The cost of amending repayment thresholds alongside changes in interest rate and loan repayment period

An analysis on behalf of the Higher Education Policy Institute

June 2021

Overview of the analysis

London Economics were commissioned by HEPI to assess the economic costs associated with a **change in real interest rates, repayment thresholds and repayment periods for the 2020-21 cohort of undergraduate students**:

- We estimate the impact of the full range of fees and student support arrangements on the **Exchequer, higher education institutions (HEIs) and students/ graduates**, for:
  - The **2020-21 cohort**[1] [2] of first-year **English-domiciled undergraduate students (studying anywhere in the UK),** and **EU-domiciled students studying in England**;
  - **Full-time and part-time students** ; and
  - **All undergraduate qualifications** (including first degrees and other undergraduate qualifications below first degree level).
- The analysis incorporates the fees and funding arrangements facing the cohort of starters in **2020-21.**
- The modelling assesses a range of **metrics**, including:
  - The **RAB charge** (i.e. proportion of loan written off), **student loan debt on graduation**, expected **lifetime loan repayments** (by gender and income decile), the proportion of graduates expected to **never fully repay** their loan, and the proportion expected to **never make any repayments**;
  - The total **Exchequer costs** (including the cost of **student support** (i.e. maintenance and fee loans) and **Teaching Grant** funding to institutions **across the UK**); and
  - **HEI funding**, in terms of **tuition fee income** and **Teaching Grant** funding, minus the costs of any bursaries provided to students

Analysis undertaken

- Compared to the current (i.e. Baseline) fees and funding arrangements for first-year students in 2020-21, we modelled a **combination of scenarios** to assess the impact on HEIs, the Exchequer, HEIs and students/graduates of the following:
  - **The removal of real interest rates – both during and post graduation**
  - **An increase in the repayment period from 30 years to 35 years**
  - **Various changes to the loan repayment threshold** to reflect the current level of PAYE tax free allowance **(£12,570**), or the level of the repayments threshold for those borrowers subject to (pre 2012) Plan 1 student loan repayments **(£19,390)**
  - We also provide a **sensitivity analysis** around this scenario to illustrate Exchequer savings from further changes to the repayment threshold, interest rate and repayment period assumptions.

[1] Note that the underlying student data are based on the 2017-18 academic year. The size and characteristics of the cohort are based on students commencing their studies in 2017-18; however, importantly, there is less than a **0.5%** size difference between the 2017-18 and 2020-21 cohorts [2] Using information from UCAS End of Cycle Reports (link), there were **394,620** English domiciled placed applicants across the UK and EU-domiciled students placed applicants in English HEIs 28 days post Clearing in 2017-18. In 20120-21, this had increased to **395,870**, representing an increase of **0.3%**

Impact of the current funding system (Baseline)

Impact of the current system (Baseline)

Baseline system

Resource flows (£/£m/%)	Baseline
Exchequer	
Cost of maintenance grant	-
Cost of maintenance loan	(£4,019)
Cost of tuition fee grant	-
Cost of tuition fee loan	(£5,395m)
Cost of Teaching Grants	(£1,242m)
Total Exchequer cost	**(£10,656m)**
RAB charge (%)	**53.9%**
% never repaying full loan/anything	**88.2%/33.0%**
Higher education institutions	
Gross fee income	£10,093m
Teaching Grant income	£1,242m
Cost of bursary provision	(£189m)
Net HEI income	**£11,147m**
Students/Graduates (FT degrees)	
Average debt on graduation	**£47,000**
Average lifetime repayments (M/F)	**£34,800/£13,100**

