – both are goods where issues of equality of access are of considerable importance to society, and both are goods where there may be large social returns. It is often asked why it is deemed sensible to provide healthcare on a ‘free for all’ basis, whereas higher education – under the current government – is moving towards a ‘user pays’ system. We think it is important to outline some of the differences between healthcare and higher education.

First, there is a significant difference between a layperson’s ability to make an informed choice regarding the product they desire when buying higher education compared with buying health services. For example, it might be possible for individuals to make fully informed choices over whether to take a degree in history or in engineering, but it is unlikely they could know whether they are in need of a pacemaker or a bypass to cure their heart problems. This is not simply a problem that can be solved through the emergence of cheaply available information sources. Whereas a market may develop for material to assist in the choice between different courses, it is unlikely that similar information regarding medical treatment could be made available cheaply. One reason is that a certain degree of technical knowledge is required to understand the information needed to make an informed decision regarding healthcare.

Secondly, by providing healthcare, the government is providing a form of insurance. Individuals generally do not choose to be in need of healthcare, and the amount and timing of their needs are uncertain. Government intervention can be thought of as a sensible response to inadequate insurance markets for health. By contrast, there is a much smaller insurance role for government in the provision of higher education. This is because school leavers themselves choose whether to continue in education, and so the amount and timing of their demand are known with certainty.

The argument that education should be provided free is much stronger for the case of primary and secondary education than for higher education. Participation in primary and

secondary education is compulsory and quality is more uniform than with higher education, so individual returns are accrued more equally by all parts of the population.

4. Impact on students' finances: the short term

As we saw in the previous chapter, one widely accepted reason for government intervention in the market for higher education is to help students raise finance to cover the costs of attending university. The White Paper and the Conservatives' proposals would both channel more money to students upfront, requiring them to raise less additional money in the short term to pay for the costs of their tuition and living costs.

In this chapter, we look in more detail at the way that the two parties' proposals would affect students' finances (and Appendix A sets these systems into some historical context). The following chapters look at some implications of the different systems for who would foot the bill for the extra funds.

4.1 The current system

Figure 4.1 illustrates the various elements of the existing student funding package, for students from families at different points in the income distribution. Our starting point is the cost of living for a first-year student living away from home, outside London, as estimated by the National Union of Students (2002)¹³ for the academic year 2002–03. This includes the costs of rent, food, bills, leisure, insurance, laundry, clothing, travel, books, fees and photocopying, as well as the £1,100 required for upfront fees. The total funding required comes to approximately £7,300. For the purposes of comparison with the proposed systems, any parental contributions to these costs are ignored.

Under the existing system, students receive government funding from two sources:

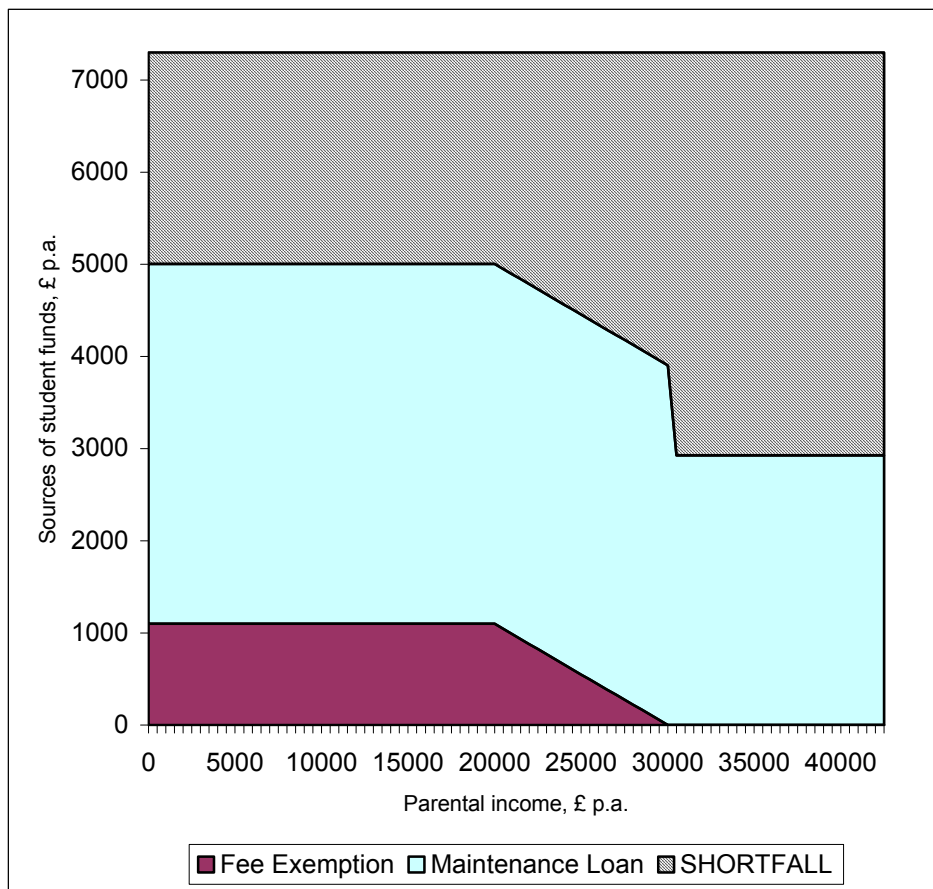
- There is a full exemption of the £1,100 upfront fees for all students from families on incomes less than £20,000 and a partial exemption if family income is less than £30,000.
- There is a maintenance loan available to all students. This amounts to £3,905 if family income is less than £30,000 and £2,928.75 if family income is greater than £30,000. There is a taper that is determined by individual local education authorities, which is ignored in the figures that follow.

Figure 4.1 illustrates the extent of funding required by students that is not available from the government (the funding 'shortfall') under the existing system. A student from the poorest family is expected to find funding from alternative sources of around £2,300 per year, while those from families with incomes above £30,000 may be expected to find about £4,400 per year. Students typically meet this shortfall through parental contributions (where available), earnings from part-time and vacation work, their own savings and additional borrowing.¹⁴

¹³ It could be argued that this is an upper estimate of the costs faced by students. If the true amount of money needed by students were lower than this amount, then the figures in this chapter would all be affected in the same way, so that the comparisons and conclusions would remain unchanged.

¹⁴ See Barclays Bank (2002) for information from Barclays Bank annual student finance survey on the typical sources of students' incomes.

Figure 4.1. Student finances under the current system



Source: Authors' calculations based on Department for Education and Skills (2003) and National Union of Students (2002).

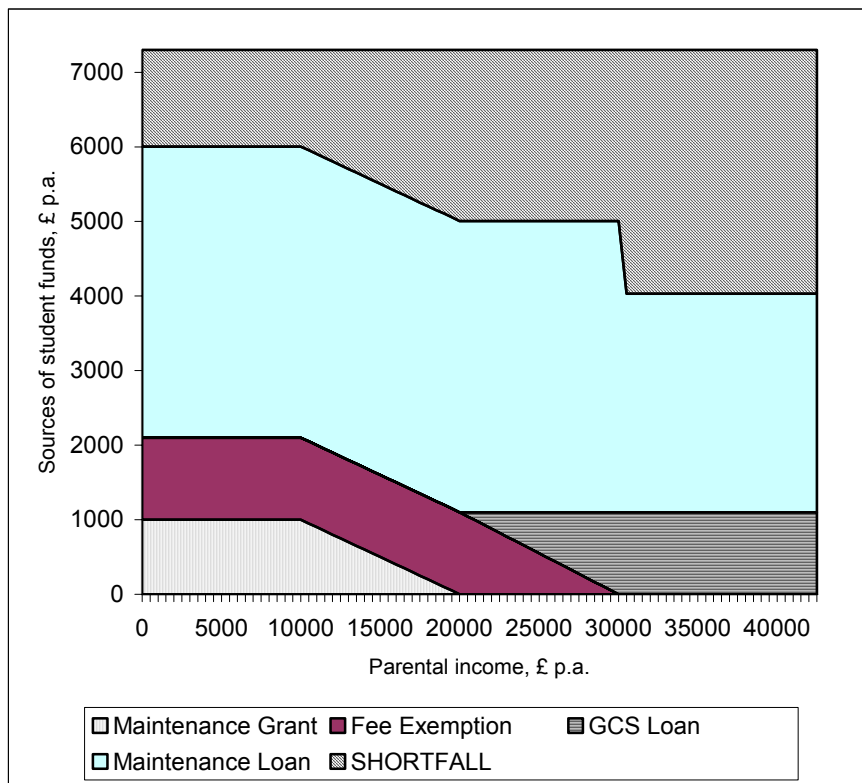
4.2 The White Paper proposals

The White Paper will make all students immediately better off during their time at university, because of the extension of income-contingent loans and the reintroduction of limited maintenance grants for students from the poorest families.

Figure 4.2 shows the picture under the funding system proposed in the White Paper. For the purposes of comparison, we initially assume that universities do not respond to the changes by increasing fees, so that total tuition fees remain at £1,100. (This means that the total funding a student requires remains at the NUS estimate of £7,300.)

The most striking feature of Figure 4.2, compared with Figure 4.1, is that while there remains a shortfall under the White Paper proposals, it is smaller at all points in the income distribution. In particular, the shortfall for a student from the poorest of families is reduced to £1,295 and that for a student from a family with income above £30,000 is reduced to about £3,270.

Figure 4.2. Student finances under the White Paper system, with fees fixed at £1,100



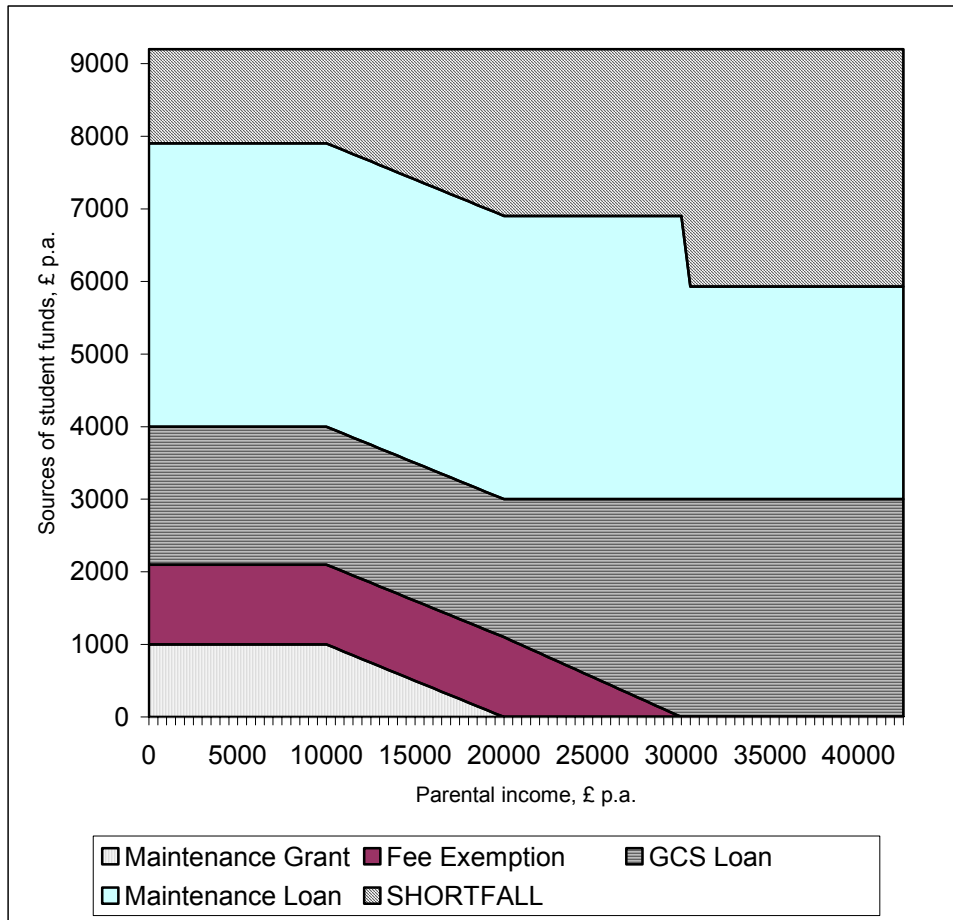
Source: Authors' calculations based on Department for Education and Skills (2003) and National Union of Students (2002).

Two features of the proposed system explain the differences between Figures 4.1 and 4.2:

- The reintroduction of maintenance grants has the effect of boosting the amount of funds available to students from families with incomes less than £20,000 by up to £1,000 with no effect on the income-contingent loan liability incurred by the student.
- All students who would have been liable to pay upfront fees of up to £1,100 under the current system are offered a deferred loan of an amount equal to the fees, with no reduction in the maintenance loan already being offered. This new loan, called the Graduate Contribution Scheme, effectively enables students to free up more existing resources to fund maintenance costs while studying.

Since the GCS loan can be extended to cover whatever top-up fees the university sets, this means that the shortfall in Figure 4.2 is unchanged even if the university sets its fees at the maximum allowable level. This is shown in Figure 4.3. It is important to bear in mind that although there will be no financial effect for the student of an increase in top-up fees while he/she is studying, the total GCS liability incurred will be higher. The income-contingent nature of the loan repayments means that this increase in the GCS liability will increase the number of years for which the graduate will make repayments,

Figure 4.3. Student finances under the White Paper system, with fees increased to £3,000



Source: Authors' calculations based on Department for Education and Skills (2003) and National Union of Students (2002).

