## Options for reducing the interest rate on student loans and introducing maintenance grants

IFS Briefing note BN221

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Published by

## The Institute for Fiscal Studies

ISBN 978-1-911102-73-1

The authors would like to thank Paul Johnson for providing extremely useful comments and Laura van der Erve for help with the modelling.

This research was funded by Universities UK. The authors would like to thank the Department for Education for providing the linked NPD-HESA data.

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## Executive summary

In October, the Prime Minister called for an inquiry into the student loan system for higher education (HE). In this briefing note, we focus on two of the more unpopular features of the current system. We explore government options for reducing the interest rates charged on student loans, from the current levels of RPI $+3 \%$ while studying and RPI $+0-$ $3 \%$ (depending on income) after leaving university, and for reintroducing living-cost grants - which do not have to be repaid - for students from lower-income families. This briefing note will be submitted as evidence for the inquiry.

## Key findings

## Interest rates

- Positive real interest rates on student loans increase the debt levels of all graduates but only increase the lifetime repayments of higher-earning graduates. Removing them does not affect up-front government spending on HE , but it does slightly increase the deficit (due to the slightly confusing treatment of interest accrued on student debt in the government finances). More significantly, it also increases the long-run costs of HE due to the associated reduction in graduate repayments.
- Reducing the interest rates to RPI $+0 \%$ for everyone would reduce the debt levels of all graduates. Debt on graduation would be around $£ 3,000$ lower on average, while average debt at age 40 would be $£ 13,000$ lower. However, because of the link between income and interest in the current system, this cut would reduce the debts of the highest-earning graduates the most: the richest $20 \%$ of graduates would hold around $£ 20,000$ less debt at age 40 as a result of this policy, while the lowest-earning $20 \%$ of graduates would be just $£ 5,500$ better off in terms of debt held at the same age.
- This policy of switching to RPI + 0\% would have no impact on up-front government spending on HE, but would cost the taxpayer $£ 1.3$ billion per year in the long run. It would be a significant giveaway to high-earning graduates, saving the richest $20 \%$ more than $£ 23,000$ over their lifetimes.
- A less costly policy would be to reduce interest rates to RPI + 0\% while studying and leave rates unchanged after graduation. This would reduce the debt levels of all graduates at age 40 by around $£ 5,000$. It would be a significantly cheaper reform, costing around $£ 250$ million per year in the long run. Again, there is little impact on the repayments of low- and middle-earning graduates, while the highest-earning graduates would be around $£ 5,000$ better off over their lifetimes.


## Maintenance grants

- Reintroducing maintenance grants in place of loans also has no impact on up-front government spending on HE , but it results in a large increase in the government cost of HE as measured by the current deficit, due to the differential treatment of loans and grants in government accounting. The long-run cost of this type of policy is typically much lower as a large proportion of the loans that grants would replace are not expected to be repaid anyway.
- Reintroducing grants of $£ 3,500$ under a similar system to that before 2016 would increase deficit spending by around $£ 1.7$ billion, but the long-run cost is only around $£ 350$ million. This reform would reduce the debt on graduation of students from lowincome backgrounds taking a three-year degree by around $£ 11,000$.
- The beneficiaries from this change in terms of actual lifetime loan repayments are students from low-income backgrounds who go on to have high earnings. We estimate that students eligible for the full maintenance grant who are in the lowest-earning $60 \%$ of graduates would experience little or no change in lifetime repayments, while those who have earnings in the top $10 \%$ of graduates would save around $£ 22,000$.


## 1. Introduction

In October, Prime Minister Theresa May announced a tuition fee freeze and an increase in the threshold above which students begin to make repayments on their student loans. These reforms will represent a significant giveaway to graduates. Previous IFS work' estimated they will increase the long-run taxpayer cost of providing higher education (HE) by $£ 2$ billion per year, to the benefit of predominantly low- and middle-earning graduates. ${ }^{2}$ Despite this, many elements of the system remain deeply unpopular, and the Prime Minister has called for a review of the student loan system and the related financial implications. ${ }^{3}$ In this briefing note, we explore the government options for addressing two unpopular features of the student finance system: reducing the high interest rate charged on student loans and reintroducing living-cost grants for students from low-income families.

