



Department  
for Business  
Innovation & Skills

## Freezing the student loan repayment threshold

**EQUALITY ANALYSIS**

NOVEMBER 2015

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## Introduction

Under the Equality Act 2010, the Department for Business Innovation and Skills (BIS), as a public authority, is legally obliged to give due regard to equality issues when making policy decisions - the public sector equality duty, also called the general equality duty. Analysing the effects on equality of these regulations through developing an equality impact assessment is one method of ensuring that thinking about equality issues is built into the policy process, and informs Ministers' decision making.

BIS, as a public sector authority, must in the exercise of its functions, have due regard to the need to:

- Eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Act;
- Advance equality of opportunity between people who share a protected characteristic and those who do not; and
- Foster good relations between people who share a protected characteristic and those who do not.

The general equality duty covers the following protected characteristics: age, disability, gender reassignment, pregnancy and maternity, race, religion or belief, sex and sexual orientation.

As disadvantage in higher education is still apparent in connection to family income and economic status we will also look at the impact on individuals from lower income groups. We will use the terms protected and disadvantaged groups as well as protected characteristics. Protected groups are a reference to people with protected characteristics, and disadvantaged groups refer to low income groups.

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## Policy background

The Government is committed to maintaining the UK's world class education system while living within its means and reducing the national debt. Further and higher education will remain accessible to students who have the ability to benefit from it, ensuring that no-one needs to pay for higher education up-front. We know that higher education continues to be an excellent investment with graduates earning considerably more on average than those with lower levels of qualification. To keep higher education on a sustainable footing we must ask future graduates to meet more of the costs of their studies once they are earning.

The OECD has said that the UK is the first European country that established a sustainable approach to higher education funding. In the last parliament The Government wants to ensure that this sustainability is preserved. As we enable more students than ever before to study, including those from disadvantaged backgrounds, we must also reflect the challenge faced by Government, to put debt on a declining path as part of fiscal consolidation plans. The Government has published a draft Charter for Budget Responsibility (the "Charter") which sets out a target for public sector debt to be falling as a percentage of GDP in every year from 2015-16 to 2019-20. We need to ensure that student finance meets our policy goals and remains financially sustainable.

For loans taken out before 2012, graduates started repaying when their income reached £15,000 (this threshold has now risen to a little over £17,000). The Government set the repayment threshold to £21,000 for post-2012 borrowers, proposing that it would be up-rated annually in line with earnings from 2016, when the first graduates under the new system would start repayments. When the policy was introduced the threshold of £21,000 was around 75% of expected average earnings in 2016. Updated forecasts, based on the Office for Budget Responsibility's (OBR) latest projections for the macro-economy, show that figure is now 83%, reflecting weaker than expected earnings growth over the interim period. The proportion of borrowers liable to repay when the £21,000 threshold takes effect in April is therefore significantly lower than could have been envisaged when the policy was originally introduced. The threshold would now be set at around £19,000 if it were to reflect the same ratio of average earnings. The threshold is therefore higher in real terms than was originally intended, which increases the long-term costs of the higher education system to the tax payer.

The Budget on 8 July contained a number of announcements related to higher education, including an intention to consult on keeping the repayment threshold at the same level for five years. We recognise that this proposal represents a change from when the policy was first introduced. The consultation was issued on 22 July 2015 and closed on 14 October 2015.

Loans to cover both tuition and living costs are available for all eligible first-degree students. These need to be repaid only once borrowers are earning more than an annual earnings threshold, which will be £21,000 in 2016-17. Borrowers repay 9 per cent of their income above that threshold. Any outstanding balance will be written off after 30 years. Interest rates are applied using the Retail Price Index (RPI) and vary from RPI, for those on an income up to £21,000, increasing to RPI +3% for those at an income of £41,000 or more.

Under the progressive student loan repayment system introduced in England in 2012, there is a much stronger link between the benefit individuals derive from higher education and the overall contribution they make to the costs of their study. A similar loan system was introduced in April 2013 for further education learners. This applies to those aged 24 and above who were undertaking qualifications at Level 3 or Level 4. 24+ Advanced Learning Loans cover tuition costs, and are repayable on the same basis as higher education student loans.

The Government considered, and still considers, it essential that a graduate's contribution to the cost of their education should be linked to ability to pay. Research consistently estimates that over a life-time graduates will earn, on average, comfortably over £100,000 more than those who did not enter higher education. BIS' latest research (Walker and Zhu, 2013) estimates the net lifetime benefits for an individual from gaining an undergraduate degree to be in the order of approximately £170,000 for men and £250,000 for women, net of tax and other costs and in today's value, compared to someone with 2 or more A Levels who did not attend higher education<sup>1</sup>.

The Government provides protection to those who earn relatively low wages or who have periods out of employment through the setting of a threshold for repayments. Those with the lowest lifetime earnings will pay much less than those who are better-off. Those earning below £21,000 repay nothing. Any amount not repaid after 30 years will be written-off.

The proposed freeze will make an important contribution to the Government's debt reduction plan whilst also maintaining a fair balance between the taxpayer and graduates in funding Higher Education.

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<sup>1</sup> Impact of University Degrees on the Lifecycle of Earnings: Some Further Analysis. Walker, I. and Y. Zhu (2013) BIS) Research Paper No 112.  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/229498/bis-13-899-the-impact-of-university-degrees-on-the-lifecycle-of-earnings-further-analysis.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/229498/bis-13-899-the-impact-of-university-degrees-on-the-lifecycle-of-earnings-further-analysis.pdf)

## What were the options proposed?

### Option 1: The Government's preferred option is to freeze the threshold for all Plan 2 loans, existing and new

The first borrowers with Plan 2 loans start to repay under statutory terms in April 2016, when the threshold will be £21,000. Under this proposal the threshold will remain at this level for five years, for all English borrowers – new and existing. The threshold will be reviewed for April 2021. This option will reduce government debt the most whilst still ensuring those who do not earn high wages are protected. This option makes the largest savings. Freezing the threshold for five years at its 2016 level for new and existing Plan 2 students, is estimated to result in around an additional £1 billion of repayments for every £15 billion of loans issued in NPV terms. For loans issued to existing students, additional repayments of £3.2 billion in NPV terms are estimated as more borrowers are brought into repayment. It will still ensure that higher education is free at the point of use, and that repayments are affordable for all graduates.

### Option 2: Freeze the threshold for new borrowers only

The second option is to freeze the threshold for new borrowers only. This option will affect only borrowers starting courses in academic year 2016-17 and subsequent years. These borrowers will generally expect to start repayment in April 2020. The threshold will be frozen from April 2020 for five years at the same level that the existing Plan 2 borrowers' loan threshold has reached by then (currently estimated to be £24,405). This option also reduces government debt, but by considerably less than option 1, and, crucially, not during the current parliament. It would also require the creation of a new student loan type, or 'plan', and therefore has operational demands and administrative costs associated with it, for businesses as well as for government.

### Not changing the policy: Threshold rising with earnings growth from April 2017

If no changes are made to the current policy, raising the threshold by earnings growth from April 2017 for all borrowers, as originally set out in 2010, there will be no impact on borrowers. However, this would not contribute to the Government's debt reduction target and will not help to put the HE sector on a more financially sustainable footing in the longer term.

## Evidence base

For this equality analysis the primary sources of data are:

- Higher Education Statistics Agency (HESA) student record data for all English domiciled students at UK institutions.
- Student Loan Company (SLC) data on the characteristics of English domiciled student support recipients studying at UK institutions.
- Student loans repayment analysis conducted using the published BIS model (<http://tinyurl.com/stepmodel>).
- Labour Force Survey (LFS) data and analysis.
- Wider research undertaken by stakeholders and other organisations including responses to the consultation

Our analysis of the evidence base is structured as follows:

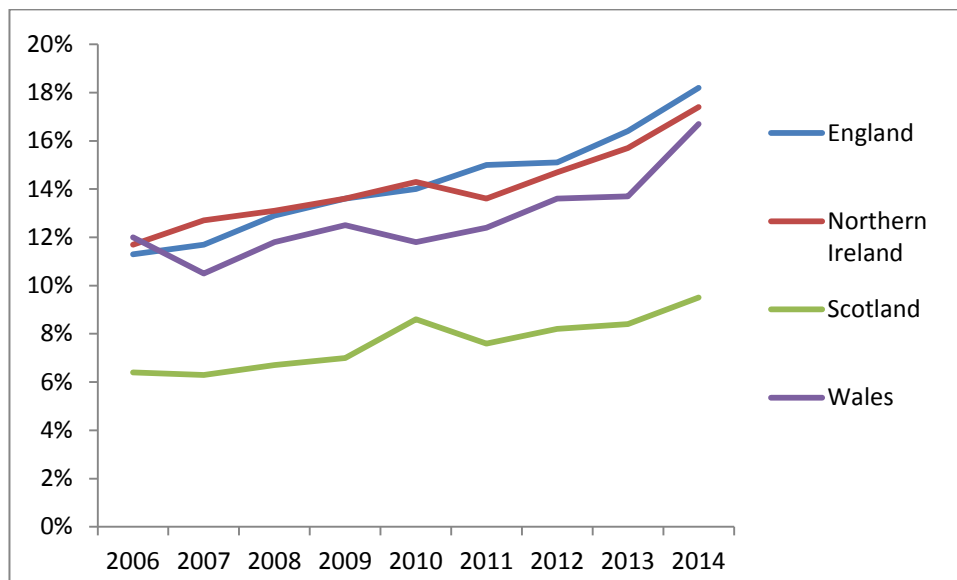
- The evidence base first reviews the participation in higher education of groups that share a protected characteristic, and students from disadvantaged backgrounds.
- Secondly it examines for characteristics of current full time English domiciled student support claimants to ascertain whether any protected groups are over represented in these populations.
- Thirdly, we consider the evidence of the influences on students' decision making and how student finance affects these decisions. This is to understand the extent to which changes in repayment threshold might influence students' decisions to participate in Higher Education.
- Next, we review the relevant evidence on outcomes of study; whether students go on to further study, go on to work in highly skilled professions and ultimately what they go on to earn in the labour market.
- We then use student loans repayment analysis using the published BIS model to identify the financial impact on borrowers of the options and what group of borrowers will be affected in particular.
- Finally it examines the available evidence on the nature and scale of the potential impacts of the policy options. This will seek to understand from available evidence whether the impact at an individual level from the proposed policy changes will be positive, negative or broadly neutral. We also consider the cumulative impact of a change in the repayment threshold and other proposed, significant changes to the student financial support package.



## Participation in higher education by disadvantage and protected groups

Current evidence points to diminishing inequalities in higher education. Evidence about participation in higher education indicates that there is good representation from protected and disadvantaged groups such as women and minority ethnic communities; the proportion of students who enter higher education declaring a disability has increased, as has the proportion of young people living in the most disadvantaged areas. These groups have traditionally been under-represented in higher education. A summary of participation in higher education is provided at Annex 1.

**Figure 1: 18 year old entry rates for disadvantaged areas by country of domicile**



**Source: UCAS**

Despite the improving trends gaps remain between some groups, particularly with regards to attainment and outcomes (including engagement in further study). We address this later on in the evidence base.

## Characteristics of students by type of financial support

Table 1 shows the profile of student support claimants by type of student support product and by protected characteristic. It examines whether protected groups are under, over or proportionately represented in the population of student support claimants.

The definition of the student support claimant population, for the purposes of this analysis, is English full-time undergraduate students awarded at least one student support product by the SLC in academic year 2013/14, not including those receiving tuition fee loans.

**Table 1: Proportion of students claiming support by protected characteristic**

| Student Support product[1]               | No. of claimants (rounded to nearest 100) | Disability status                      |   | Gender     |            | Age [3]    |            | Ethnic group[3] |                     |
|--|---|--|---|------------|------------|------------|------------|-----------------|---------------------|
|  |   | Receiving Disabled Students Allowances | Not receiving Disabled Students Allowances[2] | Male       | Female     | Under 21   | 21 +       | White [4]       | Ethnic minority [5] |
| Maintenance Grant – Full Grant           | 379200                                    | 6%                                     | 94%   | 48%        | 52%        | 55%        | 45%        | 66%             | 34%                 |
| Maintenance Grant – Partial Grant        | 151300                                    | 6%                                     | 94%   | 47%        | 53%        | 69%        | 31%        | 82%             | 18%                 |
| Special Support Grant – Full Grant       | 35800                                     | 13%                                    | 87%   | 14%        | 86%        | 5%         | 95%        | 59%             | 41%                 |
| Special Support Grant – Partial Grant    | 600                                       | 42%                                    | 58%   | 35%        | 65%        | 35%        | 64%        | 76%             | 24%                 |
| <b>All student support claimants [7]</b> | <b>959800</b>                             | <b>6%</b>                              | <b>94%</b>                                    | <b>47%</b> | <b>53%</b> | <b>62%</b> | <b>38%</b> | <b>75%</b>      | <b>25%</b>          |

### Notes:

[1] Source: Student Loans Company records: English domiciled full time undergraduate students awarded student support in 2013/14.

[2] This group will include students who declare a disability who are not eligible for Disabled Students Allowance. Not all students with a disability will have one that impact on their ability to study in HE.

[3] Age at start of course

[4] White group includes British, Irish and Other White

[5] Ethnicity data is provided voluntarily and is available for only 14% of all student support claimants, with coverage differing across each type of student support product. Data not disaggregated further due to poor coverage of ethnicity data in SLC dataset – see [4]

[6] All English applicants awarded student support for full-time study. Awards do not necessarily translate into payments. An awarded applicant will only receive payments once SLC have received confirmation from the student's provider at the start of the academic year that the student has been registered on the course.

[7] 88.9% of the estimated Loan for Living Costs eligible population at Public Providers of Higher Education receives at least one form of student support, including loans for living costs and therefore this is a suitable approximation of the total English domiciled full time undergraduate population.

[8] Data may not sum to 100% due to rounding.

The data shows that in 2013/14:

- The number of students in receipt of any form of student support from the Student Loans Company, including loans for living costs was 960,000.
- 567,000 English undergraduate students were awarded a full or partial maintenance grant for full time study.
- 88.9% of students were awarded a loan for living costs.
- 45% of students who started after 2012 were awarded a full maintenance grant of £3,387 a year.
- A further 14% of students were awarded a partial grant on household incomes of between £25,000 and £42,620.

## Disability

Table 1 shows the proportion of disabled and non-disabled students awarded different types of maintenance support compared to their representation in the overall student support claimant population.

It is important to note that the SLC does not require a student to declare whether or not they have a disability. We have therefore used as a proxy students applying for Disabled Students Allowances (DSA). It should be noted, however, that we would expect this to be a subset of the total number of students with a disability as eligibility requires that the disability impacts on their ability to study, which will not always be the case.

The SLC's data in Table 1 shows that DSA claimants are:

- Proportionately represented in the full and partial maintenance grant and loan for living costs populations;
- Significantly over represented in the Special Support Grant population, particularly in the partial Grant population, compared to their representation in the total student support claimant population;

## Gender

The data in Table 1 shows that:

- The gender profile of the sub populations claiming maintenance grants, both for full and partial grants, and loans for living costs are broadly similar to that of the total student support claimant population;
- Female students are overrepresented in both the full and partial special support grant populations;

## Age

SLC data in Table 1 shows the percentage of young and mature students (defined here as being 21 years of age and over *at the start of their course*) awarded different types of student support. The data shows that **mature students** are:

- Over-represented in the full maintenance grant population and under-represented in the partial grant population. This is likely to reflect the fact that some mature students are more likely to be assessed as independent students with eligibility based on their individual household income (and where applicable, their partner's income) rather than on the household income of their parents<sup>2</sup>.
- Significantly over represented in the special support grant populations, both for full and partial grants and in the dependents related grant populations;

## Ethnicity

**It is important to note that there are significant limitations on ethnicity data as reported by the SLC**, as students are not required to declare their ethnicity, with 86% of student support claimants electing not to do so. This makes drawing firm conclusions difficult.

The available data (based on a 14% declaration rate) suggests:

- Ethnic minority students are over-represented in the full maintenance grant and the full special support grant populations;
- White students are over-represented in the partial maintenance grant populations;
- The ethnic profile of the population claiming loans for living costs is the same as that of the total student claimant support population;

As mentioned above, we are aware that ethnicity data from the SLC is limited so we have considered a range of other sources in order to assess whether it is appropriate to assess impact on the basis of the SLC data. We have done this in the following way:

Firstly we assessed HESA student record data for the 2013/14 academic year (see Table 2) to see if this and the overall SLC population have a similar representation in terms of ethnic minority groups, which they do at around a quarter being black or of another ethnic minority. While this does not prove that the SLC ethnic minority

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<sup>2</sup> Mature students aged 25 or over on the first day of an academic year and certain other categories of student – e.g. married or in civil partnership – have their income assessment based on their own and where applicable their partner's taxable income. Not all students aged 21 or over at the start of their course will be treated as independent for student support purposes

breakdown for each type of financial support is representative, it does suggest that there is not a systematic bias at the total population level.

**Table 2: Disadvantage and protected characteristics profile of all English domiciled students at UK institutions in 2013/14**

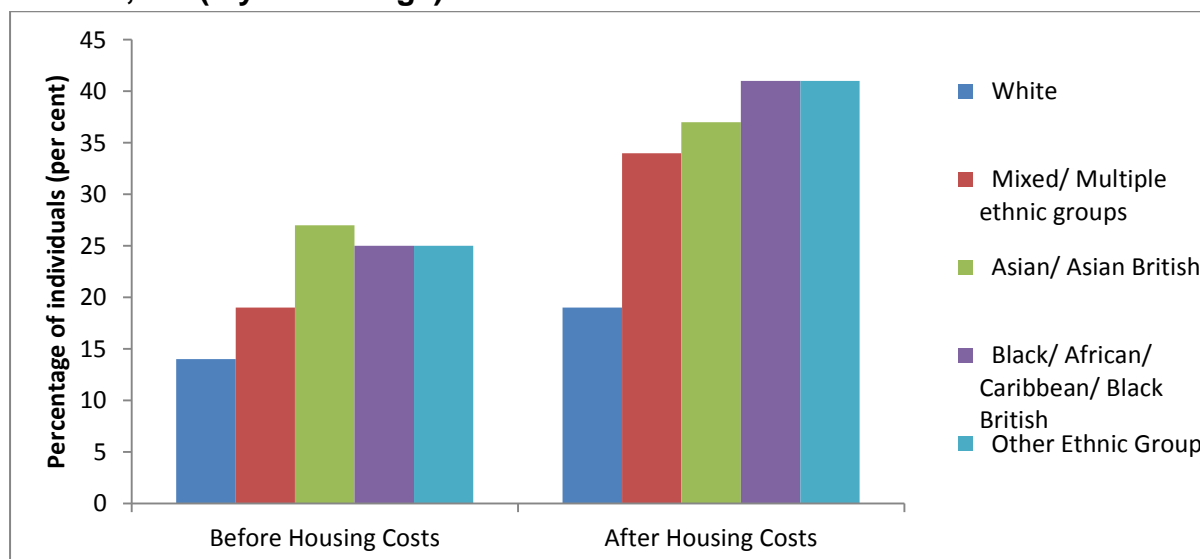
| Disability Status          |   | Ethnicity |                         | Gender |        | Age      |             |
|----------------------------|---|-----------|-------------------------|--------|--------|----------|-------------|
| Known to have a disability | In receipt of Disabled Students Allowance | White     | Black & Ethnic minority | Male   | Female | Under 21 | 21 and over |
| 13%                        | 7%  | 74%       | 26%                     | 45%    | 55%    | 63%      | 37%         |

**Source:** HESA student record 13/14, based on 977,259 observations

Secondly we analysed the relationship between being from an ethnic minority background and low income status. A link would strengthen the assertion that those from ethnic minority backgrounds are over represented in the maintenance grant population.

Evidence from DWP<sup>3</sup> finds that individuals living in households headed by someone from an ethnic minority were more likely to live in a low income household, as demonstrated in Figure 2. This supports the suggestion that students from ethnic minority backgrounds are more likely to be awarded maintenance grants.

**Figure 2: Percentage of individuals in relative low income<sup>4</sup> by ethnic group, 2013/14, UK (3-year average)**



Source: DWP: Households below Average Income (HBAI) Statistics (see footnote 3 below)

<sup>3</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/437246/households-below-average-income-1994-95-to-2013-14.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/437246/households-below-average-income-1994-95-to-2013-14.pdf)

<sup>4</sup> Relative low income is based on 60 per cent of median income

Thirdly we explored the differences in ethnic groups in terms of other income differences using the Student Income and Expenditure Survey, a representative survey of students at English Higher Education Institutions (HEIs).

The Student Income and Expenditure Survey (2012)<sup>5</sup> showed that Black students tend to have lower incomes on average than White students when controlling for all other factors. Black/Black British students were found to rely more heavily on other sources of student support compared with students from White and Other backgrounds. They tend to receive very little on average from their families in terms of contribution to student costs compared with other students.

Asian and Asian British students had lower total income on average than White students, however when controlling for all other factors (such as family type and whether they lived away or at home) being Asian/Asian British was not found to be significantly associated with level of total income. Instead the differences in incomes between these two ethnic groups were more likely to reflect their different profiles – particularly in terms of other factors found to be significantly associated with total income. Notably Asian and Asian British students were much more likely than White students to be living at home with the parents/family (61 per cent compared with 19 per cent).

Our conclusion is that these data sources support the conclusions drawn from SLC data, in particular that students from ethnic minority backgrounds are over represented in full and partial maintenance grant.

## **Influence of student finance on higher education decision making**

In theory, student finance can influence student decisions in the following ways:

- By providing students with access to funds to cover their tuition and maintenance costs during their period of study. Without the provision of government finance many students would not be able to afford University, with imperfect capital markets and insufficient personal savings and/or family resources unable to fill the gap. Increases in the size of financial support would be expected to have an upward effect on participation.
- By influencing the cost of, and hence net returns, from studying. This will depend both on the nature of the finance – a loan would ordinarily be more expensive than a grant as there is usually an underlying expectation that it will be repaid – as well as the terms on which it is offered e.g. interest rate and

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<sup>5</sup> Student Income and Expenditure Survey 2011/12, BIS Research Paper 115, June 2013.  
[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/301467/bis-14-723-student-income-expenditure-survey-2011-12.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/301467/bis-14-723-student-income-expenditure-survey-2011-12.pdf)

repayment terms. If the cost of finance increases then this may have a downward effect on participation, though if the overall expected return to Higher Education is expected to be high then this effect is likely to be more muted.

- Individual students' decision making behaviour. Both the extent to which financial factors feature in their decision framework compared to other factors and their willingness to accumulate debt.

This section considers the key available evidence in relation to how changes in the repayment threshold, and therefore the pattern of repayment of a loan, affects the cost of Higher Education and the extent to which it might affect students' decision making. Its primary focus is on whether it will influence the participation decision, though it also considers the evidence in relation to part time working during study and choices of institution and course.

### Impact of past reforms

Over the last decade or so a number of reforms have been made that have seen a greater share of the cost of higher education moving towards the student rather than the taxpayer. While care is needed in extrapolating patterns observed in the past, they generally suggest that the crucial driver of student participation is the ability to access sufficient support to cover costs, rather than the form in which that support is given and the cost itself.

At an aggregate level there is no evidence that the 2012 reforms, which saw a significant increase in HE fees and associated student debt levels has had a significant impact in deterring the participation of young students from low income backgrounds. Instead, following the 2012 reforms entry rates to HE for young people in the most disadvantaged groups have risen to the highest levels on record (see Figure 1). Initial concerns that the increase in the tuition fee cap to £9,000 would deter students from under-represented groups have not emerged. While there was a short term effect in terms of a large drop in entrants in 2012, evidence from Higher Education Funding Council for England (HEFCE)<sup>6</sup> suggests this was largely driven by a change in deferral behaviour.

A recent study by Universities UK reported that “there is no evidence to suggest that the student funding reforms have deterred students from applying to university. This is true across all socioeconomic groups”. Indeed, the report also finds there has been a slight closing of the gap between the highest and the lowest participation

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<sup>6</sup> Higher Education in England: Impact of the 2012 reforms, HEFCE, March.  
<http://www.hefce.ac.uk/media/hefce/content/about/Introduction/About,HE,in,England/Impact,report/2013.03.pdf>

groups in terms of university applications<sup>7</sup>. However, it does go on to suggest that the student funding reforms can help to explain the decline in mature and part-time entrants to higher education. Mature entrants have since recovered to a certain extent whilst part-time entrants have failed to do so.

Analysis of HESA student record data also suggests that the diversity of the full time English first degree entrant population at UK HEIs in 2013/14 has not been significantly affected by the major reforms of 2012 (See Annex 1).

Key findings from this analysis:

- Improvements were reported for the sector wide widening participation performance indicators on the representation of lower socio-economic groups and students from low participation neighbourhoods in the 2013/14 population of young full time first degree entrants (see Table 3).
- The proportion of student entrants aged over 21 in 2013/14 at 19.7% was similar to 2010/11 (19.8%).
- Females remained over-represented, increasing slightly to 55.4% of full time first degree entrants in 2013/14, compared to 54.1% in 2010/11.
- The proportion of disabled full time first degree entrants increased from 9.4% in 2010/11 to 11.6% in 2013/14.
- Ethnic minorities' representation within the full time first degree entrant population increased to 27.1%, from 24.3% in 2010/11.

**Table 3: Proportion of under-represented groups amongst UK-domiciled young, full-time first degree entrants at English HEIs**

|   | 2010/11 | 2011/12 | 2012/13 | 2013/14 |
|---|---------|---------|---------|---------|
| <b>State school pupils</b>                                      | 88.7%   | 88.9%   | 89.3%   | 89.7%   |
| <b>Lower socio-economic groups (NS-SEC classes 4,5,6 and 7)</b> | 30.6%   | 30.7%   | 32.3%   | 32.6%   |
| <b>Low participation neighbourhoods (POLAR3 quintile 1)</b>     | 10.0%   | 10.2%   | 10.9%   | 10.9%   |

Source: HESA

<sup>7</sup> Student Funding Panel An analysis of the design, impact and options for reform of the student fees and loans system in England  
<http://www.universitiesuk.ac.uk/highereducation/Documents/2015/Student%20Funding%20Panel.pdf>



When it comes to students' individual decision making, the research (again prior to the 2012 reforms) shows that aspirations for higher education amongst many higher education applicants and students appear not to be dented by financial factors<sup>8</sup>. When student focus groups were asked about their decision making process, finance was often described as playing a minor role in institution and course choices. Where financial factors were mentioned, these were often in relation to incidental costs such as accommodation, rather than directly comparable course and institution considerations such as fees and bursaries.

Research undertaken more recently (post the 2012 reforms) has shown that debt is becoming more acceptable than previously anticipated. Research<sup>9</sup> conducted in 2015 has found that many undergraduate students from lower social-class backgrounds showed "positivity about debt as a means of enabling them to access higher-level careers". The study found that "more generally, the mainstream of student attitudes appears to fall between the 'debt-savvy' and 'debt-resigned' types, with students being relatively well-informed about repayment terms and accepting large-scale indebtedness as normal". Another study<sup>10</sup> using data from students in year 13 found that the primary response to study-related debt is that "there is no point worrying". This is because a higher education degree was considered vital to securing employment in a competitive labour market.

Other research, however, suggests that attitudes to debt are not uniform across the student population. Students from lower social classes and mature students are more debt averse and more concerned about the costs of HE and this (alongside other factors) can play into decisions about participation in HE<sup>11</sup>.

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<sup>8</sup> "The role of finance in the decision making of Higher Education applicants and students", IES, BIS research paper no.9 January 2010.