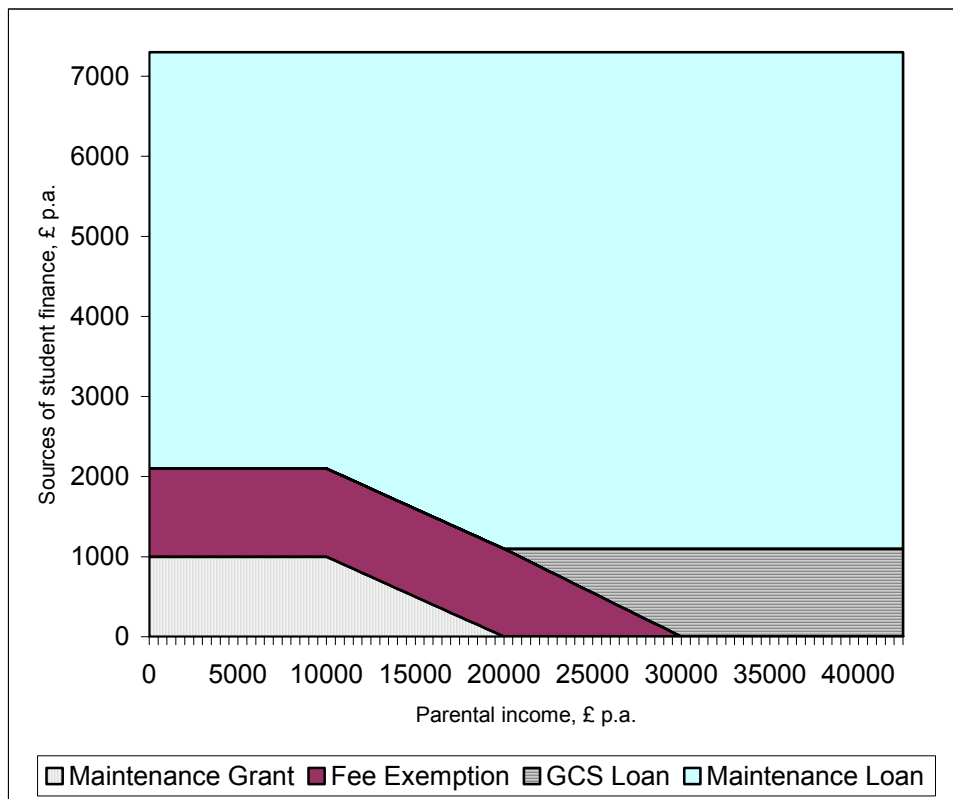
although the size of annual repayments relative to income will remain the same. This feature of the White Paper proposals is examined in detail in Chapter 5.

Figures 4.1 to 4.3 indicate that, despite representing an increase in resources to students compared with the current system, the White Paper proposals still leave students between £1,295 and £3,270 a year short of the required funding estimated by the NUS. If the NUS estimates are correct, then under the White Paper proposals as they stand, students would still have to find some alternative sources of funding to pay their way through university.

What if the government wanted to provide sufficient funding to cover the entire living cost estimated by the NUS? One way it could eliminate the shortfall in student funding is to increase the maximum maintenance loan. This is shown in Figure 4.4.

This system of funding implies that the maximum maintenance loan is increased from £3,905 to £5,200 for students entitled to the full maintenance grant and to £6,200 for

Figure 4.4. Student finances under the White Paper system, with extended maintenance loans



Source: Authors' calculations based on Department for Education and Skills (2003) and National Union of Students (2002).

students not entitled to any maintenance grant. The cost to the government of such an extension of loans lies primarily in the cost of providing the various subsidies attached to the loans. Assuming that these subsidies cost, on average, 40 per cent of the face value of the loan,¹⁵ extending the loan system in this way would cost the government in the long term about an extra £520 per student from the poorest families and £1,310 per student from the richest families.

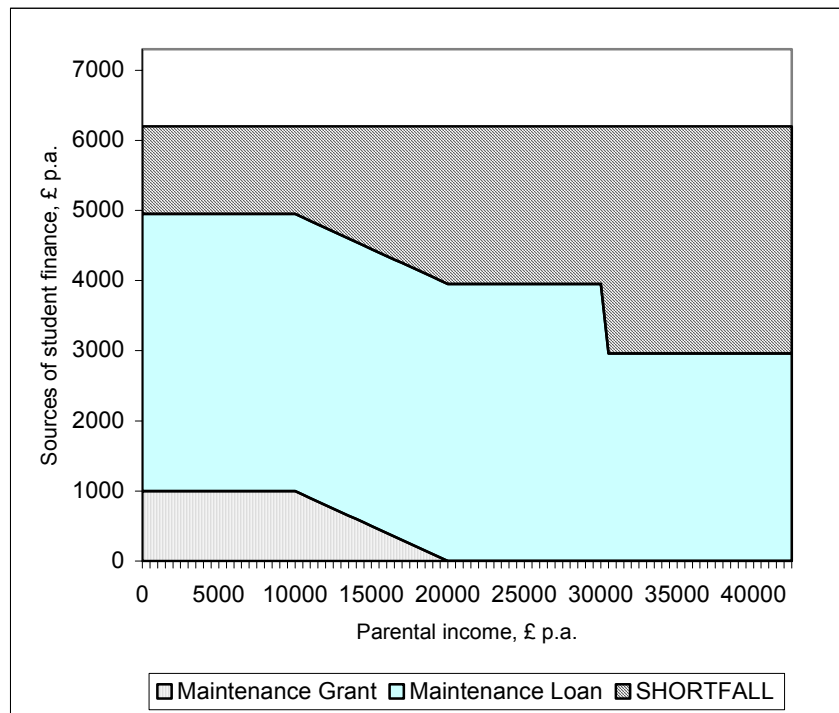
A cheaper way to cover the shortfall would be to remove or reduce the interest rate subsidy on maintenance loans, and use the released funds either to increase the amount of loans available or to increase and extend grants. This implies that the system would be more generous while students are at university, but less generous once they graduate. Some of the cost implications per student of altering the interest rate subsidy on student loans are considered in Chapter 5.

¹⁵ Barr (2002, paras 34–41) shows that current spending on student loans in the DfES education budget (£870 million) represents around 36 per cent of the total outgoings of the Student Loans Company (£2,450 million) (see Department for Education and Skills (2002, table 4.3) and Student Loans Company (2002, table 2)). When the student loan book was sold off by the government, it was sold at about 50 per cent of the face value of the debt, suggesting a somewhat higher subsidy than the one we assume here. In practice, the level of the subsidy going forward will depend upon both how big the interest rate discount is (i.e. how far the interest rate is set below the government's cost of borrowing) and how much debt is written off due to low lifetime earnings, early death, etc.

4.3 The Conservatives' proposals

The Conservative Party proposals will abolish tuition fees completely, with the forgone revenue covered in the short term from general taxation. Figure 4.5 shows the effect that this would have on students' finances while they are at university. The abolition of £1,100 in upfront fees means an immediate equivalent reduction in the amount needed by students while at university. Hence the total funds required by students – based on the NUS estimates of student living expenses – are £6,200 in Figure 4.5, compared with £7,300 in Figures 4.1, 4.2 and 4.4. However, the shortfall in students' incomes under the Conservative proposals is exactly the same size and shape as that in Figure 4.2, reflecting the fact that all fees are deferred under the system proposed in the White Paper.

Figure 4.5. Student finances under the Conservatives' system



Source: Authors' calculations based on Department for Education and Skills (2003), National Union of Students (2002) and Conservative Party News (2003).

5. Impact on graduates' finances: the longer term

In the previous chapter, we discussed the likely impact of the two parties' proposals on students' finances while they are at university. We now turn to the longer-term impact on graduates' finances, by analysing the extra burden that will be imposed on graduates to compensate for the more generous support that they are offered as students.

The White Paper proposals will change the longer-term finances of graduates by increasing the amount that they borrow in the form of income-contingent loans, and by raising the income threshold at which loan repayments begin from £10,000 to £15,000. The Conservative proposals will only affect graduates' finances to the extent that they are affected by this threshold being raised (if indeed the Tories do raise it).¹⁶ In effect, the loans serve to bring forward students' own future incomes to partly fund their cost of living while at university and the cost of providing their higher education.

In this chapter, we consider the effects of these changes on the amount and timing of loan repayments that a graduate with a typical earnings path would have to pay under each of the two systems compared with the current system.¹⁷

A significant subsidy from the government is incorporated in the student loan system. This government subsidy takes two forms: a zero real interest rate on the loan means that the length of time it takes to repay the loan in full does not affect the total amount paid by the student (relative to the cost of living); and an income threshold below which no repayments are made provides a form of insurance for graduates against low lifetime earnings. This chapter also assesses the value of the government's interest rate subsidy offered on student loans to an average graduate, showing how the cost of extra spending on higher education for such an individual would be split between the government and the graduate him/herself under both the White Paper and the Conservatives' reforms.

First, we consider the schedule of marginal and average tax rates¹⁸ that will be faced by loan repayers under either the White Paper or the Conservatives' proposed system.

5.1 What will the reforms mean for graduates' marginal and average tax payments?

Both sets of reforms will leave the rate at which loans are to be repaid unchanged from the current repayment rate for maintenance loans – at 9 per cent of pre-tax income – but will raise the threshold at which repayments commence from £10,000 to £15,000. Figure 5.1 shows the combined marginal rate of tax, National Insurance contributions and

¹⁶ Conservative Party News (2003) does not explicitly state that the threshold for repayments of the maintenance loans would be raised to £15,000 in line with the White Paper proposals. However, the funding calculations contained in this document do not include any savings, relative to the White Paper proposals, from not increasing this threshold.

¹⁷ Since both sets of reforms also imply additional public expenditure compared with the current system (see Chapter 7), graduates and non-graduates alike will also either have to pay additional taxes or forgo alternative public expenditure in addition to the loan repayments we consider here to pay for the HE reforms. We do not consider the effect of these on a graduate's lifetime payments.

¹⁸ The marginal tax rate is the percentage that would be deducted from an extra pound of earned income. The average tax rate is the total amount of tax paid divided by total income earned.

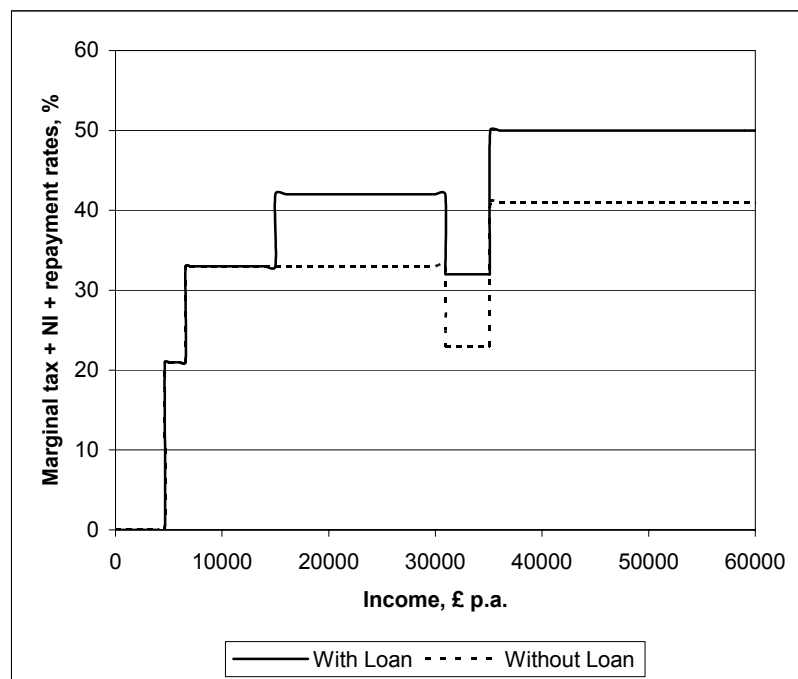
repayments that will be faced by a graduate with a loan (either GCS or maintenance, or both) at different points in the income distribution when this new threshold applies. The graph also shows the comparable marginal deductions faced by those without loans (non-graduates, or graduates with no outstanding loan).

The marginal deduction schedule shown in Figure 5.1 shows that graduates who are repaying their loans with incomes between £15,000 and £30,939 will face a marginal deduction rate of 42 per cent, those with incomes between £30,940 and £35,114 will face a marginal deduction rate of 32 per cent, and those with incomes of £35,114 or over will face a marginal deduction rate of 50 per cent.

The shape of this new schedule for loan repayers remains largely unchanged from that of the current system (not shown here), except that the marginal deduction rate for those with a loan rises to 42 per cent at £15,000 of gross income rather than at £10,000 under the current system.