[^0]
## 2. Interest rates

Student loans accrue interest both while students are at university and after they have graduated. Under the current system, while students are at university the interest rate is set at the Retail Prices Index measure of inflation (RPI) plus 3\% (currently equal to 6.1\%). ${ }^{4}$ After university, the interest rate depends on income: the interest rate charged for graduates with annual incomes up to $£ 25,000$ is equal to RPI and this increases with income to RPI + 3\% for those with incomes of $£ 45,000$ and above. This contrasts with the pre-2012 system, under which all students and graduates were charged an interest rate equal to RPI. ${ }^{5}$

The RPI measure of inflation used to index the student loan interest rate is widely discredited and has been shown to systematically overstate inflation compared with the more widely accepted Consumer Prices Index (CPI) measure, by around 1 percentage point. ${ }^{6}$ As a result, the real interest rate, relative to the CPI, charged on student loans varies between around $1 \%$ and $4 \%$. This is relatively high compared with market interest rates. Our previous work ${ }^{7}$ has shown that the average student taking a three-year degree accrues around $£ 6,000$ of interest while at university (in 2017 prices).

In this section, we investigate the impacts of three potential reforms to the system: aligning with the pre-2012 system and removing the positive rate over RPI, so that all graduates are charged RPI + 0\%; moving to using the CPI, so that students and graduates are charged CPI + 0\%; and removing the positive rate over RPI while studying, so that students are charged RPI $+0 \%$ while studying and RPI $+0-3 \%$ after leaving university, depending on income (as is currently the case).

One reason to consider these types of reform is simply that positive interest rates appear to be deeply unpopular, even if they make no difference to the actual repayments of many graduates.

Figures 1a, 1b and 1c show, in 2017 prices, the level of student debt graduates in the top, middle and bottom $20 \%$ of earners hold over their lifetime and the impact on this level of changing the interest rate to 'RPI + 0\% for all students and graduates', ‘CPI + 0\% for all students and graduates' and 'RPI + 0\% while studying' respectively. Under the current system, the real debt levels of the highest-earning graduates decline as they steadily repay the loan. The debt levels of the lowest-earning graduates increase, however. The repayments made are outweighed by the positive real interest rate charged.

Reducing the interest rate to 'RPI $+0 \%$ for all students and graduates' reduces the level of debt held by all graduates at all ages. Debt on graduation would be around $£ 3,000$ lower on average, while average debt at age 40 would be $£ 13,000$ lower. However, it is the highest-earning graduates who benefit the most. At age 40 , this reform would reduce the

[^1]average debt level of the lowest-earning graduates by around $£ 5,500$ while the highestearning graduates would have debt levels nearly $£ 20,000$ lower. This is largely because the lowest-earning graduates often earn less than $£ 25,000$ per year and so face an interest rate of RPI + 0\% anyway.

Figure 1a. Impact of interest rates on graduates' outstanding debt: switch to RPI + 0\% for all students and graduates (2017 prices)


Figure 1b. Impact of interest rates on graduates' outstanding debt: switch to CPI + 0\% for all students and graduates - zero real interest (2017 prices)


Figure 1c. Impact of interest rates on graduates' outstanding debt: switch to RPI $+0 \%$ while studying (2017 prices)


Source: Authors' calculations using IFS's graduate repayments model. Low earners are the graduates with the $20 \%$ lowest lifetime earnings, mid earners have lifetime earnings between the $40^{\text {th }}$ and $60^{\text {th }}$ percentiles of the graduate lifetime earnings distribution and high earners are the graduates with the $20 \%$ highest lifetime earnings. See appendix notes for more.

Reducing the interest rate to 'CPI $+0 \%$ for all students and graduates' has a larger impact, with the highest-earning graduates again benefiting most. At age 40, it would reduce the average debt level of the lowest-earning graduates by around $£ 17,000$ and of the highestearning graduates by around $£ 26,000$. Conversely, reducing interest rates to 'RPI $+0 \%$ while studying' affects the debt levels of all graduates to a similar extent, reducing debt at age 40 by around $£ 5,000$.