<sup>9</sup> Harrison N, Chudry F, Waller R and Hatt S (2015). "Towards a typology of debt attitudes among contemporary young UK undergraduates", *Journal of Further and Higher Education*, 39(1), 85-107. Quoted in: What do we know about the impact of financial support on access and student success? Review of the research and evaluation of the impact of institutional financial support on access and student success. Report to the Office for Fair Access (OFFA) by Nursaw Associates (March 2015). (p15) <https://www.offa.org.uk/wp-content/uploads/2015/03/Literature-review-PDF.pdf>

<sup>10</sup> Esson, J and Ertl, H (2014). "No point worrying? Potential undergraduates, study-related debt, and the financial allure of higher education", *Studies in Higher Education*, published online 11 Nov 2014. Quoted in: What do we know about the impact of financial support on access and student success? Ibid.

<sup>11</sup> For example Access for All: An investigation of young people's attitudes to the cost of higher education using the Longitudinal Study of Young People in England (Strategic Society Centre, 2013) <http://strategicsociety.org.uk/wp-content/uploads/2013/07/Access-for-All1.pdf>, C. Callender and J. Jackson, (2005), "Does the fear of debt deter students from higher education?", *Journal of Social Policy*, Vol 34, No 4. This study was based on a survey of 1,954 prospective HE students studying in 82 FECs, schools and sixth form colleges. In addition Gorard S, Smith E, May H, Thomas L, Adnett N and Slack K (2006). Review of Widening Participation Research: Addressing the Barriers to Participation in Higher Education: A report to HEFCE by the University of York, Higher Education Academy and Institute for Access Studies. Attitudes to debt: school leavers and further education students' attitudes to debt and their impact on participation in higher education, C.Callender/UJK, 2003

## Influence of the 2012 system loan repayment threshold on higher education decision making

Forthcoming BIS research<sup>12</sup> which surveyed almost 1,500 UCAS applicants in 2015 shows that post the 2012 reforms financial factors continue to play a secondary role in the participation decision for both high and low socio-economic groups. Where 100 represents the average importance of a factor being influential on their decision to go to university, “wishing to improve job opportunities/salary prospects”, “achieve the qualification”, “to pursue an interest in the subject” and “getting the course I want” were all more than twice as likely than average to be rated as important to their decision (i.e. had index scores of 200 or more) regardless of socio-economic group. Financial factors such as living costs, tuition fees, and access to loans, grants and bursaries were all rated as below average factors affecting their decision. Although lower socio-economic groups placed more importance on financial factors than higher groups these factors firmly remained a secondary factor in the participation decision.

This research showed that the elements of the student finance offer that were most frequently cited as helping to allay concerns over costs were the availability of loans (for fees and living costs) and the repayment threshold (although this question did not distinguish between the income contingent nature of loan repayments and the precise level). Applicants from lower socio economic groups, females and applicants aged over 21 were the groups that were most likely to cite the repayment threshold as important in helping persuade them to apply to university despite the costs – around seven in ten in each case, and around three in ten considered it to be the most important aspect of funding. Figure 3 below shows the results for applicants from lower socio-economic groups (C1-E).

In addition the threshold helps allay cost concerns for females in both the high and low socio-economic groups. Non-white applicants (28%) were also more likely than White applicants (25%) to consider the repayment threshold to be the most important factor. Applicants that declared they had a disability were slightly more likely to cite the threshold as important but slightly less likely to cite it as the most important factor.

The study also found that the income contingent element of the student support package is its most appealing aspect (88% of applicants considered it so) followed by the availability of loans for living costs (87%). Low socio-economic groups (91%) and females (92%) and those with a declared disability (90%) were more likely to find it appealing that they wouldn't have to repay their loans until they earned £21,000 pa.

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<sup>12</sup> An on-line survey was conducted with almost 1500 UCAS applicants (and a similar number of first year HE students) early summer 2015 to explore the influence of finance on HE decision-making. BIS research paper, Youthsight (forthcoming)

## Working while studying

Many students expect to work whilst studying and commonly undertake some paid work during the academic year. Whilst this is primarily for financial reasons students recognise there are benefits for longer-term employability and graduate opportunities<sup>13</sup>. The 2012 Student Income and Expenditure Survey reported that 52% of all full time HE students<sup>14</sup> undertook some paid work during the academic year earning on average £3,200. Working was most common among female students, those married or living with a partner, those living with their parents during term-time, and students of independent status. Women were significantly more likely than men to undertake paid work during the academic year (55 per cent compared with 49 per cent). There were no differences in socio economic groups in the propensity to undertake paid work during the academic year.

The BIS Futuretrack report on working while studying showed that the number of hours that students work during term-time was relatively low, with around 70 per cent of respondents working for less than 15 hours per week. Respondents from lower socioeconomic backgrounds are more likely to work longer hours during term-time than those from higher socio economic backgrounds. Those working longer hours are more likely to say it was for financial necessity. Mature students (those who were aged over 21 years when they entered university) also tended to work longer hours than younger respondents as did those from minority ethnic groups<sup>15</sup>.

It is unclear the extent to which changes to the repayment thresholds will have on their decision to work. If students see that the threshold freeze will mean that they'll pay more of the loan back in the future, they may decide to work now to reduce the amount of debt they accumulate, to reduce their future repayments.

While the evidence on the impact of part-time working on student outcomes is mixed it would seem to suggest that some level of part-time employment can be beneficial, but beyond a certain level it can have a detrimental effect on student outcomes.

BIS research on working while studying showed that those working particularly long hours reported being exhausted and it having an impact on the quality of their work<sup>16</sup>. Research from CHERI<sup>17</sup> reported that term time working is negatively associated with degree outcomes even after taking into account other factors

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<sup>13</sup> Working while Studying: a follow-up to the Student Income and Expenditure Survey, 2011/12. BIS Research No 142

<sup>14</sup> Unweighted sample size for all full-time students – n=2982.

<sup>15</sup> Learning from Futuretrack: the impact of work experience on student HE outcomes, HECSU, BIS Research No 143.

<sup>16</sup> BIS qualitative study with students 'Working while studying: a follow up to the Student Income and Expenditure Survey, 2013.

<sup>17</sup> Survey of higher education students' attitudes to debt and term-time working and their impact on attainment: A report to Universities UK and HEFCE by the Centre for Higher Education Research and Information (CHERI) and London South Bank University.

(institution attended, qualification on entry, gender, subject of study, age on entry). For example, “For a student working 16 hours a week the odds of getting a good degree to not getting a good degree are about 60% of the odds for a similar non-working student.” However, other studies have shown that gaining work experience whilst studying has a positive impact on employment and degree outcomes. The BIS Futuretrack report showed that respondents who had undertaken both work-based learning and paid work tended to have the most positive outcomes whilst those who had undertaken no work had the least positive outcomes. For example respondents who had no work experience at all had the highest proportion of those who felt their job was inappropriate for them and were also more likely to be in non-graduate or unpaid work<sup>18</sup>.

### **Attitudes to student debt and repayments on graduation: the 2012 cohort**

Research conducted by the NUS aimed to capture the views of students who were eligible to pay tuition fees of up to £9,000. 664 responses were collected online during June and July 2015. All of these students identified as final year students graduating in summer 2015. The research showed that many graduates were concerned about their levels of debt when leaving university and believe it will have an impact on their future lifestyle:

- 77% of graduates were worried or very worried about their student debt.
- 43% of graduates believe their standard of living would be affected by the cost of repaying their student loan; only 27% disagreed.
- Only 45% of graduates expect to fully repay their student loan debt.

The research also showed that around half of graduates agreed that they wanted to start paying off their loan as soon as possible. This was higher for BME graduates, with 70% wanting to repay as soon as possible.

The research reported that while the majority of graduates seemed to understand the student loan system and its benefits in comparison to commercial debt, graduates from black and minority ethnic backgrounds seemed less well informed:

- A third of BME graduates believed that student loan debt was just as bad as other forms of debt such as bank loans or credit cards.
- BME graduates were also more concerned about the interest of student loans and much more likely to want to repay them as soon as possible. 71% were concerned (37% very concerned) compared to 56% of non-BME students.

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<sup>18</sup> Learning from Futuretrack: the impact of work experiences on student HE outcomes, HECSU, BIS Research No 143.

The research concludes there appears to be an issue with how student loans are perceived by BME students, which may come down to information about the loans not being so well transmitted or received, or it may be a more systemic issue in financial information, advice and guidance not reaching minority groups.

## **Student success: Employment and further study outcomes**

The impact of changes to the repayment loan threshold will depend not just on who takes out a loan, and the total size of borrowing, but the outcomes they then go on to experience as graduates. In particular, how much they go on to earn during their lifetime as this will determine how much of their loan repay, how quickly, and what interest it accrues.

The available evidence shows that there are differences in degree employment outcomes across disadvantaged and protected groups during graduates' early careers. However the evidence shows that some differences between groups persists, whereas others diminish.

BIS official widening participation statistics show that 67% of young graduates with parents in the lowest 6 occupation groups are working in top 3 occupations groups (professional or managerial level jobs) six months after graduating<sup>19</sup>. This compares to 73% for young graduates with parents in the highest 3 occupation groups; the gap between the two groups has increased from three percentage points for 2008/09 graduates to six percentage points for 2012/13 graduates.

Analysis by HEFCE<sup>20</sup> compares outcomes across different groups (gender, POLAR3 classification<sup>21</sup> and ethnicity) for the 2006-07 student cohort with their sector adjusted average. The sector adjusted average takes account of a student's characteristics to calculate the expected performance outcome for a particular group. The outcomes examined are: (i) degree and employed or studying and (ii) degree and professional or managerial job<sup>22</sup> or studying. The analysis shows:

- For the lowest POLAR3 quintiles outcomes are significantly below the sector-adjusted average. Those from quintile 5 have performed significantly above the sector average. The greatest difference shown by the percentage of the

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<sup>19</sup> BIS Official statistics: Widening participation in higher education 2014.

<https://www.gov.uk/government/statistics/widening-participation-in-higher-education-2014>

<sup>20</sup> HEFCE 2013/15 Higher education and beyond; Outcomes for full-time first degree study. The report focuses on four outcomes; Achievement of degree qualification, Degree classification, Employment circumstances, Graduate outcome.

<sup>21</sup> POLAR3 was developed by HEFCE and classifies small areas across the UK into five groups according to their level of young participation in HE. Each of these groups represents around 20 per cent of young people and is ranked from quintile 1 (areas with the lowest young participation rates, considered as the most disadvantaged) to quintile 5 (highest young participation rates, considered most advantaged).

<sup>22</sup> Professional and Managerial occupations are classified here as jobs which are categorised as in Standard Occupation Classification (SOC) codes 1-3.

cohort who achieved a degree and continued to professional or managerial employment or further study.

- Women have performed significantly above what would be expected for their student profile in both outcome measures, whereas men are below the sector-adjusted averages.
- Black students are significantly below the sector-adjusted average for both outcomes, the greatest difference being 14.3 percentage points below the sector-adjusted average for those who achieved a degree and continued to employment or further study.
- Chinese students have performed significantly below the sector-adjusted average in the percentage of the cohort who achieved a degree and continued to employment or further study and also below the sector-adjusted average in the percentage that achieved a degree and continued to professional or managerial employment or further study.
- Indian students have performed significantly above the sector-adjusted average in achieving a degree and professional or managerial job or study whilst white students perform significantly above the sector adjusted average on both outcomes.

New analysis by HEFCE<sup>23</sup> examines the employment outcomes of UK-domiciled students who qualified from a full-time first degree course at a publicly funded English HEIs in the academic year 2008-09 at six and forty months after graduation. It identifies differences in employment outcomes for different equality groups among those qualifying and examines whether differences seen in a graduate's early career persist into the medium term.

The report shows:

- **Female qualifiers have higher employment rates across their early careers, but male qualifiers make considerable gains to catch them up.** At six months, the employment rate for female qualifiers was 5.1 percentage points higher, but by 40 months the difference had reduced such that female qualifiers had a rate that was only 1.7 percentage points higher.
- **Higher professional employment rates among mature qualifiers do not persist.** Mature students had the highest rates for all age groups, but the differences between all age groups narrow considerably between six and 40 months.
- **Lower professional employment rates among disadvantaged students persist across their early careers.** Six months after leaving HE, professional

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<sup>23</sup> HEFCE 2015/23 Differences in employment outcomes: Equality and diversity characteristics.



employment rates ranged from 59.7% among the most disadvantaged qualifiers to 67.4% among the least disadvantaged qualifiers (a difference of 7.7 percentage points). These differences remain largely unchanged in outcomes observed 40 months after graduation. While the most disadvantaged qualifiers saw professional employment rates increase by 14.4 percentage points across their early careers (to 73.1%), the least disadvantaged qualifiers saw a similar increase of 15.1 percentage points (to 80.5%).

- **Ethnic groups see differences in their professional employment rates widen.** Black Caribbean qualifiers had the lowest rate of professional employment six months after graduation, of 55.4%. This was 9.3 percentage points lower than the highest rate of 64.7% observed among White qualifiers. Forty months after leaving HE the difference between the highest and lowest professional employment rates had widened to 13.2 percentage points. Black African qualifiers had the lowest rate at this stage of graduates' early careers (65.9%), while Asian Indian and White qualifiers had the highest rates (79.1% and 78.7% respectively).
- **Similarities in the professional employment rates of male and female qualifiers diminish as careers develop,** with a higher proportion of male qualifiers in professional employment or further study. The professional employment rate of male qualifiers increased relative to female qualifiers between six and 40 months after leaving HE. While male qualifiers had a professional employment rate only 0.3 percentage points higher than female qualifiers six months after graduation, the male qualifiers' rate was 1.9 percentage points higher 40 months after graduation.

## Earnings distribution by protected characteristics

We have carried out an analysis of the Labour Force Survey (LFS), combining 16 quarters of data together (2011 Q1 - 2014 Q4) to assess distribution of graduate earnings by protected characteristics; disability status, ethnicity, gender and mature student status. The analysis considers only the working age population (16-64 year olds) of full-time workers currently employed that hold a first or Bachelor's degree as their highest qualification. Individuals that did not provide information on their earnings were removed from the data, with observations then weighted to adjust for non-response bias<sup>24</sup>. Underlying data tables for the graphs can be found in the **Annex 2**.

An overview of the age distribution for four different groups is provided as an indicator of the broad work experience of the group. Work experience is a factor

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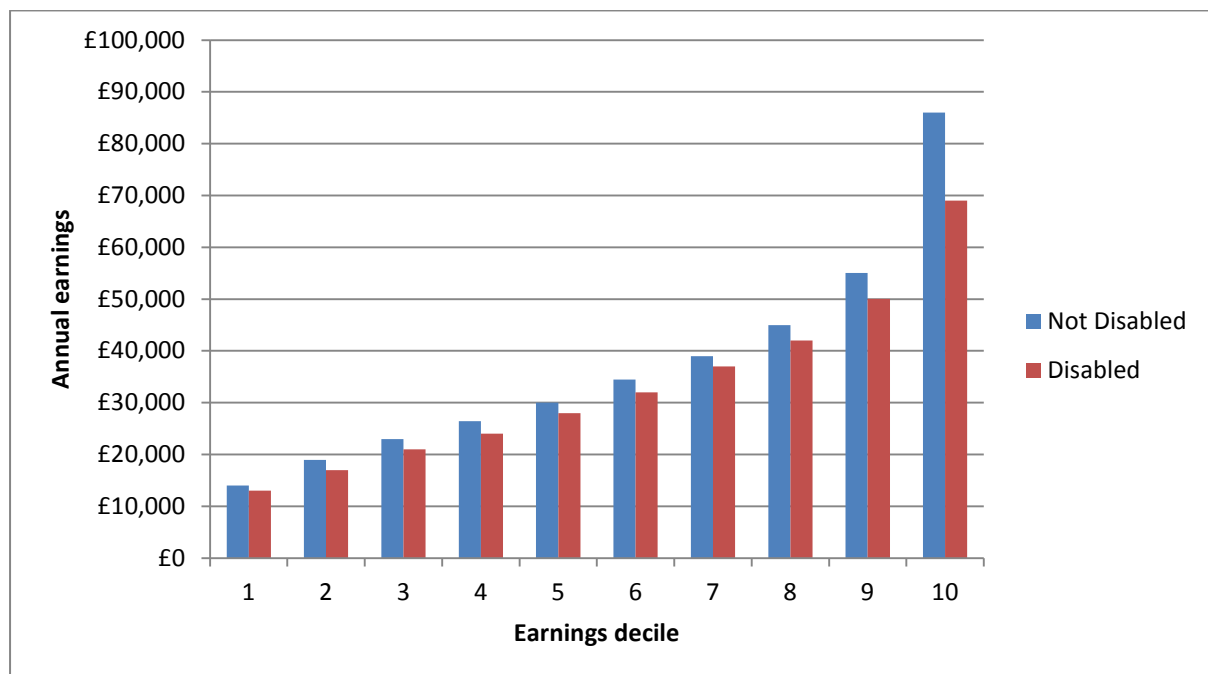
<sup>24</sup> More information on LFS response bias can be found on the ONS website: <http://www.ons.gov.uk/ons/guide-method/method-quality/specific/labour-market/labour-force-survey-quality-measures/index.html>

which determines pay; however we do not have the ability to measure work experience. Instead age is used as a proxy in this analysis as one source of differences in the average annual earnings between the groups.

### Disability status

LFS analysis indicates that graduates with a disability<sup>25</sup> earn less than those without a disability across all the earnings deciles<sup>26</sup>. The gap is particularly wide at the 10<sup>th</sup>, or highest earning decile, see figure 4. Those that are classified as disabled are more likely to be older, as shown in Figure 5. As is common in many analyses of earnings we assume age is a proxy for work experience<sup>27</sup>. This suggests that the impact on earnings of having a disability is greater than that suggested in figure 4.

**Figure 3: Graduate earnings distribution by disability status**



Note: Earnings data in the annex. The analysis uses data from 2013-2014 quarterly LFS. Unweighted sample: Not Disabled – 3,965; Disabled - 355.

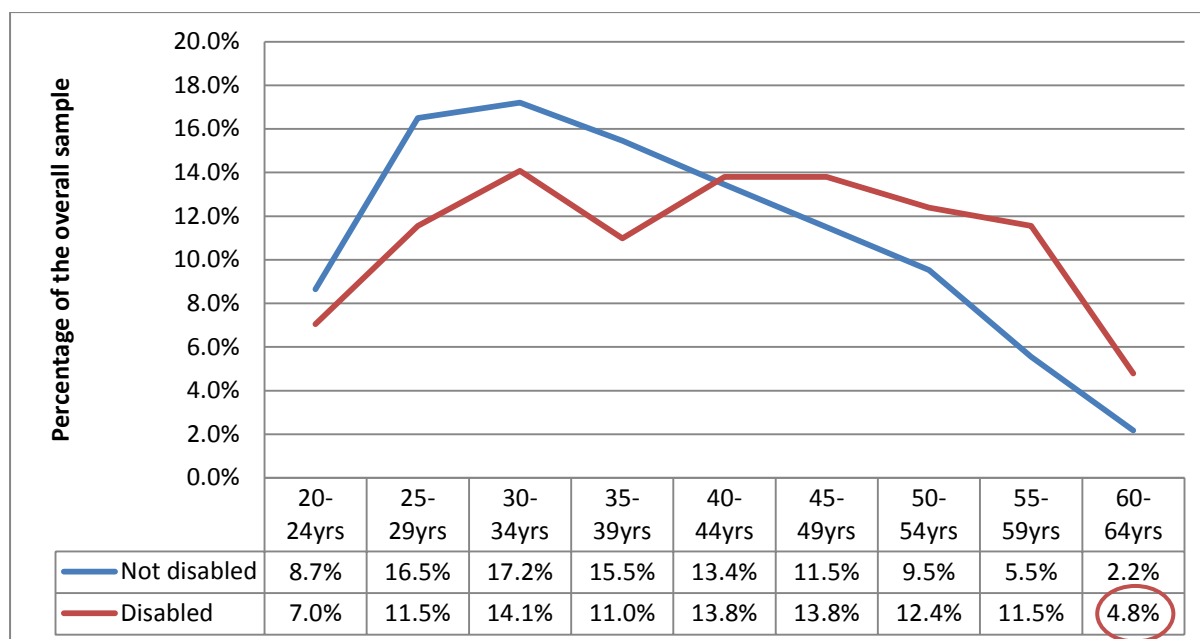
<sup>25</sup> This analysis uses the LFS variable DISEA to distinguish between disabled and not disabled graduates. This is a derived variable that reflects the Equality Act 2010 changes to the legal definition of disabled. Due to these changes only LFS data from 2013 is used in this analysis, as use of previous disability definitions would be inconsistent.

<sup>26</sup> Deciles are used to divide the population into 10 equal sized sub-groups, in this case the chart provides the average or mid-point for each of these 10 earnings sub-groups.

<sup>27</sup> See BIS research paper 112: The impact of university degrees on the lifecycle of earnings: some further analysis



**Figure 4: Age distribution of graduate sample by disability status**

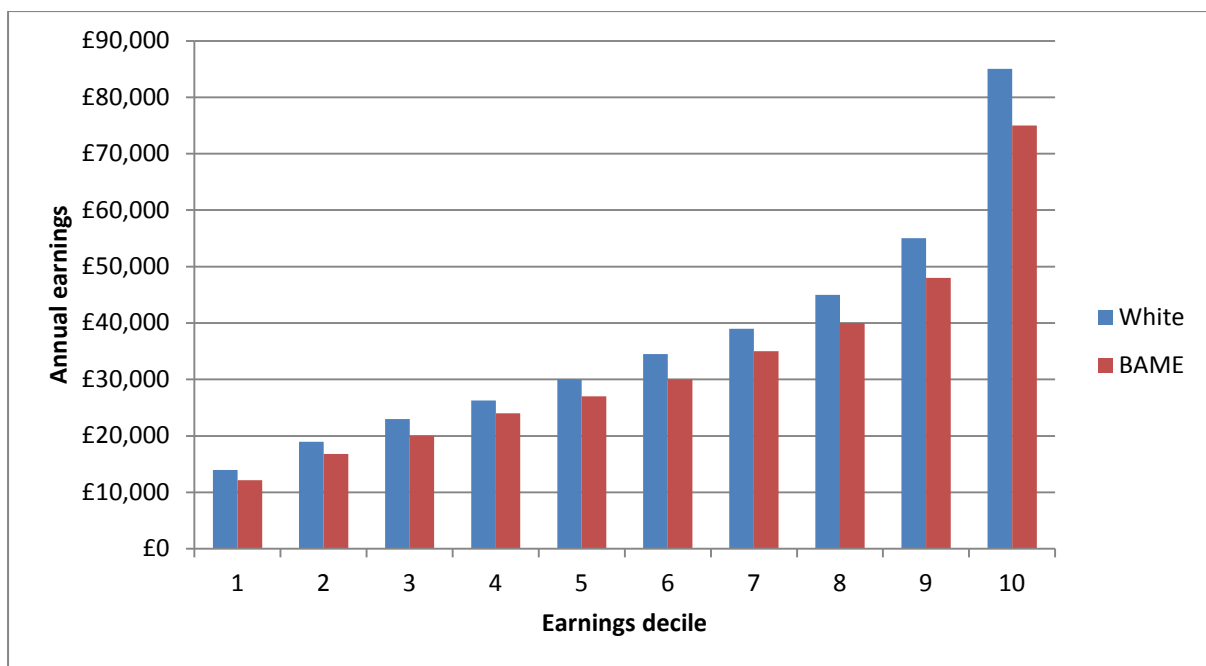


Note: Earnings data in the annex. The analysis uses data from 2013-2014 quarterly LFS. Unweighted sample: Not Disabled – 3,965; Disabled - 355. The sample size for disabled 60-64 year old graduates is border line (red circled result) for the minimum sample size. The result for this group should be interpreted with caution and provides an indicative view.

## Ethnicity

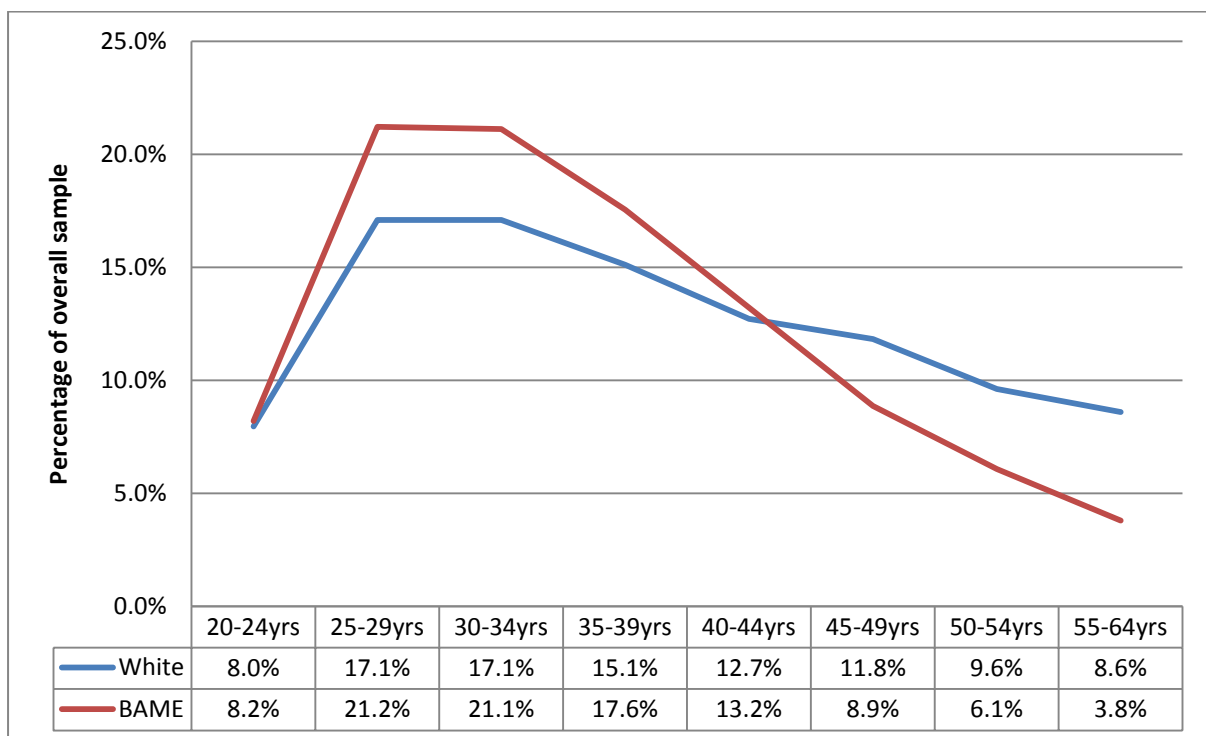
Graduates from Black and Minority Ethnic (BAME) groups earn on average less than their White counterparts across all deciles, with the gap widening at the higher earnings deciles. However, some of this observed difference could again be driven by age differences in the sample. The BAME sample have a younger age profile than the White category, so could on average have less experience of work. If so, the gap between ethnic minority and white graduates is likely to be overstated.

**Figure 5: Graduate earnings distribution by ethnicity**



Note: Earnings data in the annex. Sample: White - 16,378; BAME – 1,701.