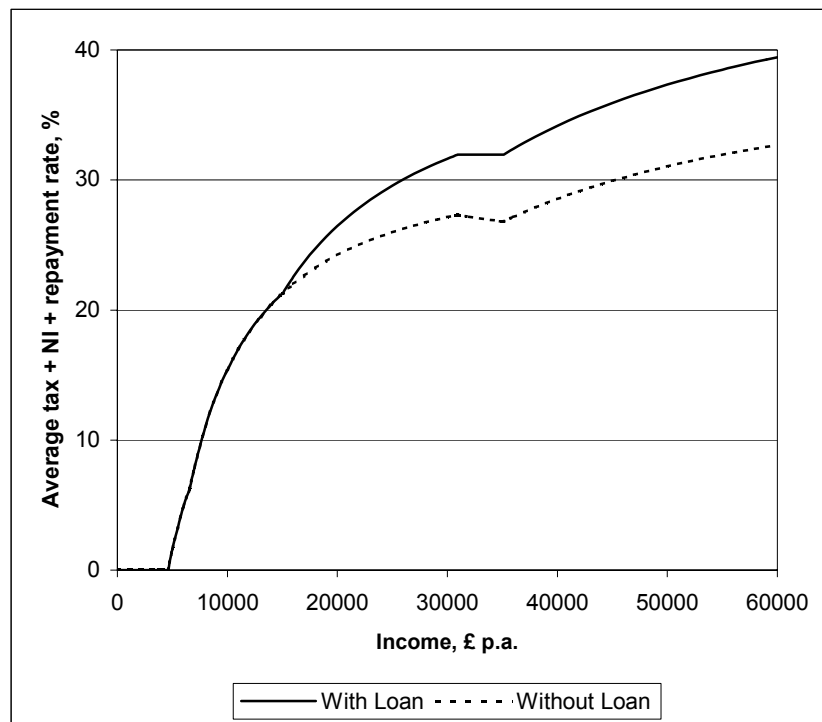
The length of time an individual is likely to spend on the ‘with loan’ rate structure will also be affected by the reforms. For any given income path and overall level of debt, the increase in the repayment threshold to £15,000 (likely under both the Labour and Conservative reforms) will mean that graduates will spend longer repaying, and will therefore face higher marginal rates for a longer period of time than they do currently. Higher levels of debt likely to be incurred under the White Paper reforms will also mean that graduates will typically spend longer at higher marginal deduction rates than they do now.

Figure 5.1. Marginal income tax, National Insurance and loan repayment rates



Note: This graph uses 2003–04 income tax and National Insurance rates and thresholds; rates are shown for an employee not contracted out of the state second pension.

Figure 5.2. Average income tax, National Insurance and loan repayment rates



Notes: This graph does not represent the paths followed by individuals over their careers; a graduate will only remain on the solid line so long as he/she has a loan. The graph uses 2003–04 income tax and National Insurance rates and thresholds; rates are shown for an employee not contracted out of the state second pension.

Figure 5.2 gives the combined average income tax, National Insurance and repayment rates faced by graduates with a loan and by non-graduates, or graduates with no outstanding loan. It shows that a graduate with a loan will pay a higher average rate once his/her earnings reach £15,000 and that the difference between the average rates for those with a loan and those without increases further as income increases. It is important to remember, though, that very few graduates earning incomes over £40,000 will still be repaying a loan, and that the path followed by the typical graduate will be the solid line until the debt is repaid and the dotted line thereafter.

When analysing Figures 5.1 and 5.2, it is also important to remember that graduates are likely to be earning different amounts when they have and do not have a loan liability. In order to understand the pattern of payments for a single individual, it is therefore more informative to examine the repayment profiles of graduates over their whole career under the existing system and the two proposed systems. This is what we do in the following section.

5.2 Repayments over a graduate’s lifetime under the different HE systems

To make a full assessment of the reforms, we would ideally like to compare the overall costs of each of the systems to individuals over their lives (in terms of the full cost of additional payments for their higher education), offset against the benefits the reforms

would bring them (in terms of the financial, or other, returns to their higher education). But every student and every graduate is different, and the way in which the reforms would impact on different individuals will therefore vary, both according to the payments they make (which depend on both their family income when they are students and their future earnings) and according to the gains they derive (which depend on the returns to their investment in higher education). The balance between the costs and benefits also depends upon the relative value an individual places on earnings and consumption at different parts of his/her life.

We do not attempt such an assessment here. Rather than comparing the total value of lifetime costs of attending university minus the total benefits, we simply compare the repayments inherent in the two systems for an average individual, implicitly assuming the benefits accrued are the same.

Despite the difficulties in defining a 'typical' student, we start by concentrating on a hypothetical individual who accrues the average amount of loans, starts working at an average starting salary for graduates and whose salary increases according to the average profile experienced by graduates.¹⁹ We compare the effects of the White Paper and Tory proposals with the existing system for this hypothetical graduate, assuming that he/she makes the same choices regarding higher education and subsequent employment under both systems. This approach ignores the important question of how the policy changes are likely to affect the number and types of students entering higher education.

We examine, in turn, the loan repayment schedule faced by the typical graduate, his/her gross income after loan repayments at different points in his/her career and the total contribution of the government (including subsidies implicit in the loan system) and the individual to the total cost of his/her higher education.

Assuming that half of all university places will be liable for the full top-up fees of £1,900 and half will incur no top-up fees,²⁰ on average students who take out loans for the full amount to which they are entitled will graduate from a three-year degree with loans for fees of £6,150 and loans for maintenance costs of £11,200.²¹ Assuming an average take-up rate on loans of 81 per cent,²² the typical student will pay £1,169 in fees upfront (19 per cent of his/her total fees) and will graduate with a total income-contingent debt of £14,054.

¹⁹ Our analysis focuses on average earnings growth for a hypothetical graduate who does not take any career breaks (remaining in employment continuously for the first 10 years after graduation). For this reason, our analysis could be thought of as the effects of the proposals for an 'average' man or for a woman who delays childbirth until after the first 10 years after graduation.

²⁰ For our public spending projections in Chapter 7, we make a similar, though not identical, assumption. There, we assume 30 per cent of universities charge only the basic fee, 30 per cent charge half of the additional top-up and 40 per cent charge the full fee. This amounts to an assumption that the average top-up fee will be 55 per cent of the full top-up fee of £1,900.

²¹ £3,905 + £3,905 + £3,390. (Loans in the third year are at the lower rate of £3,390.)

²² Source: Student Loans Company, 2002, table 2, p. 57.

A recent survey of recruiters of graduates finds that the median salary for graduates starting employment in 2003 is £20,000.²³ We use this as our assumption for the starting salary of our example graduate.²⁴

To estimate the growth in real wages experienced by graduates in the years after graduation, we use data for over 10,000 degree holders appearing in the quarterly Labour Force Survey panels from 1997 to 2001. We estimate an equation for graduates' median real wage growth over one year as a function of their age at the beginning of the year.²⁵ We then assume that the typical graduate achieves real earnings growth in each year equal to the average real earnings growth of graduates of the same age. This results in age-specific real wage growth rates as shown in Table 5.1.

Table 5.1. Average annual real earnings growth for graduates aged 21 to 50

Age	Real wage growth	Age	Real wage growth	Age	Real wage growth
21	11.5%	31	5.7%	41	2.7%
22	10.8%	32	5.3%	42	2.5%
23	10.1%	33	4.9%	43	2.4%
24	9.4%	34	4.5%	44	2.3%
25	8.8%	35	4.2%	45	2.2%
26	8.2%	36	3.9%	46	2.1%
27	7.7%	37	3.6%	47	2.1%
28	7.1%	38	3.3%	48	2.1%
29	6.6%	39	3.1%	49	2.1%
30	6.2%	40	2.9%	50	2.1%

Source: Authors' calculations based on quarterly Labour Force Survey 1997–2001.

As expected, real wage growth is high in the years immediately after graduation, but it decreases steadily as the graduate ages and the productivity premium from the returns to higher education become fully incorporated into his/her wage. By the time the graduate reaches his/her late 40s, the level of real wage growth approaches the level of productivity growth in the aggregate economy.

Table 5.2 shows the implied income path that will be realised by our example graduate over the first 12 years after he/she graduates at the age of 21, together with loan repayments under the existing system, the White Paper proposals and the Tory proposals. Repayments are lower and last for longer under the Tory system (8 years) than

²³ Association of Graduate Recruiters (AGR) Graduate Recruitment Survey 2003. Other surveys find somewhat lower average starting salaries – for example, another survey, which used online job advertisements (see www.prospects.ac.uk) as a basis for the survey, finds the median starting salary to be £18,000. NatWest Student Money Matters 2002 Survey found the average starting salary for graduates to be around £13,500 in 2002. The average annual pay of graduate employees in Labour Force Surveys 1997–2001 between the ages of 21 and 24 was £14,500.

²⁴ Had we assumed a lower starting salary, we would have found that a 'typical graduate' would be paying off his/her loan for longer under all three systems. For example, with a starting salary of £15,000, our typical graduate would be paying off his/her loan for 9, 14 and 11 years respectively under the current, White Paper and Conservative systems (compared with the projections of 7, 10 and 8 years set out in Tables 5.2 and 5.3). The cost of the interest subsidy to the government would also be slightly higher, with the proportion of all costs borne by the government rising to 52 per cent, 53 per cent and 72 per cent under the three systems respectively (compared with 51 per cent, 50 per cent and 70 per cent set out in Table 5.4).

²⁵ The equation being estimated is $\text{median}(\Delta \ln \text{wage} - \Delta \ln \text{rpi}) = \beta_0 + \beta_1 \text{age} + \beta_2 \text{age}^2 + \varepsilon$.

in the existing system (7 years), purely because of the higher threshold for repayments. Recall that the total loan amount is the same under these two systems – the average maintenance loan of £9,072.

Table 5.2. Example gross income and loan repayments under different HE finance systems

Years since graduation	Salary	Current system	White Paper system	Tory system
1	20,000	900	450	450
2	22,298	1,107	657	657
3	24,701	1,323	873	873
4	27,195	1,548	1,098	1,098
5	29,765	1,779	1,329	1,329
6	32,392	2,015	1,565	1,565
7	35,061	400	1,805	1,805
8	37,752	0	2,048	1,295
9	40,449	0	2,290	0
10	43,135	0	1,939	0
11	45,794	0	0	0
12	48,412	0	0	0

Note: We assume there is no income other than wage income.

Repayments under the White Paper proposals are the same as under the Tory proposals for the first 7 years post-graduation because we have assumed the threshold is the same for these two systems – £15,000 compared with the current threshold of £10,000. However, the total loan amount is higher under the White Paper proposals than under the other two systems as a result of the additional £4,982 loan for fees. This has the effect of increasing the length of time for which repayments are made, so that the loan is only fully repaid after 10 years.

Table 5.2 makes clear the two main effects of the White Paper proposals compared with the current system of HE finance – that repayments will go on for longer but that they will be for lower amounts in the early years after graduation. In effect, the bulk of repayments are pushed back in time, to the years in which the graduate is earning more in real terms, further extending the income-contingent nature of repayments.

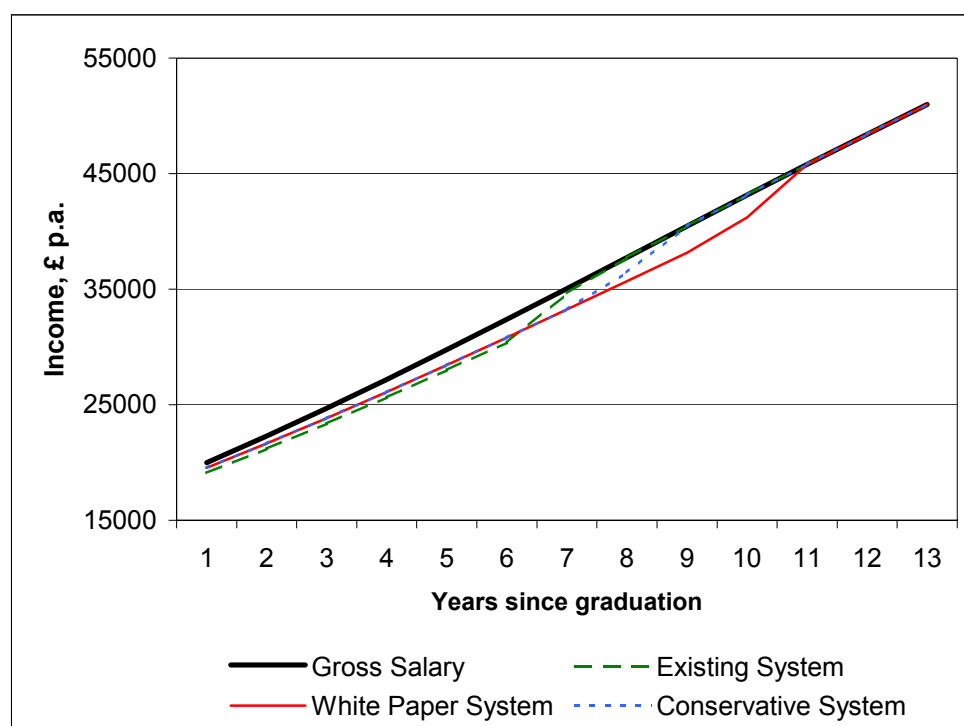
Figure 5.2 shows the effect of these differences in repayments in terms of gross income after loan repayments in the years following graduation. The thick black line represents gross real wage income and the remaining lines show gross income minus loan repayments (referred to as after-loan gross income) for the existing, White Paper and Tory proposals.

In the first 6 years after graduation, after-loan gross income is lowest under the existing system because of the lower threshold at which repayments commence. After-loan gross income is the same under both proposed new systems in the first 7 years after graduation, again because of the threshold at which repayments commence. However, from years 7 to 10, after-loan gross income is lowest under the White Paper proposals because the higher nominal loan amount and the smaller repayments in the years immediately after graduation mean that the loan is repaid for a longer period. By year 11

post-graduation, the full loan has been repaid in all three systems, and after-loan gross income returns to the value of gross income.