However, student loans are not like typical loans. Repayments are made as a proportion of earnings and are not directly linked to the size of the loan or the interest charged. Any outstanding loan is written off 30 years after graduation. This effectively means that students only repay the interest accrued on student loans once the principal has been fully repaid. Only $17 \%$ of graduates are expected to completely clear their student loans (principal and interest) before they are written off. ${ }^{8}$ As a result, changes to the interest rate only affect the repayments of the very highest-earning graduates.

Table 1 sets out the government cost and graduate repayments under various different interest rate systems. The current system - taking into account the reforms announced in October - has a long-run cost to government of $£ 8.0$ billion per cohort of HE students. ${ }^{9}$

[^2]This cost is comprised of $£ 750$ million of teaching grants ${ }^{10}$ and $46 \%$ of the value of loans paid out not being repaid. The repayments of graduates vary significantly by their earnings: the lowest-earning $20 \%$ of graduates only repay on average $£ 3,500$ over their lifetimes whereas the highest-earning $20 \%$ of graduates pay more than $£ 80,000$ on average.

All of the estimates provided here involve projections of the earnings of all graduates up to 30 years into the future. They are therefore uncertain, being particularly susceptible to both future policy changes and deviations from the expected path of graduate earnings growth. The potential impacts of changes in graduate earnings projections, the government cost of borrowing and the non-take-up of loans are discussed in previous IFS work. ${ }^{11}$

Table 1. Impact of various interest rate reforms on government cost and graduate repayments

|  | Current system $R P I+0-3 \%$ | Pre-2012 <br> interest <br> rates $R P I+0 \%$ | CPI + zero <br> interest rate $C P I+0 \%$ | Lower interest at university $R P I+0 \%$ <br> while studying |
| :---: | :---: | :---: | :---: | :---: |
| Government costs |  |  |  |  |
| Total up-front spending | £16,700m | £16,700m | £16,700m | £16,700m |
| RAB | 45.6\% | 53.7\% | 58.1\% | 47.1\% |
| Long-run government cost | £8,000m | £9,300m | £10,000m | £8,300m |
| Relative to default | - | +£1,300m | +£2,000m | +£250m |
| Impact on graduate repayments (real non-discounted) |  |  |  |  |
| Lowest-earning 20\% | £3,400 | £3,400 | £3,400 | £3,400 |
| Middle-earning 20\% | £33,100 | £32,200 | £30,800 | £33,000 |
| Highest-earning 20\% | £83,500 | £60,000 | £50,500 | £78,700 |
| Share whose repayments are unaffected (relative to default) | - | 70\% | 63\% | 80\% |

Source: Authors' calculations using IFS's graduate repayments model. See appendix notes for more.

Changing the interest rate has no impact on the up-front government expenditure on HE as the same amount is paid out in loans and grants. There is a small impact on the cost as measured by the deficit, however; government accounting rules mean that all interest accrued on student loans in a given year counts as income offsetting public sector net

[^3]borrowing (the deficit). ${ }^{12}$ Lowering the interest rate on student loans therefore increases the deficit in the short run, even though not all of this interest will actually be repaid. What is important for long-run government finances is the impact on actual repayments. We estimate that reducing the interest rate to that in place before 2012 (RPI $+0 \%$ for all students and graduates) would increase the long-run government cost by $£ 1.3$ billion. This reform would be a significant giveaway to the highest-earning graduates, making the richest $20 \%$ of graduates more than $£ 23,000$ better off over their lifetimes with little impact on the repayments of low- and middle-earning graduates. In fact, $70 \%$ of graduates would experience no change in their repayments.

To provide a sense of the scale of the cost of this reform, we estimate that the government would have to increase the rate at which graduates repay their loans from 9\% to $13 \%$ to offset this cost. ${ }^{13}$ However, the overall impact of a policy change of this nature would be to harm low- and middle-earning graduates, while benefiting the highestearning graduates. This is because high-earning graduates will repay anyway, so will be largely unaffected by the higher repayment rate in terms of their overall contributions.

Introducing an interest rate equal to the CPI measure of inflation would be even more costly. It would increase the long-run government cost by $£ 2.0$ billion per year and reduce the lifetime repayments of the highest-earning $20 \%$ of graduates by $£ 33,000$ on average, again with little impact on low- and middle-earning graduates.