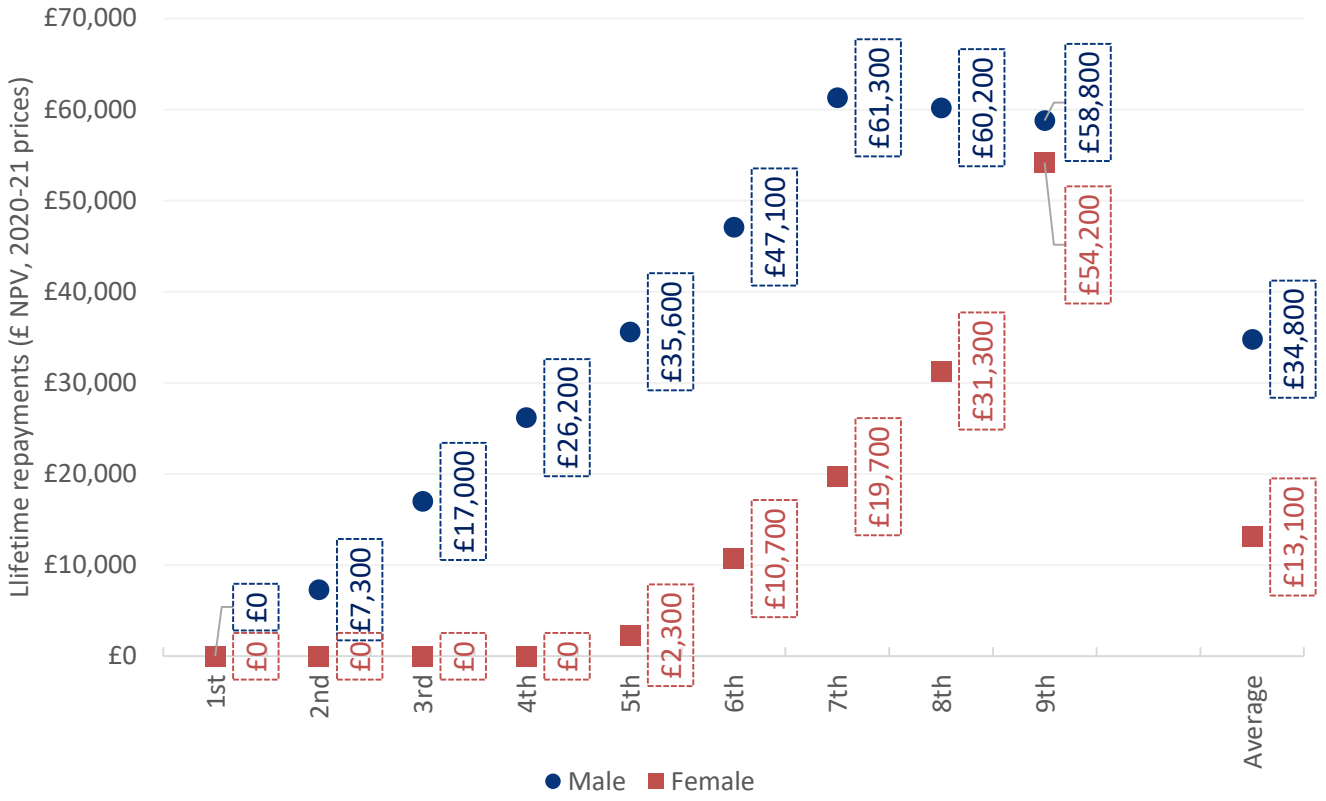
- Under the current funding system in 2020-21 (i.e. the Baseline), the Exchequer contributes approximately **£10.656bn** per cohort to the funding of higher education. In terms of constituent components, given that the **RAB charge** (i.e. the proportion of the total loan balance written off) stands at approximately **53.9%**, **maintenance loan write-offs** cost the Exchequer **£4.019bn** per cohort, while **tuition fee loan write-offs** cost **£5.395bn** per cohort. The provision of **Teaching Grants** to higher education institutions (for high cost subjects) results in additional costs of **£1.242bn** per cohort.
- Higher education institutions receive approximately **£11.147bn** per cohort in net income, made up of approximately **£10.093bn** in **tuition fee income** (from undergraduate students), as well as **£1.242bn** in **Teaching Grant** income. Against this, institutions contribute approximately **£189 million** per cohort in fee and maintenance **bursaries** (predominantly the latter) in exchange for the right to charge tuition fees in excess of the 'Basic Fee' (**£6,165** per annum for full-time students).
- From the perspective of students/graduates, the average debt on graduation (including accumulated interest) was estimated to be **£47,000** (for full-time undergraduate first degree students), while the average lifetime repayments made stood at **£34,800** for male graduates and **£13,100** for female graduates.
- We estimate that approximately **88.2%** of all graduates are **never expected to repay their full loan** by the end of the 30 year repayment period, while **33.0%** are **never expected to make any loan repayment**.

Note: All monetary values have been discounted to net present values and are presented in constant 2020-21 prices. All monetary values per student have been rounded to the nearest £100, and all totals have been rounded to the nearest £1m
Debt on graduation and expected lifetime repayments per student are presented for full-time undergraduate degree students only. Gross fee income refers to fee income before the deduction of fee bursaries provided to students.

Graduate loan repayments in Baseline: Total repayments

Baseline system

Total loan repayments by FT undergraduate degree graduates (NPV in 2020-21 prices), by earnings decile and gender