As already stated, the White Paper proposals represent a mechanism to transfer the graduate's own earnings through time – from years 7 to 10 post-graduation, when he/she is earning between £35,000 and £43,000 p.a., to his/her time as a student (in the form of abolition of upfront fees) and to the first 6 years after graduation, when he/she is earning between £20,000 and £35,000. This is apparent from Figure 5.3 by comparing how the line representing the White Paper proposals differs from the thick black line.

Figure 5.3. Gross income after loan repayments under different HE systems



5.3 The value of the interest rate subsidy over the graduate's lifetime

Table 5.3 provides a summary of the loan system for our example graduate, and also includes an estimate of the cost of the interest subsidy attached to the income-contingent loan. Recall that under all three systems, the loan is not subject to a real interest rate, with the nominal balance only adjusted for inflation. If we assume a cost of borrowing for the government of 2.5 per cent, the cost of providing the interest rate subsidy for the loan is £863 under the existing system compared with £2,112 under the White Paper proposals and £1,097 under the Tory proposals. These figures are calculated by working out the present value of all repayments made by the loan recipient using a discount rate equal to the government's cost of borrowing. The difference between this present value (the amount repaid) and the face value of the loan (the amount borrowed) represents the cost of the interest subsidy. Because these numbers are fairly sensitive to the cost-of-borrowing assumption, we present results for two alternative assumptions.

Table 5.3. Summary of loan amounts, length of time to repay and interest rate subsidy for example graduate under different systems

	Existing system	White Paper system	Tory system
Fees (p.a.)	£1,100	£2,050	0
<i>of which</i> Upfront	£1,100	£390	0
Maintenance loan	£9,072	£9,072	£9,072
GCS loan	0	£4,982	0
Total loans	£9,072	£14,054	£9,072
Years to repay	7	10	8
Interest subsidy @2.0%	£700	£1,723	£892
Interest subsidy @2.5%	£863	£2,112	£1,097
Interest subsidy @3.0%	£1,021	£2,484	£1,294

Note: Calculations for the White Paper system assume fees of £2,050 p.a. for a three-year degree, and a take-up rate on GCS loans of 81 per cent of the total eligible amount. This means that although under the White Paper system, no student would be *required* to pay any fees upfront, we assume a ‘typical’ student chooses to pay 19 per cent upfront, with the remaining 81 per cent in loans.

We can see clearly just how expensive it is to provide subsidised loans. Under the White Paper proposals, the interest subsidy alone accounts for 15 per cent of the face value of the loan. If the government’s cost of borrowing is assumed to be higher, at 3.0 per cent, then the interest subsidy accounts for about 18 per cent of the loan amount. This, however, is still an underestimate of the full cost of providing subsidised loans. These calculations all assume that the loan is repaid in full; in reality, a significant number of loans will not be repaid at all or will be only partially repaid, due to low lifetime earnings or death. Government transfers to the Student Loans Company indicate that as much as 40 per cent of the face value of student loans is never repaid,²⁶ and this is the percentage that we assume to count as public spending in our costing of the two proposals in Chapter 7.

In Table 5.4, we estimate the total contribution of the government and the student to the cost of his/her higher education (including the cost of teaching and providing loans for maintenance) under each of the three systems. We assume a real cost of borrowing for the government of 2.5 per cent throughout, and, once again, it is important to keep in mind that these figures only represent the case in which a graduate repays his/her loan in full. In other cases, the government’s contribution as a proportion of the total cost could be substantially higher.

Table 5.4 provides an interesting contrast. Despite the numerous attempts on behalf of the government to justify the introduction of variable fees on the basis that graduates should pay more to the cost of their education, in fact over the course of his/her lifetime, our average graduate pays the same proportion (about 50 per cent) under the proposed changes as he/she does currently.²⁷ The Tory proposal, on the other hand,

²⁶ See footnote 15.

²⁷ Though it is important to remember that the overall amount, to which the student and government each contribute around half, would be higher under the White Paper proposals than under the current system.

represents a move in the opposite direction. The abolition of fees, together with raising the threshold at which maintenance loans start being repaid, has the effect of shifting the burden of cost towards the government – the government would pay over twice as much as a student towards the cost of his/her tuition and maintenance while at university.

Table 5.4. Individual and government contributions to cost of higher education for average graduate under different systems

	Current system	White Paper system	Tory system
<i>Present value (PV) student's contributions</i>			
Upfront fees	£3,300	£1,169	0
GCS loan repayments	0	£4,233	0
Maintenance loan repayments	£8,209	£7,708	£7,975
<i>PV total student's contributions</i>	<i>£11,509</i>	<i>£13,110</i>	<i>£7,975</i>
<i>PV government contributions</i>			
Teaching subsidy	£11,100	£11,100	£17,250
Subsidy on GCS loan	0	£749	0
Subsidy on maintenance loan	£863	£1,364	£1,097
<i>PV total government contributions</i>	<i>£11,963</i>	<i>£13,213</i>	<i>£18,347</i>
<i>PV total cost</i>	<i>£23,472</i>	<i>£26,323</i>	<i>£26,322</i>
Student contribution	49%	50%	30%
Government contribution	51%	50%	70%

Notes: Fees and loan amounts come from Table 5.3, assuming a three-year degree. Teaching subsidies are assumed to be £3,700 p.a. for the current system and the White Paper proposals, and £3,700 + £2,050 = £5,750 p.a. for the Tory proposals. Present values are calculated by discounting the loan repayments in Table 5.2 at 2.5 per cent p.a.

Table 5.5. Individual and government contributions to cost of tuition for average graduate under different systems

	Current system	White Paper system	Tory system
<i>Present value (PV) student's contributions</i>			
Upfront fees	£3,300	£1,169	0
GCS loan repayments	0	£4,233	0
<i>PV total student's contributions</i>	<i>£3,300</i>	<i>£5,402</i>	<i>0</i>
<i>PV government contributions</i>			
Teaching subsidy	£11,100	£11,100	£17,250
Subsidy on GCS loan	0	£749	0
<i>PV total government contributions</i>	<i>£11,100</i>	<i>£11,849</i>	<i>£17,250</i>
<i>PV total cost</i>	<i>£14,400</i>	<i>£17,251</i>	<i>£17,250</i>
Student contribution	23%	31%	0%
Government contribution	77%	69%	100%

Notes: See Table 5.4.

In Table 5.5, we present calculations of the split between the individual and the government in respect of the cost of tuition only (ignoring loans for maintenance). Here, we see the different ideologies underlying the two proposals. The White Paper proposal increases the proportion of tuition paid by graduates from 23 per cent to 31 per cent, whereas the Conservative proposals completely eliminate any contribution by graduates.

The figures in Tables 5.4 and 5.5 are calculated for an average graduate who repays his/her loan in full and who does not receive a maintenance grant or fee exemption while at university. They also do not include any figures for the costs to the government of capital investment and providing funds for long-term infrastructure to universities. Hence, the figures understate the relative contribution of the government to the HE sector as a whole. Rather, they represent the relative contribution of the government and the student to the cost of providing higher education for this particular student.

6. Distributional impacts

The Conservatives and Labour both promise to direct more funds to higher education, although they differ in where the extra money will come from and in what ways it will be spent. In this chapter, we assess the likely short-term distributional effects of the reforms.

In order to do this, we no longer consider a single individual and how much he/she is likely to pay (or gain) over his/her entire lifetime for participating in higher education. Instead, we look at the population as a whole at a snapshot of time and compare the incidence of the likely tax and loan repayments brought about by the different reforms and the likely incidence of the benefits from the extra spending on students. In doing so, we ignore the fact that individuals move around the income distribution during their lives. Our focus instead is on the costs of raising extra money from the current population of tax- and loan-payers and on the benefits accruing to families that either have a university student living at home or report having a student outside of the household.

This exercise is analogous to one where we might estimate the distributional impact of raising taxes from the working-age population to pay for additional state pensions; although we know that current taxpayers may benefit from higher pensions when they get older, we are also interested in the amount that their additional payments will redistribute to pensioners in today's population. Similarly, we are interested here in the way in which additional payments, either via taxation or through loan repayments (which will feel very much like a tax to those who are repaying), will be redistributed to the parts of the income distribution from which today's student population is drawn. In the analysis that follows, we set out the likely gainers and losers in the short run under each of the parties' proposals.

Whilst both parties need to raise additional money to pay for the better-quality higher education they promise, the White Paper proposals will raise relatively more of the new money from graduates rather than from the taxpaying population as a whole. This makes the Labour system more progressive, and it will have a higher proportion of the extra payments coming from graduates than the Conservative system.

The gainers from each of the systems will also be slightly different. Both systems involve the reintroduction of maintenance grants²⁸ and increased spending per student, both of which produce larger gains for students coming from the lower end of the income distribution. But the Labour Party also intends to attract more young people from lower-income backgrounds into higher education, making its proposals somewhat more progressive in terms of the incidence of gains compared with the Conservatives'.

We start by comparing the net distributional impact of the two proposals, before moving on to examine the components of these patterns in more detail in the latter parts of this

²⁸ The Conservative Party is yet to state its policy on the reintroduction of maintenance grants. We assume that they would be introduced in the same manner as set out in Labour's White Paper (see Section 2.2).

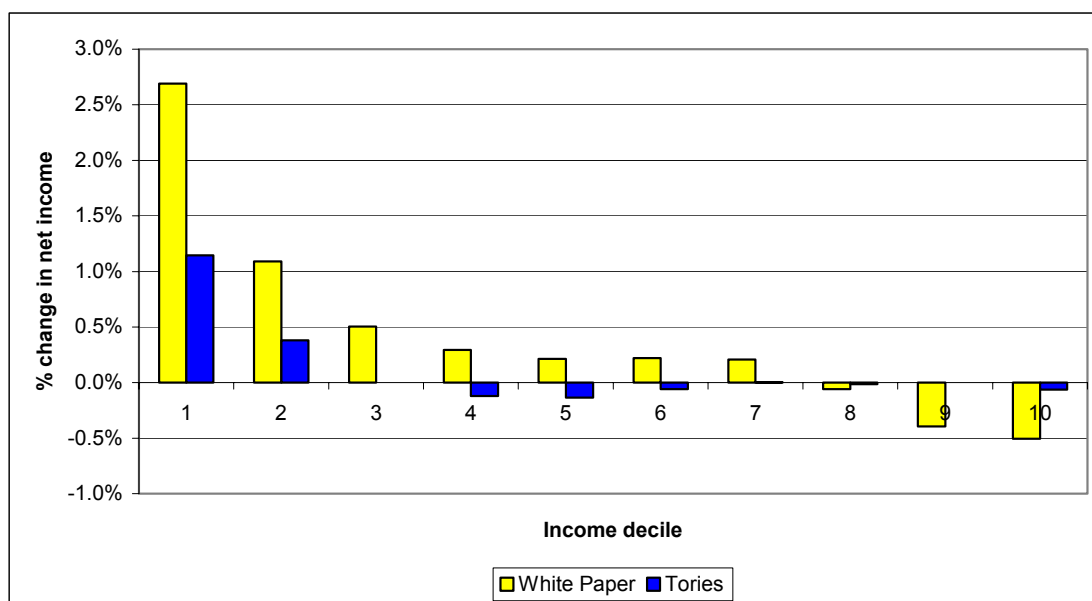
chapter. We also split out the sources of gain and loss for each decile. More details of the

methods used and the assumptions made to generate these results are set out in Appendix B.

6.1 Comparing the White Paper and the Conservatives' proposals

In Figure 6.1, we show the net distributional impacts of the two proposals, relative to the existing system. The bars represent the percentage increase or decrease in income for households in each income decile, taking into account the amount of extra money contributed by households in the form of GCS loan repayments and taxation revenue, and the benefits received by each household in the form of increased funding per student, fee exemptions, maintenance grants and loan subsidies. Both sets of gains and losses (in pounds) sum to zero, since we assume that all gains are paid for (either by taxpayers or by graduates); but the total amount of money that is redistributed is bigger under the White Paper (see later sections for more detail of the components). This is due to the additional redistribution involved in expanding overall participation in higher education.

Figure 6.1. Net effects of the two proposals relative to the current system



Notes: Net effects (in pounds) sum to zero. The total amounts redistributed are £3.7 billion under Labour and £1.9 billion under the Conservatives.

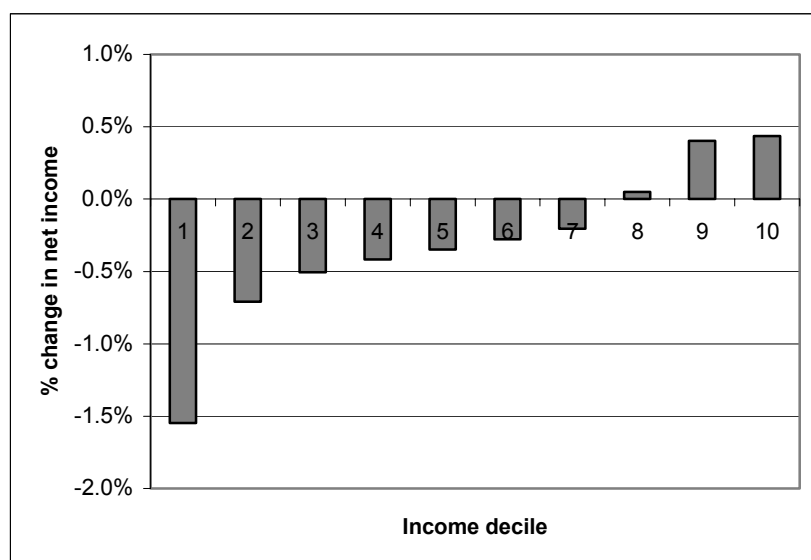
Source: Authors' calculations based on Family Resources Survey 2001–02.