**Figure 6: Age distribution of graduate sample by ethnicity**



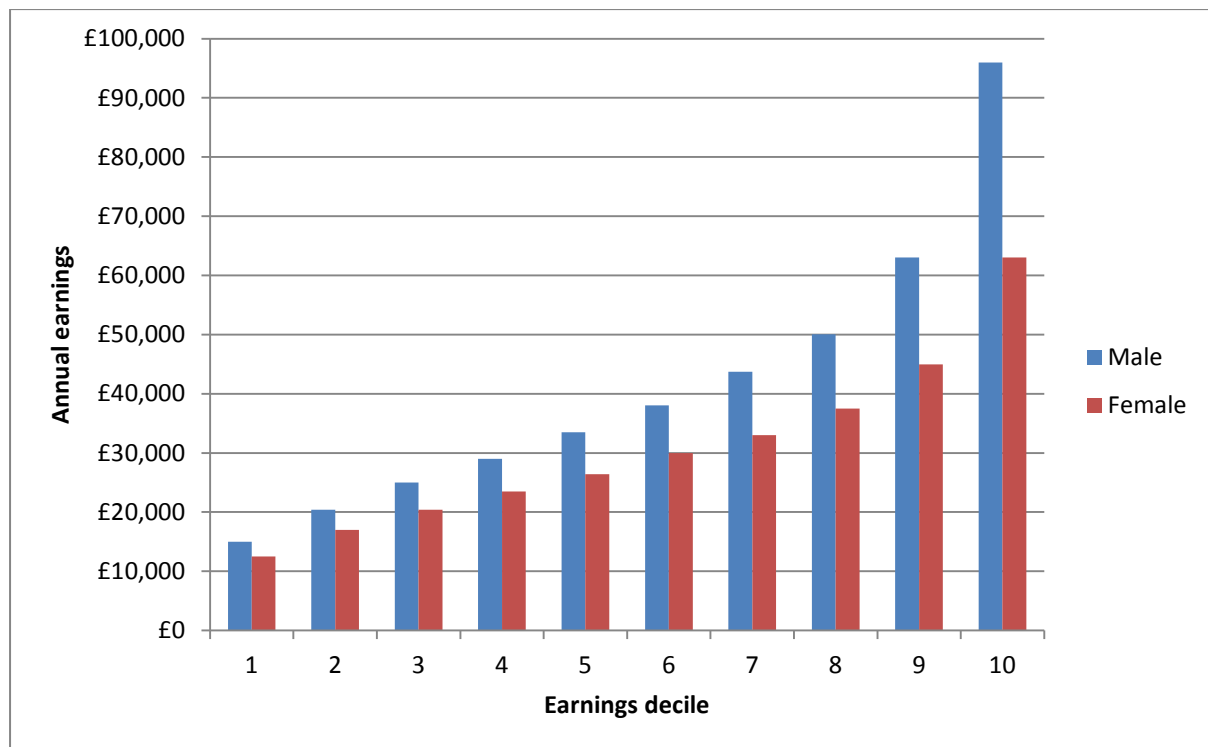
Note: Earnings data in the annex. Sample: White – 9,287; BAME – 1,037. The final age band has been expanded (55-64 years) has been expanded to ensure the BAME category meets the minimum LFS reporting sample size.

Evidence submitted by the NUS as part of the consultation shows that while the variance of non-black graduate salaries is larger than that of black graduates, there is more of a bunching effect for black graduates between £20,000 and £29,999, which is the salary range that will be most affected by the proposed changes. Their analysis of HESA DLHE data from 2013-14 shows that 51% of black graduates employed six months after graduation are in this salary band compared with 45% of non-black graduates.

## Gender

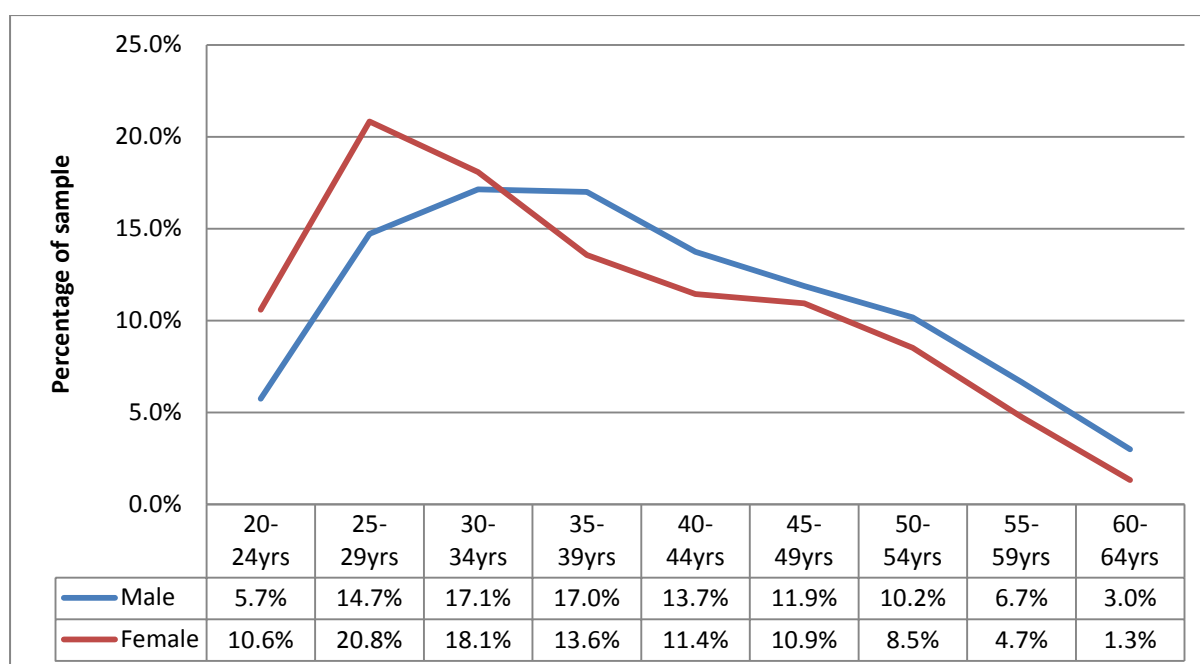
Female graduates earn less on average than male graduate across all deciles, but the gap widens significantly at the higher deciles. Females in the sample are younger on average, which may indicate a lower level of experience which could partially explain some of the earnings differential. Young women in 2014 were around a third more likely to enter higher education than men, a similar proportional difference to recent years. This difference in entry rates explains the younger average age of female graduates.

**Figure 7: Graduate earnings distribution by gender**



Note: Earnings data in the annex. Sample: Male 16-64 – 5,981; Female 16-64 – 4,994.

**Figure 8: Age distribution of graduate sample by gender**



Note: Earnings data in the annex. Sample: Male 16-64 – 5,981; Female 16-64 – 4,994.

New analysis published by the IFS<sup>28</sup> based on anonymised tax data and student loan records for over 260,000 graduates for up to 10 years after graduation showed a large variation in the distribution of male and female graduate earnings. 10 years after graduation;

- 10% of male graduates were earning more than £55,000 per annum, 5% were earning more than £73,000 and 1% were earning more than £148,000.
- 10% of female graduates were earning more than £43,000 per annum, 5% were earning more than £54,000 and 1% were earning more than £89,000.

Overall the male–female annual earnings gap 10 years after graduation was around 23%. The IFS reported that similar analysis using the Labour Force Survey suggested it is around 33%. Although this indicates that the LFS may overestimate the gender pay gap, the report provides further estimates of the gender pay gap for different graduating cohorts which suggests that for some cohorts the two data sources provide similar estimates of the gender pay gap. A further finding from the research is that the gender gap appears to increase the longer graduates are in the labour market. Tax data suggests an earnings gap of 7% in the first year after graduation, rising to 23% 10 years after graduation.

<sup>28</sup> IFS working paper W15/28 'Comparing sample survey measures of English earnings of graduates with administrative data' by Jack Britton, Neil Shephard and Anna Vignoles <http://www.ifs.org.uk/publications/7997>

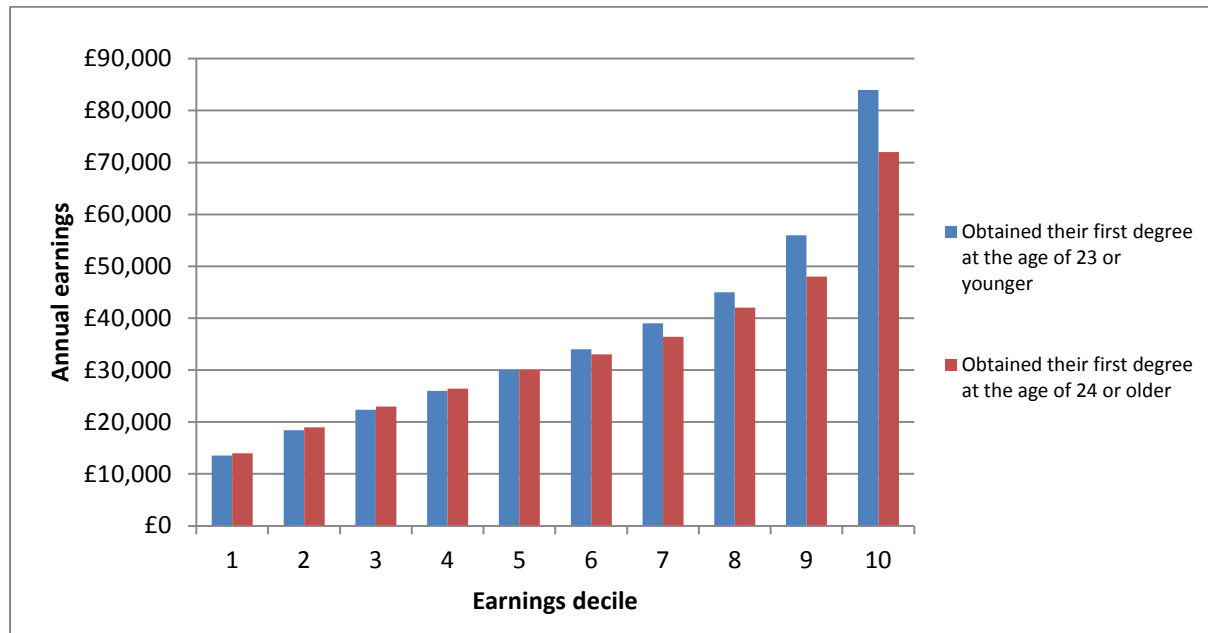
Evidence submitted by the NUS as part of the consultation also shows that the spread of salaries by gender is different, with women graduates more likely to be on salaries that hover around the repayment threshold for student loans.

The most recent Destinations of Leavers' from Higher Education (DLHE) survey also indicated a gender pay gap six months after graduation. The median salary for UK male graduates in UK employment was £21,000, compared to £20,000 for females. The mean female salary was lower for every subject group except in subjects allied to medicine.

### Mature students

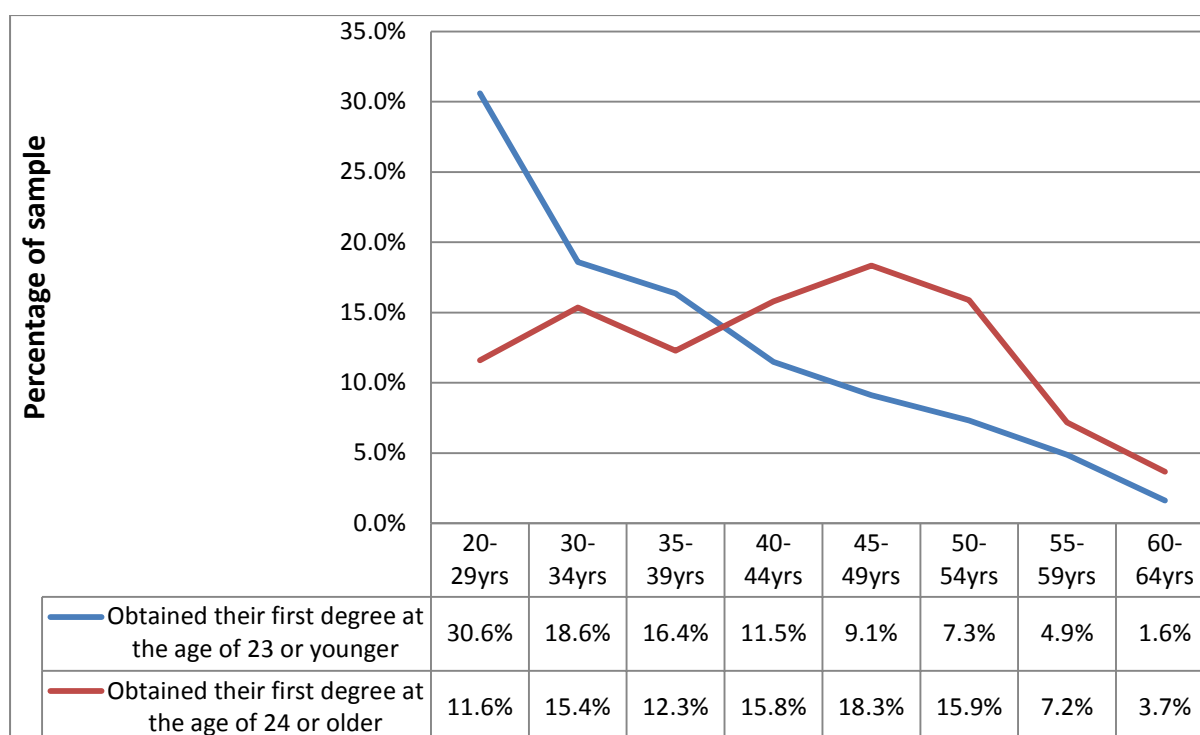
LFS analysis shows that at the lower earnings levels (approximately below the median), those who obtain their degrees at the age of 24 or older (a proxy for “mature students”) appear to earn slightly more than graduates who obtained their degree aged 23 or younger. However, at the top end of the earnings distribution those who gain their first degree at a younger age earn more. The age distribution for both samples is different with the distribution for “mature students” skewed towards older ages. Despite this maturity and assumed increased work experience, those obtaining their degree at the age of 24 and above on average earn less than their younger graduate counterparts.

**Figure 9: Earnings distribution by age obtained their first degree**



Note: Earnings data in the annex. Sample: 23 or younger – 4,672; 24 or older – 1,172.

**Figure 10: Age distribution of graduate sample by age category**



Note: Earnings data in the annex. Sample: 23 or younger – 4,672; 24 or older – 1,172. The first age band (20-29 years) has been expanded to ensure the mature graduate category meets the minimum LFS reporting sample size.

## Returns to the higher education investment

A key consequence of both reform options is that a greater proportion of the cost of higher education will be transferred from the taxpayer onto the student. It is worth therefore considering the returns an individual might receive from attending higher education. There is good evidence that higher education presents on average a high earnings return for graduates. Research consistently estimates that over a life-time graduates will earn, on average, comfortably over £100,000 more than those who did not complete a higher education degree. BIS' latest research, Walker and Zhu (2013)<sup>29</sup>, estimates the net lifetime benefits for an individual from gaining an undergraduate degree to be in the order of approximately £170,000 for men and £250,000 for women, net of tax and other costs and in 2012 prices, compared to someone with 2 or more A Levels who did not complete a first degree.

<sup>29</sup> Impact of University Degrees on the Lifecycle of Earnings: Some Further Analysis. Walker, I. and Y. Zhu (2013) BIS) Research Paper No 112. [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/229498/bis-13-899-the-impact-of-university-degrees-on-the-lifecycle-of-earnings-further-analysis.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/229498/bis-13-899-the-impact-of-university-degrees-on-the-lifecycle-of-earnings-further-analysis.pdf)

## Progression to Postgraduate study

There have been concerns that the increased student debt on graduation may dissuade the 2012 system graduates from progressing at a young age to postgraduate study. In their recent study of 2012 system students graduating in summer 2015, the NUS asked these students for their thoughts on postgraduate study<sup>30</sup>. The study found that 60% of those graduating under the post-2012 system of fees and loans were considering postgraduate study.

Of the 40% that were not thinking of postgraduate study, the most common reasons for not continuing study were: they had had enough of studying (25%), they had already got a job lined up (19%), they would not be able to afford the fees and/or living costs (16%), or that study was too expensive (12%). A further 10% said that they either didn't want to get into further debt or they were too concerned about their current levels of debt to take on postgraduate study.

Historically students from disadvantaged backgrounds have been less likely to go into postgraduate study. The new NUS study showed that amongst the 2015 graduating cohort recipients of grants were considerably more likely to consider postgraduate study, by 67% to 54% and that they were also more likely to know about, and consider taking out, a new postgraduate student loan from government.

The report concludes that the results appear to indicate that perceptions about the cost of study and access to funding are a considerable factor in non-transition from undergraduate to postgraduate and that this appears to be a greater barrier than attitudes towards student debt.

The changes to the repayment threshold will not actually increase the level of debt students take on, though it will increase the cost to some students by asking them to pay back more. This may make them more reluctant to add to this burden. At this point we do not have evidence as to whether the 2012 reforms have influenced actual behaviour of students around entering postgraduate study.

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<sup>30</sup> Debt in the first degree: Attitudes and behaviours of the first £9k fee paying graduates, NUS, 2015.

# Analysis of the impact of Student Loans Repayments options on borrowers by income group

## Introduction

This section looks at how the different repayment thresholds would affect the repayment profiles of different students according to their earnings. It first considers the impact of freezing the repayment threshold under the current student financial support package, before looking later at the cumulative impact when combined with other significant changes the Government intends to make, notably a change from maintenance grants to loans.

Under the current system borrowers will make loan repayments equal to 9 per cent of their earnings above a repayment threshold of £21,000. For the duration of their loan, they are charged a variable rate of interest: for those earning £21,000 or below the interest rate is RPI, whilst for those earning at or above the interest rate threshold of £41,000 the interest rate is RPI+3%. Those earning in between the repayment and interest rate thresholds are charged an intermediate rate of interest calculated on a simple sliding scale between those two interest rates. The previous Government said its intention was for the repayment and interest rate thresholds to rise annually with earnings growth from April 2016.

The Government's consultation considered two options:

- **Option 1:** Both the repayment and interest rate threshold are frozen at £21,000 and £41,000 respectively for five years from April 2016, to be reviewed for April 2021. This would be for all borrowers and is the Government's preferred option.
- **Option 2:** The repayment and interest rate thresholds will be go up with earnings from April 2016 but then, for those who start courses in 2016 and subsequent years, the repayment thresholds will be frozen at whatever values they have reached by April 2020 for a five year period, and then will be reviewed for April 2025. Current estimates of these threshold values are forecast to be £24,405 and £47,640, but their actual values will depend upon actual earnings growth between now and April 2020 - so these values are subject to change.

Under option 1, over the lifetime of the loans we would expect to recover £3.2 billion (NPV) more of the HE loan outlay from existing borrowers (2012-13 to 2015-6 cohorts) than under the current policy, and a further £35 million from FE borrowers. For future borrowers (September 2016 on) we would expect additional repayments of around £1 billion per £15 billion of loan outlay. Under option 2 long term increases



in recoveries over the lifetime of future loans are estimated to be around £1 billion per £15 billion of loan outlay.

Under both option 1 and 2, it is assumed for modelling purposes that the thresholds will subsequently rise with earnings growth after the period of being frozen, though in practice this will be subject to review nearer the time.

## Methodology

We use BIS's StEP3 published model to look at the effect of these repayment options on graduates' repayments.

In making these calculations we have used the following assumptions:

- 3 years of study for a first degree, starting in either 2012 or 2016 and going into repayment in either 2016 or 2020.
- 2012 and 2016 starters take out loans of £12,000 and £13,000 (tuition and maintenance) in their first year of study, with these figures rising with RPIX in the two subsequent years of study. These figures are based on analysis of existing borrower data in terms of average loan and grant amounts. Later on we consider a different assumption to reflect the impact of the Government's proposal to provide additional maintenance support to low income households through loans rather than grants.
- Each borrower takes out a loan of £12,000 (tuition and maintenance) for each of the three years. These figures are based on analysis of existing borrower data in terms of average loan and grant amounts. Later on we consider a different assumption to reflect the impact of the Government's proposal to provide additional maintenance support to low income households through loans rather than grants.
- Borrowers are in repayment for up to 30 years.
- The net present value of repayments uses a discount rate of RPI+2.2% which represents the long-term cost of borrowing to government as reviewed by HM Treasury.
- Earnings growth and inflation are presumed to follow the forecasts provided by the Office of Budget Responsibility (OBR), with forecasts for the next five years following the OBR Economic and Fiscal Outlook publications, and the long term forecasts following the values published in the OBR Fiscal Sustainability Report.
- Estimates on the proportions of borrowers who fully repay are indicative. Whilst useful for comparative purposes, they should not be directly compared with other similar estimates. The BIS model is designed to forecast values of repayments rather than numbers who fully repay. Consequently, the proportion who fully

repay is regarded as a secondary output and may be more sensitive to changes in the starting assumptions.

It should also be noted that in this analysis we have modified the random processes within the model so that the same set of random numbers is used for each model run. This is to ensure comparisons between different policy options show only the effects of policy changes rather than random variation.

For further detail on the modelling approach and BIS's simplified StEP3 model can be found here: <http://tinyurl.com/stepmodel>.

Most of the numbers presented in this document are estimates and forecasts rather than established statistics based on existing data. They are believed to be as accurate as possible at the time of writing. However, in a dynamic policy, fiscal, and modelling environment, these figures may not be directly comparable with other government sources. We believe the examples and numbers contained in this document are useful for comparison purposes within the impact assessment.

## **Option 1: Freezing the repayment thresholds for new and existing borrowers from 2016**

This policy option for freezing the repayment thresholds affects all borrowers and so to explain its impact we consider two populations of borrowers: those starting higher education in 2012 (existing borrowers) and those starting in 2016 (new borrowers).

Across the total population of borrowers we expect that an extra 9 per cent of graduates will start to repay under option 1, compared to the current system (i.e. no policy change). By 2020 there will be around 2.1 million Plan 2 graduates in repayment, and of these around an extra 190,000 are expected to be above the earnings threshold under option 1.

### **Impact on annual repayments**

This option affects all post-2012 loan holders. The tables below illustrate the impact of freezing the repayment threshold at £21,000, from 2016 onwards compared with the threshold increasing in line with earnings growth for a set of hypothetical individuals whose earnings increase each year by average earnings growth. These impacts are sensitive to the modelling approach and assumptions used. All in-year cash figures are nominal, and all NPV figures are in 2016 prices.

Those graduates earning below £21,000 will not be affected by the change. A median borrower, earning the equivalent of £27,000 per year in 2016-17, will repay around £6 more a week in cash terms by 2020-21 than if the threshold was raised in accordance with earnings growth. This equates to around £306 per year. Borrowers with higher earnings will experience exactly the same increase in annual

repayments, but in percentage terms it will be smaller. For those whose earnings start at £30k the proportionate increase in repayments will be around 33%. For those on £40k, a 15% increase and a 10% increase for those on £50k.

**Table 4: Example borrowers**

**Example 1: earnings start at £21k rising with average earnings, every year for 5 years**

|                                      | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 |
|--------------------------------------|---------|---------|---------|---------|---------|
| Earnings                             | £21,000 | £21,755 | £22,585 | £23,460 | £24,405 |
| Annual repayments – Current position | £0      | £0      | £0      | £0      | £0      |
| Annual repayments – option 1         | £0      | £68     | £143    | £221    | £306    |
| Difference                           | £0      | £68     | £143    | £221    | £306    |

Under option 1, this person will make around £6,100 of repayments in net present value terms. This is £6,100 more than under the current policy. After 30 years they will have a write off of around £19,900 at net present value. The write off is around £1,900 less than under the current system.

**Example 2: earnings start at £30k and rise with average earnings, every year for 5 years**

|                                      | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 |
|--------------------------------------|---------|---------|---------|---------|---------|
| Earnings                             | £30,000 | £31,080 | £32,265 | £33,515 | £34,860 |
| Annual repayments - Current position | £810    | £839    | £871    | £905    | £941    |
| Annual repayments - option 1         | £810    | £907    | £1,014  | £1,126  | £1,247  |
| Difference                           | £0      | £68     | £143    | £221    | £306    |

Under option 1, this person will make around £26,700 of repayments in net present value terms. This is £6,100 more than under the current policy. After 30 years they will have a write off of around £12,000 at net present value. The write off is around £1,500 less than under the current system.

**Example 3: earnings start at £40k and rise with average earnings, every year for 5 years**

|                                      | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 |
|--------------------------------------|---------|---------|---------|---------|---------|
| Earnings                             | £40,000 | £41,440 | £43,020 | £44,685 | £46,480 |
| Annual repayments - Current position | £1,710  | £1,772  | £1,839  | £1,910  | £1,987  |
| Annual repayments - option 1         | £1,710  | £1,840  | £1,982  | £2,132  | £2,293  |
| Difference                           | £0      | £68     | £143    | £221    | £306    |

Under option 1, this person will make around £43,900 of repayments in net present value terms. This is around £300 more than under the current policy. They will have no write off as they fully repay after 27 years. This compares to a write off of around £5 under the current system.

#### Example 4: earnings start at £50k and rise with average earnings, every year for 5 years

|                                      | 2016-17 | 2017-18 | 2018-19 | 2019-20 | 2020-21 |
|--------------------------------------|---------|---------|---------|---------|---------|
| Earnings                             | £50,000 | £51,795 | £53,765 | £55,845 | £58,085 |
| Annual repayments - Current position | £2,610  | £2,704  | £2,806  | £2,915  | £3,031  |
| Annual repayments - option 1         | £2,610  | £2,772  | £2,949  | £3,136  | £3,338  |
| Difference                           | £0      | £68     | £143    | £221    | £306    |

Under option 1, this person will make around £42,700 of repayments in net present value terms. This is £200 less than under the current policy. They will have no write off under either policy, but under option 1 they repay after 17 years compared to 19 years under the current system.

Note: To create the four examples above we have used the assumptions listed below. Assumptions a-c are specific to these examples and help to simplify the illustration. Assumptions d-e are more generally applicable to the analysis on repayments which use the StEP3 model.

a. 3 years of study for a first degree, starting in 2012 and going into repayment in 2016, taking out £12,000 of student loans (tuition and maintenance) ) in 2012, rising with RPIX in the two subsequent years

b. Borrowers will be in repayment for up to 30 years and will not have a write off due to death or disability.

c. Borrowers do not leave the country or drop out of their course, have no periods of non-employment, no voluntary repayments and no other sources of income other than wages.

d. The figures in the tables show nominal earnings and repayments per year. Net present values discount future repayments and write offs by RPI+2.2%. This represents the long-term cost to borrowing to government. This rate is kept under review by HM Treasury. Earnings have been inflated according to average earnings forecasts from the Office of Budget Responsibility.

e. The upper threshold is treated in the same way as the lower threshold ie it is frozen for 5 years and then increases in line with earnings.

### Impact on the value of the lifetime loan repayment

Under Option 1 the proportion of borrowers from the 2012 cohort of entrants fully repaying their loans will increase only slightly from 31% to 36%. The impact on the cohort of 2016 entrants will be to increase the proportion fully repaying from 38% to 45%.

Figure 11 below shows that in each income category, freezing the repayment threshold from 2016 leads to a higher average lifetime loan repayment. It affects those in middle income bands the most as these are the students most likely to be earning enough to have to make additional repayments but do not earn sufficiently high to repay their loan within 30 years (and so curtail the period in which they have to make extra repayments).