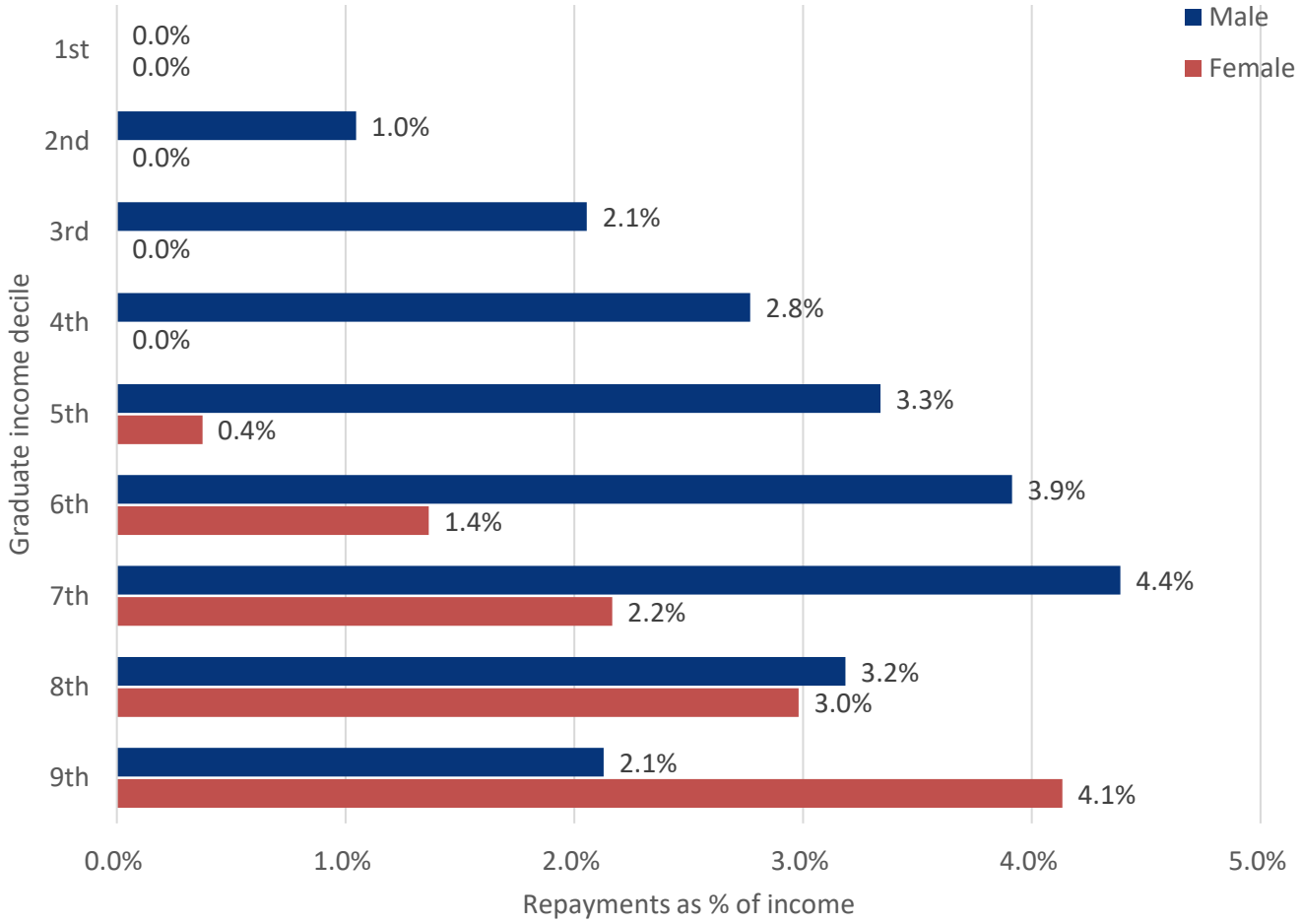


- In terms of total loan repayments, while the average repayments made by **male graduates** stand at **£34,800**, there is considerable variation depending on earnings decile. Male graduates in the top three earnings deciles make repayments of between **£58,800** and **£61,300**, while male graduates in the bottom earnings decile make no repayments.
- **Female graduates** in the bottom four earnings deciles are not expected to make any loan repayments over the 30-year repayment period. However, repayments increase sharply thereafter. Female graduates in the 7th, 8th and 9th earnings deciles would be expected to make repayments of **£19,700, £31,300** and **£54,200** respectively (with an average lifetime repayment of **£13,100** across all deciles in net present value terms).

Graduate loan repayments in Baseline: Progressivity

Baseline system

Total loan repayments by full-time undergraduate degree graduates, as a % of income (during repayment period), by decile and gender



- The current loan system is **regressive at the upper end of the earnings distribution**.
- Reflecting total lifetime loan repayments, **up until the 7th earnings decile**, male graduates contribute an increasing proportion of their income in loan repayments (over the 30-year repayment period). For male graduates on the **5th earnings decile**, the proportion stands at **3.3%**, increasing to **4.4%** on the **7th earnings decile**. However, illustrating the 'local regressivity' of the repayment system, after this point, the proportion of earnings over the period contributed as loan repayments decreases to **3.2%** and **2.1%** on the **8th** and **9th deciles**, respectively.
- Female graduates in the **bottom 4 deciles** make no repayments, while the proportion of income contributed in loan repayments on the **5th decile** stands at **0.4%**. This increases in successive earnings deciles – reaching **3.0%** of total income over the period on the **8th decile** and **4.1%** on the **9th decile**.

Impact of removal of real interest rates and repayment extension

Impact of alternative fees and funding approach

Removal of real interest rates (Scenario 1) / extension of repayment period

Resource flows (£/£m/%)	Baseline	0% Real interest rate (only)	35 year repayment (only)
Exchequer			
Cost of maintenance grant	-	-	
Cost of maintenance loan	(£4,019)	(£4,542m)	(£3,655m)
Cost of tuition fee grant	-	-	-
Cost of tuition fee loan	(£5,395m)	(£6,102m)	(£4,898m)
Cost of Teaching Grants	(£1,242m)	(£1,242m)	(£1,242m)
Total Exchequer cost	**(£10,656m)**	**(£11,886m)**	**(£9,796m)**
RAB charge (%)	**53.9%**	**60.6%**	**49.5%**
% never repaying full loan/anything	**88.2%/33.0%**	**73.7%/33.0%**	**84.5%/33.0%**
Higher education institutions			
Gross fee income	£10,093m	£10,093m	£10,093m
Teaching Grant income	£1,242m	£1,242m	£1,242m
Cost of bursary provision	(£189m)	(£189m)	(£189m)
Net HEI income	**£11,147m**	**£11,147m**	**£11,147m**
Students/Graduates (FT degrees)			
Average debt on graduation	£47,000	£45,600	£47,000
Average lifetime repayments (M/F)	£34,800/£13,100	£28,400/£11,800	£37,900/£15,500

Removing the real interest rate

- **Removing the real interest rate** (both during study and post graduation) adds an additional **£1.230bn** to Exchequer costs (by increasing the interest rate subsidy). The RAB charge increases by **6.7pp** to **60.6%**, while the proportion never repaying the full loan declines by **14.5pp**.
- Debt on graduation declines by an average of **£1,400** per full-time first degree student, while average lifetime repayments decline by **£6,400** for male graduates and **£1,300** for female graduates; however, these benefits are not evenly distributed.