Which system is more progressive? Figure 6.1 indicates that although both proposals are progressive relative to the existing system, the government proposals are far more progressive. The extent of this difference can be seen more clearly when we examine the distributional effects of the Tory proposals relative to the White Paper proposals in Figure 6.2.

Examination of Figure 6.2 reveals that the Tory proposals are uniformly more regressive than the White Paper proposals. Only the top three income deciles are better off on

average under the Conservative proposals than under the White Paper system, and the net gain to households increases as we move up the income distribution. Households in the bottom decile would fare the worst from moving from the White Paper system to the Conservative system: they would lose, on average, 1.5 per cent of their net income from such a switch.

Figure 6.2. Net effects of the Tory proposals relative to the White Paper proposals



Source: Authors' calculations based on Family Resources Survey 2001–02.

To put these changes into context, previous work at IFS²⁹ has shown that net incomes across the population increased by about 2 per cent on average as a result of all of the tax and benefit changes introduced by the Labour government since 1997 whose incidence we can model. The gains from this combination of Labour's reforms were highest amongst the bottom income decile, at around 15 per cent of net income, becoming steadily smaller as income rises, with losses of almost 3 per cent of net income in the top income decile.³⁰

We now show how this picture of the net gains and losses was derived, by examining the distributional impact of each of the proposals in detail.

6.2 The Conservatives' proposals

Who gains?

Box 6.1 lists the three potential sources of gain under the Conservative proposals. The average percentage increases in income that these three components imply for each

²⁹ Chote, Emmerson and Simpson, 2003, figure 9.1, p. 116.

³⁰ The costs and benefits from the different HE reform packages estimated in this Commentary differ from the ones in Chote, Emmerson and Simpson (2003, ch. 9). Here, we show the value of extra spending on higher education to households with different incomes, whereas that paper only included the value of cash transfers to and from the government.

income decile group are shown in Figure 6.3. The benefits from abolishing upfront fees accrue mainly to households from the top half of the income distribution, highlighting the fact that students from the lowest-income backgrounds are already exempt from fees in the existing system. The reintroduction of maintenance grants benefits those whose families are in the lowest income deciles. The increased funding per student benefits all students currently in higher education.

Box 6.1. Sources of gain in the Tory proposals

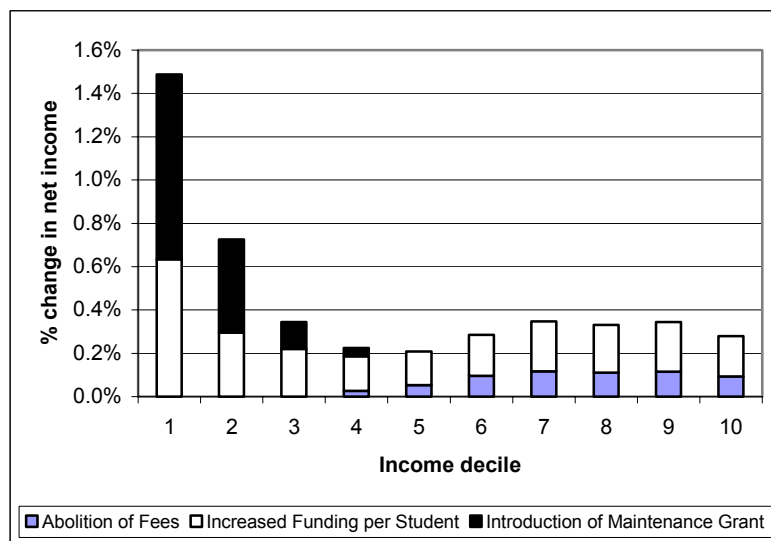
Relative to the current system, the Conservative Party’s proposals imply three potential gains for households:

1. Students currently paying £1,100 in fees will gain by not having to pay this amount.
2. The poorest students will gain through the reintroduction of maintenance grants, worth £1,000 per year.^a
3. All current students will gain through increased quality as a result of greater funding per student. We estimate that this will be worth approximately £1,000 per year.^b

^a If the Conservatives did not introduce maintenance grants, the distributional effects of their proposals would be significantly more regressive than shown here. Details available from the authors on request.

^b We estimate that average funding per student is likely to increase from around £4,800 to £5,800 under both the White Paper and the Conservative proposals – see Chapter 7 for more discussion of this.

Figure 6.3. Gains under the Tory proposals relative to the current system



Note: We estimate that the total additional amount to be redistributed under this scenario is approximately £1.9 billion. This is made up of the abolition of fees (about £450 million), increased funding per student (about £1.2 billion) and the reintroduction of maintenance grants (about £260 million). Details of how these figures were derived are set out in Chapter 7.

Source: Authors’ calculations based on Family Resources Survey 2001–02.

Although only a relatively small proportion of students come from families whose incomes place them in the lower income deciles (see Appendix B), the increased funding is a higher proportion of their (lower) income, so the proportional gains are higher than

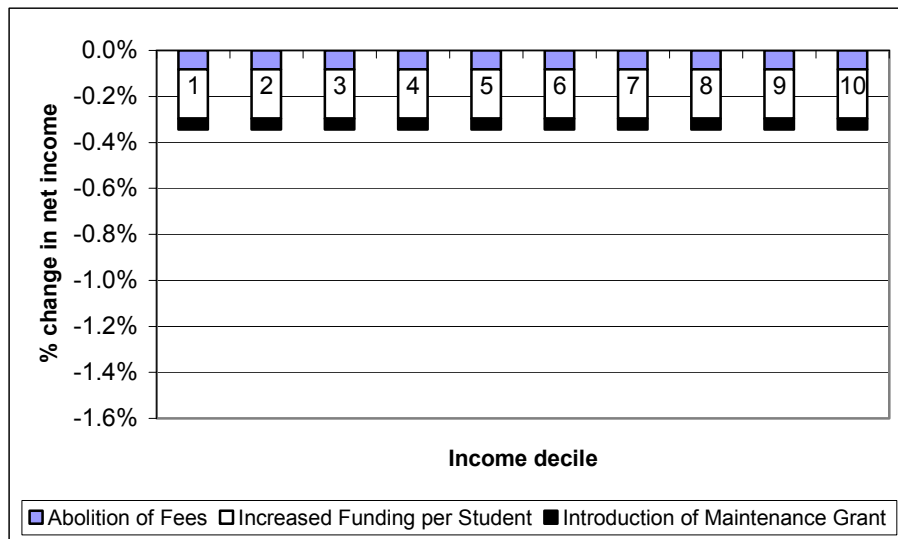
for families higher up the income distribution. The gains are highest for families in the lowest income decile despite the fact that a relatively small proportion of students come from these families. This is because for those who do attend university, additional tuition fees and maintenance grant expenditure (making up around £2,000 per year) represent a large proportion of their family's net income.

The overall pattern of gains from this reform package is thus a reasonably progressive one. This is driven by the fact that HE spending per student makes up a higher proportion of a low-income family's income and also by the fact that maintenance grants will benefit students from lower-income backgrounds.

Who pays?

Under the Tory proposals, these gains will all be funded from general taxation revenue. Instead of modelling the distributional impact of any specific tax increases or spending reductions that could be used to pay for the extra spending inherent in the proposals, we prefer to make the assumption that the money would be raised in a proportional way across the income distribution. This is the most neutral assumption we can make, given that it has not been announced exactly how the money would be raised (i.e. whether specific taxes would be raised or money would be diverted from other public expenditure).³¹ Moreover, as the amount needing to be raised from taxation is roughly equal under the Tory and White Paper proposals (see Chapter 7), the relative pattern of redistribution is not affected by this assumption.

Figure 6.4. Losses under the Tory proposals relative to the current system



Notes: We estimate that the total additional amount to be redistributed from general taxation under this scenario is approximately £1.9 billion. This is used to fund the abolition of fees (about £450 million), increased funding per student (about £1.2 billion) and the reintroduction of maintenance grants (about £260 million). The assumptions we have made to reach these figures are set out in Chapter 7.

³¹ We could have taken an alternative route and chosen to model the incidence of specific tax increases or spending cuts that we think might be introduced to pay for the reforms; alternatively, we could have used estimates of the incidence of general taxation across households to calculate our results.

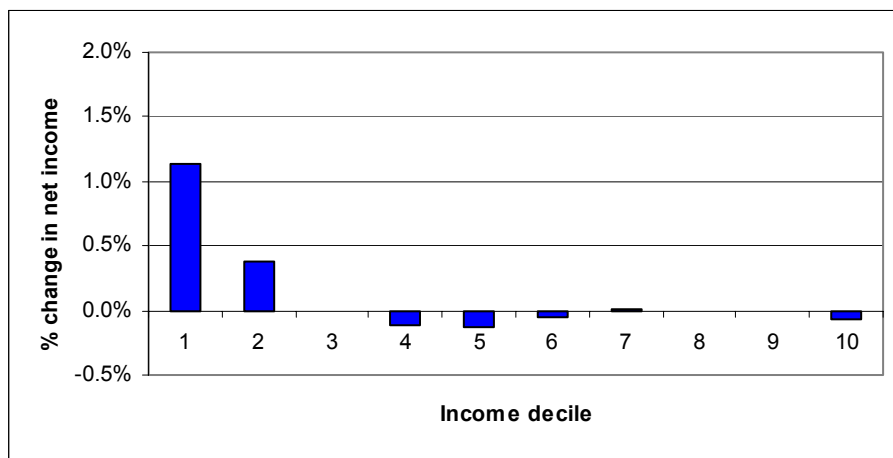
Source: Authors' calculations based on Family Resources Survey 2001–02.

Figure 6.4 shows that under our assumption, the percentage decrease in income for each household is the same across all households, and is used to fund the three elements outlined in Box 6.1.

What is the net pattern of gains and losses?

Combining Figures 6.3 and 6.4 gives the net distributional impact of the Conservative proposals relative to the current system of HE finance. Figure 6.5 (which reproduces the 'Tories' bars from Figure 6.1) shows that the net effects of the Tory proposals would be a redistribution towards households in the bottom two deciles, funded by the richest households and middle-income households.

Figure 6.5. Net effect of the Tory proposals relative to the current system



Note: Net effects (in pounds) sum to zero.

Source: Authors' calculations based on Family Resources Survey 2001–02.

The pattern of net gains and losses is driven by the fact that additional grants and increased funding per student make up a high proportion of lower-income families' budgets; they are assumed to be paid for equally across the income distribution. Those in the middle of the distribution lose out more than those at the top because a smaller number of young people attend higher education from middle-income families than from better-off families.

6.3 The White Paper proposals

Who gains?

Labour's White Paper proposals offer the same three potential gains as the Conservative Party's proposals, relative to the current system of funding, as well as two other sources of gain. These are set out in Box 6.2.

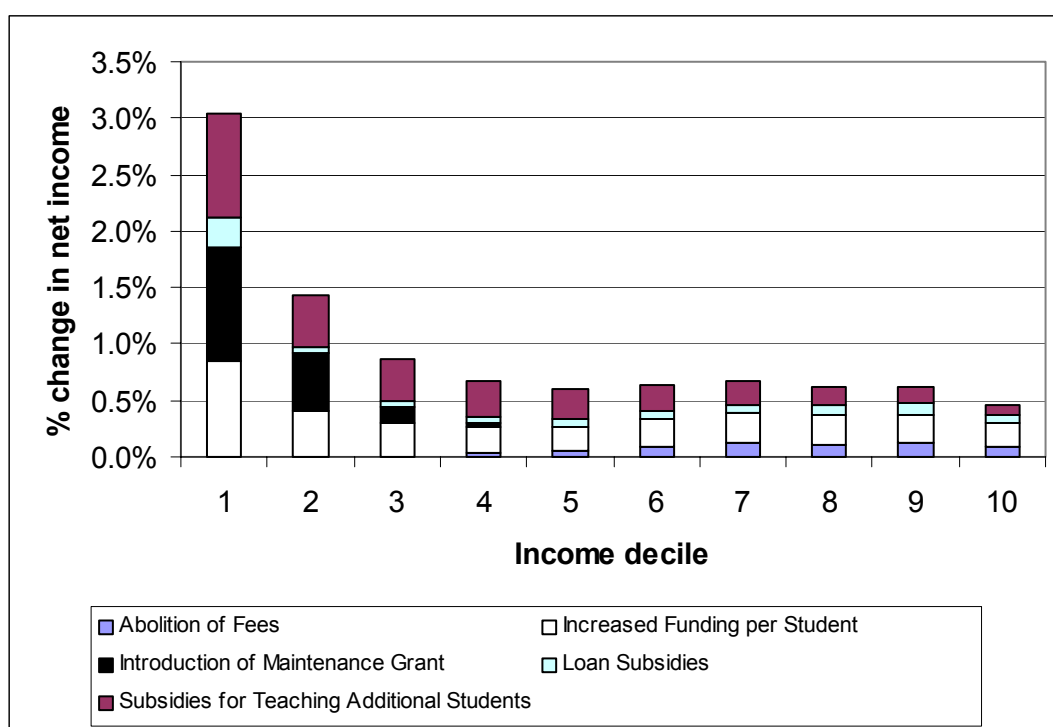
Box 6.2. Sources of gain in the White Paper proposals

Relative to the current system, the White Paper proposals imply five potential gains for households:

1. Students currently paying £1,100 in fees will gain by not having to pay this amount upfront.
2. The poorest current students will gain through the reintroduction of maintenance grants, worth £1,000 per year.
3. All current students will gain through increased quality as a result of greater funding per student. We estimate that this will be worth approximately £1,000 per year.^a
4. Expansion of higher education means that a greater number of students will benefit from expenditure on higher education.
5. Graduates gain through the subsidies offered under the expanded loan system (both the interest rate subsidy and the low lifetime earnings insurance element of the loans).