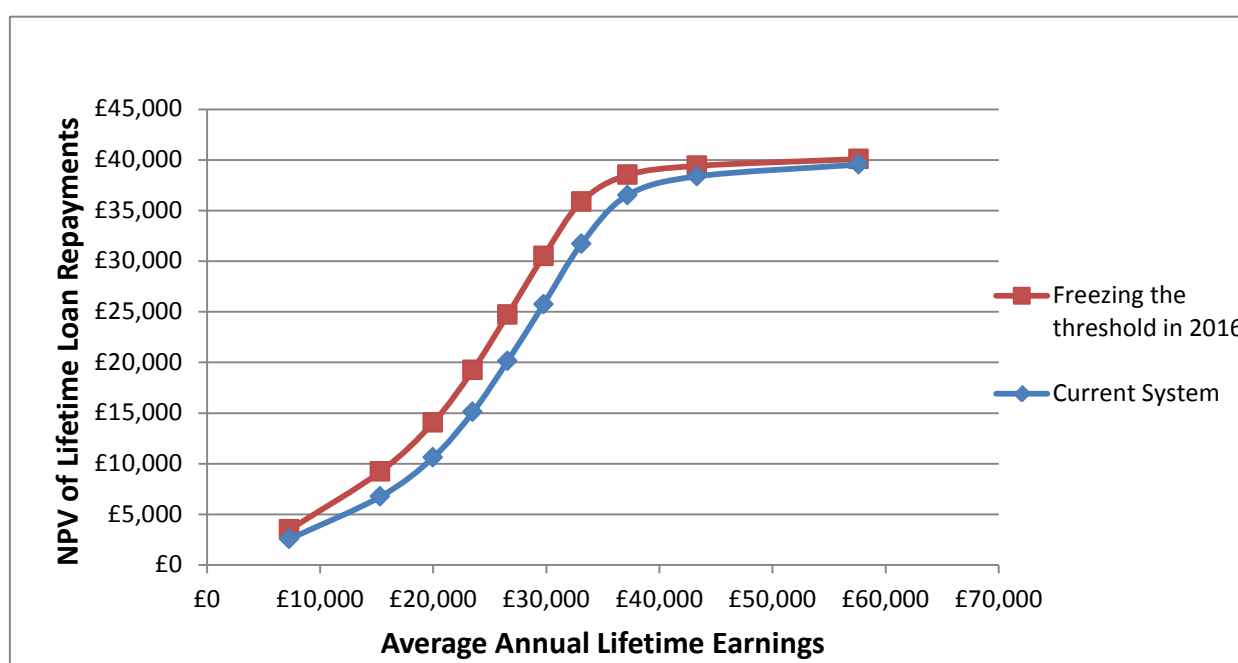
The analysis also shows:

- The largest nominal impact is to those with average annual lifetime earnings around £20,000 to £35,000. Borrowers with average annual lifetime earnings of £35,000 and above will only see a small nominal difference in their lifetime loan

repayments. Those with the highest earnings are more likely to fully repay and the lower threshold ensures that they fully repay over a shorter period of time in which they accrue less capitalised interest.

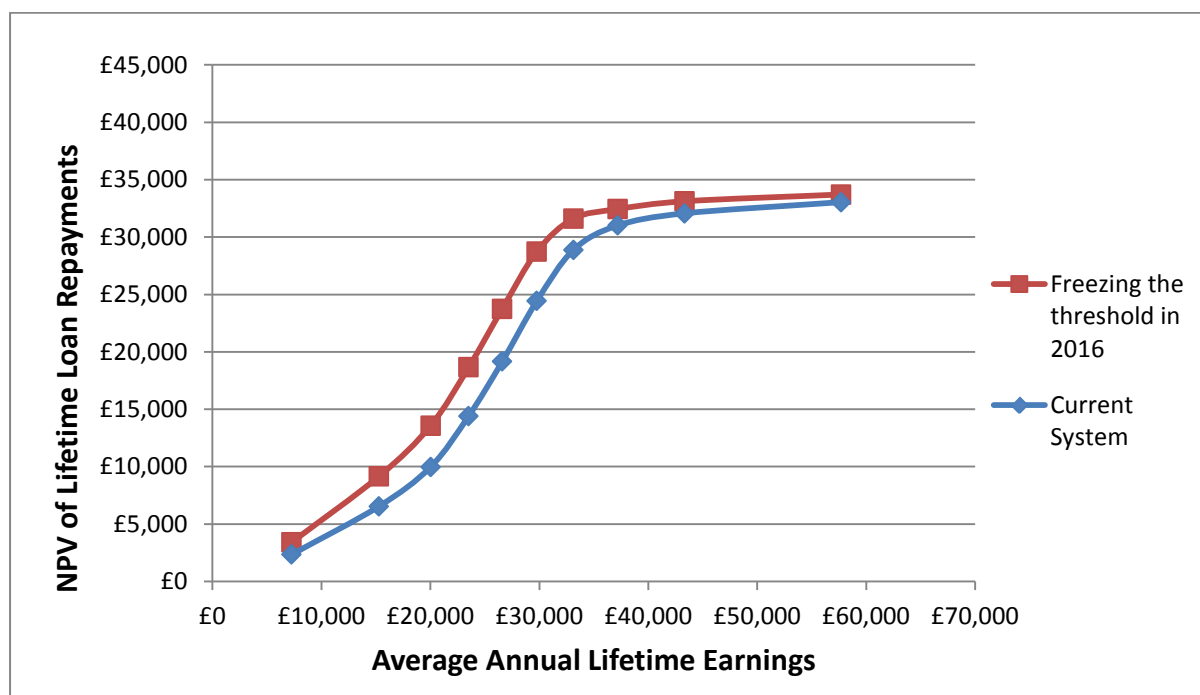
- Freezing the threshold has a smaller nominal impact on those with the smallest earnings because many such borrowers still do not earn enough to get above the threshold, either at all, or for any sustained period over their lifetime.
- The impact, as a proportion of earnings, is greatest at the bottom of the lifetime income distribution and decreases as lifetime earnings increase.

**Figure 11: 2012 Entrants - All Loan Borrowers**



| Deciles                                | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      |                        |
|--|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------------------------|
| Average Annual Lifetime Earnings       | £7,277 | £15,304 | £19,985 | £23,490 | £26,573 | £29,752 | £33,097 | £37,180 | £43,332 | £57,619 |                        |
| <b>NPV of Lifetime Loan Repayments</b> |        |         |         |         |         |         |         |         |         |         | <b>Overall Average</b> |
| Freezing the threshold in 2016         | £3,479 | £9,203  | £14,052 | £19,229 | £24,707 | £30,490 | £35,878 | £38,508 | £39,413 | £40,083 | £25,504                |
| Current System                         | £2,555 | £6,734  | £10,603 | £15,083 | £20,123 | £25,728 | £31,694 | £36,509 | £38,378 | £39,541 | £22,695                |
| Difference as a result of change       | £924   | £2,469  | £3,449  | £4,145  | £4,584  | £4,762  | £4,183  | £1,999  | £1,035  | £542    |                        |
| % Difference as a result of change     | 36%    | 37%     | 33%     | 27%     | 23%     | 19%     | 13%     | 5%      | 3%      | 1%      |                        |

**Figure 12: 2016 Entrants - All Loan Borrowers**



| Deciles                                | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      |                        |
|--|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------------------------|
| Average Annual Lifetime Earnings       | £7,269 | £15,267 | £20,023 | £23,514 | £26,599 | £29,774 | £33,135 | £37,184 | £43,332 | £57,683 |                        |
| <b>NPV of Lifetime Loan Repayments</b> |        |         |         |         |         |         |         |         |         |         | <b>Overall Average</b> |
| Freezing the threshold in 2016         | £3,413 | £9,149  | £13,569 | £18,662 | £23,756 | £28,741 | £31,606 | £32,435 | £33,118 | £33,708 | £22,816                |
| Current System                         | £2,353 | £6,540  | £9,980  | £14,413 | £19,162 | £24,441 | £28,883 | £31,010 | £32,065 | £33,041 | £20,189                |
| Difference as a result of change       | £1,061 | £2,610  | £3,589  | £4,249  | £4,594  | £4,299  | £2,723  | £1,425  | £1,052  | £667    |                        |
| % Difference as a result of change     | 45%    | 40%     | 36%     | 29%     | 24%     | 18%     | 9%      | 5%      | 3%      | 2%      |                        |

## Option 2: Freezing the repayment threshold for new borrowers only from 2020

This option affects only new borrowers and so we only consider the population of borrowers who start higher education in 2016. This cohort is better off under option 2 than under option 1 as the repayment threshold will have been rising during their period of study, leading to a more generous threshold once they go into repayment, typically in 2020.

### Impact on annual repayments

Here we repeat the analysis as done for option 1, for stylised borrowers who earn a constant salary that only grows with earnings growth. They start earning in 2020, but to enable direct comparison with the option 1 analysis their earnings in 2020 are set equal to the 2020 earnings figures in the option 1 table—therefore these tables are considering the same set of borrowers, who earn £21k, £30k, £40k and £50k in 2016 terms respectively. All in-year cash figures are nominal, and all NPV figures are in 2020 prices.

**Table 5: Example borrowers**

#### Example 1: earnings as if £21k in 2016, rising with average earnings every year

|                                      | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |
|--------------------------------------|---------|---------|---------|---------|---------|
| Earnings                             | £24,405 | £25,460 | £26,600 | £27,795 | £29,045 |
| Annual repayments – Current position | £0      | £0      | £0      | £0      | £0      |
| Annual repayments – option 2         | £0      | £95     | £198    | £305    | £418    |
| Difference                           | £0      | £95     | £198    | £305    | £418    |

This person will make around £7,000 of NPV repayments. This is £7,000 more than under the current policy. After 30 years they will have a NPV write off of around £24,000. This is around £2,400 less than under the current system.

**Example 2: earnings as if £30k in 2016, rising with average earnings every year**

|                                      | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |
|--------------------------------------|---------|---------|---------|---------|---------|
| Earnings                             | £34,860 | £36,365 | £37,995 | £39,700 | £41,485 |
| Annual repayments - Current position | £941    | £981    | £1,026  | £1,071  | £1,120  |
| Annual repayments - option 2         | £941    | £1,076  | £1,223  | £1,377  | £1,537  |
| Difference                           | £0      | £95     | £198    | £305    | £418    |

This person will make around £28,100 of NPV repayments. This is around £7,000 more than under the current policy. After 30 years they will have a NPV write off of around £12,300. This is around £2,200 less than under the current system.

**Example 3: earnings as if £40k in 2016, rising with average earnings every year**

|                                      | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |
|--------------------------------------|---------|---------|---------|---------|---------|
| Earnings                             | £46,480 | £48,485 | £50,655 | £52,925 | £55,300 |
| Annual repayments - Current position | £1,987  | £2,072  | £2,165  | £2,262  | £2,363  |
| Annual repayments - option 2         | £1,987  | £2,167  | £2,363  | £2,567  | £2,781  |
| Difference                           | £0      | £95     | £198    | £305    | £418    |

This person will make around £44,300 of NPV repayments. This is around £200 more than under the current policy. They will have no write off under either policy, but under option 2 they repay after 23 years compared to 26 years under the current system.



#### Example 4: earnings as if £50k in 2016, rising with average earnings every year

|                                      | 2020-21 | 2021-22 | 2022-23 | 2023-24 | 2024-25 |
|--------------------------------------|---------|---------|---------|---------|---------|
| Earnings                             | £58,085 | £60,590 | £63,300 | £66,135 | £69,105 |
| Annual repayments - Current position | £3,031  | £3,162  | £3,303  | £3,451  | £3,605  |
| Annual repayments - option 2         | £3,031  | £3,257  | £3,501  | £3,756  | £4,023  |
| Difference                           | £0      | £95     | £198    | £305    | £418    |

This person will make around £43,700 of NPV repayments. This is around £200 less than under the current policy. They will have no write off under either policy, but under option 2 they repay after 15 years compared to 17 years under the current system.

Note: To create the four examples above we have used the assumptions listed below. Assumptions a-c are specific to these examples and help to simplify the illustration. Assumptions d-e are more generally applicable to the analysis on repayments which use the StEP3 model.

a. 3 years of study for a first degree, starting in 2016 and going into repayment in 2020, taking out £13,000 of student loans (tuition and maintenance) in 2016, rising with RPIX in the two subsequent years.

b. Borrowers will be in repayment for up to 30 years and will not have a write off due to death or disability.

c. Borrowers do not leave the country or drop out of their course, have no periods of non-employment, no voluntary repayments and no other sources of income other than wages.

d. The figures in the tables show nominal earnings and repayments per year. Net present values discount future repayments and write offs by RPI+2.2%. This represents the long-term cost to borrowing to government. This rate is kept under review by HM Treasury. Earnings have been inflated according to average earnings forecasts from the Office of Budget Responsibility.

e. The upper threshold is treated in the same way as the lower threshold ie it is frozen for 5 years and then increases in line with earnings.

### Impact on the value of the lifetime loan repayment

Under Option 2 a larger proportion of 2016 entrants will fully repay their loans, up from 38% to 45%.

As with Option 1, Option 2 leads to higher average lifetime loan repayments across the lifetime income spectrum (reflecting the fact that many graduates will at some point earn over the repayment threshold during their working lives). The largest effects are for those earning between £20,000 and £30,000 average lifetime earnings. Again, these are the students that will spend a large part of their working lives earning above the repayment threshold but are still not able to fully repay back their loan.

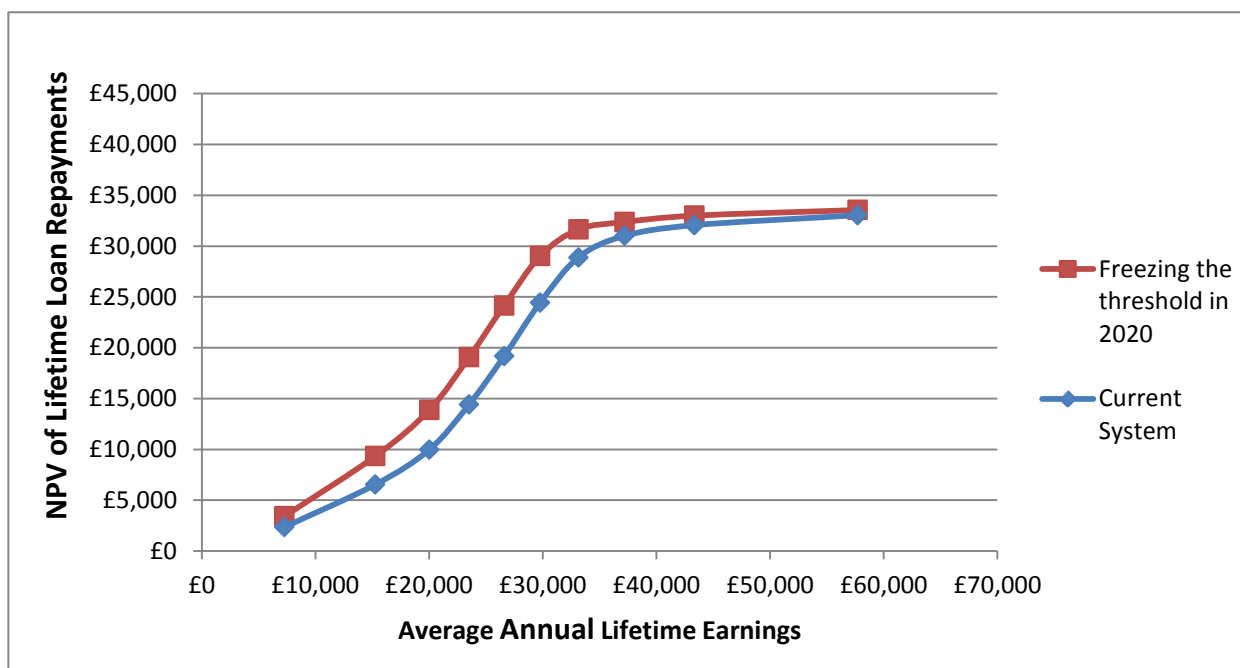
Freezing the threshold from 2020 has a similar shape of impact to that considered under Option 1. Again, it has a smaller nominal impact on those with the highest earnings, because many such borrowers fully repay and the lower threshold ensures

that they fully repay over a shorter period of time in which they accrue less capitalised interest.

The analysis also shows:

- Freezing the threshold from 2020 again has a smaller nominal impact on those with the highest earnings, because many such borrowers fully repay and the lower threshold ensures that they fully repay over a shorter period of time in which they accrue less capitalised interest.
- Freezing the threshold from 2020 has a smaller nominal impact on those with the smallest earnings because many such borrowers still do not earn enough to get above the threshold, or do not do so for a sustained period.
- Considering the proportional impact on loan repayments, the greatest impact is on those in the bottom income deciles. The proportional impact decreases up the income distribution.

**Figure 13: 2016 Entrants - All Loan Borrowers**



| Deciles                                | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      |                        |
|--|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------------------------|
| Average Annual Lifetime Earnings       | £7,269 | £15,267 | £20,023 | £23,514 | £26,599 | £29,774 | £33,135 | £37,184 | £43,332 | £57,683 |                        |
| <b>NPV of Lifetime Loan Repayments</b> |        |         |         |         |         |         |         |         |         |         | <b>Overall Average</b> |
| Freezing the threshold in 2020         | £3,412 | £9,329  | £13,883 | £19,066 | £24,148 | £29,024 | £31,645 | £32,372 | £33,000 | £33,552 | £22,943                |
| Current System                         | £2,353 | £6,540  | £9,980  | £14,413 | £19,162 | £24,441 | £28,883 | £31,010 | £32,065 | £33,041 | £20,189                |
| Difference as a result of change       | £1,059 | £2,789  | £3,903  | £4,653  | £4,986  | £4,582  | £2,762  | £1,362  | £934    | £512    |                        |
| % Difference as a result of change     | 45%    | 43%     | 39%     | 32%     | 26%     | 19%     | 10%     | 4%      | 3%      | 2%      |                        |

## Equality analysis

The previous section showed that in general freezing the repayment threshold has the impact of increasing the amount most graduates repay over their lifetimes. Under both option 1 and 2 the largest impact in absolute financial terms, as measured by NPV of loan repayments, is felt by those earning middle incomes. As a proportion of income, the greatest impact is felt by those with lifetime earnings in the lowest earning deciles.

The following section uses available evidence and the repayment modelling to examine whether there could be differential impacts for some protected groups.

We have data by which to directly examine the impacts by gender and age using outputs within BIS's repayment modelling. The age variable used is the age at which people took out their first student loans. For ethnic groups and disabled groups we must take a more indirect approach by looking at broader evidence on earnings to assess whether these groups are more or less likely to be in the middle earning range of borrowers most affected by the options.

### Option 1: Freezing the repayment thresholds for new and existing borrowers from 2016

#### Impacts on likelihood of full repayment

Table 6 (below) summarises the forecasted impacts by gender and age on the proportion of borrowers fully repaying their loans amongst the 2012 cohort of entrants.

Similarly table 7 (below) summarises the impacts forecasted for 2016 entrants, i.e. *new* borrowers.

**Table 6: Impact of option 1 on 2012 Entrants by protected characteristics**

| Sample    | Current System            |             | 2016 Threshold Freeze     |             |
|-----------|---------------------------|-------------|---------------------------|-------------|
|           | Proportion fully repaying | Sample size | Proportion fully repaying | Sample size |
| All       | 31%                       | 10,000      | 36%                       | 10,000      |
| Males     | 45%                       | 10,000      | 50%                       | 10,000      |
| Females   | 21%                       | 10,000      | 26%                       | 10,000      |
| Age < 21  | 34%                       | 7,604       | 39%                       | 7,604       |
| Age 21-24 | 32%                       | 1,336       | 38%                       | 1,336       |
| Age 25-30 | 21%                       | 520         | 25%                       | 520         |
| Age 31-40 | 12%                       | 355         | 14%                       | 355         |
| Age 41+   | 0%                        | 185         | 1%                        | 185         |
| Age 21+   | 24%                       | 2,396       | 28%                       | 2,396       |

**Table 7: Impact of option 1 on 2016 Entrants by protected characteristics**

| Sample    | Current System            |             | 2016 Threshold Freeze     |             |
|-----------|---------------------------|-------------|---------------------------|-------------|
|           | Proportion fully repaying | Sample size | Proportion fully repaying | Sample size |
| All       | 38%                       | 10,000      | 45%                       | 10,000      |
| Males     | 52%                       | 10,000      | 58%                       | 10,000      |
| Females   | 28%                       | 10,000      | 34%                       | 10,000      |
| Age < 21  | 41%                       | 7,604       | 47%                       | 7,604       |
| Age 21-24 | 40%                       | 1,336       | 46%                       | 1,336       |
| Age 25-30 | 26%                       | 520         | 31%                       | 520         |
| Age 31-40 | 15%                       | 355         | 19%                       | 355         |
| Age 41+   | 1%                        | 185         | 1%                        | 185         |
| Age 21+   | 30%                       | 2,396       | 35%                       | 2,396       |

**Gender**

There is an increase in the proportion of borrowers fully repaying across all groups. For 2012 entrants, the proportion of both male and female borrowers fully repaying increases by 5 percentage points. With 21 per cent of female borrowers repaying fully under the current system compared with 45 per cent of male borrowers, this represents a proportionally larger increase for female borrowers.

For 2016 entrants, the proportion of both male and female borrowers fully repaying increases by 6 percentage points. With 28 per cent of female borrowers repaying fully under the current system compared with 52 per cent of male borrowers, this represents a proportionally larger increase for female borrowers.

**Age**

For 2012 entrants, every age group experiences an increase in the proportion fully repaying. The largest increase in absolute terms is for borrowers in the 21-24 age group. Proportionally, the 1 percentage point increase for borrowers aged 41 and over is the largest as it comes from a zero base. For the other age groups, their proportional increases are broadly similar.

For 2016 entrants, every age group except the 41 and over group experiences an increase in the proportion fully repaying. Proportionally, the increases are similar except for 25-30 and 31-40 age groups which experience the largest increases in borrowers fully repaying.

**Ethnicity and disability**

It is not possible to estimate from the BIS repayment model what the average impact on repayment times and likelihood of full repayment would be for borrowers from different ethnic groups or for disabled and non-disabled groups. However, we

consider above where they are more likely to be in the lifetime income distribution and what this might then mean for their repayment profile under option 1 and 2.

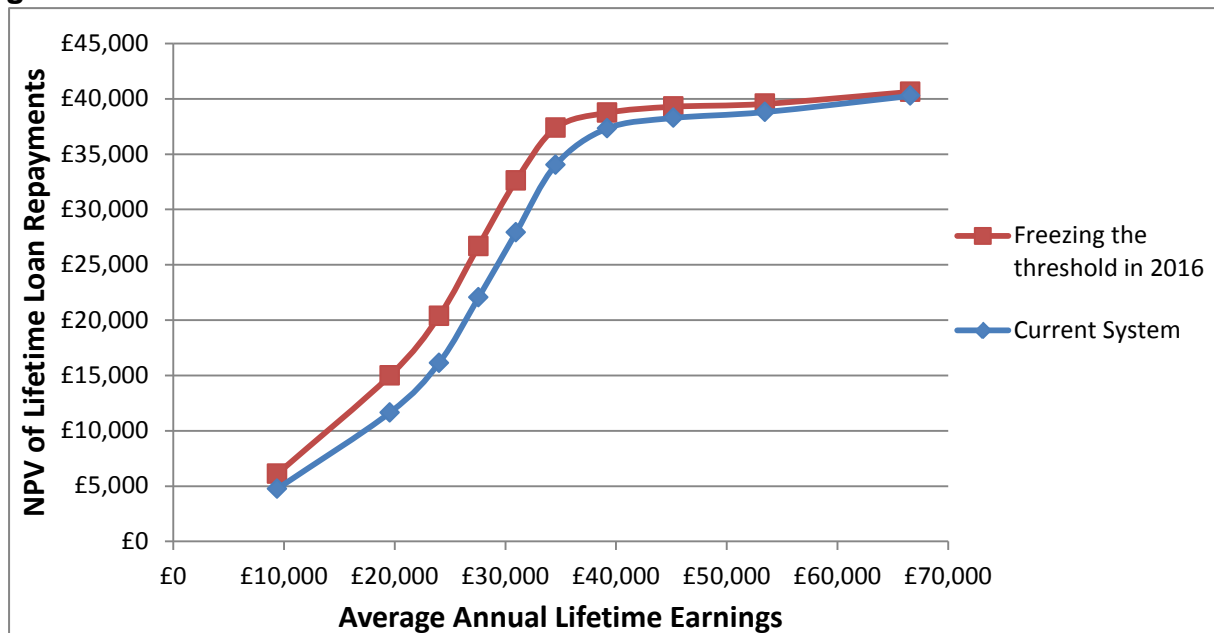
### Impact on the average lifetime repayment amount

The freezing of the repayment threshold from 2016 leads to a higher average lifetime loan repayment across the income spectrum. The nominal affects are greatest for those in the middle income bands. Over a lifetime, these borrowers are more likely to be earning above the threshold and to do so for a significant length of time as they are less likely to reach the point where the loan is fully repaid. The proportional impacts are greatest for those in the lower earning deciles. The proportional impacts decrease moving up the income distribution.

### Gender

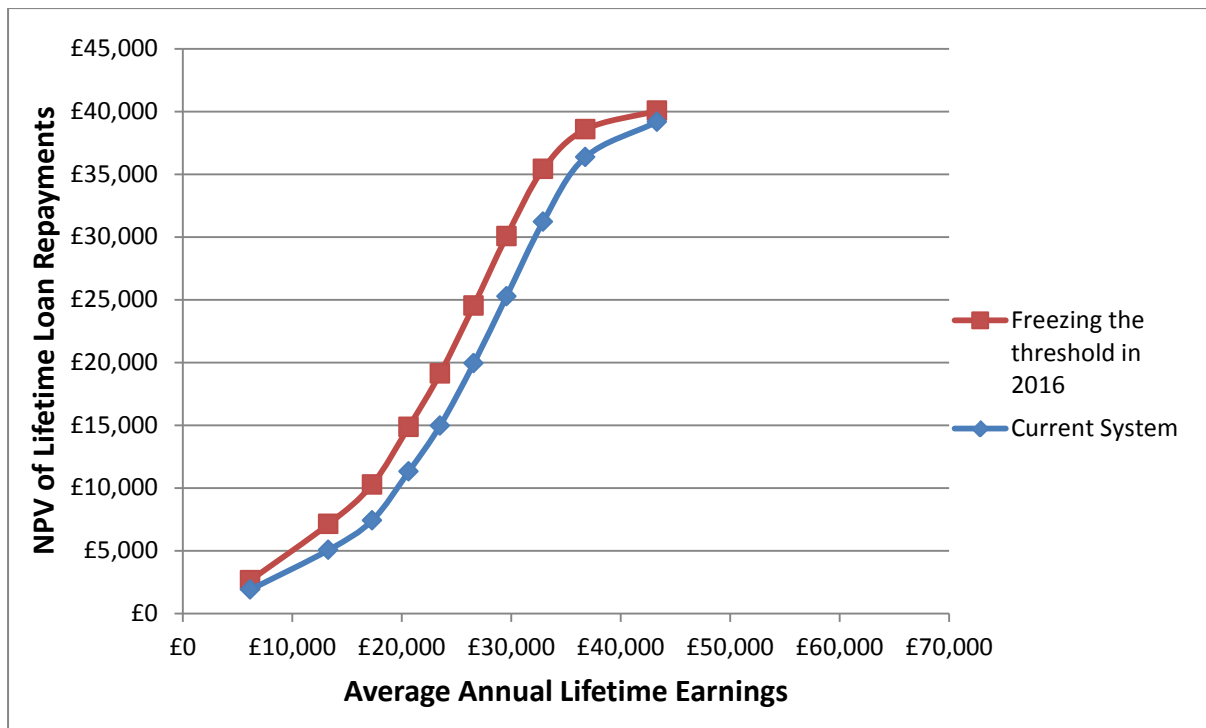
BIS student loan repayment modelling, evidence from the Labour Force Survey and wider evidence from the IFS and NUS shows that on average, female graduates earn less than their male counterparts throughout their lifetime and are more likely to earn 'middle incomes'. This means that the average increase in repayments will be higher for females relative to males as a result of policy option 1. This is modelled in Figures 14-17 below.