Extending the repayment period

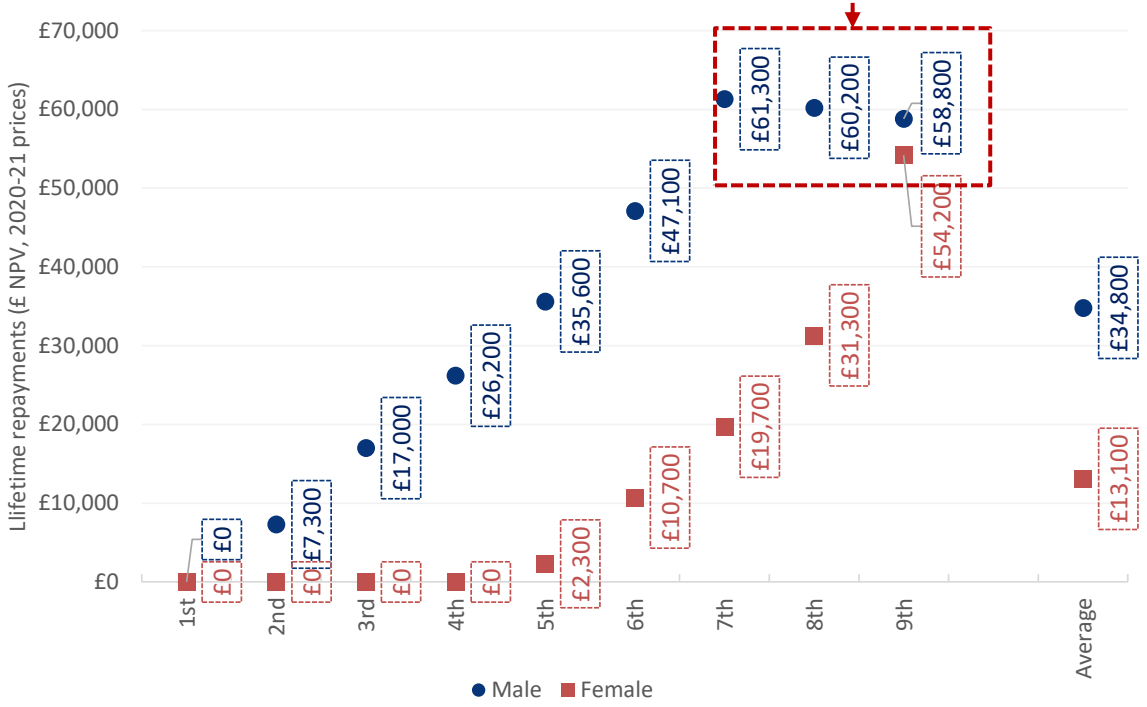
- **Extending the repayment period to 35 years** results in **£860m savings** for the Exchequer. From the Baseline, the RAB charge declines by **4.4pp** to **49.5%**, while the proportion never repaying the full loan declines by **3.7pp** to **84.5%**
- Although debt on graduation is unchanged from the Baseline, average lifetime repayments increase by **£3,100** for male first-degree graduates and **£2,400** for female first degree graduates
- Again, there are important distributional impacts.

Note: All monetary values have been discounted to net present values and are presented in constant 2020-21 prices. All monetary values per student have been rounded to the nearest £100, and all totals have been rounded to the nearest £1m
Debt on graduation and expected lifetime repayments per student are presented for full-time undergraduate degree students only. Gross fee income refers to fee income before the deduction of fee bursaries provided to students.

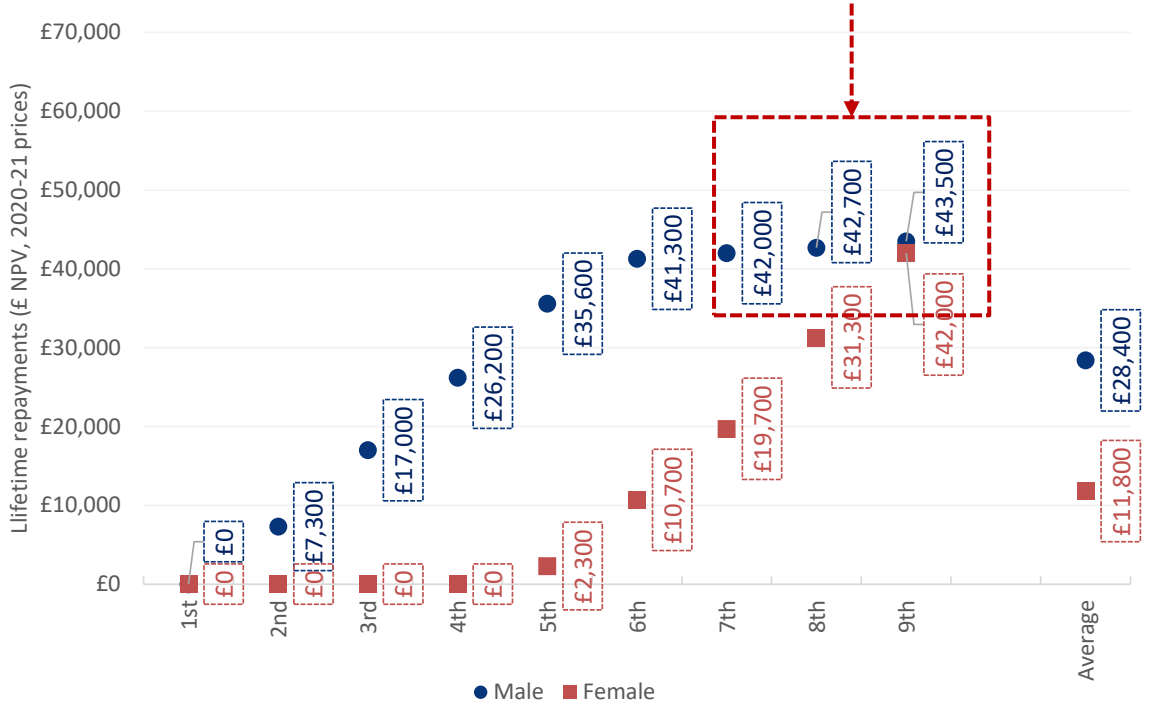
Graduate loan repayments under alternative assumptions: 0% real interest rates

Total loan repayments by English-domiciled FT undergraduate degree graduates (NPV in 2020-21 prices), by earnings decile and gender