^a We estimate that average funding per student is likely to increase from around £4,800 to £5,800 under both the White Paper and the Conservative proposals – see Chapter 7 for more discussion of this.

Figure 6.6. Gains under the White Paper proposals relative to the current system



Notes: We estimate that the total additional amount to be redistributed under this scenario is around £3.7 billion. This is made up as follows: from general taxation – about £310 million for the reintroduction of maintenance grants, £440 million for subsidising new GCS loans and £1.1 billion for subsidising the teaching of new students; from GCS repayments – £450 million to cover abolition of existing upfront fees and £1.4 billion in top-up fees for increased funding per student. Details of how these figures were derived are set out in Chapter 7.

Source: Authors' calculations based on Family Resources Survey 2001–02.

To allocate the benefits that accrue to new students (through the expansion in numbers), we need to make an assumption about where in the income distribution they will be drawn from. While existing students come disproportionately from the higher income deciles (see Appendix B for our estimates of the family income distribution for current students), the expansion is supposed to be targeted towards those from the lower income deciles (with the establishment of an Access Regulator and additional spending to support this strategy). Again, we make as neutral an assumption as we can by assuming that an equal number of new students will come from each income decile.

The distribution of gains under the White Paper proposals is shown in Figure 6.6. The pattern is similar in shape to the one under the Conservatives in Figure 6.3, though the size and composition of the gains are somewhat different.

The distributional effects of the abolition of upfront fees are the same as for the Tory proposals, whilst the effects of the increased funding per student and reintroduction of maintenance grants are slightly more progressive than the corresponding elements of the Conservative proposal. This is due to the fact that under Labour, these benefits accrue to new as well as existing students, and the new students are likely to come from proportionately more disadvantaged households than existing students. The bars showing the gains from subsidising new students reflect the fact that every new university place is worth approximately £4,800 in teaching costs;³² this makes up a higher proportion of lower-income families' incomes.

In order to quantify the benefits from the subsidy element of the new loans to cover fees,³³ we have had to make some assumptions about the likely public spending implications of the new loan subsidies and who will benefit from them. These are set out in Appendix B.

Who pays?

The likely distributional impact of funding Labour's proposals is shown in Figure 6.7. The funds required to cover the introduction of maintenance grants are assumed to come from general taxation in the same way that they do under the Tory proposals. The same assumption is made about the funds required to subsidise the teaching of new students and the subsidies included in the extended GCS loans.

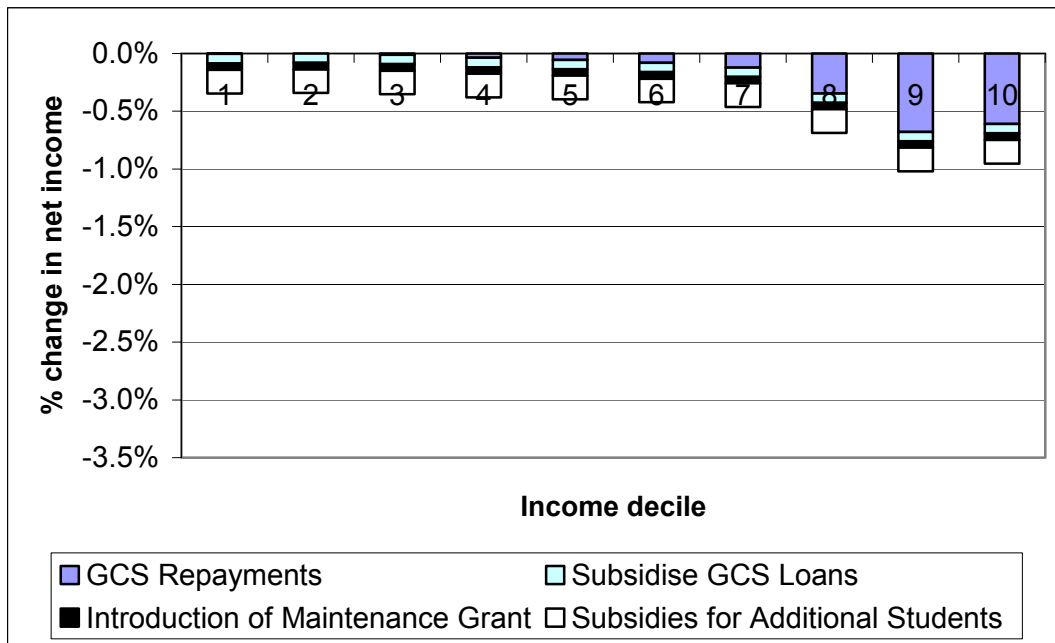
However, the main difference between the Labour and Conservative proposals is that some of the cost of the White Paper reforms will be raised from graduate loan repayments through the GCS rather than through tax revenues. (These repayments are used to fund the abolition of the existing upfront fees and to pay for the increased funding per student relative to the existing funding arrangements.)³⁴

³² This is the total amount of spending per student, made up of both government subsidies and fees. See note b to Box 7.1 for the source of this figure.

³³ This public spending element of the new loans is made up of that part of the loans that is not repaid as a result of there being a zero real rate of interest on the loans, as well as the non-repayment of loans as a result of low lifetime earning.

³⁴ It should be noted that our analysis implicitly assumes that the system is unfunded, i.e. that the revenue raised from loan repayments in any one year will be used to fund students in the HE system in that same year, akin to an unfunded pension scheme.

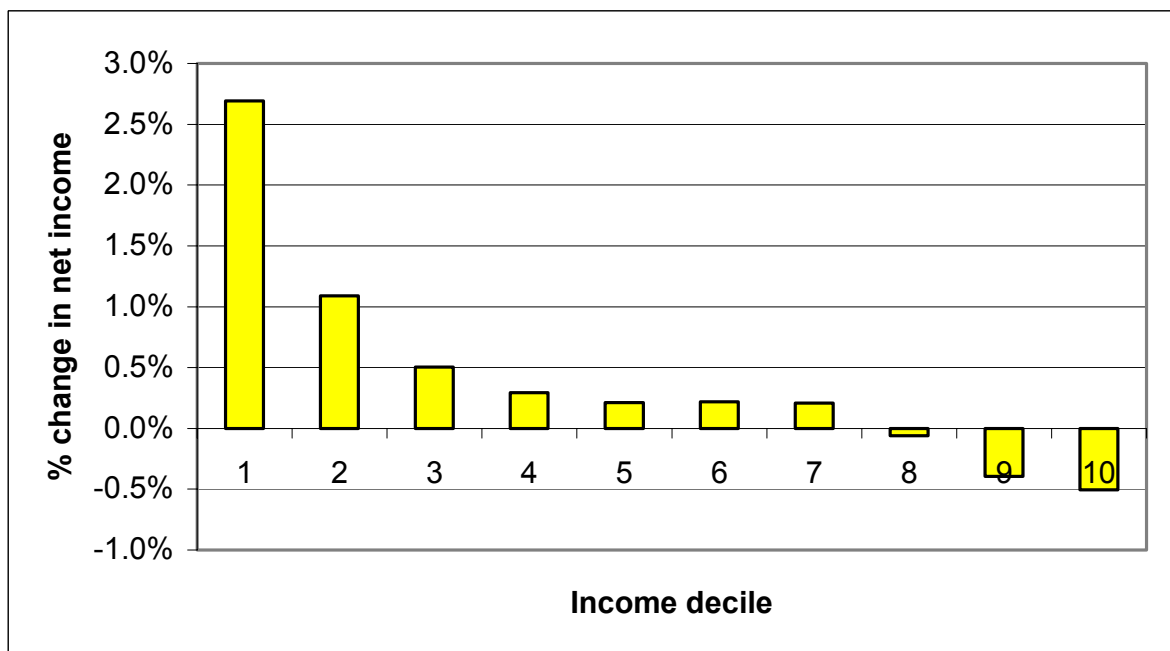
Figure 6.7. Losses under the White Paper proposals relative to the current system



Notes: We estimate that the amounts raised from general taxation are £310 million for the reintroduction of maintenance grants, £440 million for subsidising new GCS loans and £1.1 billion for subsidising the teaching of new students and that the amounts raised from GCS repayments are £450 million to cover abolition of existing upfront fees and £1.4 billion in top-up fees for increased funding per student. Details of how these figures were derived are set out in Chapter 7.

Source: Authors' calculations based on Family Resources Survey 2001–02.

Figure 6.8. Net effect of the White Paper proposals relative to the current system



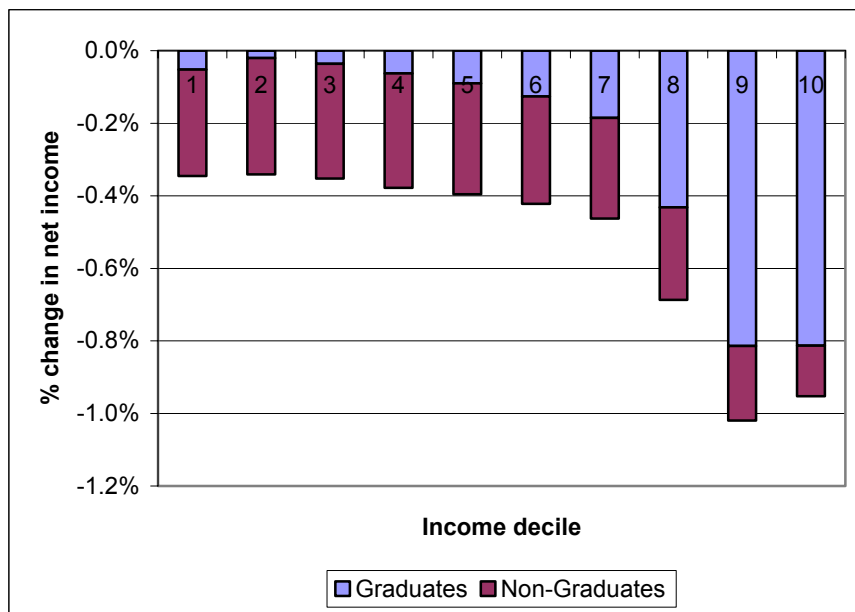
Note: Net effects (in pounds) sum to zero.

Source: Authors' calculations based on Family Resources Survey 2001–02.

This split is shown for the Tory proposal in Figure 6.9. Since all funds are raised from general taxation in this framework, the different proportions of contributions from households with graduates in each decile are driven solely by the fact that the top income deciles contain a higher proportion of households with a graduate.

Figure 6.10 shows the same split for the White Paper proposals, on the same scale as Figure 6.9 to allow comparison with the Tory proposals. The split in the bottom six deciles is roughly the same as in Figure 6.9, reflecting the fact that the extra funds required by the government’s plans over and above those required by the Conservatives’ proposals come directly from those graduates earning over £15,000 and currently repaying a debt – found mainly in the top four deciles. Hence, virtually all the extra required funds come from households with graduates. Moreover, the overall pattern of cost sharing between households with graduates and those without graduates is more closely aligned with who has received the benefits of higher education under the proposals in the White Paper.

Figure 6.10. Who pays for the White Paper proposals relative to the current system? Graduates versus non-graduates



Source: Authors’ calculations based on Family Resources Survey 2001–02.

What can we conclude about the distributional impacts of the two proposals? Our analysis of the short-term costs and benefits of the reforms in a cross-section of the population indicates that the White Paper proposals are more progressive than their Tory counterparts and are more consistent with the concept of asking those who benefit from higher education to pay a greater proportion of the costs.

7. Public spending under the White Paper and the Conservatives' proposals

This chapter sets out the likely public expenditure implications of the White Paper and the Conservatives' proposals.³⁵ The amount of public spending required to fund the different reforms depends on a number of unknowns, for which we have made a range of assumptions. Our calculations show that both Labour's and the Conservatives' proposals are likely to cost the exchequer additional money compared with the current system of HE finance.

7.1 The White Paper proposals

Our calculations suggest that the introduction of the White Paper is likely to cost the taxpayer about £1.8 billion per year once the system is fully in place, *in addition to* the extra contributions from graduates themselves (Table 7.1). This is largely because of the expansion in student numbers envisaged in the White Paper: the government is committed to pay a sizeable teaching subsidy on each additional student it puts through university, as well as subsidies for their maintenance loans. In addition, new public spending is also required to pay for the subsidies on the new GCS loans, which will be available to all students to enable them to defer all tuition fees from 2006. Funds will also be required for the reintroduction of maintenance grants. (Box 7.1 gives details of the assumptions used to derive the estimates set out in Table 7.1.)