**Figure 14: 2012 Entrants - Male Loan Borrowers**



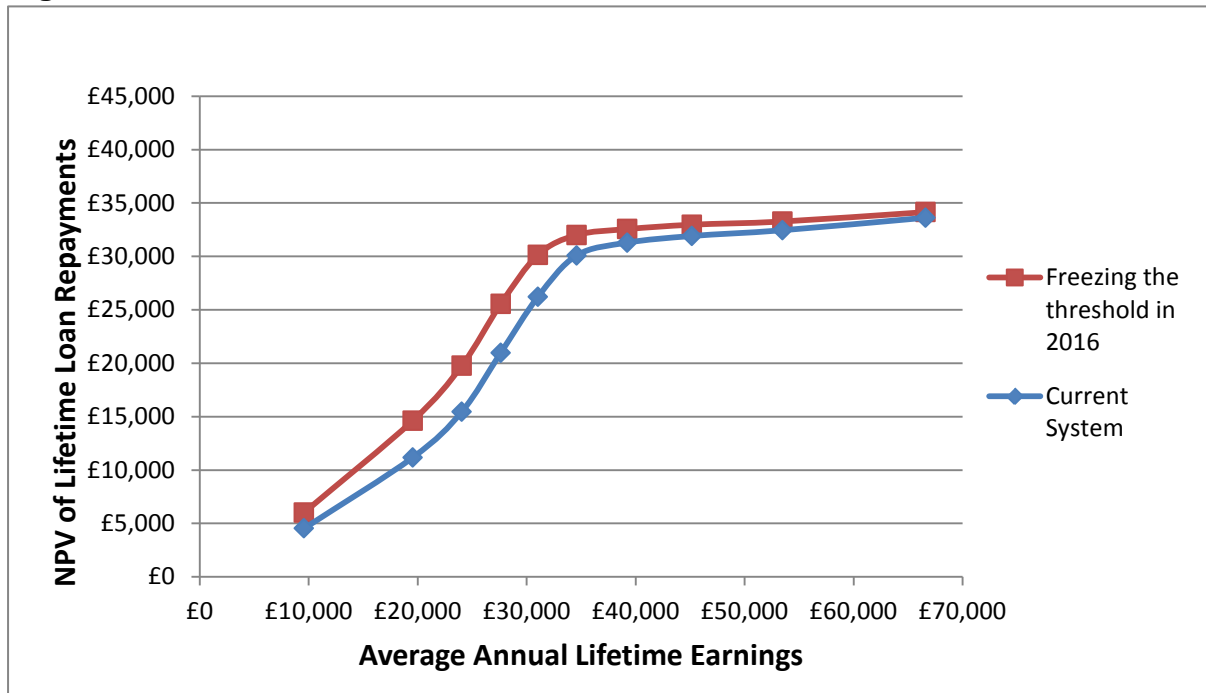
|                                   | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|-----------------------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Annual earnings                   | £9,379 | £19,555 | £23,996 | £27,566 | £30,965 | £34,546 | £39,192 | £45,170 | £53,456 | £66,580 | £35,041 |
| NPV repayments (current system)   | £4,754 | £11,636 | £16,121 | £22,027 | £27,922 | £34,027 | £37,319 | £38,264 | £38,802 | £40,257 | £27,113 |
| NPV repayments (threshold freeze) | £6,101 | £14,975 | £20,349 | £26,683 | £32,602 | £37,358 | £38,735 | £39,285 | £39,541 | £40,623 | £29,625 |

**Figure 15: 2012 Entrants - Female Loan Borrowers**



|  | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|--|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Annual earnings</b>                   | £6,161 | £13,294 | £17,284 | £20,621 | £23,486 | £26,567 | £29,568 | £32,902 | £36,767 | £43,300 | £24,995 |
| <b>NPV repayments (current system)</b>   | £1,892 | £5,048  | £7,404  | £11,295 | £14,952 | £19,917 | £25,271 | £31,204 | £36,368 | £39,171 | £19,252 |
| <b>NPV repayments (threshold freeze)</b> | £2,634 | £7,114  | £10,267 | £14,855 | £19,100 | £24,531 | £30,051 | £35,408 | £38,570 | £40,055 | £22,258 |

**Figure 16: 2016 Entrants - Male Loan Borrowers**



|  | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|--|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Annual earnings</b>                   | £9,568 | £19,538 | £24,043 | £27,618 | £31,028 | £34,578 | £39,222 | £45,172 | £53,478 | £66,601 | £35,085 |
| <b>NPV repayments (current system)</b>   | £4,534 | £11,173 | £15,462 | £20,976 | £26,212 | £30,087 | £31,287 | £31,913 | £32,452 | £33,621 | £23,772 |
| <b>NPV repayments (threshold freeze)</b> | £6,021 | £14,625 | £19,767 | £25,550 | £30,136 | £32,005 | £32,557 | £32,969 | £33,269 | £34,147 | £26,105 |

**Figure 17: 2016 Entrants - Female Loan Borrowers**



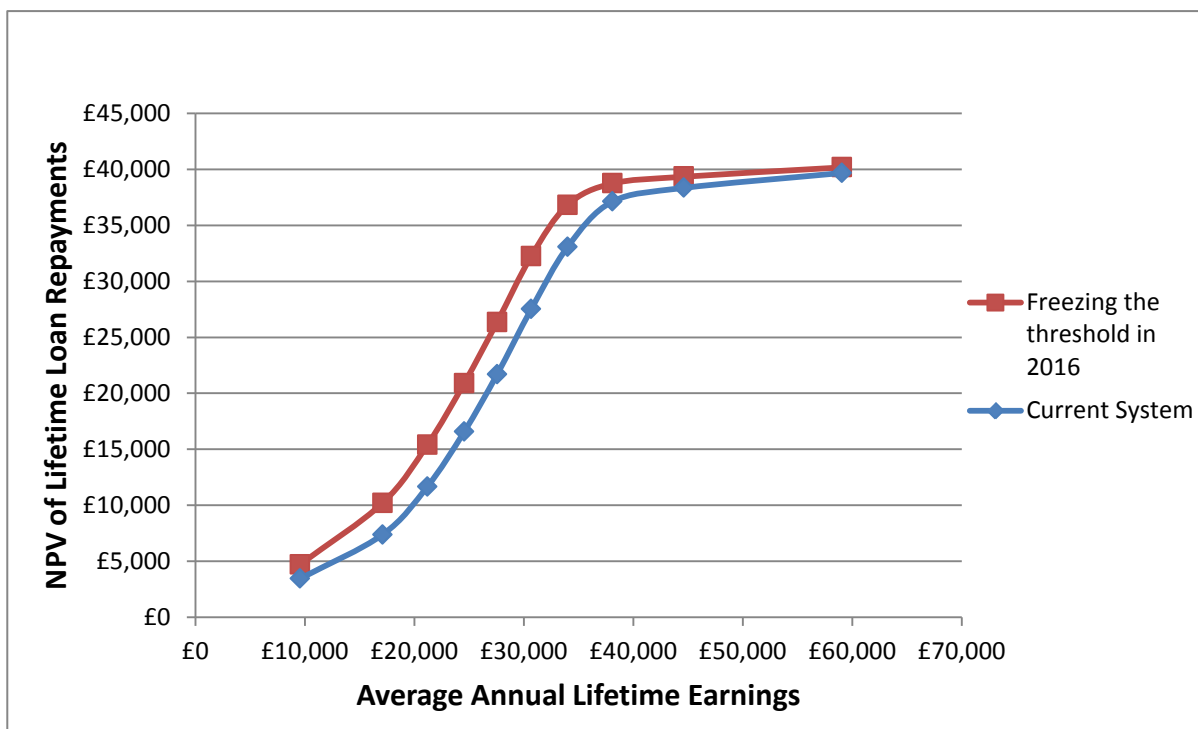


|  | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|--|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Annual earnings</b>                   | £6,088 | £13,350 | £17,285 | £20,624 | £23,544 | £26,584 | £29,571 | £32,875 | £36,767 | £43,346 | £25,003 |
| <b>NPV repayments (current system)</b>   | £1,693 | £4,827  | £7,107  | £10,701 | £14,309 | £19,071 | £24,052 | £28,418 | £31,013 | £32,717 | £17,391 |
| <b>NPV repayments (threshold freeze)</b> | £2,569 | £7,058  | £10,109 | £14,411 | £18,590 | £23,699 | £28,376 | £31,250 | £32,496 | £33,651 | £20,221 |

## Age

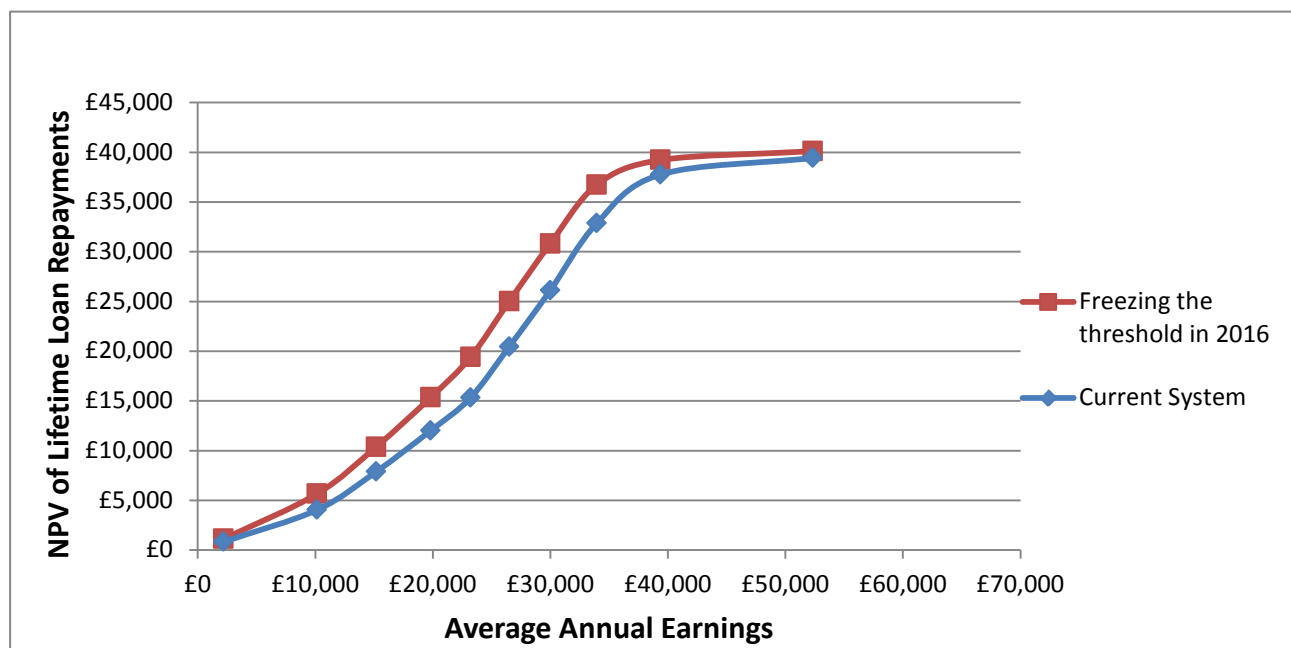
BIS student loan repayment modelling, evidence from the Labour Force Survey and wider evidence shows that students who start their degree when they are younger, on average, have higher lifetime graduate earnings. As seen from the average annual lifetime earnings distribution below, mature students are more likely to have low average lifetime earnings. They are also more likely to have earnings in the middle of the distribution. The balance of these effects means that overall the average impact on lifetime repayments is similar for those 20 and under, and those 21 and older. This is modelled in the charts below.

**Figure 18: 2012 Entrants - Aged 20 & Under Loan Borrowers**



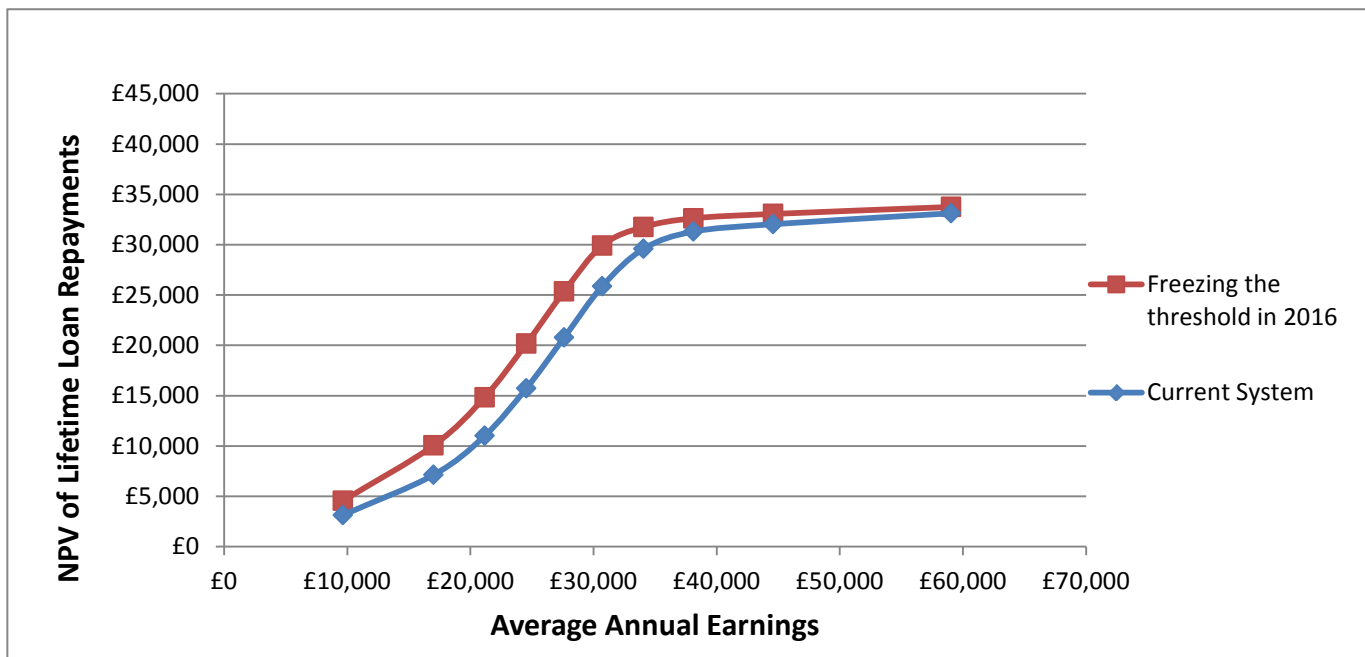
|                                   | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|-----------------------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Annual Earnings                   | £9,555 | £17,086 | £21,179 | £24,549 | £27,553 | £30,674 | £33,992 | £38,086 | £44,608 | £59,045 | £30,633 |
| NPV repayments (current system)   | £3,443 | £7,378  | £11,662 | £16,564 | £21,683 | £27,514 | £33,070 | £37,120 | £38,343 | £39,676 | £23,645 |
| NPV repayments (threshold freeze) | £4,712 | £10,198 | £15,389 | £20,897 | £26,353 | £32,246 | £36,819 | £38,743 | £39,342 | £40,175 | £26,487 |

**Figure 19: 2012 Entrants - Aged 21 & Over Loan Borrowers**



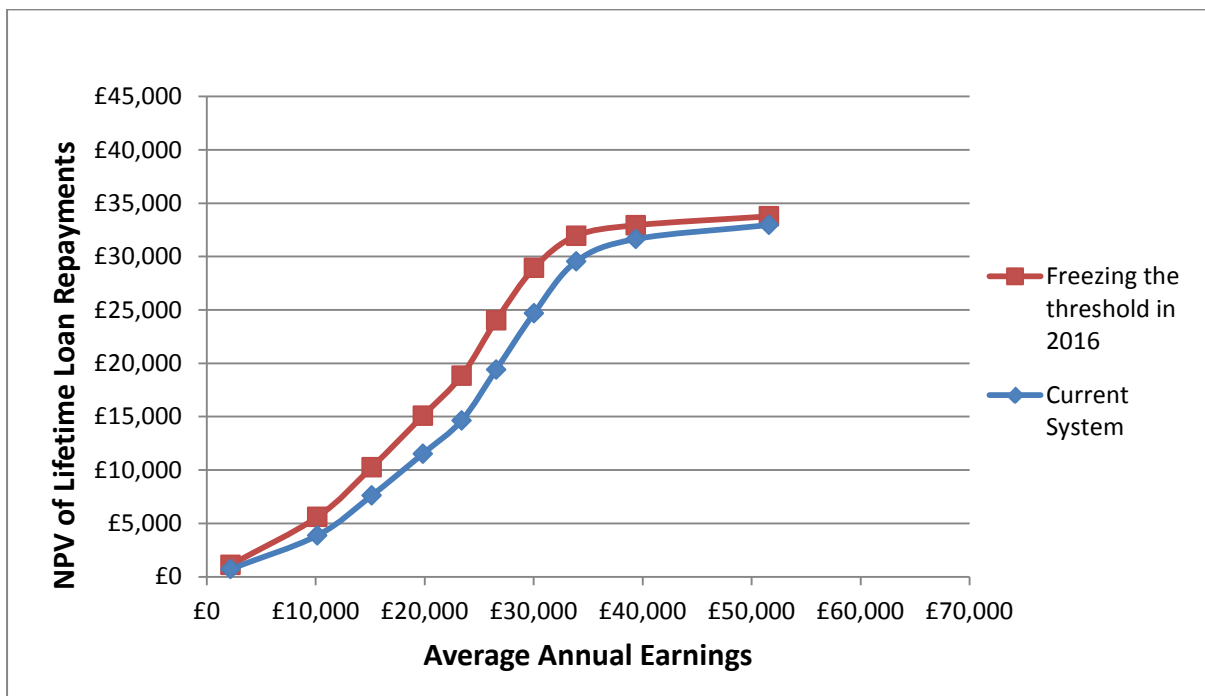
|                                   | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|-----------------------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Annual Earnings                   | £2,184 | £10,133 | £15,164 | £19,812 | £23,198 | £26,496 | £29,977 | £33,947 | £39,362 | £52,320 | £25,259 |
| NPV repayments (current system)   | £833   | £4,041  | £7,874  | £12,015 | £15,310 | £20,448 | £26,087 | £32,855 | £37,762 | £39,419 | £19,664 |
| NPV repayments (threshold freeze) | £1,112 | £5,651  | £10,371 | £15,350 | £19,389 | £25,008 | £30,783 | £36,721 | £39,218 | £40,108 | £22,371 |

**Figure 20: 2016 Entrants - Aged 20 & Under Loan Borrowers**



|                                   | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|-----------------------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Annual Earnings                   | £9,668 | £17,022 | £21,165 | £24,550 | £27,613 | £30,720 | £34,075 | £38,132 | £44,607 | £59,058 | £30,661 |
| NPV repayments (current system)   | £3,147 | £7,138  | £11,020 | £15,746 | £20,780 | £25,896 | £29,603 | £31,313 | £32,042 | £33,125 | £20,981 |
| NPV repayments (threshold freeze) | £4,579 | £10,076 | £14,855 | £20,182 | £25,359 | £29,938 | £31,766 | £32,630 | £33,060 | £33,756 | £23,620 |

**Figure 21: 2016 Entrants - Aged 21 & Over Loan Borrowers**



|                                   | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|-----------------------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Annual Earnings                   | £2,184 | £10,154 | £15,127 | £19,833 | £23,391 | £26,564 | £30,036 | £33,898 | £39,362 | £51,591 | £25,214 |
| NPV repayments (current system)   | £728   | £3,875  | £7,609  | £11,533 | £14,644 | £19,414 | £24,701 | £29,542 | £31,645 | £32,960 | £17,665 |
| NPV repayments (threshold freeze) | £1,111 | £5,612  | £10,252 | £15,088 | £18,849 | £24,033 | £28,940 | £31,947 | £32,941 | £33,773 | £20,255 |

## **Ethnicity**

Analysis from the Labour Force Survey as well as wider evidence from HEFCE and the NUS indicates that students from minority ethnic backgrounds earn less over their lifetimes than their white peers, and are more likely to be among the middle earners facing the greater impact under option 1.

## **Disability**

Evidence from the Labour Force Survey indicates that students with a disability earn less over their lifetimes than their peers who don't have a disability. This suggests that this group of students are more likely to be among the 'middle earners' who will experience the largest impact under option 1.

## **Option 2: Freezing the repayment threshold for new borrowers only from 2020**

### **Impact on likelihood of full repayment**

Table 8 summarises the impacts forecasted for 2016 entrants (i.e. new borrowers) by age and gender.

#### **Gender**

There is an increase in the proportion of borrowers fully repaying amongst both men and women. The increase amongst women is slightly greater than it is for men: the proportion female borrowers fully repaying their loan increases by seven percentage points to 35 per cent, compared with a rise of six percentage points amongst men to 52 per cent.

#### **Age**

There is an increase in the proportion of borrowers fully repaying across all age groups. Proportionally the largest increases are felt by those students who first took out their student loans when they were aged 31-40, and those in the 25-30 age groups.

**Table 11: Impact of option 2 on 2016 Entrants by protected characteristics**

| Sample    | Current System            |             | 2020 Threshold Freeze     |             |
|-----------|---------------------------|-------------|---------------------------|-------------|
|           | Proportion fully repaying | Sample size | Proportion fully repaying | Sample size |
| All       | 38%                       | 10,000      | 45%                       | 10,000      |
| Males     | 52%                       | 10,000      | 58%                       | 10,000      |
| Females   | 28%                       | 10,000      | 35%                       | 10,000      |
| Age < 21  | 41%                       | 7,604       | 48%                       | 7,604       |
| Age 21-24 | 40%                       | 1,336       | 47%                       | 1,336       |
| Age 25-30 | 26%                       | 520         | 32%                       | 520         |
| Age 31-40 | 15%                       | 355         | 20%                       | 355         |
| Age 41+   | 1%                        | 185         | 1%                        | 185         |
| Age 21+   | 30%                       | 2,396       | 36%                       | 2,396       |

### **Ethnicity and disability**

It is not possible to estimate from the BIS repayment model what the average impact on repayment times and likelihood of full repayment would be for borrowers from different ethnic groups or for disabled and non-disabled groups. We consider the likely impact on average lifetime repayments in the next section.

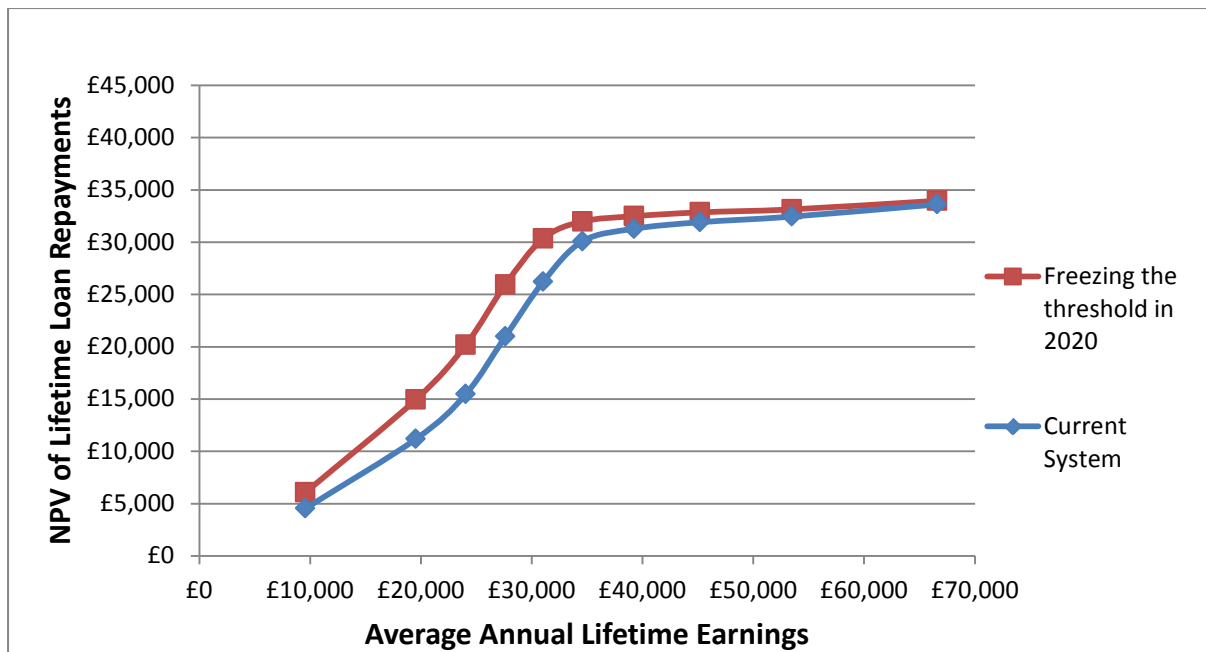
### **Impact on the average lifetime repayment amount**

Freezing the repayment threshold from 2016 leads to higher average lifetime loan repayments across the income spectrum (reflecting the fact that many graduates, even if lifetime low earners, will earn above the repayment threshold at some point during their working lives). The effects are greatest for those in the middle income bands. Over a lifetime, these borrowers are more likely to be earning above the threshold and more likely to make these additional repayments for a significant length of time as they are less likely than higher earners to reach the point where the loan is fully repaid. The proportional impacts are greatest for those in the lower earning deciles. The proportional impacts decrease moving up the income distribution.

### **Gender**

Student loan repayment modelling, evidence from the Labour Force Survey and wider evidence from the IFS and NUS shows that on average, female graduates earn less than their male counterparts throughout their lifetime and are therefore more likely to earn 'middle incomes'. This means that the average increase in repayments will be higher for females relative to males as a result of policy option 2. This is modelled in the Figures 22 and 23 below.