Baseline



Zero real interest rate

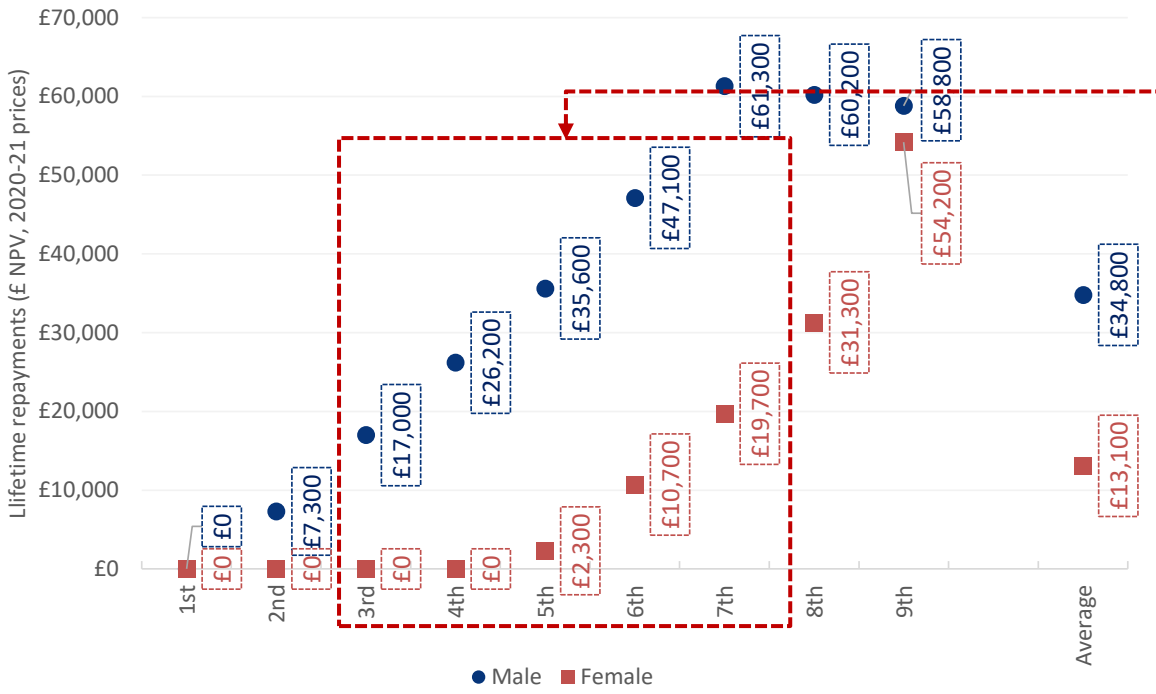


- The removal of real interest rates significantly reduces the progressivity of the repayment system. The **only beneficiaries** from the removal of real interest rates are the highest earning (predominantly male) graduates. For male graduates on the 7th, 8th or 9th deciles, repayments decline by between **£15,000** and **£19,000** in present value terms. The removal of real interest rates has no impact on approximately 80% of graduates, who are entirely unaffected by the option.

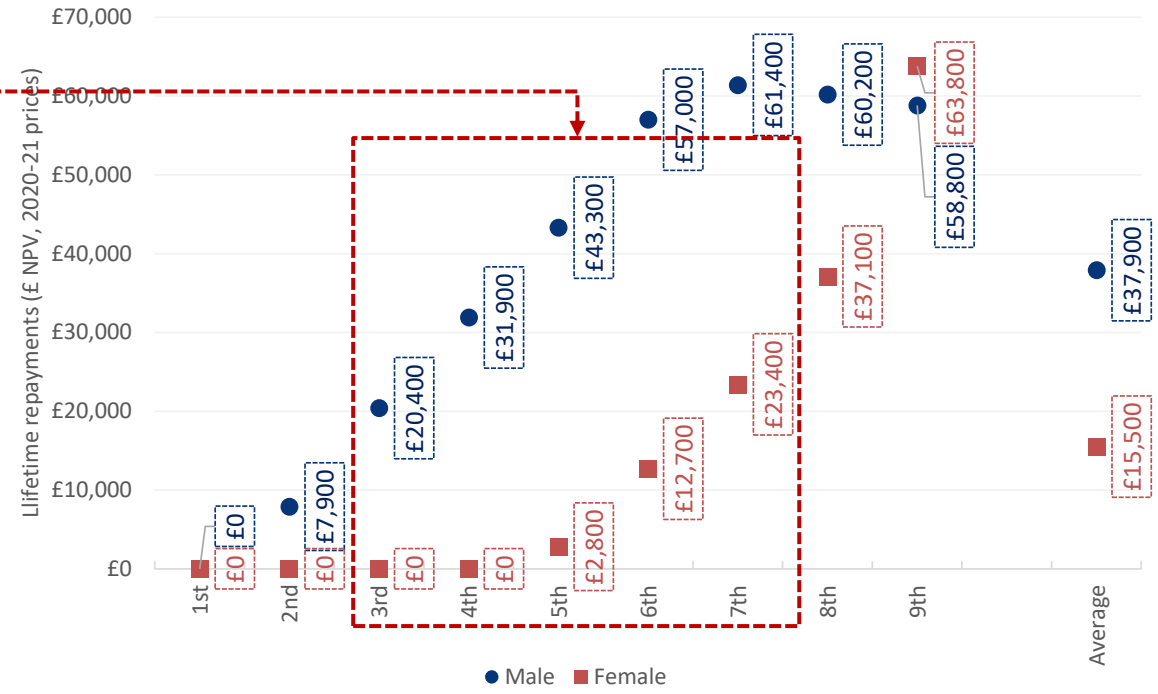
Graduate loan repayments under alternative assumptions: 35 year repayment period

Total loan repayments by English-domiciled FT undergraduate degree graduates (NPV in 2020-21 prices), by earnings decile and gender

Baseline



35 year repayment period



- Extending the repayment period has a **significant detrimental impact** on the 'typical' graduate and a relatively minimal impact on the highest earning male graduates. For all middle-income male graduates and middle to high-income female graduates, the extension of the repayment period increases lifetime repayments by up to **£10,000** in present value terms. In general, the highest earnings graduates are unaffected as they would have repaid the entirety of their loan balance well before the potential extension of the repayment period.