Table 7.1. The public expenditure costs of the White Paper proposals relative to the current HE system

	Full expansion (£ million)
<i>Extra funds required</i>	
Teaching and maintenance loan subsidies – additional students	1,109
GCS loan subsidies – existing students	378
GCS loan subsidies – additional students	61
Maintenance grants – existing students	258
Maintenance grants – additional students	51
Raising funding per student – existing students	1,165
Raising funding per student – additional students	190
<i>Total extra funds required</i>	<i>3,211</i>
<i>Contributions</i>	
Top-up fee income – existing students	1,165
Basic fee income – additional students	61
Top-up fee income – additional students	190
<i>Total extra contributions</i>	<i>1,416</i>
<i>Net funds required</i>	<i>1,795</i>

Notes and Sources: See Box 7.1.

³⁵ Our calculations are based heavily on detailed discussions and collaboration with Nicholas Barr at the LSE, for which we are very grateful.

Box 7.1. How the costs of the White Paper proposals were derived

The total extra funds required by the Labour proposals are likely to amount to around £3.2 billion. Of this, around £1.4 billion will come in fees from students, whilst the remaining £1.8 billion is likely to be funded by the taxpayer. Of the total extra funds required, we estimate that:

- £1.1 billion will be needed to pay for the additional teaching and maintenance loan subsidies for the extra students who will enter university as the government's target for a 50 per cent initial entry rate into higher education is met. This will be sufficient to keep funding per student at the same level as under the current system.

Assumptions: The target will bring 182,000 additional students into higher education.^a For each extra student, £4,800^b will go to universities to pay for their teaching (some of this is clawed back from the students – see below) and £1,300 will go to the Student Loans Company to subsidise maintenance loans. This is based on the assumption that the government pays a subsidy of 40 per cent of the value of all loans paid each year.^c

- £1.35 billion will be channelled towards universities to increase funding per student (approximately £1.165 billion for existing students and £190 million for new students). This full amount will be clawed back from students in top-up fees.

Assumptions: Forty per cent of universities will charge top-up fees up to a maximum rate of £3,000, 30 per cent will charge half of the optional extra fee and 30 per cent will charge no additional fees. If all additional top-up fee income goes directly towards increasing the amount spent on teaching per student, then this would imply a rise from £4,800 to around £5,800 for each student, or an increase of 22 per cent.

- £440 million will be required to subsidise the new GCS loans (comprising £378 million for existing students and £61 million for new students).

Assumptions: Take-up of the new loans for fees will be at around the current rate of 81 per cent,^d and 40 per cent of the value of all new loans will be paid for by the government in the form of loan subsidies.

- £310 million will be required for the reintroduction of maintenance grants (£258 million for existing students and £51 million for new students).

Assumptions: The average maintenance grant pay-out will be £700 per year. Thirty-three per cent of existing students and 40 per cent of new students will receive this amount on average.

Offsetting the additional payments that will have to be made under the White Paper are the additional sources of revenue that the White Paper proposals will bring in, entirely in the form of new fee revenues (on top of the £450 million that fees raise in the current system). We estimate that roughly:

- £60 million each year will come in additional basic fee revenue from new students.
- £1.35 billion each year will come in extra revenue from top-up fees.

Assumptions: Same as above (calculation of costs of additional spending per student). Additional assumption that 30 per cent of new students will be required to pay the basic fee.

One possible additional cost entailed in the White Paper proposals which we do not attempt to quantify is the cost of establishing the new Access Regulator. This is because it is unclear how much the Access Regulator will cost over and above the expenditure on promoting access in universities that has already been allocated within the overall HE budget.

The assumptions to which our estimates of the net public expenditure costs of the White Paper are most sensitive are those regarding the proportion of universities that will charge top-up fees at the full or partial level, the extra number of students implied by reaching the 50 per cent target and the proportion of new loan repayments that will be paid for by government subsidy.

^a Based on number of full-time equivalent (FTE) students in higher education in England of 1.115 million in 2003–04 (Annex to HEFCE grant letter 2001, www.hefce.ac.uk/News/HEFCE/2001/fund.htm).

^b Total recurrent teaching costs in 2003–04 are £4,024 million (Department for Education and Skills, 2003, p. 56); FTE student numbers for 2003–04 are 1.115 million (Annex to HEFCE grant letter); the tuition fee in 2003–04 is £1,125. Total costs per student are thus £4,734. The figure of £4,800 includes an element of capital spending.

^c Barr (2002, paras 34–41) shows that current spending on student loans in the DfES education budget (£870 million) represents around 36 per cent of the total outgoings of the Student Loans Company (£2,450 million) (see Department for Education and Skills (2002, table 4.3) and Student Loans Company (2002, table 2)). The average maintenance loan per student is currently £3,278; source: Student Loans Company (2002, table 2); the figure for 2001–02 is inflated by the rate of inflation to 2003–04 prices.

^d Assumes that take-up of new loans is the same as that of current loans. Source: Student Loans Company (2002, table 2, p. 57).

7.2 The Conservatives' proposals

The Conservative proposals will also cost the taxpayer money compared with the current system. Our estimates put this at around £1.7 billion per year (Table 7.2). In part, this is made up of money that has to be found to make up for forgone tuition fees compared with the current system (around £450 million). The largest part of the new money that needs to be raised, however, will be to increase funding per student to the level

Table 7.2. The public expenditure costs of the Conservatives' proposals relative to the current HE system

	Full expansion (£ million)
<i>Extra funds required</i>	
Maintenance grants – existing students	258
Abolition of upfront fees	450
Raising funding per student – existing students	1,165
<i>Total extra funds required</i>	<i>1,873</i>
<i>Additional funds gained</i>	
Spending to promote access	194
<i>Total extra funds gained</i>	<i>194</i>
<i>Net funds required</i>	<i>1,679</i>

Notes and Sources: See Box 7.2.

Box 7.2. How the costs of the Conservatives' proposals were derived

The total extra funds required by the Conservatives' proposals are likely to amount to around £1.9 billion. Of this, around £0.2 billion will be found from savings, whilst the remaining £1.7 billion is likely to be funded by the taxpayer.

- The abolition of the current system of upfront fees means that the Tories would have to find an extra £450 million in order to keep funding per student constant.
- To increase funding per student further, to the level that the introduction of top-up fees would achieve, would require an additional almost £1.2 billion, whilst the introduction of maintenance grants would cost the Tories around £258 million. (These two figures are calculated using the same assumptions as for the White Paper.)
- In contrast to the White Paper proposals, there are no additional revenues from fees to offset these extra costs, though the Conservatives would save about £194 million per year by not spending money set aside by the current government to widen access to the most disadvantaged students.

The most important assumptions driving our costing of the Conservatives' proposals are those determining the amount of additional spending required to bring the cost of teaching per student up to that set out in the White Paper. Again, this is largely dependent upon the number of universities that would raise tuition fees up to the cap. Of course, if the Conservative proposals were implemented before 2006 (i.e. instead of the White Paper), then this quantity could never be known; the increase in funding to 'match' Labour's would have to be made on a projection of the number that would raise fees in the Labour system, and could be similar to the projections set out here.

committed to in the White Paper without asking for any additional contributions from students to pay for this. Though the Conservatives do not have to come up with any additional money for teaching new students or for loan subsidies as in the White Paper proposals, they do have to find the money for the reintroduction of maintenance grants. (See Box 7.2 for details of how the estimates in Table 7.2 were derived.)

7.3 Implications of additional spending requirements and costs in transition

Could the extra funding required under either system be found from the money already allocated to HE public expenditure for future years, or would extra revenues need to be found in future spending rounds? Public expenditure on higher education in England is projected to be about £7.6 billion in total in 2002–03.³⁶ The last Spending Review allocated an additional 6.5 per cent real-terms increase in this spending each year until 2005–06,³⁷ implying that by then spending on higher education will be approximately £1.6 billion higher in real terms than it is today.

This means that if either set of reforms were introduced all at once in 2005–06, the additional expenditure already allocated to the HE budget would almost be enough to fund either the Conservatives' or the White Paper proposals. In practice, some of this additional £1.6 billion in spending is already earmarked to go on research and other areas unrelated to the costs of the reforms set out here, implying that some additional money would be required for either set of reforms to be implemented in this way.

However, since both sets of reforms are likely to be phased in – for example, the costs of introducing the GCS under the White Paper would not start to be incurred until 2006 – it is likely that the costs would be absorbed by a combination of funds already allocated up to 2005–06 and further new money to be allocated in the next spending round for the years beyond.

The costs of the Labour proposals during a period of transition may be less than the costs once the reforms have been introduced in full, not just because some of the reforms will be staggered, but also because the number of students is likely to be increased over a period of time rather than all at once. If the number is increased gradually to the target initial entry rate of 50 per cent in 2010, then this will cost the government less in the interim period than if student numbers were raised to the target level immediately. It would also take between two and four years – depending on the length of courses – for the cost of higher initial entry rates and the increased subsidies on the GCS loans for new students (to be introduced starting in 2006–07) to feed through to the public spending numbers in full. This is because our calculations of the full costs are based on the government's liabilities for the entire population of university students rather than for new intakes only.

³⁶ Department for Education and Skills (2003, p. 19) sets out total expenditure on higher education in England as £7.596 billion in 2002–03, £8.309 billion in 2003–04, £9.057 billion in 2004–05 and £9.918 billion in 2005–06.

³⁷ Based on increases in the GDP deflator of 2.75 per cent in 2003–04, and 2.5 per cent in 2004–05 and 2005–06, as set out in HM Treasury Budget 2003, table C3 (www.hm-treasury.gov.uk/budget/bud_bud03/budget_report/bud_bud03_repbcrfm).

Depending on how they were introduced, the Conservative proposals could also cost a little less in transition than in the longer run: for example, if fees were scrapped and maintenance grants were introduced for new intakes only, this would cost the Conservatives less in forgone fees for a couple of years until the student population was made up entirely of students benefiting from the new arrangements.

Tables 7.1 and 7.2 presented our estimates of the costs of full expansion of the two sets of proposals. Table 7.3 considers a possible scenario for public spending under a possible transition period of five years.³⁸ It shows that the path of funding required over the first few years after the introduction of the reforms is likely to be somewhat different under the Conservative and Labour plans, and that the Conservatives might initially need to raise more money than Labour to pay for their reforms. This means that in the short term, unless the Conservatives were able to find additional money, their plans could imply a reduction in student numbers. For example, in our hypothetical transition period set out in Table 7.3, the Conservatives could need to raise about £350 million more than the Labour reforms would cost in the third year; this could imply a decline in student numbers of about 50,000.

Table 7.3. Costs of the White Paper and Conservative proposals relative to the current system in an example transitional period

£ million

	Full expansion	Example transition				
		Year 1	Year 2	Year 3	Year 4	Year 5
<i>Net funds required</i>						
White Paper proposals	1,795	615	973	1,331	1,563	1,795
Conservative proposals	1,679	602	1,140	1,679	1,679	1,679
<i>Difference</i> (White Paper expenditure minus Conservative expenditure)	116	13	-167	-348	-116	116

What significance should we attach to the fact that the White Paper proposals would cost about the same as the Conservative proposals once the full expansion in higher education has taken place? The first thing to note is that the extra funds needed to implement the White Paper system imply a real increase of 24 per cent in the public spending element of the 2002–03 HE budget to fund a 16 per cent increase in student numbers and an estimated average 22 per cent increase in tuition subsidies per student. By contrast, the Conservatives' proposals would require a 22 per cent real increase in spending to fund the same 22 per cent increase in teaching funds per student, but for no additional students. This difference clearly reflects the increased share of public to private expenditure for each student that is inherent in the Conservatives' proposals, compared with both the White Paper and the current system (see Chapter 5).

³⁸ Our transition period shows a possible path for public spending under Labour if the number of students is increased gradually to the target level of 50 per cent over five years, and if both Conservative and Labour reforms affect one-third of the student population in their first year, two-thirds in their second year and the full population in the third. The transitional path shown here does not take into account the timetable for the introduction of Labour's reforms set out in the White Paper. Barr (2003b) contains a fuller discussion of the possible costs of transition.

It is also worth noting that the Conservative proposals do not include the costs of any alternative publicly subsidised education for those who would have entered higher education under the White Paper reforms. For example, if the Conservatives envisage that many more people will go into vocational education rather than university as a result of their reforms, then this could have cost implications for the further education (FE) budget, which are not taken into account here.

These costings differ from the calculations put out by the Conservatives and by the Labour Party when the Conservatives' proposals were first announced (see Conservative Party News (2003) and Labour Party (2003)). This is because neither party took into account the full costs of either set of reform proposals when they produced their calculations. In particular, neither factored in the likely cost of loan subsidies under the White Paper plans, clearly an important part of the public expenditure implications.

8. Conclusions

Whether we decide to ‘study now, pay later’, as proposed by the White Paper, or to provide ‘HE for free’, as the Conservatives suggest, will have important implications for the finances of students, graduates and taxpayers in general.

The two proposals will have the same impact on student finances in the short term. During their time at university, students from all backgrounds will still need to find outside sources of money to pay their way through university, but less than they do under the current system.