**Figure 22: 2016 Entrants - Male Loan Borrowers**



|  | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|--|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Annual earnings</b>                   | £9,568 | £19,538 | £24,043 | £27,618 | £31,028 | £34,578 | £39,222 | £45,172 | £53,478 | £66,601 | £35,085 |
| <b>NPV repayments (current system)</b>   | £4,534 | £11,173 | £15,462 | £20,976 | £26,212 | £30,087 | £31,287 | £31,913 | £32,452 | £33,621 | £23,772 |
| <b>NPV repayments (threshold freeze)</b> | £6,064 | £14,949 | £20,174 | £25,947 | £30,348 | £31,989 | £32,489 | £32,859 | £33,143 | £33,968 | £26,193 |



**Figure 23: 2016 Entrants - Female Loan Borrowers**

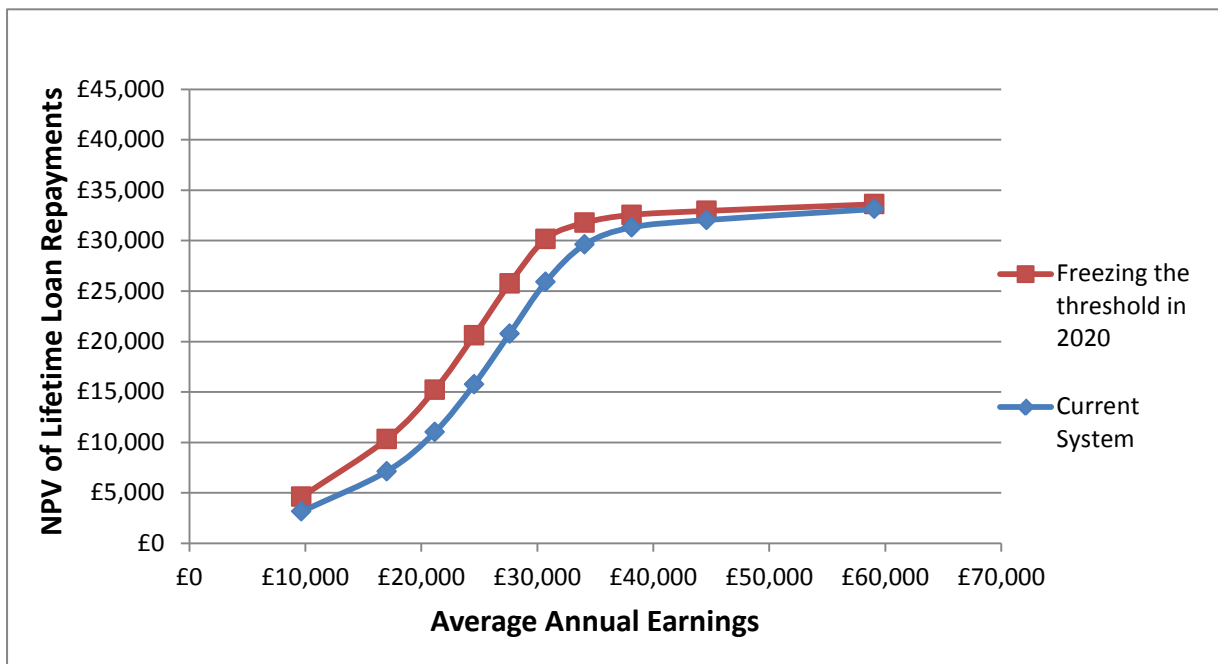


|  | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|--|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| <b>Annual earnings</b>                   | £6,088 | £13,350 | £17,285 | £20,624 | £23,544 | £26,584 | £29,571 | £32,875 | £36,767 | £43,346 | £25,003 |
| <b>NPV repayments (current system)</b>   | £1,693 | £4,827  | £7,107  | £10,701 | £14,309 | £19,071 | £24,052 | £28,418 | £31,013 | £32,717 | £17,391 |
| <b>NPV repayments (threshold freeze)</b> | £2,534 | £7,188  | £10,353 | £14,720 | £18,968 | £24,090 | £28,667 | £31,298 | £32,426 | £33,499 | £20,374 |

## Age

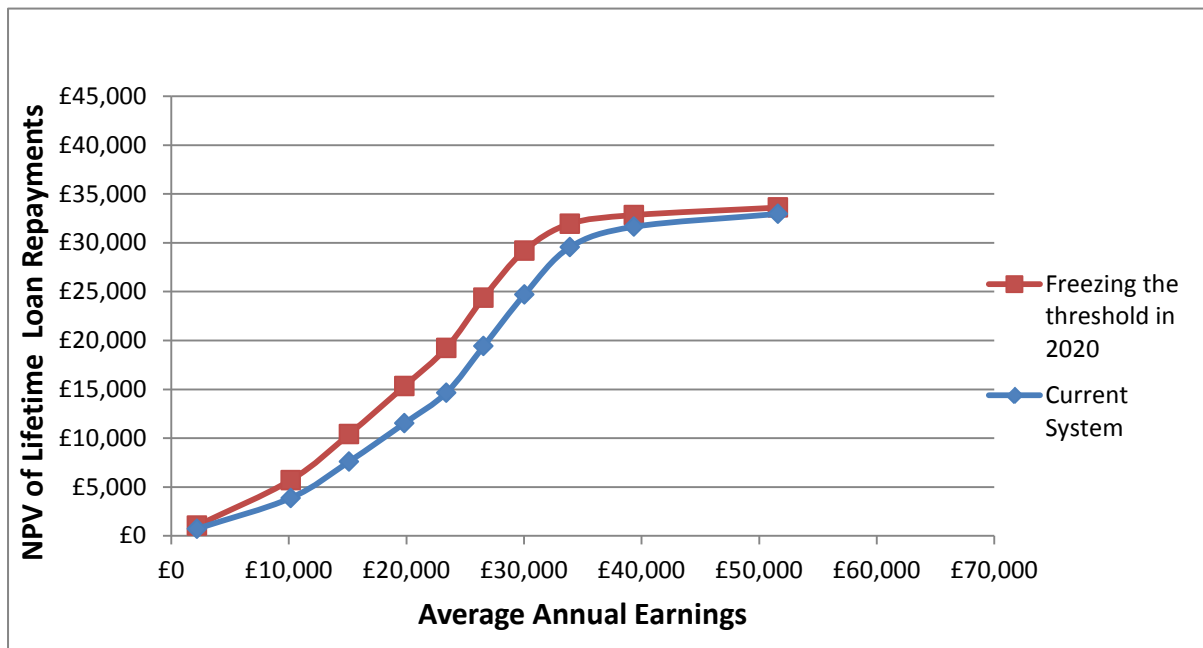
Student loan repayment modelling, evidence from the Labour Force Survey and wider evidence show that students who start their degree when they are younger, on average, have higher lifetime graduate earnings. As seen from the average annual lifetime earnings distribution below, mature students are more likely to have low average lifetime earnings. They are also more likely to have earnings in the middle of the distribution. The balance of these effects means that overall the average impact on lifetime repayments is similar for those 20 and under, and those 21 and older. This is modelled in the charts below.

**Figure 24: 2016 Entrants - Aged 20 & Under Loan Borrowers**



|                                   | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|-----------------------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Annual Earnings                   | £9,668 | £17,022 | £21,165 | £24,550 | £27,613 | £30,720 | £34,075 | £38,132 | £44,607 | £59,058 | £30,661 |
| NPV repayments (current system)   | £3,147 | £7,138  | £11,020 | £15,746 | £20,780 | £25,896 | £29,603 | £31,313 | £32,042 | £33,125 | £20,981 |
| NPV repayments (threshold freeze) | £4,608 | £10,317 | £15,224 | £20,594 | £25,744 | £30,158 | £31,763 | £32,550 | £32,947 | £33,600 | £23,751 |

**Figure 25: 2016 Entrants - Aged 21 & Over Loan Borrowers**



|                                   | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|-----------------------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Annual Earnings                   | £2,184 | £10,154 | £15,127 | £19,833 | £23,391 | £26,564 | £30,036 | £33,898 | £39,362 | £51,591 | £25,214 |
| NPV repayments (current system)   | £728   | £3,875  | £7,609  | £11,533 | £14,644 | £19,414 | £24,701 | £29,542 | £31,645 | £32,960 | £17,665 |
| NPV repayments (threshold freeze) | £1,046 | £5,710  | £10,414 | £15,335 | £19,225 | £24,385 | £29,205 | £31,950 | £32,842 | £33,607 | £20,372 |

## **Ethnicity**

Analysis from the Labour Force Survey and wider evidence from HEFCE and the NUS indicates that students from minority ethnic backgrounds earn less over their lifetimes than their white peers and that this group of students are more likely to be among the ‘middle earners’ who will experience the largest impact under option 2.

## **Disability**

Evidence from the Labour Force Survey indicates that students with a disability earn less over their lifetimes than their peers who don’t have a disability. This suggests that this group of students are more likely to be among the ‘middle earners’ who will experience the largest impact under option 2.

## **Consideration of the impact of a threshold freeze on participation**

The previous section looked at the financial impact of freezing the repayment threshold under option 1 and 2 by income group and protected characteristic. We now consider the possibility that the prospect of these higher repayments might deter some individuals from participating in higher education. This analysis applies for both options 1 and 2 given the similar shape of their impact.

Attitudinal research suggests that financial factors are not a predominate factor in potential students’ decision-making and that in general there is acceptance about funding higher education through loans. This is consistent with trends in participation, where there is no significant evidence that past funding reforms that have shifted a greater share of the cost of HE on to students have impacted on take-up. However, it should be borne in mind that past reforms have a different starting point in terms of students’ accumulated debt and were different in their exact nature. It is also likely that within the broad population of students there are differences in attitudes towards debt, with some evidence that those from low income backgrounds, ethnic minorities, female lone parents or mature student groups are more debt averse. Although freezing the repayment threshold will not increase debt levels, it will increase the cost of this debt where the individual makes sufficiently high earnings to trigger repayments. These greater costs, however, must be put against the much higher average returns to obtaining a degree level qualification.

Recent forthcoming BIS research<sup>31</sup> specifically explores students’ attitudes to the £21,000 repayment threshold, and finds that it is regarded as one of the most important features of the student finance package. There were however differences between groups, with applicants from lower socio economic groups, females and

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<sup>31</sup> Influence of finance on HE decision-making, Youthsight, BIS research paper (forthcoming)

those aged over 21 being most likely to cite the repayment threshold as important in helping persuade them to apply to university despite the costs – around seven in ten in each case - and around three in ten considered it to be the most important factor. However, this research does not distinguish between whether it is the existence of income contingent repayments *per se* that is important, or where the level is set in relation to prevailing earnings. In another part of the research it does explore applicants views to a change in the threshold level from £21,000 to £24,000 in the context of higher fees (e.g. where they have risen in line with inflation) and finds this has only a small impact (less than 5 percentage points) on hypothetical stated intentions to go on to University . Again there were some small differences between groups with a greater effect of a higher repayment threshold on applicants from lower socio-economic groups, females, ethnic minorities and those with a declared disability.

Overall, our judgement is that across most parts of the student population it is likely that while the change in repayment threshold may have a negative impact on participation, it is likely to be very small.

We have also looked for evidence that a change in the repayment threshold might affect other types of student decision, in particular whether they might look to reduce their amount of debt and thus future repayments by taking up greater part-time working, to study from home to reduce costs or to go to a lower charging institution or course. It should be emphasised that students making these choices would not be seen as a negative impact – indeed it may have positive consequences, for example in the case of undertaking some work. It is only where it led to a sufficiently large volume of working hours that impeded study or where students' choices are constrained with regard to their education path that it may have detrimental effects. Our overall judgement is that the risk of detrimental impact is small. The evidence in relation to past student finance reforms does not reveal significant changes in applicants institutional choices. Other research also suggests that financial factors are not a primary motivation in the decision to study from home. It is also likely that students will judge it better to pay the cost of their education in the future through repayments when they are better off, than look to do so through by working more for lower earnings during their study years.

## **Gender**

The equality analysis has shown that women are more likely to be impacted to a greater extent by both option 1 and 2, increasing the overall cost of higher education compared to the current system by more on average for females than for males. Given the evidence reported in the Evidence Base section that shows women are more likely report that the £21K threshold assuages concerns about HE costs - 71 per cent of female applicants cited that the repayment threshold helped persuade them to apply to university despite the costs compared to 60 per cent of males. This

suggests that, within what we judge to be a low overall risk, the risks to female participation are slightly higher than they are for males.

## **Age**

As discussed previously a range of evidence suggests that mature students are more debt averse than young students and more concerned about the costs of higher education. New BIS research indicates that mature applicants more likely to state that they felt put off by costs of HE (around two thirds compared to 55 per cent of those aged under 21) and were also more likely to cite the threshold as important to help alleviate their cost concerns.

The impact section shows that the average impact on mature students is similar than for young students. However, there are different effects across the income distribution

Therefore, effectively increasing the cost of higher education (through freezing the threshold) is more likely to have a negative impact on older people's higher education participation compared to their younger counterparts. The perception of increased debt and repayment costs could affect their assessment of the net benefits of HE and therefore their participation decision, particularly is they anticipate future earnings around the middle of the income distribution where the impacts are greatest. This could suggest that there is a relatively higher risk of a negative impact from a threshold freeze on the participation on older potential students than on their younger counterparts.

## **Disability**

SLC data tells us that students who receive DSAs (a proxy for disability) are just as likely to receive maintenance grants as students who don't receive DSAs. However, they are more likely to receive Special Support Grants. This indicates that the group of students who receive DSAs are more likely to have a low residual household income or to receive benefits. There is evidence to suggest that those from low income households are more likely to be debt averse.

New BIS research<sup>32</sup> indicates that 2015 applicants who declared a disability were no less likely to feel put off by the costs of HE. However, they were slightly more likely to cite the repayment threshold as important to their decision to apply despite the costs (68% compared to 66% of other applicants) but slightly less likely to cite this as the most important aspect of the finance package which helped alleviate their concerns (24% compared to 26%).

Additionally, we have shown that students that receive DSAs are more likely than students that don't receive DSAs to be impacted by either policy option, due to their lifetime earnings profiles.

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<sup>32</sup> Influence of finance on HE decision-making, Youthsight, BIS research paper (forthcoming)

Thus, effectively increasing the cost of higher education for students from this group (through freezing the threshold) could potentially have a negative impact on their participation in higher education as the perception of increased debt could affect their participation decision. However, in the context of the evidence discussed above, we believe this risk is likely to be relatively small.

## **Ethnicity**

SLC data and evidence from DWP<sup>33</sup> suggests that students from ethnic minority backgrounds are more likely to be from low income backgrounds. Evidence also suggests that this group are more likely to be debt averse. Additionally, we have shown that students from ethnic minorities are more likely than white students to be impacted by either policy option, due to their lifetime earnings profiles.

Effectively increasing the cost of higher education for students from this group (through freezing the threshold) could potentially have a negative impact on their participation in higher education as the perception of increased debt could affect their participation decision. However, in the context of the evidence discussed above, we believe this risk is likely to be relatively small.

## **Conclusions**

The Government has consulted on two options to freeze the income threshold at which borrowers begin to repay their student loans.

Option 1 affects existing borrowers as well as new borrowers starting academic courses in 2016/17. Option 2 only affects new borrowers. The key difference from an equalities point of view is therefore the difference in how they treat different generations of student. The impact on new borrowers, in terms of repayments and participation, is similar under either option. These impacts - which also apply to existing student under option 1- are set out below.

## **Low Income**

The impact of a freeze in the repayment threshold will depend upon the degree of debt a student accumulates during their studies and their future earnings. Under the current maintenance system, while students from low income households receive the most Government support, a significant element of this is through maintenance grants. Those likely to graduate with the greatest amount of debt will be from families with a household income of around £42,000. We consider in the next section the combined impact of freezing the repayment threshold and moving from maintenance

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<sup>33</sup> [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/437246/households-below-average-income-1994-95-to-2013-14.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/437246/households-below-average-income-1994-95-to-2013-14.pdf)

grants to loans, which will increase the amount of debt students from low income families own upon graduation.

In terms of lifetime earnings, our analysis shows the greatest financial impact will be concentrated on those with around median lifetime earnings (between £20,000 and £35,000), although in percentage terms the effect will be greatest for those in the first and second deciles. Those individuals with the lowest lifetime earnings will be affected the least, because they will either never earn above the earnings threshold, or will only do so for a more limited period of the loan's life. Those at the top of the earnings distribution will also see little impact as they already repay the entirety of their loan, they will just do so now more quickly.

We have also considered the evidence in relation to whether these changes might impact the decisions of students to participate in higher education. In general it would appear that financial factors are not a primary driver in relation to the decision to go on to higher education, though those from lower socio economic groups are more likely to be debt averse and to see the repayment threshold as an important part of the student finance package. This general finding is consistent with the trends seen in recent years where despite significant reforms that have moved more of the cost of higher education on to the student, participation rates have continued to go up, including amongst those from the most disadvantaged backgrounds. A degree of caution should be used when extrapolating from past trends, given the specific nature of the changes is different, as is students starting point in terms of their accumulated level of debt. However, research into how applicants' intentions to go to higher education might change under different financial support and fee scenarios, suggest that changes in the repayment threshold hold would only have a small effect. For those who do experience an increase in repayments, these are likely to continue to be outweighed by average returns to Higher Education.

Overall our judgement is that while there is a risk this could impact on participation amongst disadvantaged groups it is small, though subject to uncertainty. This small impact on behaviour also extends to students decisions around part-time working, home study and their preferred course and/or institution.

## **Gender**

We conclude that both options will have a disproportionate impact on women as they are more likely to fall into the middle income bracket that will experience a greater increase in repayments. There is also some evidence to suggest that some women are more debt averse e.g. lone parents, suggesting that the risk to participation is slightly greater than for men, though past trends suggest it remains low.

However, while the risk to participation may be elevated, we continue to believe it will be low, but uncertain.



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## **Age**

We conclude that on average both options will not have a disproportionate impact on mature students in terms of financial impacts, although there are differences across the income distribution. However, mature students are more debt averse and more concerned with the cost of higher education. These factors are interlinked; the financial impact leads to an increased effective cost of higher education, this can be perceived as an increased debt burden and thus may impact upon the decision to participate.

However, while the risk to participation may be elevated, we continue to believe it will be low, but uncertain.

## **Disability**

We conclude that both options will have a disproportionate impact on disabled students in terms of their likelihood to have to make greater repayments and through the potential effect on participation. These factors are interlinked; the financial impact means that they will have to meet more of the cost of their higher education, which could be perceived as an increased debt burden and thus may impact upon the decision to participate.

However, while the risk to participation may be elevated, we continue to believe it will be low, but uncertain.

## **Ethnicity**

We conclude that both options will have a disproportionate impact on ethnic minority students in terms of their likelihood to have to make greater repayments and through the potential effect on participation. These factors are interlinked; the financial impact means that they will have to meet more of the cost of their higher education, which could be perceived as an increased debt burden and thus may impact upon the decision to participate. There is evidence to suggest ethnic minorities are more likely to be debt averse.

However, while the risk to participation may be elevated, we continue to judge it will be low, though subject to uncertainty.

## Cumulative impact with change from maintenance grants to loans

At the 8 July 2015 Budget the Government announced its intention to switch maintenance grants to loans for all students in England entering Higher Education from August 2016. Currently, maintenance grants are paid to eligible full-time students to help with their living costs at university. They are means-tested and paid to students with household incomes of £42,620 or less. Students on household incomes of £25,000 or less qualify for the maximum maintenance grant which is £3,387. In addition, eligible new full time students with a household income of £25,000 or less will receive a 10.3% increase in living costs support in 2016/17 compared with the 2015/16 living costs support package.

### Impact on student debt of maintenance loans

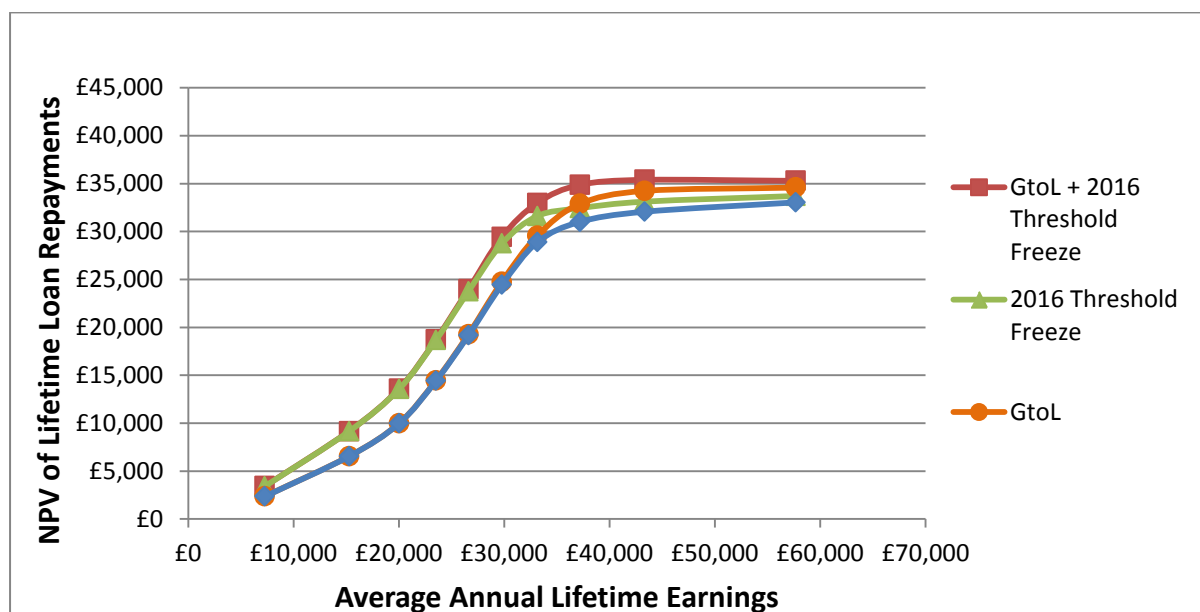
By its nature, the change from maintenance grants to more generous maintenance loans will only affect those from lower income backgrounds. As a consequence, unlike the current system, we can expect new students from poorer families to graduate with the highest level of debts. However, only those who go on to experience average or greater lifetime incomes will actually experience an increase in repayments. This, combined with evidence on the impact of financial factors on student decision making, suggests that the risks to participation from this change are likely to be low. However, the freezing of the repayment threshold is likely to have a further effect on the amount some individuals repay, and this is considered below.

### Impact on repayments

Since the grants to loans change will only apply to new students, this cumulative analysis need only consider the effect on new borrowers entering higher education in 2016.

Figure 26 shows how the net present value of lifetime loan repayments change against the current system where the grants to loan change and the repayment freeze are made in isolation and in combination.

**Figure 26: Cumulative Impacts on repayments - 2016 Entrants - All Loan Borrowers**



| Decile                                 | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      |                        |
|--|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|------------------------|
| Average Annual Lifetime Earnings       | £7,269 | £15,267 | £20,023 | £23,514 | £26,599 | £29,774 | £33,135 | £37,184 | £43,332 | £57,683 |                        |
| <b>NPV of Lifetime Loan Repayments</b> |        |         |         |         |         |         |         |         |         |         | <b>Overall Average</b> |
| GtoL + 2016 Threshold Freeze           | £3,424 | £9,162  | £13,593 | £18,732 | £23,964 | £29,433 | £32,979 | £34,872 | £35,391 | £35,286 | £23,684                |
| 2016 Threshold Freeze                  | £3,413 | £9,149  | £13,569 | £18,662 | £23,756 | £28,741 | £31,606 | £32,435 | £33,118 | £33,708 | £22,816                |
| GtoL                                   | £2,362 | £6,549  | £9,995  | £14,461 | £19,277 | £24,751 | £29,555 | £32,889 | £34,240 | £34,584 | £20,866                |
| Current System                         | £2,353 | £6,540  | £9,980  | £14,413 | £19,162 | £24,441 | £28,883 | £31,010 | £32,065 | £33,041 | £20,189                |

**NPV Lifetime Loan Repayments**

| Scenario       | 1      | 2      | 3      | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|----------------|--------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|
| Current System | £2,353 | £6,540 | £9,980 | £14,413 | £19,162 | £24,441 | £28,883 | £31,010 | £32,065 | £33,041 | £20,189 |

**Difference - NPV Lifetime Loan Repayments**

| Scenario                     | 1      | 2      | 3      | 4      | 5      | 6      | 7      | 8      | 9      | 10     | Average |
|------------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|---------|
| GtoL + 2016 Threshold Freeze | £1,072 | £2,622 | £3,613 | £4,318 | £4,801 | £4,992 | £4,096 | £3,863 | £3,326 | £2,245 | £3,495  |
| 2016 Threshold Freeze        | £1,061 | £2,610 | £3,589 | £4,249 | £4,594 | £4,299 | £2,723 | £1,425 | £1,052 | £667   | £2,627  |
| GtoL                         | £9     | £10    | £15    | £48    | £115   | £309   | £672   | £1,879 | £2,175 | £1,544 | £678    |

This shows that in combination the policies have a more equal impact across the graduate earnings distribution on average repayments than when the repayment threshold is considered in isolation, with the grants to loan change having an additional effect on the repayments of those in deciles six to eight. It should be noted that the chart and table show average effects on graduates in different parts of the lifetime earnings distribution. However, not all graduates will have received a grant – only those from low income households. For those graduates, the effect on average repayments will be greater than that suggested by looking at averages.

The table below show the impact on total repayment values of hypothetical individuals where there is both a repayment freeze and they are affected by the change from grants to loans. The modelling assumptions are the same as previously for these four examples, but it is assumed that the individuals would have otherwise qualified for a full maintenance grant. As shown, for those with average annual earnings of £21,000 and £30,000 the values in column 3 and 5, and 4 and 6 are the same. This is because they do not fully repay their loans, and so their lifetime repayments are not affected by the additional loan they have because of the grants to loan switch.

**Table 12: Impact on repayments by average annual lifetime earnings**

| Average annual earnings over lifetime (example profiles used from model) | NPV repayment (current system) | NPV repayment (option 1 freeze only) | NPV repayment (option 2) | NPV repayment (option 1 + grants to loans) | NPV repayment (option 2 + grants to loans) |
|--|--------------------------------|--------------------------------------|--------------------------|--|--|
| £21,000  | £16,778                        | £19,931                              | £20,271                  | £19,931                                    | £20,271                                    |
| £30,000  | £23,999                        | £29,943                              | £30,129                  | £29,943                                    | £30,129                                    |
| £40,000  | £28,909                        | £31,100                              | £31,110                  | £39,326                                    | £39,358                                    |
| £50,000  | £34,220                        | £34,491                              | £34,373                  | £43,913                                    | £43,768                                    |

## Potential impact on participation

We have identified that for both options 1 and 2 there is a low but elevated risk to participation amongst women, students from ethnic minority backgrounds, mature students and disabled students where they perceive their future earnings are such that they are likely to experience an increase the cost of taking out loans to fund their higher education. Under a grants to loan switch, those affected will experience an increased level of debt and this may create an additional risk to participation.

However, in terms of lifetime repayments, it will only be those that go on to experience above average lifetime earnings that will be affected. Such individuals' are those most likely to have benefited from attending Higher Education. Where individuals are able to understand this, it is likely this will offset any greater risk to participation. Overall, we believe while the risks are increased, they remain low.

## Mitigations

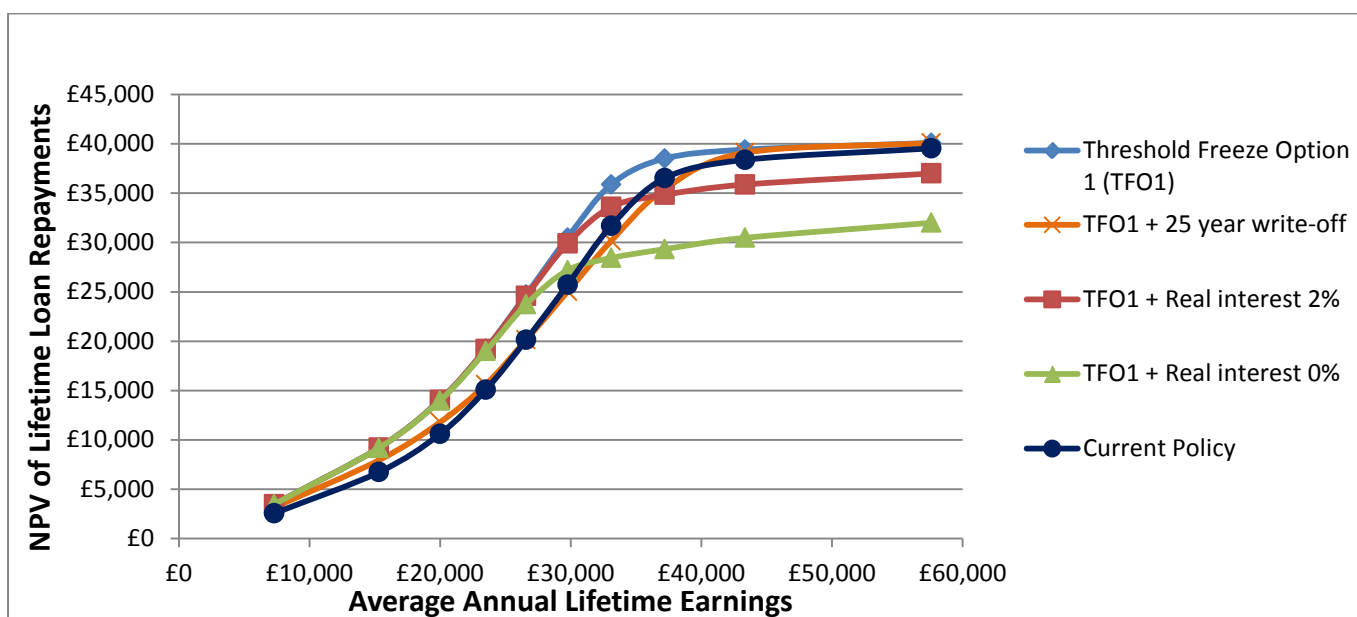
BIS received feedback through the consultation on proposals to mitigate the impact of the threshold freeze. Not all suggestions were feasible to deliver and so we have considered the below three mitigations.