Sensitivity Analysis:

All scenarios

Absolute Values

Description of scenarios	Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4
Repayment threshold	£26,575	£26,575	**£12,570**	**£19,390**	£19,390
Repayment Period (years)	30	30	30	30	30
Real interest rate (during/post completion)	3% / 0-3%	**0% / 0%**	0% / 0%	0% / 0%	**3% / 0-3%**
Resource flows (£/£m/%)					
Exchequer (Red parenthesis in scenarios represent an increase in HMT costs)					
Cost of maintenance grant	-				
Cost of maintenance loan	(£4,019)	(£4,542m)	(£2,120m)	(£3,305m)	(£2,423m)
Cost of tuition fee grant	-	-	-	-	-
Cost of tuition fee loan	(£5,395m)	(£6,102m)	(£2,849m)	(£4,439m)	(£3,246m)
Cost of Teaching Grants	(£1,242m)	(£1,242m)	(£1,242m)	(£1,242m)	(£1,242m)
Total Exchequer cost	**(£10,656m)**	**(£11,886m)**	**(£6,211m)**	**(£8,986m)**	**(£6,911m)**
RAB charge (%)	**53.9%**	**60.6%**	**28.2%**	**44.2%**	**32.8%**
% never repaying full loan/anything	**88.2%/33.0%**	**73.7%/33.0%**	**40.6%/2.4%**	**58.3%/15.5%**	**75.6%/15.5%**
Students/Graduates (FT degrees)					
Average debt on graduation	**£47,000**	£45,600	£45,600	£45,600	£47,000
Average lifetime repayments (M/F)	**£34,800/£13,100**	£28,400/£11,800	£40,300/£29,300	£35,200/£20,300	£44,700/£23,500

- To illustrate the sensitivity of the results to different assumptions around Scenario 1 (the removal of real interest rates), in **Scenario 2**, a subsequent reduction in the repayment threshold to the tax-free allowance level of **£12,570** would result in an Exchequer saving (compared to the Baseline) of **£4.445bn**.
- **Scenario 3** involves reducing the repayment threshold to mirror the repayment threshold associated with Plan 1 student loans (currently **£19,390**). This would result in Exchequer savings of **£1.670 billion** per cohort (compared to the Baseline).
- Scenario 4, which involves amending Scenario 3 to re-introduce real interest rates (alongside comparable interest rate thresholds above the repayment threshold) would result in a savings to the Exchequer of **£3.475 billion** compared to the Baseline.

Based on Scenario 4, a **1 year extension** of the repayment period reduces Exchequer costs by **£225 million**. This saving would also be achievable by reducing the repayment threshold by **£410** or increasing maximum real interest during study *and* post graduation to **3.275%**.

Note: All monetary values have been discounted to net present values and are presented in constant 2020-21 prices. All monetary values per student have been rounded to the nearest £100, and all totals have been rounded to the nearest £1m
Debt on graduation and expected lifetime repayments per student are presented for full-time undergraduate degree students only. Gross fee income refers to fee income before the deduction of fee bursaries provided to students.

Sensitivity Analysis:

All scenarios

Description of scenarios	Baseline	Scenario 1	Scenario 2	Scenario 3	Scenario 4
		Difference to Baseline			
Repayment threshold	£26,575	£26,575	**£12,570**	**£19,390**	£19,390
Repayment Period (years)	30	30	30	30	30
Real interest rate (during/post completion)	3% / 0-3%	**0% / 0%**	0% / 0%	0% / 0%	**3% / 0-3%**
Resource flows (£/£m/%)					
Exchequer (Red parenthesis in scenarios represent an increase in HMT costs)					
Cost of maintenance grant	-				
Cost of maintenance loan	(£4,019)	(£523m)	£1,899m	£714m	£1,596m
Cost of tuition fee grant	-	-	-	-	-
Cost of tuition fee loan	(£5,395m)	(£707m)	£2,546m	£956m	£2,149m
Cost of Teaching Grants	(£1,242m)	-	-	-	-
Total Exchequer cost	**(£10,656m)**	**(£1,230m)**	**£4,445m**	**£1,670m**	**£3,745m**
RAB charge (%)	**53.9%**	**6.7 pp**	**-25.7 pp**	**-9.7 pp**	**-21.1 pp**
% never repaying full loan/anything	**88.2%/33.0%**	**-14.5 pp/ -**	**-47.6 pp/-30.6pp**	**-29.9 pp/-17.5pp**	**-12.6 pp/-17.5pp**
Students/Graduates (FT degrees)					
Average debt on graduation	**£47,000**	-£1,400	-£1,400	-£1,400	-
Average lifetime repayments (M/F)	**£34,800/£13,100**	-£6,400/ -£1,300	£5,500 / £16,200	£400 / £7,200	£9,900 / £10,400

- To illustrate the sensitivity of the results to different assumptions around Scenario 1 (the removal of real interest rates), in **Scenario 2**, a subsequent reduction in the repayment threshold to the tax-free allowance level of **£12,570** would result in an Exchequer saving (compared to the Baseline) of **£4.445bn**.
- **Scenario 3** involves reducing the repayment threshold to mirror the repayment threshold associated with Plan 1 student loans (currently **£19,390**). This would result in Exchequer savings of **£1.670 billion** per cohort (compared to the Baseline).
- Scenario 4, which involves amending Scenario 3 to re-introduce real interest rates (alongside comparable interest rate thresholds above the repayment threshold) would result in a savings to the Exchequer of **£3.475 billion** compared to the Baseline.

Based on Scenario 4, a **1 year extension** of the repayment period reduces Exchequer costs by **£225 million**. This saving would also be achievable by reducing the repayment threshold by **£410** or increasing maximum real interest during study *and* post graduation to **3.275%**.

Note: All monetary values have been discounted to net present values and are presented in constant 2020-21 prices. All monetary values per student have been rounded to the nearest £100, and all totals have been rounded to the nearest £1m
Debt on graduation and expected lifetime repayments per student are presented for full-time undergraduate degree students only. Gross fee income refers to fee income before the deduction of fee bursaries provided to students.