Unsurprisingly, the least costly reform would be to reduce the interest rate while studying from RPI $+3 \%$ to RPI $+0 \%$ and leave the interest rate for graduates unchanged. This would mean that no student or graduate earning less than $£ 25,000$ would accrue interest at a rate above RPI. The reform would cost around $£ 250$ million per year in the long run. As with all interest rate reforms, the impact is concentrated on the highest-earning graduates, who benefit by around $£ 5,000$ over their lifetimes on average.

[^4]
## 3. Maintenance grants

Higher education students in England are not just eligible for support towards their tuition fees - they have also received government support towards their living costs in the form of maintenance loans (available to all students) and, in the past, maintenance grants (available only to those from poorer households). In 2016, maintenance grants were abolished and replaced with additional maintenance loans. The new additional loans were slightly larger than the grants they replaced, meaning students from a low-income background had slightly more 'cash-in-pocket' while at university but also graduate with the highest levels of debt. Replacing maintenance grants with loans reduced the government cost of HE measured in the deficit by around $£ 2$ billion, ${ }^{14}$ but because some, indeed most, of these new loans will not be repaid, the long-run saving was significantly lower.

One of the primary arguments against abolishing maintenance grants was the potentially negative impact on access. Previous research at IFS ${ }^{15}$ showed that the removal of maintenance grants in the late 1990s would have reduced participation had no alternative support been provided. But replacing grants with slightly more generous loans has an ambiguous impact on participation. As yet, there has been no research into the impact of the 2016 reform. ${ }^{16}$ However, the reform remains unpopular. ${ }^{17}$ In this section, we outline various options the government could pursue to reverse the recent change, setting out the short- and long-run costs to government and the impact on graduate repayments.

We explore two potential options for reintroducing maintenance grants of differing levels of generosity. First, we consider grants up to $£ 3,500$ for students from households with gross income below $£ 25,000$ per year, with a taper between $£ 25,000$ and $£ 45,000$. This is roughly equivalent to the system that was in place prior to 2016. We also consider a less generous alternative with more tightly targeted grants - $£ 3,500$ for those from households with income below $£ 25,000$ and zero for those above (no taper). ${ }^{18}$ In both scenarios, we reduce maintenance loan income one-for-one with additional grants, so student cash-inpocket is unchanged. Appendix Table A1 shows the results for three additional scenarios: a $£ 1,500$ grant with a taper from $£ 25,000$ to $£ 45,000$ and a $£ 1,500$ or $£ 3,500$ grant with a taper from $£ 18,370$ to $£ 45,000 .{ }^{19}$

Figure 2 indicates the impact of these changes to maintenance grants on students' debt at graduation by decile of parental income. Under the current system, students from the lowest-income families graduate with the highest levels of debt: students taking a threeyear degree from the poorest $40 \%$ of families graduate with debts of around $£ 56,000$,

[^5]Figure 2. Debt on graduation by parental income decile (three-year degrees only) (2017 prices)


Source: Authors' calculations using IFS's graduate repayments model. See appendix notes for more.
compared with debts of $£ 42,000$ for students from the richest $30 \%$ of families. Reintroducing maintenance grants of $£ 3,500$ per year would reduce the debt levels of the students from the poorest families by $£ 11,000$.

In terms of government finances, reintroducing maintenance grants in this way has no impact on the up-front level of government spending on HE as the grant expenditure merely replaces outgoings on loans. However, because grant spending counts towards the deficit whereas student loans do not, each of these reforms does increase the cost of HE as measured by the deficit. As shown in Table 2, reintroducing full maintenance grants of $£ 3,500$ with a taper between $£ 25,000$ and $£ 45,000$ would increase the impact of spending on the deficit by around $£ 1.7$ billion. The long-run cost, however, is significantly lower, at around $£ 350$ million, as a significant proportion of the loans would not have been repaid anyway.

The same level of maximum grant but with no taper is cheaper in both the short and long run: it reduces the deficit cost to $£ 1.3$ billion and the long-run cost to around $£ 250$ million (relative to having no maintenance grants).