1. Interest added to loan balances will still operate on a sliding scale but the higher end to be at 2% -
  - The sliding scale will still operate but the interest rate will be RPI for those earning £21,000 increasing up to RPI+2% for those earning £41,000 and above.
2. No real interest added to loan balances for the whole lifetime of the loan -
  - The loan balance will only increase with RPI for all loan borrowers, regardless of earnings.
3. Change the write-off rule from 30 years to 25 years –
  - Those that pay off their loan between 25 – 30 years will now have their remaining loan written off earlier. Those who never fully repay under the current system will have 5 years less repayments to make at the end of their loan term.

This section considers the impact of these mitigations on borrowers. It first considers these mitigations against the policy option 1 – a threshold freeze for all borrowers – before considering them against the policy option 2 – if the threshold freeze applied to new borrowers from 2016/17 only. It then considers the impact of these mitigations in light of the intended maintenance grants to loan switch.

### Mitigations compared to Option 1

Figure 27 shows the net present value of lifetime loan repayments of the current policy, the threshold freeze, and then each of the mitigations of the threshold freeze, for the 2012 cohort of borrowers.



N PV Lifetime Loan Repayments

Figure 27: All 2012 Entrants - Threshold Freeze (Option 1) Mitigations

| Average Annual Lifetime Earnings    | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|-------------------------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| All                                 | £7,277 | £15,304 | £19,985 | £23,490 | £26,573 | £29,752 | £33,097 | £37,180 | £43,332 | £57,619 | £29,361 |
| <b>NPV Lifetime Loan Repayments</b> |        |         |         |         |         |         |         |         |         |         |         |
| Scenario                            | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
| Current Policy                      | £2,555 | £6,734  | £10,603 | £15,083 | £20,123 | £25,728 | £31,694 | £36,509 | £38,378 | £39,541 | £22,695 |
| Threshold Freeze Option 1 (TFO1)    | £3,479 | £9,203  | £14,052 | £19,229 | £24,707 | £30,490 | £35,878 | £38,508 | £39,413 | £40,083 | £25,504 |
| TFO1 + Real interest 2%             | £3,477 | £9,198  | £14,038 | £19,200 | £24,565 | £29,904 | £33,609 | £34,828 | £35,875 | £36,990 | £24,168 |
| TFO1 + Real interest 0%             | £3,471 | £9,187  | £13,980 | £18,993 | £23,728 | £27,185 | £28,431 | £29,325 | £30,473 | £31,999 | £21,677 |
| TFO1 + 25 year write-off            | £3,154 | £7,943  | £11,787 | £15,612 | £20,126 | £25,021 | £30,163 | £35,403 | £39,095 | £40,083 | £22,839 |

### NPV Lifetime Loan Repayments

| Scenario                         | 1      | 2      | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|----------------------------------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Threshold Freeze Option 1 (TFO1) | £3,479 | £9,203 | £14,052 | £19,229 | £24,707 | £30,490 | £35,878 | £38,508 | £39,413 | £40,083 | £25,504 |

### Difference - NPV Lifetime Loan Repayments

| Scenario                 | 1     | 2      | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|--------------------------|-------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| TFO1 + Real interest 2%  | -£2   | -£5    | -£15    | -£29    | -£142   | -£587   | -£2,269 | -£3,680 | -£3,538 | -£3,092 | -£1,336 |
| TFO1 + Real interest 0%  | -£9   | -£16   | -£72    | -£236   | -£980   | -£3,306 | -£7,447 | -£9,183 | -£8,940 | -£8,084 | -£3,827 |
| TFO1 + 25 year write-off | -£325 | £1,260 | -£2,265 | -£3,617 | -£4,581 | -£5,469 | -£5,714 | -£3,106 | -£318   | £0      | -£2,666 |

### Mitigation 1 - Interest added to loan balances will still operate on a sliding scale but the higher end to be at 2%.

This option leads to an average mitigation of £1,336 across the lifetime of the loan for graduate borrowers. However, this average masks the variation of impact across the income distribution. Those who see the largest impact are in the 8<sup>th</sup> income decile, with average annual earnings of £37,184. This is because the borrowers who benefit most from this mitigation are those that will pay the interest on their loans. However, the impact analysis section above shows that those who face the highest impact from freezing the repayment threshold are those earning between £20,000 and £35,000 and so this mitigation is not well targeted.

This option means that the those borrowers in the income deciles 8 to 10 see a decrease in the net present value of their loan repayments, compared to the current policy. This mitigation more than offsets the effect of the policy for this set of high earning borrowers.

### Mitigation 2 - No real interest added to loan balances for the whole lifetime of the loan

The real interest rate of 0% leads to an average mitigation of £3,827 over the lifetime of the loan for the average borrower. However, this average masks the variation of impact across the income distribution. Those who see the largest impact are in the

8<sup>th</sup> income decile, earning on average £37,184. This is because the borrowers who benefit most from this mitigation are those that will pay the interest on their loans. However, the impact analysis section above shows that those who face the highest impact from the policy are those earning between £20,000 and £35,000.

This option also means that borrowers in the income deciles 7 to 10 see a decrease in the net present value of their loan repayments, compared to the current policy. This mitigation more than offsets the effect of the policy for these borrowers.

### **Mitigation 3**

A loan write off period of 25 years leads to an average mitigation of £2,666 over the lifetime of the loan for the average borrower. However, this average masks the variation of the impact across the income distribution.

Those in the tenth income decile do not benefit from this mitigation. This is because based on this average lifetime income these borrowers will have repaid their loan within 25 years and so not benefit from this write off.

Those at the bottom end of the average lifetime earnings distribution are often those that do not earn above the threshold. This means if they are still making very small repayments or no repayments between the 25th and 30th year of their repayment term, then this mitigation will only be slightly beneficial to these low earners when compared to those making substantial repayments during the last 5 years of the repayment term. Those that benefit the most are in the middle of the distribution. The impact analysis shows that these borrowers are the ones most affected by the threshold freeze.

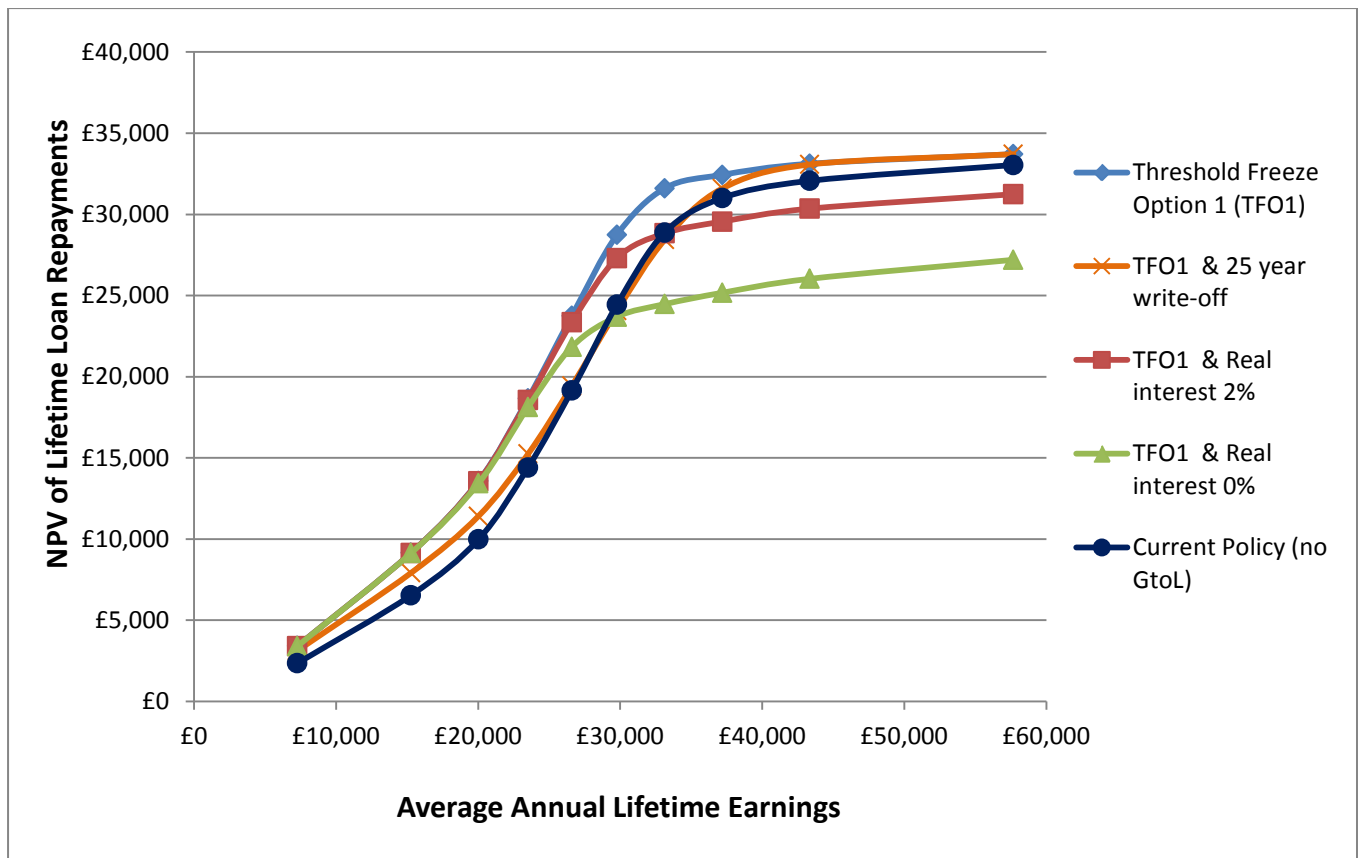
This option for mitigation is closest to the current policy in terms of NPV of loan repayments. Those in deciles 1 to 5 and 9 to 10 have slightly higher NPV of loan repayments, and those in deciles 6 to 8 have slightly lower NPV of loan repayments, compared to the current policy.

## **Mitigations options under Option 2**

Figure 28 analyses the impact of the mitigation against option 2 – freezing the threshold for all new entrants from 2016. The impact of these mitigations is very similar to the impact of the mitigations for the 2012 cohort of borrowers.



**Figure 28: All 2016 entrants - Threshold Freeze (Option 1) Mitigations**



| Average Annual Lifetime Earnings | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|----------------------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| All                              | £7,269 | £15,267 | £20,023 | £23,514 | £26,599 | £29,774 | £33,135 | £37,184 | £43,332 | £57,683 | £29,378 |

Without GtoL

NPV Lifetime Loan Repayments

| Scenario                         | 1      | 2      | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|----------------------------------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Current Policy (no GtoL)         | £2,353 | £6,540 | £9,980  | £14,413 | £19,162 | £24,441 | £28,883 | £31,010 | £32,065 | £33,041 | £20,189 |
| Threshold Freeze Option 1 (TFO1) | £3,413 | £9,149 | £13,569 | £18,662 | £23,756 | £28,741 | £31,606 | £32,435 | £33,118 | £33,708 | £22,816 |
| TFO1 & Real interest 2%          | £3,411 | £9,145 | £13,548 | £18,573 | £23,362 | £27,307 | £28,837 | £29,556 | £30,351 | £31,241 | £21,533 |
| TFO1 & Real interest 0%          | £3,405 | £9,134 | £13,437 | £18,127 | £21,841 | £23,697 | £24,471 | £25,171 | £26,029 | £27,201 | £19,251 |
| TFO1 & 25 year write-off         | £3,127 | £7,912 | £11,417 | £15,244 | £19,439 | £24,075 | £28,434 | £31,592 | £33,070 | £33,708 | £20,802 |

#### NPV Lifetime Loan Repayments

| Scenario                         | 1      | 2      | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|----------------------------------|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Threshold Freeze Option 1 (TFO1) | £3,413 | £9,149 | £13,569 | £18,662 | £23,756 | £28,741 | £31,606 | £32,435 | £33,118 | £33,708 | £22,816 |

#### Difference - NPV Lifetime Loan Repayments

| Scenario                 | 1     | 2      | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|--------------------------|-------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| TFO1 & Real interest 2%  | -£3   | -£4    | -£21    | -£90    | -£394   | -£1,434 | -£2,769 | -£2,879 | -£2,766 | -£2,466 | -£1,283 |
| TFO1 & Real interest 0%  | -£9   | -£15   | -£133   | -£535   | -£1,915 | -£5,044 | -£7,134 | -£7,264 | -£7,089 | -£6,507 | -£3,564 |
| TFO1 & 25 year write-off | -£287 | £1,237 | -£2,153 | -£3,419 | -£4,317 | -£4,666 | -£3,172 | -£843   | -£48    | £0      | -£2,014 |

### Mitigation 1 - Interest added to loan balances will still operate on a sliding scale but the higher end to be at 2%.

This option leads to an average mitigation of £1,283 over the lifetime of the loan across all borrowers. However, this average masks the variation of impact across the income distribution. Those who see the largest impact are in the 8<sup>th</sup> income decile, earning on average £37,184. This is because the borrowers who benefit most from this mitigation are those that will pay the interest on their loans. However, the impact analysis section above shows that those who face the highest impact from the policy have average lifetime earnings of between £20,000 and £35,000.

This option means that those borrowers in the income deciles 7 to 10 see a decrease in the net present value of their loan repayments compared to the current policy. This mitigation more than offsets the effect of the repayment threshold freeze for these borrowers.

### **Mitigation 2 - No real interest added to loan balances for the whole lifetime of the loan**

The option leads to an average mitigation of £3,564 over the lifetime of the loan averaged across borrowers. However, this average masks the variation of impact across the income distribution. Those who see the largest impact are in the 8<sup>th</sup> income decile, earning on average £37,184. This is because the borrowers who benefit most from this mitigation are those that will pay the interest on their loans. However, the impact analysis section above shows that those who face the highest impact from the policy have average lifetime earnings of between £20,000 and £35,000.

This option also means that borrowers in the income deciles 6 to 10 see a decrease in the net present value of their loan repayments, compared to the current policy. This mitigation more than offsets the effect of the policy for these borrowers.

### **Mitigation 3**

Reducing the loan write off period from 30 to 25 years leads to an average mitigation of £2,014 over the lifetime of the loan averaged across borrowers.

Those in the tenth income decile do not benefit from this mitigation. This is because based on this average lifetime income these borrowers will have repaid their loan within 25 years and so not benefit from the loan write off.

Those in the very low income deciles see a lower average benefit as on average they are not repaying much between the 25<sup>th</sup> year and the 30<sup>th</sup> year of the loan, and so do not benefit as much from the earlier write off.

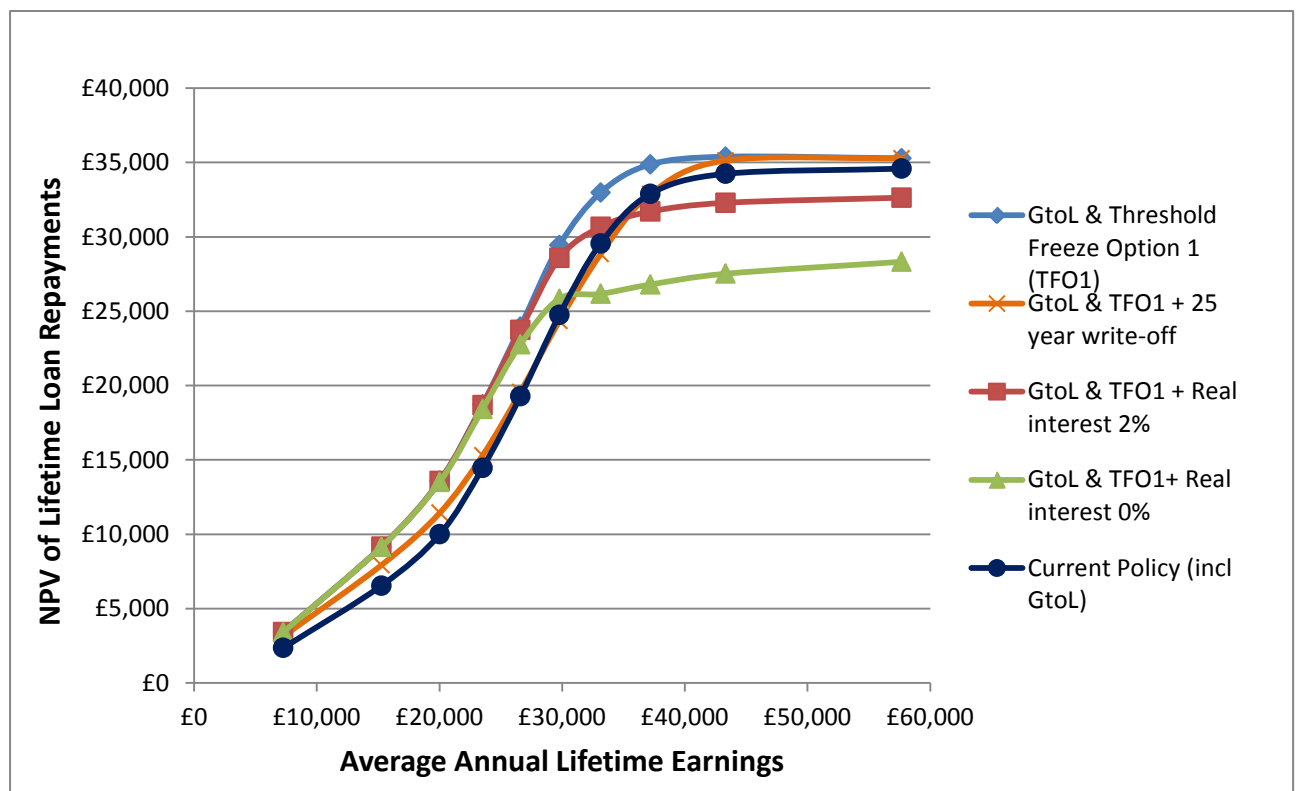
Those that benefit the most are in the middle of the distribution. The impact analysis shows that these borrowers are the ones who face the greatest impact from the freeze in the threshold.

This option for mitigation is closest to the current policy in terms of NPV of loan repayments. Those in deciles 1 to 5 and 8 to 10 have slightly higher NPV of loan repayments than the current policy, and those in deciles 6 to 7 have slightly lower NPV of loan repayments than the current policy.

## Mitigations under a threshold freeze and maintenance grants to loans switch

Figure 29 considers the effects of the mitigations if the government decides to go ahead with the Grants to Loan switch. This models the impact of each of the three mitigations compared to the current policy, and if the repayments were frozen and the grants switched to loans, for 2016 entrants.

**Figure 29: All 2016 entrants - Threshold Freeze (Option 1) with Grants to Loans Mitigations**



| Average Annual Lifetime Earnings | 1      | 2       | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|----------------------------------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| All                              | £7,269 | £15,267 | £20,023 | £23,514 | £26,599 | £29,774 | £33,135 | £37,184 | £43,332 | £57,683 | £29,378 |

WITH GtoL

**NPV Lifetime Loan Repayments**

| Scenario                                | 1      | 2      | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|---|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| Current Policy (incl GtoL)              | £2,362 | £6,549 | £9,995  | £14,461 | £19,277 | £24,751 | £29,555 | £32,889 | £34,240 | £34,584 | £20,866 |
| GtoL & Threshold Freeze Option 1 (TFO1) | £3,424 | £9,162 | £13,593 | £18,732 | £23,964 | £29,433 | £32,979 | £34,872 | £35,391 | £35,286 | £23,684 |
| GtoL & TFO1 + Real interest 2%          | £3,422 | £9,158 | £13,580 | £18,677 | £23,733 | £28,575 | £30,663 | £31,702 | £32,291 | £32,636 | £22,444 |
| GtoL & TFO1+ Real interest 0%           | £3,417 | £9,148 | £13,524 | £18,416 | £22,775 | £25,833 | £26,162 | £26,792 | £27,520 | £28,324 | £20,191 |
| GtoL & TFO1 + 25 year write-off         | £3,138 | £7,924 | £11,437 | £15,300 | £19,571 | £24,350 | £28,834 | £32,879 | £35,132 | £35,286 | £21,385 |
| GtoL & TFO1 & 28 year write-off         | £3,292 | £8,622 | £12,664 | £17,312 | £22,265 | £27,493 | £31,874 | £34,562 | £35,380 | £35,286 | £22,875 |

**NPV Lifetime Loan Repayments**

| Scenario                                | 1      | 2      | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|---|--------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| GtoL & Threshold Freeze Option 1 (TFO1) | £3,424 | £9,162 | £13,593 | £18,732 | £23,964 | £29,433 | £32,979 | £34,872 | £35,391 | £35,286 | £23,684 |

**Difference - NPV Lifetime Loan Repayments**

| Scenario                        | 1     | 2      | 3       | 4       | 5       | 6       | 7       | 8       | 9       | 10      | Average |
|---------------------------------|-------|--------|---------|---------|---------|---------|---------|---------|---------|---------|---------|
| GtoL & TFO1 + Real interest 2%  | -£3   | -£4    | -£13    | -£54    | -£230   | -£858   | -£2,316 | -£3,170 | -£3,100 | -£2,650 | -£1,240 |
| GtoL & TFO1+ Real interest 0%   | -£7   | -£14   | -£69    | -£316   | -£1,189 | -£3,600 | -£6,817 | -£8,080 | -£7,871 | -£6,962 | -£3,492 |
| GtoL & TFO1 + 25 year write-off | -£287 | £1,238 | -£2,156 | -£3,432 | -£4,392 | -£5,083 | -£4,145 | -£1,993 | -£259   | £0      | -£2,299 |

**Mitigation 1 - Interest added to loan balances will still operate on a sliding scale but the higher end to be at 2%.**

The real interest rate of 2% leads to an average mitigation of £1,240 over the lifetime of the loan averaged across borrowers. However, this average masks the variation of the impact across the income distribution. Those who see the largest impact are in the 8<sup>th</sup> income decile, earning on average £37,184. This is because the borrowers

who benefit most from this mitigation are those that will pay the interest on their loans. However, the impact analysis section above shows that those who face the highest impact from the policy have average lifetime earnings of between £20,000 and £35,000.

This option means that the those borrowers in the income deciles 8 to 10 see a decrease in the net present value of their loan repayments compared to the current policy. This mitigation more than offsets the effect of the repayment threshold freeze for these borrowers.

### **Mitigation 2 - No real interest added to loan balances for the whole lifetime of the loan**

The real interest rate of 0% leads to an average mitigation of £3,492 over the lifetime of the loan averaged across borrowers. However, this average masks the variation in the magnitude of the impact across the income distribution. Those who see the largest impact are in the 8<sup>th</sup> income decile, earning on average £37,184. This is because the borrowers who benefit most from this mitigation are those that will pay the interest on their loans. However, the impact analysis section above shows that those who face the highest impact from the policy have average lifetime earnings of between £20,000 and £35,000.

This option also means that borrowers in the income deciles 7 to 10 see a decrease in the net present value of their loan repayments, compared to the current policy. This mitigation more than offsets the effect of the policy for these borrowers.

### **Mitigation 3**

Reducing the loan write off period from 30 to 25 years leads to an average mitigation of £2,229 over the lifetime of the loan averaged across borrowers.

Those in the tenth income decile do not benefit from this mitigation. This is because based on this average lifetime income these borrowers will have repaid their loan within 25 years and so not benefit from the loan write off.

Those in the very low income deciles see a lower impact as on average they are not repaying much between the 25<sup>th</sup> year and the 30<sup>th</sup> year of the loan, and so do not benefit as much from the earlier write off.

Those that benefit the most are in the middle of the distribution. The impact analysis shows that these borrowers are the ones who face the greatest impact from the freeze in the threshold.

This option for mitigation is closest to the current policy in terms of NPV of loan repayments compared to the other mitigations. Those in deciles 1 to 5 and 9 to 10 have slightly higher NPV of loan repayments than , and those in deciles 6 to 8 have slightly lower NPV of loan repayments, compared to the current policy.

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## 28 year write off

Having considered the 25 year write off as a mitigation option, we also modelled a 28 year write off as a mitigation option. The table below summarises the impacts of the 28 year write off on each of the scenarios considered above, compared to the impact of the 25 year write off. It shows the difference in NPV of loan repayments of the mitigation compared to option 1 and 2, under each of the scenarios addressed above.

The impact of this mitigation is, inevitably, smaller than the 25 year write off. The pattern of impacts is similar to the impacts of the 25 year write off scenario. However, because write off occurs after 28 years rather than 25 years, the distribution of impacts is shifted towards the lower end of the income distribution. Borrowers who are expected to repay between 28 and 30 years will benefit more under the 25 year write off compared to the 28 year write off.

**Table 13:**

| Difference in NPV repayments given each scenario       |   |       |         |         |         |         |         |         |         |       |    |         |
|--|---|-------|---------|---------|---------|---------|---------|---------|---------|-------|----|---------|
| 25 year write-off mitigation (2012 entrants)           | - | £325  | -£1,260 | -£2,265 | -£3,617 | -£4,581 | -£5,469 | -£5,714 | -£3,106 | -£318 | £0 | -£2,666 |
| 28 year write-off mitigation (2012 entrants)           |   | -£143 | -£560   | -£966   | -£1,489 | -£1,787 | -£2,155 | -£1,890 | -£357   | -£2   | £0 | -£935   |
| 25 year write-off mitigation (2016 entrants)           |   | -£287 | -£1,237 | -£2,153 | -£3,419 | -£4,317 | -£4,666 | -£3,172 | -£843   | -£48  | £0 | -£2,014 |
| 28 year write-off mitigation (2016 entrants)           |   | -£133 | -£540   | -£926   | -£1,409 | -£1,654 | -£1,659 | -£610   | -£15    | £0    | £0 | -£695   |
| 25 year write-off mitigation (2016 entrants with GtoL) |   | -£287 | -£1,238 | -£2,156 | -£3,432 | -£4,392 | -£5,083 | -£4,145 | -£1,993 | -£259 | £0 | -£2,299 |
| 28 year write-off mitigation (2012 entrants with GtoL) |   | -£133 | -£540   | -£929   | -£1,419 | -£1,699 | -£1,940 | -£1,105 | -£310   | -£11  | £0 | -£809   |

## Equality analysis: impact on FE borrowers

### Characteristics of FE loan borrowers.

The table below shows the characteristics of FE loans students compared with 24+ FE students under grant funding in 2012/13. The analysis is based on Individualised Learner Record (ILR) for 2012/13 and 2013/14.