Dr Gavan Conlon, Partner, London Economics
020 3701 7703, gconlon@londecon.co.uk

Ms Maike Halterbeck, Divisional Director, London Economics
020 3701 7724, mhalterbeck@londecon.co.uk

@LE_Education

LE London Economics

Cover picture: Yurchello/Shutterstock.com

Annex I

Methodology and assumptions

LE London Economics

Assumptions and methodology

- The model considers the total number of full-time and part-time **English domiciled** first-year students undertaking undergraduate qualifications **at any institution in the UK**, as well as full-time and part-time **EU students** engaged in undergraduate education **studying at English institutions**. We use information from the Higher Education Statistics Agency (HESA, here) for 2017-18, and we assume that the size and characteristics of the relevant cohort have **remained unchanged**[1] between 2017-18 and 2020-21.
- Based on the same HESA data, we assume the following distribution of students by **qualification level**:

Qualification level	Full-time	Part-time
Other undergraduate	3%	57%
HNC/HND	1%	3%
Foundation Degree	2%	3%
First degree	94%	38%
Total	**100%**	**100%**

- Part-time students are estimated to study at **40%** full-time equivalence (FTE).
- Again based on HESA data (here), we assume an annual continuation rate of **92.5%** for full-time students and **82.5%** for part-time students.

- The analysis is undertaken separately by gender. Based on HESA information on graduates by gender and qualification level (here), we assume the following **gender** split:

Qualification level	Full-time		Part-time	
	Male	Female	Male	Female
Other undergraduate	47%	53%	38%	62%
HNC/HND	47%	53%	38%	62%
Foundation Degree	47%	53%	38%	62%
First degree	42%	58%	43%	57%

- We assume the following **average age at enrolment** (based on HESA information) and **average duration of qualification attainment** (by qualification level and study mode):

Age at enrolment

Qualification level	Full-time	Part-time
Other undergraduate	28	36
HNC/HND	21	27
Foundation Degree	25	30
First degree	20	31

Duration of study

Qualification level	Full-time	Part-time
Other undergraduate	1	2
HNC/HND	2	5
Foundation Degree	2	5
First degree	3	7

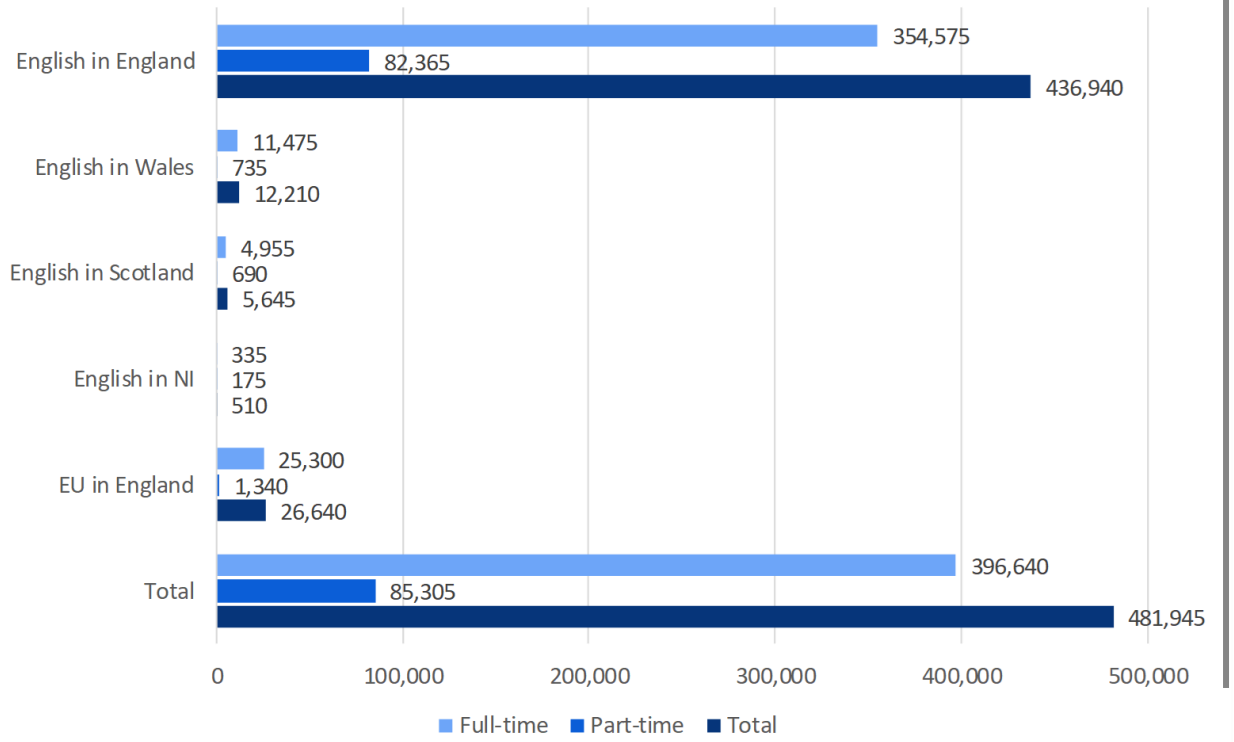
[1] Using information from UCAS End of Cycle Reports (link), there were **394,620** English domiciled placed applicants across the UK and EU-domiciled students placed applicants in English HEIs 28 days post Clearing in 2017-18. In 20120-21, this had increased to **395,870**, representing an increase of **0.3%**.