However, in the longer term, graduates will pay more under the White Paper proposals than under the current system or the Conservatives’ alternative. On average, deductions will be taken from graduates’ incomes for two years longer under the White Paper than if the Conservative proposals were adopted. This reflects the most fundamental difference between the two plans: who bears the costs of tuition. The White Paper sees the government paying a smaller proportion of these costs than it does currently, while the Conservative proposals imply the opposite.

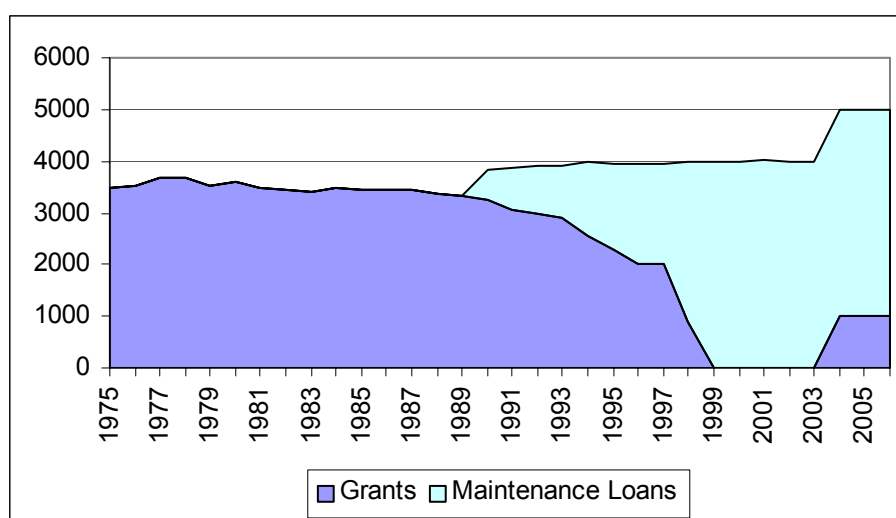
This means that across the entire population at a snapshot in time, the Tory plans are uniformly more regressive than the proposals outlined in the White Paper. Deciding to provide ‘HE for free’ rather than to ‘study now, pay later’ will result in a net redistribution of resources from poorer households to richer households.

We are currently at a fork in the road, with two proposals on the table that suggest two very different paths for the future of higher education in England. The White Paper envisages moving towards a system where, increasingly, those who benefit from higher education pay for its costs – in other words, a larger HE sector with graduates contributing more to pay for their time as students. The success of such a plan will depend upon how willing potential students from all backgrounds will be to take on more debt of an income-contingent nature. The Conservatives foresee a return to a system in which taxpayers foot the bill for higher education: non-graduates and graduates alike will pay more to subsidise students at university.

Appendix A. Financial support for students in historical context

Figure A.1 shows changes in the financial support offered to students from lower-income families while at university since the mid-1970s, by showing the maximum level of maintenance grants and maintenance loans (expressed in real terms) available to students over this time. The graph shows that the total amount of funds available to students from poorer backgrounds – through the combination of maintenance grants and loans – increased significantly in 1990–91 when the first maintenance loans were introduced, reaching around £4,000 per year in 2003–04 prices by the mid-1990s; the total is due to increase again, to around £5,000 per year, in 2004–05 with the reintroduction of maintenance grants announced in the government’s White Paper.

Figure A.1. Maximum value of maintenance grants and maintenance loans (£ p.a., 2003–04 prices)



Notes: These are the levels that apply for students with full eligibility for grants. Loan amounts are for a first-year student living away from home outside London. From 2004 onwards, the graph shows the value of maintenance grants and maintenance loans that would be available under *both* the White Paper and the Conservatives’ proposals. The loans for fees that would be available under the GCS if the White Paper proposals were introduced are *not* included in this graph. All figures are expressed in the 2003–04 academic year’s prices, using the RPI(X) price index and assuming 2.5 per cent annual inflation on this measure from 2003 onwards.

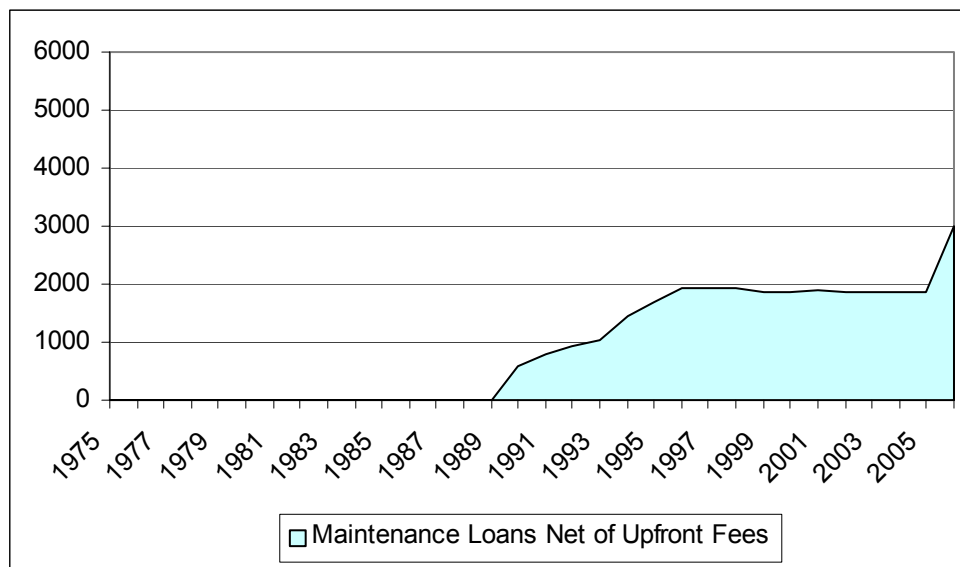
Source: Authors’ calculations based on National Union of Students (2002) and Office for National Statistics (www.statistics.gov.uk/downloads/theme_economy/RPIX.pdf).

The change in the balance between grants and loans payable to young people from low-income families is also clear from Figure A.1. Over the 1990s, the real value of maintenance grants payable to students was eroded, and was replaced by the increase in the value of available student loans.

Figure A.1 also shows that the maintenance grants that will be introduced for the poorest students from 2004–05 – at £1,000 per year – will be at a much lower level in real terms than those that were available to students before the phased reduction in grants began at the end of the 1980s.

Before the introduction of maintenance loans in 1990, students from higher-income backgrounds received no support from the government to cover their living costs while at university. From the start of the 1990s, non-means-tested maintenance loans were introduced, meaning that students from higher-income backgrounds were able to receive some support in the payment of living expenses which had not been available under the previous system. From 1999–2000 onwards, students from higher-income backgrounds were entitled to receive 75 per cent of the full maintenance loan award, with the remaining 25 per cent subject to a parental means test. Maintenance grants, by contrast, have always been subject to a full means test, so that the minimum award remains at zero. Figure A.2 shows the maintenance loan entitlement of a student from the richest parental background, net of upfront fees charged for tuition.

Figure A.2. Minimum loan entitlement after upfront fees
(£ p.a., 2003–04 prices)



Notes: These are the levels that apply for students with zero eligibility for grants. Loan amounts are for a first-year student living away from home outside London. From 2004 onwards, the graph shows the value of maintenance loans that would be available under *both* the White Paper and the Conservatives’ proposals. The loans for fees that would be available under the GCS if the White Paper proposals were introduced are *not* included in this graph. All figures are expressed in the 2003–04 academic year’s prices, using the RPI(X) price index and assuming 2.5 per cent annual inflation on this measure from 2003 onwards.

Source: Authors’ calculations based on National Union of Students (2002) and Office for National Statistics (www.statistics.gov.uk/downloads/theme_economy/RPIX.pdf).

Appendix B. Assumptions for distributional analysis

In this appendix, we outline the method and assumptions used to generate the results in Chapter 6.

B.1 General assumptions

1. Where we refer to distributional effects, we mean the net gain realised by households in each part of the income distribution. We treat a university student as part of his/her parents' household for the sake of redistribution, regardless of whether the student is still living at home.
2. We assume that any deficit in the funding of either party's proposals will be met from general taxation, so that, in aggregate, both proposals are revenue-neutral relative to the current system.
3. We do all our analysis in the cross-section, ignoring the transfer of an individual's own gains and losses over the life cycle. There are three reasons for taking this approach: (a) assuming that the loan system has reached a steady state and that the loan repayments are unfunded, the revenue from repayments in one year is used to fund the cost of educating students in that same year, representing a cross-sectional redistribution; (b) there are difficulties involved in making assumptions about the lifetime benefits from higher education and lifetime contributions to the tax system across the entire distribution of HE users; and (c) we examine the life-cycle consequences of the two proposals in Chapter 5.
4. The assumptions for the number of existing students and additional students and the amounts to be redistributed in respect of the various elements of the two proposals are the same as those used in the funding calculations in Chapter 7. They are displayed in Table B.1.

Table B.1. Assumptions underlying analysis in Chapter 6

	£ million
Current fee income	450
Top-up fees – existing students	1,165
Top-up fees – new students	190
Basic fees – new students	61
Maintenance grants – existing students	258
Maintenance grants – new students	51
GCS loan subsidies – existing students	378
GCS loan subsidies – new students	61
Teaching subsidies – new students	871
Maintenance loan subsidies – new students	238
	Thousands
No. of current students	1,115
No. of additional students	182

Notes and Sources: See Boxes 7.1 and 7.2.

B.2 Distribution of students

5. We use data from the 2001–02 Family Resources Survey to approximate the income distribution of households with students in higher education. Students living with their parents are reported in the survey and so their household income is readily identifiable. We identify 330,000 such households.
6. The distribution of households with a student in higher education not living at home was approximated by the income distribution of households that answered ‘Yes’ to the following question: ‘Do you have a child not living in the household in full-time or part-time education between the ages of 16 and 24?’. This is not a perfect measure, since it may include some 16- to 18-year-olds who are at school but living away from home; it may also include some households where the young person living away from home is in further rather than higher education; we are also unable to distinguish whether households have just one, or more than one, child away from home in education. We identify 905,000 of these households.
7. We combine these two groups of students to get an assumption about in which income deciles households with students are located, as shown Table B.2. The proportions of households in each decile that contain a student are shown in Table B.3.

Table B.2. Distribution of existing students in the income distribution

Income decile	Percentage of existing students
1	5.5%
2	5.5%
3	6.3%
4	4.7%
5	5.0%
6	7.8%
7	10.9%
8	12.7%
9	15.6%
10	26.1%
	100%

Source: Authors’ calculations based on Family Resources Survey 2001–02.

Table B.3. Percentage of households in each income decile that contain students

Income decile	Percentage of households with students
1	2.8%
2	2.6%
3	2.5%
4	2.0%
5	2.3%
6	3.1%
7	4.6%
8	5.0%
9	6.8%
10	10.2%

Source: Authors' calculations based on Family Resources Survey 2001–02.

8. We assume that the additional students that enter higher education as a result of expansion under the White Paper proposals will be equally spread across the income deciles, i.e. 10 per cent of the additional students will come from each decile.

B.3 Distribution of graduates

9. We estimate the income distribution of households with graduates from the 2001–02 Family Resources Survey. Our estimated distribution is shown in Table B.4.
10. We also estimate the proportion of households in each income decile that contain a graduate. These estimates are shown in Table B.5.

Table B.4. Distribution of graduates in the income distribution

Income decile	Percentage of graduates
1	7.0%
2	2.9%
3	3.5%
4	3.7%
5	5.1%
6	6.6%
7	9.3%
8	12.7%
9	19.8%
10	29.5%
	100%

Source: Authors' calculations based on Family Resources Survey 2001–02.

Table B.5. Percentage of households in each income decile that contain graduates

Income decile	Percentage of households with graduates
1	14.0%
2	5.9%
3	7.1%
4	7.3%
5	10.3%
6	13.2%
7	18.8%
8	25.4%
9	39.7%
10	59.3%

Source: Authors' calculations based on Family Resources Survey 2001–02.

B.4 Assumptions about loan subsidies

11. We assume that the financial benefits of subsidies on maintenance loans and loans for fees accrue to graduates as approximated by the distribution in Table B.4.

Because repayments on these loans are linked to income, the effect of the interest rate subsidy is to shorten the length of time for which repayments are made. It is thus graduates who benefit from the interest rate subsidy in the years immediately after the loan is repaid. Similarly, the beneficiaries of non-repayment are those graduates with low lifetime earnings.

B.5 Assumptions about loan repayments

12. We approximate the incidence of loan repayments in the income distribution by using the 2001–02 Family Resources Survey to calculate 9 per cent of gross income above £15,000 for all graduates for whom it would be reasonable to assume that they have a debt.
13. Our assumption for whether a particular graduate in the Family Resources Survey has a debt is based on his/her age, current income, length of time in work and number of children (this last for females only). We assume that all graduates started working at age 21 on a salary of £20,000 in real terms with a debt of £9,000 and reached their current salary through linear increases. We assume that a graduate still has a debt if his/her estimated total repayments are less than £9,000.
14. Our estimate of the relative contributions to GCS loan repayment revenue from each of the income deciles is shown in Table B.6.

Table B.6. Contribution to GCS loan repayment revenue from each income decile

Income decile	Percentage of GCS loan repayment revenue
1	0.0%
2	0.0%
3	0.2%
4	0.7%
5	1.1%
6	2.0%
7	3.5%
8	12.0%
9	29.4%
10	51.0%
	100%

Source: Authors' calculations based on Family Resources Survey 2001–02.

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