The analysis shows that loan uptake is proportionally high amongst women – 76% (compared with 69% of loan eligible learners in 2012/13 and 50% for the overall working age population in England). The loan uptake is also proportionally high



amongst Black/Caribbean/African/Caribbean/British learners – 11% compared with 8% in 2012/13 under grant funding.

**Table 14:**

|                                       | <b>2013/14 FE Loans</b> | <b>2012/13 learners, 24+</b> |
|---------------------------------------|-------------------------|------------------------------|
| <b>Gender</b>                         |                         |                              |
| % Women                               | 76%                     | 69%                          |
| <b>Learning Difficulty</b>            |                         |                              |
| No learning difficulty                | 84%                     | 86%                          |
| Learning difficulty                   | 12%                     | 9%                           |
| Not known                             | 4%                      | 5%                           |
| <b>Ethnicity</b>                      |                         |                              |
| White                                 | 75%                     | 80%                          |
| Black/African/Caribbean/Black British | 11%                     | 8%                           |
| Asian/Asian British                   | 6%                      | 6%                           |
| Mixed/multiple ethnic group           | 3%                      | 2%                           |
| Other                                 | 2%                      | 2%                           |
| Not known                             | 2%                      | 2%                           |
| Total number                          | 59,100                  | 214,300                      |

Currently, we have limited information on the ability of FE loan students to repay their loans. The first repayments are

expected in April 2016. We used the FE RAB charge model to identify what group of borrowers will be affected by freezing the repayments thresholds.

The median borrower in Further Education (FE) has a lower income, earning around £19,000 in 2016/17 terms. The two options will thus not have an impact on the median FE learners but will have an impact on borrowers whose income is above the threshold.

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On the basis of the FE RAB charge, under option 1, 8% more learners are brought into repayments and almost 20% more learners repay in full.

Under option 2, 6% more learners are brought into repayments and just over 15% more learners will repay in full.

### **Protected Characteristics**

The analysis is limited by the availability of personal characteristics data used in the FE RAB charge model. We estimate that under option 1 a slightly higher proportion of women are brought into repayment than no freeze (around 78% compared with 76%). There is broadly the same distribution by age of those that are brought into repayment under option 1 compared to no freeze. We estimate that under option 2 there is broadly the same distribution by age and gender compared to no freeze. We do not have the data to estimate the effect of the change on the other protected characteristics of borrowers.

### **Evidence from BIS Research Paper Number 73 – Attitudes to Further Education Loans**

£21,000 Threshold – respondents were relieved that they would not be required to make payments without the means to do so (in particular, if they were to lose their job); this also dissociated the offer from ‘bank’ type loans

The information also seemed to remove the ‘gamble’ associated with loans for FE study, suggesting that they would not need to make repayments unless they benefited from the course (£21,000 seemed an appropriate income threshold in this sense, as many were earning less than this, especially in the north of England)

Respondents surprised at how low rate of repayment was (particularly when seen as daily, weekly)

## Family Test

The Family Test was introduced on 31 October 2014. The objective of the test is to introduce an explicit family perspective to the policy making process, and ensure that potential impacts on family relationships and functioning are made explicit and recognised in the process of developing new policy.

We do not believe that the changes proposed are likely to have a significant effect on family formation, but we have considered evidence regarding the relationship between student loan repayment and the maintenance or future formation of strong, stable and nurturing relationships.

Where the policy options in isolation may have an impact it is likely to be through:

- Where a household has a member entering student loan repayment these changes will decrease immediate financial resources. However, on a weekly basis the increases in repayments are minimal so it would not be expected to increase the likelihood of financial pressures affecting the stability of the family relationship.
- A consequence of the policy is that the effective price of higher education has increased for those who go on to earn middle incomes. This could be perceived as an increased debt burden. Evidence submitted by the NUS<sup>34</sup> finds that increased student debt decreases the chance of marriage and could potentially reduce chances of having children. Additionally, they reference a study which shows that increased debt decreases the chances of graduates purchasing their own home; this could have potential implications for family formation.

It should be added that this increased debt is only a perception, in reality the graduate's outstanding balance to the student loans company will remain the same with or without the policy change. For this reason we expect any impacts to be minimal.

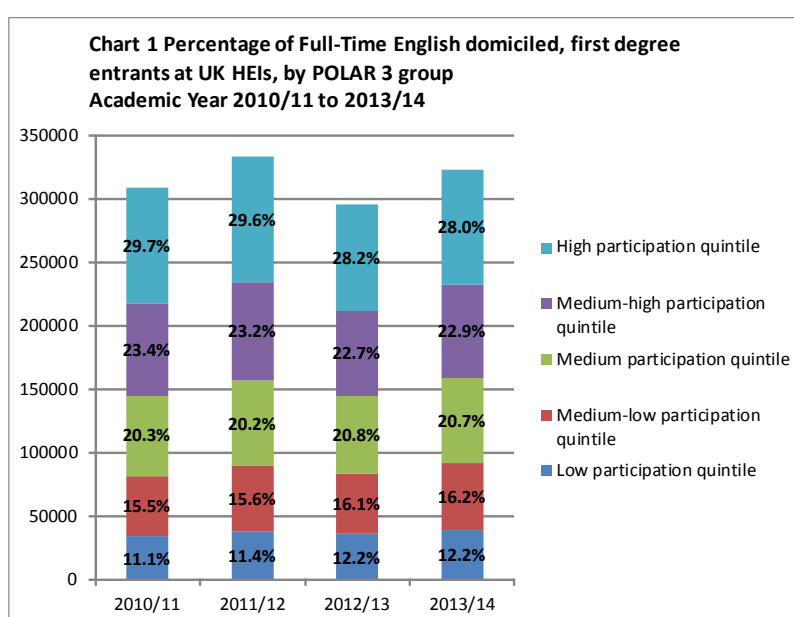
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<sup>34</sup> Gicheva (2012) In Debt and Alone? Examining the Causal Link between Student Loans and Marriage [www.uncg.edu/bae/people/gicheva/MBA\\_loans\\_marriageMay12.pdf](http://www.uncg.edu/bae/people/gicheva/MBA_loans_marriageMay12.pdf); Anderson (2013) Postponing the Family? The Relationship between Student Debt and Lifecycle Transitions [http://economics.nd.edu/assets/105677/postponing\\_the\\_family\\_the\\_relationship\\_between.pdf](http://economics.nd.edu/assets/105677/postponing_the_family_the_relationship_between.pdf) ; Andrew (2010) "The Changing Route to Owner Occupation: The Impact of Student Debt", *Housing Studies*, 25:1, 39-62 [http://cassknowledge.co.uk/sites/default/files/articleattachments/432--andrewmark\\_student\\_debt\\_housing\\_studies.pdf](http://cassknowledge.co.uk/sites/default/files/articleattachments/432--andrewmark_student_debt_housing_studies.pdf)

# Annex 1 - Entrants: the profile of the 2013/14 new system full time first degree population at English HEIs

## Entrants from disadvantaged backgrounds

For those English domiciled full time first degree entrants at UK HEIs from the lowest participation quintile, their percentage share has increased by 1.1 percentage points since 2010/11. Conversely, the proportion from the highest participation quintile has decreased by 1.7 percentage points. This confirms the potential outcomes suggested by the UCAS lead indicators.



Source: HESA student record

## HESA Widening Participation Indicators

- Population
- Young
  - Full-Time
  - First Degree
  - Entrants

Table 1 shows the **HESA Widening Participation Indicators** on the proportion of young, full-time first degree entrants from state schools, lower socio economic and lower participation groups. These figures are shown for **UK domiciled students in UK Higher Education Institutions.**

Since 2010/11, the proportion has risen year on year for students from state schools and lower socio-economic groups. The indicator on low participation neighbourhoods also showed a consecutive increase until 2013/14 when the percentage rate stayed at 10.9%.

**Table 1: Proportion of under-represented groups amongst UK-domiciled young, full-time first degree entrants at UK HEIs**

|   | 2010/11 | 2011/12 | 2012/13 | 2013/14 |
|---|---------|---------|---------|---------|
| <b>State school pupils</b>                                      | 88.7%   | 88.9%   | 89.3%   | 89.7%   |
| <b>Lower socio-economic groups (NS-SEC classes 4,5,6 and 7)</b> | 30.6%   | 30.7%   | 32.3%   | 32.6%   |
| <b>Low participation neighbourhoods (POLAR3 quintile 1)</b>     | 10.0%   | 10.2%   | 10.9%   | 10.9%   |

Source: HESA, Widening Participation table T1a

There was also a 1 percentage point improvement in the proportion of mature full time first degree entrants who had no previous HE qualifications and were from low participation neighbourhoods from 10.9% in 2010/11 to 11.9% in 2013/14 (**Table 2**).

**Table 2: Proportion of under-represented groups amongst UK-domiciled mature, full-time first degree entrants at UK HEIs Academic Year 2010/11 to 2013/14**

|  | 2010/11 | 2011/12 | 2012/13 | 2013/14 |
|--|---------|---------|---------|---------|
| <b>No previous HE <u>and</u> from low participation neighbourhoods (POLAR3 quintile 1)</b> | 10.9%   | 10.9%   | 11.6%   | 11.9%   |

Source: HESA Summary of UK performance indicators 2013/14

### Other measures of widening participation

BIS also produce their own measures of widening participation in their annual July report entitled “**Widening Participation in HE 2015**”. Similar to the HESA measures, they are to inform our understanding of widening participation by measuring participation in HE and the most selective universities tariff score. The measures describe:-

- the percentage of free school meal students aged 15 from state schools who progress to Higher Education by age 19; and
- the proportion of A level students who progress to selective HE institutions from state schools and compares this to the access rate achieved by their independent school peers.

## **The percentage of free school meal students entering HE by age 19**

The percentage has increased from 20% in 2010/11 to 23% in 2012/13. This has coincided in a 1pp fall in the gap between –FSM and non-FSM pupils from 18pp to 17pp.

**Table 3a: Estimated percentage of 15 year old pupils from state-funded English schools by Free School Meal status who entered HE by age 19 in UK HEIs and English Further Education Colleges**

| Entered HE by age 19 in academic year | Estimated percentage who entered HE |            |     |             |
|---------------------------------------|-------------------------------------|------------|-----|-------------|
|                                       | FSM[1]                              | Non-FSM[1] | All | Gap[2] (pp) |
| 2010/11                               | 20                                  | 38         | 35  | 18          |
| 2011/12                               | 21                                  | 39         | 36  | 18          |
| 2012/13                               | 23                                  | 40         | 37  | 17          |

(pp percentage point)

[1] FSM and Non-FSM refer to whether pupils were receiving Free School Meals at age 15 or not.

[2] Gap is the difference between FSM and non-FSM expressed in percentage points. Percentage figures are rounded; gap figures are calculated from un-rounded data and therefore may not correspond to the gap between rounded percentages.

**Table 3b** shows a smaller percentage of A level students from State schools (23%) progress to the most selective institutions compared to students from the Independent sector (63%) – a 40pp gap that has remained broadly unchanged since the 2010/11 academic year. A level students from Selective State schools fare much better with 3 in 5 A level students from this type of school progressing to selective institutions by age 19.

**Table 3b: Estimated number and percentage of A level students by age 19 in English schools who progressed to the most selective HE Institutions by school type**

### **Progression rates to the most selective HEIs**

| School College Type | 2010/11 | 2011/12 | 2012/13 |
|---------------------|---------|---------|---------|
| Independent         | 64      | 62      | 63      |
| Selective           | 58      | 59      | 60      |
| Other               | 20      | 19      | 19      |
| Total State         | 24      | 23      | 23      |

|                                |           |           |           |
|--------------------------------|-----------|-----------|-----------|
| All                            | 28        | 27        | 26        |
| <b>Independent / State Gap</b> | <b>40</b> | <b>39</b> | <b>40</b> |

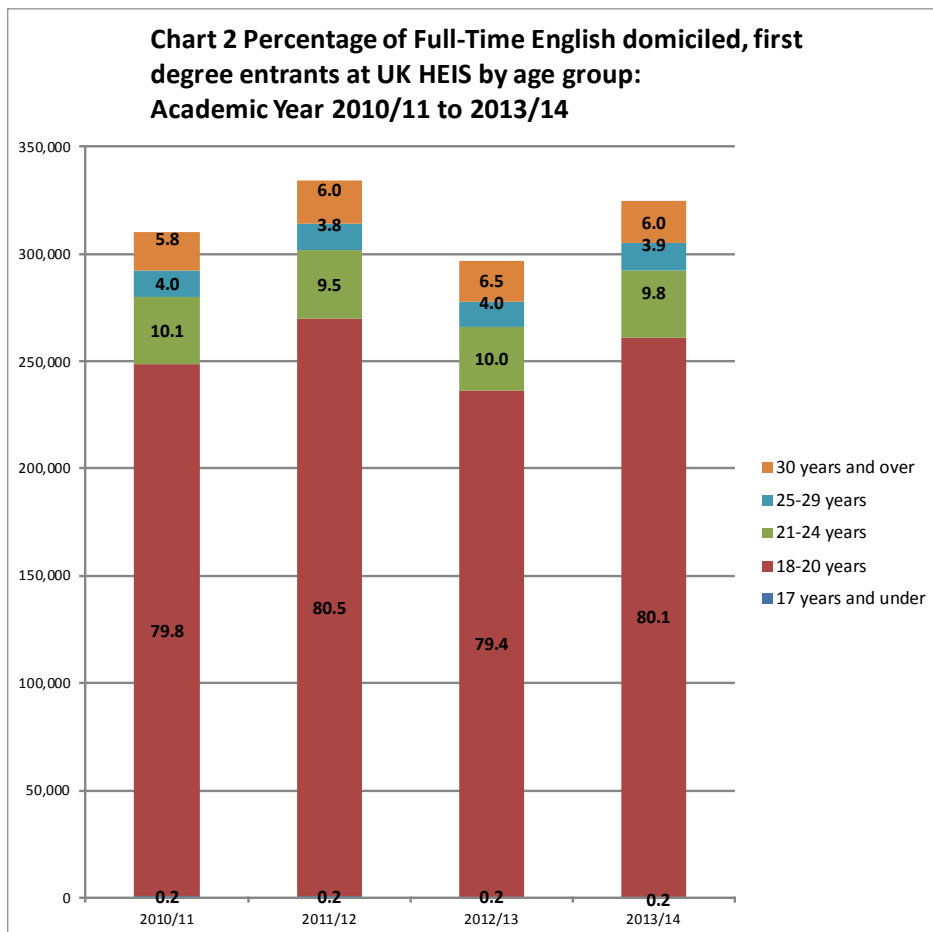
The measures reported in Table 3a and 3b do not account for Prior attainment. Many pupils will not continue their education; therefore may not hold the qualifications to progress to Higher Education.

### HESA Equality characteristics data

Charts 2 to 4 show the percentage of full-time first degree English entrants in UK HEIs by age, ethnicity, gender and disability derived from the HESA student records.

#### Age group

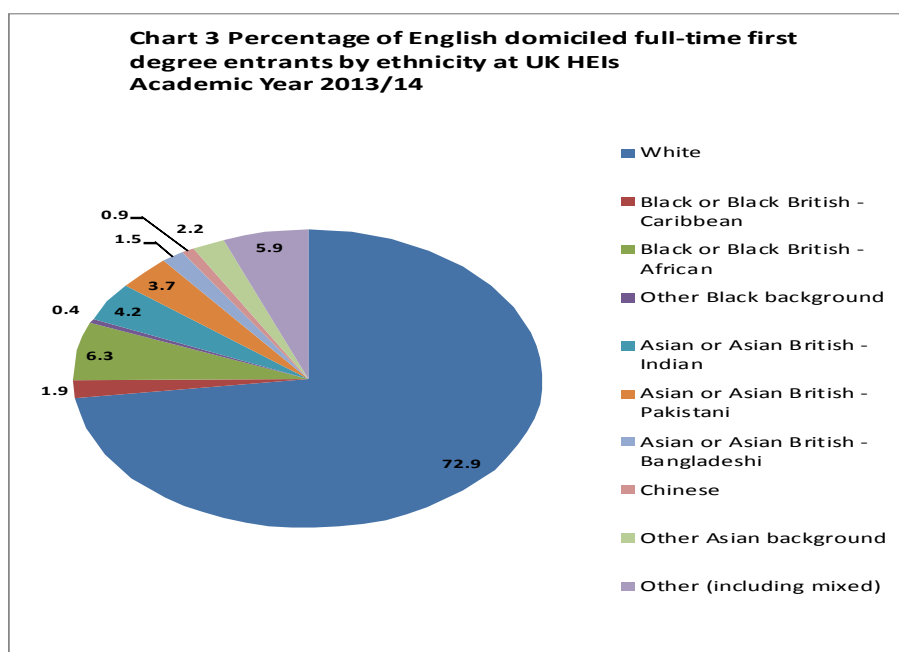
The number of entrants to full time first degrees in every age group fell in 2013/14 except the 18-20 age group who saw their share rise from 79.4% to 80.1% (**Chart 2**).



Source: HESA student record

## Ethnicity

Over the past decade, the proportion of UK-domiciled students who are from ethnic minority backgrounds has risen gradually<sup>35</sup>. In English HEIs, the proportion of ethnic minority entrants to full time first degrees increased following the reforms. This reflects a trend of rising participation by ethnic minority groups, with Black 18 year olds showing the largest increase in entry rates. Consequently, all ethnic minorities have a higher HE entry rate than White 18 year olds<sup>36</sup> (see Chart 3).



Source: HESA student record

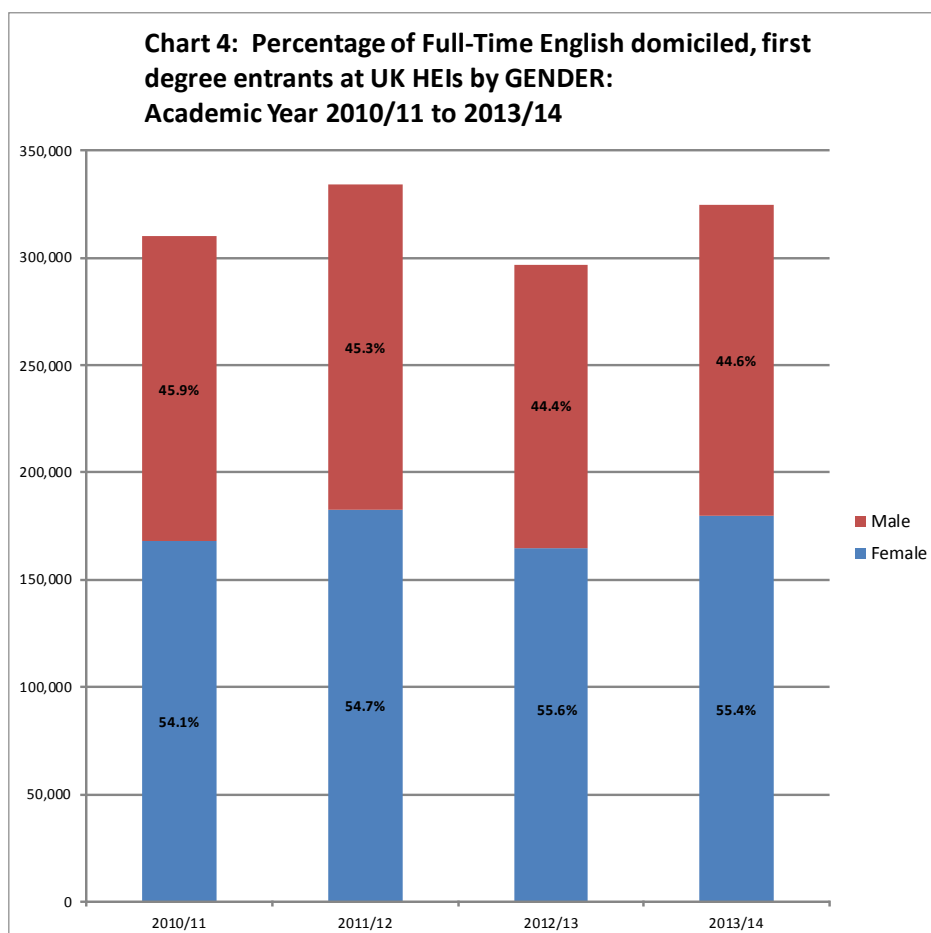
<sup>35</sup> Equality Challenge Unit, *Equality in higher education: statistical report 2013*, p. 60

<sup>36</sup> As reported in UCAS, End of cycle report (2013), figure 69. The ethnic minority groupings are Asian, Black, Mixed, Chinese and Any Other



## Gender

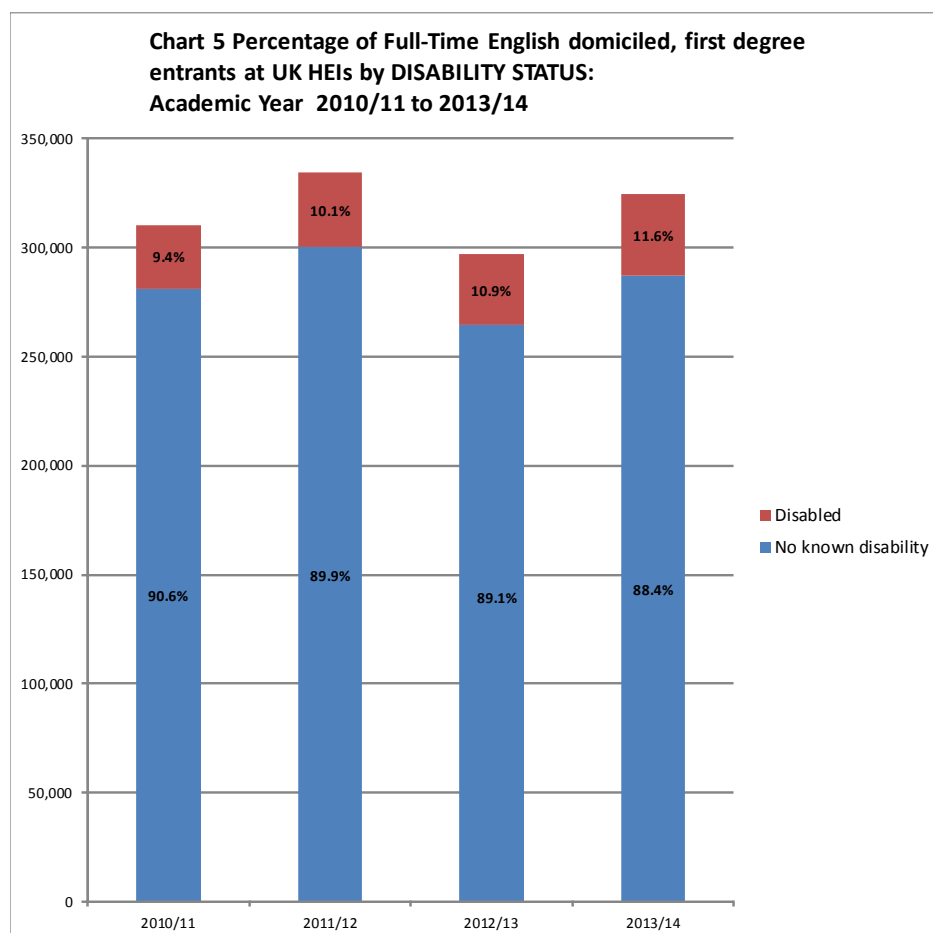
Over the past decade there were consistently more female students than male students at UK universities. In 2013/14 the proportion of female entrants to full time first degrees at UK HEIs rose slightly (**see Chart 4**).



Source: HESA student record

## Disability

The proportion of disabled students in the overall student population has risen gradually over the past ten years<sup>37</sup>. It increased again in 2013/14 (see Chart 5), suggesting the reforms did not disproportionately impact disabled students.



Source: HESA student record

One of HESA's Widening Participation Performance Indicators is on the participation of disabled students as measured by the proportion of Disabled Students' Allowance recipients. The PI confirms the trend found above: a gradual improvement in the representation of disabled students over recent years which has continued into the first year of the HE reforms.

<sup>37</sup> Equality Challenge Unit, *Equality in higher education: statistical report 2013*, p. 98

**Table 4: Proportion of Disabled Students' Allowance recipients amongst UK-domiciled, full-time first degree students in UK HEIs**

|                       | <b>2010/11</b> | <b>2011/12</b> | <b>2012/13</b> | <b>2013/14</b> |
|-----------------------|----------------|----------------|----------------|----------------|
| <b>DSA recipients</b> | 5.3%           | 5.9%           | 6.5%           | 6.9%           |

Source: HESA, Widening Participation table T7

## Annex 2 – Supporting data for Labour Force Survey analysis of earnings distributions by protected characteristics

**Table 1: Graduate earnings distribution by disability status**

|                 | Not Disabled    | Disabled |
|-----------------|-----------------|----------|
| Earnings Decile | Annual earnings |          |
| 1               | £13,988         | £13,000  |
| 2               | £19,188         | £17,004  |
| 3               | £22,984         | £21,008  |
| 4               | £26,000         | £24,024  |
| 5               | £30,004         | £27,976  |
| 6               | £34,008         | £31,980  |
| 7               | £38,376         | £37,024  |
| 8               | £44,980         | £42,016  |
| 9               | £55,016         | £50,024  |
| 10              | £83,980         | £69,004  |

|             |      |     |
|-------------|------|-----|
| Sample size | 3965 | 355 |
|-------------|------|-----|

**Table 2: Graduate earnings distribution by ethnicity**

|                 | White           | BAME    |
|-----------------|-----------------|---------|
| Earnings Decile | Annual earnings |         |
| 1               | £13,988         | £12,168 |
| 2               | £18,980         | £16,796 |
| 3               | £22,984         | £20,020 |
| 4               | £26,260         | £24,024 |
| 5               | £30,004         | £26,988 |
| 6               | £34,476         | £30,004 |
| 7               | £39,000         | £34,996 |
| 8               | £44,980         | £39,988 |
| 9               | £55,016         | £47,996 |
| 10              | £85,020         | £74,984 |

|             |      |      |
|-------------|------|------|
| Sample size | 9287 | 1037 |
|-------------|------|------|

**Table 3: Graduate earnings distribution by gender**

|                 | Male            | Female  |
|-----------------|-----------------|---------|
| Earnings Decile | Annual earnings |         |
| 1               | £14,976         | £12,480 |
| 2               | £20,384         | £17,004 |
| 3               | £25,012         | £20,384 |
| 4               | £29,016         | £23,504 |
| 5               | £33,488         | £26,416 |
| 6               | £38,012         | £30,004 |
| 7               | £43,732         | £33,020 |
| 8               | £50,024         | £37,492 |
| 9               | £63,024         | £44,980 |
| 10              | £95,992         | £63,024 |

|             |      |      |
|-------------|------|------|
| Sample size | 5981 | 4994 |
|-------------|------|------|

**Table 4: Earnings distribution by age that they obtained their first degree**

|                 | Obtained their first degree at the age of 23 or younger | Obtained their first degree at the age of 24 or older |
|-----------------|---|---|
| Earnings Decile | Annual earnings   |   |
| 1               | £13,520   | £13,988   |
| 2               | £18,408   | £18,980   |
| 3               | £22,360   | £22,984   |
| 4               | £26,000   | £26,416   |
| 5               | £30,004   | £30,004   |
| 6               | £34,008   | £33,020   |
| 7               | £39,000   | £36,400   |
| 8               | £44,980   | £42,016   |
| 9               | £56,004   | £47,996   |
| 10              | £83,980   | £72,020   |

|             |      |      |
|-------------|------|------|
| Sample size | 4672 | 1172 |
|-------------|------|------|



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