Figure 3 shows the reduction in lifetime repayments resulting from reintroducing maintenance grants, for those who are eligible for full grants and by decile of graduate earnings. Similar to reducing the interest rate, reintroducing maintenance grants serves to reduce only the repayments of the highest-earning graduates. Although the grants are targeted at students from low-income backgrounds, who typically have lower earnings

Table 2. Impact of various maintenance grant reforms on government cost

|  | No maintenance grants | £3,500 grant <br> per year, tapered between £25,000 and £45,000 | £3,500 grant per year, cliff edge at $£ 25,000$ |
| :---: | :---: | :---: | :---: |
| Government costs |  |  |  |
| Total up-front spending | £16,700m | £16,700m | £16,700m |
| RAB | 45.6\% | 41.6\% | 42.6\% |
| Expenditure on grants (deficit impact) | £750m | £2,400m | £2,000m |
| Relative to default | - | +£1,700m | +£1,300m |
| Long-run government cost | £8,000m | £8,400m | £8,300m |
| Relative to default | - | +£340m | +£240m |

Source: Authors' calculations using IFS's graduate repayments model. See appendix notes for more.
Figure 3. Impact of reintroducing grants on lifetime repayments of those who would receive the full maintenance grant, by decile of graduate earnings


Source: Authors' calculations using IFS's graduate repayments model. Deciles of earnings are based on the entire graduate earnings distribution. See appendix notes for more.
than students from high-income backgrounds, ${ }^{20}$ only those students who go on to have high earnings would have actually repaid the additional maintenance loan they received. There is no impact on the repayments of the lowest-earning $60 \%$ of graduates, while students who are eligible for grants and have earnings in the top $10 \%$ of graduates would be around $£ 22,000$ better off over their lifetimes.

[^6]
## 4. Summary

This briefing note has assessed the impact of a set of potential reforms to interest rates applied to student debt and the nature of the maintenance support available to students while they are studying. None of the policy options discussed in this briefing note increases the up-front government expenditure on higher education, but they would increase the government cost of providing HE in the long run in the form of lower graduate repayments.

Reducing the interest rate on student loans to RPI + 0\% increases the long-run government cost by $£ 1.3$ billion. This is a smaller increase than the recent change to the repayment threshold, which cost $£ 2.3$ billion. It is also a much less progressive reform, as it is the highest earners who benefit the most in this case, while the benefits of increasing the repayment threshold were concentrated further down the distribution. A cheaper alternative interest rate change would be to reduce the interest rate during study to RPI $+0 \%$. This would cost $£ 250$ million a year in the long run.

Due to the differential treatment of grants and loans in the public finances, reintroducing maintenance grants would significantly increase the cost of HE as measured by the current deficit, but would increase the long-run cost much less. Reintroducing maintenance grants at a similar level to that before 2016 would add around $£ 1.7$ million to the deficit; however, the long-run cost is only around $£ 350$ million.

These reforms all have the effect of reducing the level of student debt held by graduates. As a result, the main beneficiaries of such reforms are high-earning graduates, as these are the only graduates who fully repay their student loans. Reducing the interest rate to RPI $+0 \%$ would save the highest-earning $20 \%$ of graduates $£ 23,000$ over their lifetimes with little impact on low- and middle-earning graduates. Reintroducing maintenance grants lowers the debt level of students from the poorest families, but only lowers the repayments of students from poor families who go on to be high earners.

## Appendix

Table A1. Impact of various maintenance grant reforms on government cost

|  | No <br> maintenance <br> grants | $£ 1,500$ grant <br> per year, <br> tapered <br> between <br> $£ 25,000$ and <br> $£ 45,000$ | $£ 1,500$ grant <br> per year, <br> tapered <br> between <br> $£ 18,370$ and <br> $£ 45,000$ | $£ 3,500$ grant <br> per year, <br> tapered <br> between <br> $£ 18,370$ and <br> $£ 45,000$ |
| :--- | :---: | :---: | :---: | :---: |
| Government costs | $£ 16,700 \mathrm{~m}$ | $£ 16,700 \mathrm{~m}$ | $£ 16,700 \mathrm{~m}$ <br> Total up-front spending <br> RAB | $45.6 \%$ |

Source: Authors' calculations using IFS's graduate repayments model. See notes below for more.

Table A2. Impact of repayment rate on government cost and graduate repayments

|  | Current <br> system <br> (9\% <br> repayment <br> rate) | $10 \%$ <br> repayment <br> rate | $11 \%$ <br> repayment <br> rate | $13 \%$ <br> repayment <br> rate |
| :--- | :---: | :---: | :---: | :---: |
| Government costs | $£ 16,700 \mathrm{~m}$ | $£ 16,700 \mathrm{~m}$ | $£ 16,700 \mathrm{~m}$ | $£ 16,700 \mathrm{~m}$ |
| Total up-front spending | $45.6 \%$ | $42.4 \%$ | $39.7 \%$ | $35.5 \%$ |
| RAB | $£ 8,000 \mathrm{~m}$ | $£ 7,500 \mathrm{~m}$ | $£ 7,100 \mathrm{~m}$ | $£ 6,400 \mathrm{~m}$ |
| Long-run government cost | - | $-£ 500 \mathrm{~m}$ | $-£ 900 \mathrm{~m}$ | $-£ 1,600 \mathrm{~m}$ |
| Relative to default | $£ 3,400$ | $£ 3,800$ | $£ 4,200$ | $£ 5,000$ |
| Impact on graduate repayments | $£ 33,100$ | $£ 36,500$ | $£ 39,700$ | $£ 45,500$ |
| (real non-discounted) | $£ 83,500$ | $£ 83,900$ | $£ 83,600$ | $£ 81,900$ |
| Lowest-earning 20\% |  |  |  |  |
| Middle-earning 20\% |  |  |  |  |
| Highest-earning 20\% |  |  |  |  |

[^7]Table A3. Impact of repayment period on government cost and graduate repayments

|  | Current <br> system <br> (30-year <br> repayment <br> period) | 35 -year <br> repayment <br> period | 40-year <br> repayment <br> period | Repayment <br> until death <br> (as in <br> Australian <br> system) |
| :--- | :---: | :---: | :---: | :---: |
| Government costs | £16,700m | $£ 16,700 \mathrm{~m}$ | $£ 16,700 \mathrm{~m}$ | $£ 16,700 \mathrm{~m}$ |
| Total up-front spending | $45.6 \%$ | $38.1 \%$ | $34.2 \%$ | $31.1 \%$ |
| RAB | $£ 8,000 \mathrm{~m}$ | $£ 6,800 \mathrm{~m}$ | $£ 6,200 \mathrm{~m}$ | $£ 5,700 \mathrm{~m}$ |
| Long-run government cost | - | $-£ 1,200 \mathrm{~m}$ | $-£ 1,800 \mathrm{~m}$ | $-£ 2,300 \mathrm{~m}$ |
| Relative to default |  |  |  |  |
| Impact on graduate repayments | $£ 3,400$ | $£ 3,900$ | $£ 4,200$ | $£ 4,500$ |
| (real non-discounted) | $£ 33,100$ | $£ 41,600$ | $£ 47,100$ | $£ 53,000$ |
| Lowest-earning 20\% | $£ 83,500$ | $£ 90,900$ | $£ 93,700$ | $£ 95,100$ |
| Middle-earning 20\% |  |  |  |  |
| Highest-earning 20\% |  |  |  |  |

[^8]
## Notes

Applying to all figures and tables: Government figures are given in 2017 prices, in net present value terms using the government discount rate of RPI $+0.7 \%$. Student figures are deflated using CPI inflation, not discounted. These figures apply to young full-time English-domiciled students studying at the 90 largest universities in England starting in 2017. We assume that all students taking out loans do so for the full amount to which they are entitled, that there is no dropout from university, that graduates repay according to the repayment schedule and that they have low unearned income. The table assumes a cohort size of 365,700 based on 2015-16 Higher Education Statistics Agency (HESA) estimates of English-domiciled first-year full-time undergraduates. We assume $10 \%$ non-take-up of loans, approximately in line with Student Loans Company (SLC) data on loan uptake.


[^0]:    1 C. Belfield, J. Britton and L. van der Erve, 'Higher education finance reform: raising the repayment threshold to $£ 25,000$ and freezing the fee cap at $£ 9,250^{\prime}$, IFS Briefing Note BN217, October 2017, https://www.ifs.org.uk/publications/9964.
    2 The thresholds determining the interest rates on student loans also increased in line with the repayment threshold (to $£ 25,000$ and $£ 45,000$ ). This change represents around $£ 200$ million of the $£ 2$ billion cost (authors' calculations).
    ${ }^{3}$ The Treasury Select Committee officially launched a new inquiry into the student loan system on 14 October 2017 (http://www.parliament.uk/business/committees/committees-a-z/commons-select/treasury-committee/news-parliament-2017/student-loans-launch-17-19/).

[^1]:    ${ }^{4}$ The interest rate for the academic year is based on the rate of RPI in the previous March.
    5 The interest accrues daily but this rate is the annual equivalent rate (AER).
    6 For estimates of the difference between CPI and RPI measures of inflation, see box 3.3 in Office for Budget Responsibility, Economic and Fiscal Outlook - March 2015, http://budgetresponsibility.org.uk/efo/economic-fiscal-outlook-march-2015/.
    7 C. Belfield, J. Britton, L. Dearden and L. van der Erve, 'Higher education funding in England: past, present and options for the future', IFS Briefing Note BN211, July 2017, https://www.ifs.org.uk/publications/9334.

[^2]:    8 C. Belfield, J. Britton and L. van der Erve, 'Higher education finance reform: raising the repayment threshold to $£ 25,000$ and freezing the fee cap at $£ 9,250$ ', IFS Briefing Note BN217, October 2017, https://www.ifs.org.uk/publications/9964.
    9 This figure is slightly different from that published in IFS Briefing Note BN217 (see previous footnote) as that used a representative subsample of graduate earnings projections. Re-estimating using the same method as here leads to small changes.

[^3]:    ${ }^{10}$ C. Belfield, J. Britton, L. Dearden and L. van der Erve, 'Higher education funding in England: past, present and options for the future', IFS Briefing Note BN211, July 2017, https://www.ifs.org.uk/publications/9334.
    ${ }^{11}$ C. Belfield, J. Britton, L. Dearden and L. van der Erve, 'Higher education funding in England: past, present and options for the future', IFS Briefing Note BN211, July 2017, https://www.ifs.org.uk/publications/9334.

[^4]:    12 This treatment of interest rates on student debt has been heavily criticised
    (https://andrewmcgettigan.org/2017/07/13/fiscal-illuions/) and the OBR has described this treatment as 'flatter[ing] the fiscal position' (Office for Budget Responsibility, Fiscal Risks Report - July 2017, http://budgetresponsibility.org.uk/frr/fiscal-risk-report-july-2017/).
    ${ }^{13}$ The appendix gives more detail on the impact of increasing the repayment rate (Table A2), alongside the impact of extending the repayment period (Table A3). In both cases, we show that it is middle-earning graduates who are affected the most in terms of their lifetime repayments.

[^5]:    ${ }^{14}$ J. Britton, C. Crawford and L. Dearden, 'Analysis of the higher education funding reforms announced in Summer Budget 2015', IFS Briefing Note BN174, July 2015, https://www.ifs.org.uk/publications/7904.
    ${ }^{15}$ L. Dearden, E. Fitzsimons and G. Wyness, 'The impact of tuition fees and support on university participation in the UK', IFS Working Paper W11/17, September 2011, https://www.ifs.org.uk/publications/5648.
    ${ }^{16}$ To the authors' knowledge.
    ${ }^{17}$ Over 130,000 people signed a petition to prevent the reform, forcing it to be debated in the House of Commons (https://petition.parliament.uk/archived/petitions/109649).
    ${ }^{18}$ We note that such a policy results in a cliff edge, which may have significant consequences for the behaviour of parents to manipulate their taxable income in order to avoid large losses in grant income, although there is no immediate impact on the cash-in-pockets of their children as the additional maintenance loans would still be available for this group.
    ${ }^{19}$ These later options reflect a system of grants similar to that currently in place in Wales.

[^6]:    ${ }^{20}$ J. Britton, L. Dearden, N. Shephard and A. Vignoles, 'How English domiciled graduate earnings vary with gender, institution attended, subject and socio-economic background', IFS Working Paper W16/06, April 2016, https://www.ifs.org.uk/publications/8233.

[^7]:    Source: Authors' calculations using IFS's graduate repayments model. See notes below for more.

[^8]:    Source: Authors' calculations using IFS's graduate repayments model. See table notes below for more.