Assumptions and methodology

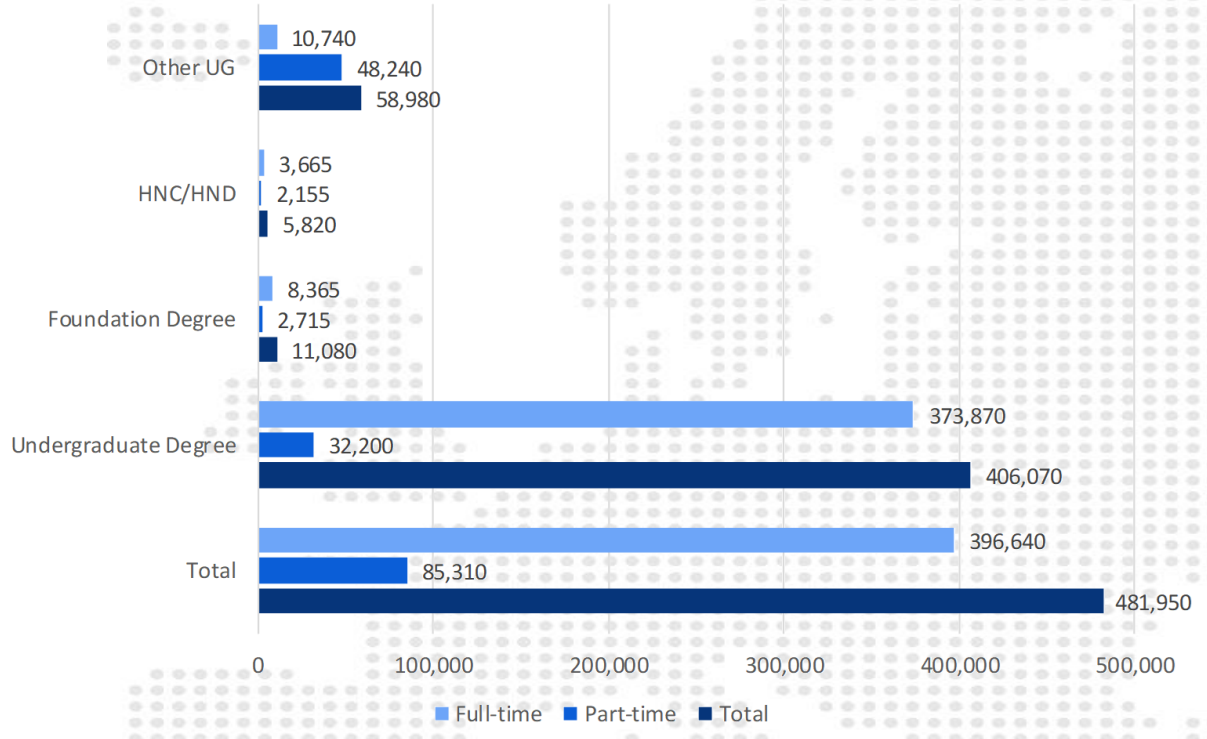
Student profile

- The analysis is based on a total of **481,945 first-year undergraduate English-domiciled students studying anywhere in the UK and EU-domiciled students studying in England.**

Breakdown by domicile, location of study and mode of study



Breakdown by level and mode of study



Note: All student numbers are rounded to the nearest 5. The information is based on the 2017-18 academic yea, and we assume the same size and characteristics of the 2020-21 cohort as for the 2017-18 cohort.

Source: London Economics' analysis based on data provided by the Higher Education Statistics Agency (here)

Baseline assumptions and methodology

Fees, fee loans and maintenance loans

- In the **Baseline** (i.e. the current funding system in 2020-21), the maximum (gross) tuition fee in 2020-21 is **£9,250**, with an average fee charged of approximately **£9,120** (rounded to the nearest £10, based on OFFA data, here). Despite the existence of Access agreements and the provision of bursaries and fee waivers by HEIs[2], the net tuition fee remains the same (**£9,120**) as the majority of financial support is paid to students in the form of maintenance bursaries. Based on average study intensity, the average part-time net tuition fee was estimated to be **£3,610** per annum.
- Based on the **current funding system**, we have modelled **maintenance loan eligibility** by **students' living conditions**, for students living at Home (LAH, **21%** of FT students, **0%** of PT students), living away from home outside of London (LAFHOL, **67%** of FT students, **85%** of PT students) and living away from home in London (LAFHIL, **12%** of FT students, **15%** of PT students) - using the current household income thresholds applied by Student Finance England.
- To determine the **size of maintenance loans received**, students in the cohort are categorised by gender, location of study, study intensity and living arrangements whilst in study. We assume that **all students take out the maximum available loan to which they are entitled.** For FT students, we base eligibility for loans using information from the Student Loans Company (SLC, here) on the distribution of students by household income, based on the % of students that were previously in receipt of full or partial maintenance grants (in 2015-16 which was the last year that maintenance grants were available). For PT students, we use the UK Labour Force Survey to estimate the distribution of individuals aged 30-40 in possession of Level 3 qualifications as their highest qualification by household income. We thus estimate that the average maintenance loan received by students in the 2020-21 cohort stands at **£7,140** per full-time student and **£3,210** per part-time student per year.
- We assume that fees and maintenance loans do not increase over the duration of students' courses.

[2] approximately **13%** of the tuition fee charged in excess of the Basic fee of **£6,165** per annum is 'handed back' to students in the form of fee and maintenance bursaries. However, the overwhelming majority of bursaries are maintenance related (approximately 97%). As such, the relatively minor tuition fee bursary has a negligible impact on the net tuition fee.

Teaching Grants

- For the **Baseline,** the average **Teaching Grant** per student studying in **England** is derived by combining assumptions on the rate per FTE student by subject band (in 2018-19) with information on the distribution of students by subject band (both provided by the Office for Students, here), as follows:

Subject Band	Funding per FTE, £	% of FTE students
Band A	£10,100	2%
Band B	£1,515	22%
Band C1	£253	21%
Band C2	-	20%
Band D	-	35%
Total	-	**100%**

- Combining this with the average 'other targeted allocations' funding per student (e.g. including premium funding to support retention), the average total T-Grant per full-time student studying in England amounts to approximately **£1,090**. Based on average study intensity, the average funding per part-time student was estimated at **£430** per annum.
- For students studying in **Scotland**, we divide the total T-Grant funding provided by the SFC in 2018-19 by the number of funded FTE students in that year (here). We thus estimate that the average T-Grant per full-time student stands at **£5,630** per year, with the assumed part-time rate (again based on study intensity) standing at **£2,230**.
- For students studying in **Wales or Northern Ireland**, we make use of HESA financial data (here) and student data (here) for 2017-18. We divide the total Teaching Grant funding in each of these Home Nations by the total number of UK and EU students undertaking undergraduate or postgraduate taught qualifications (excluding postgraduate research and non-EU students). Adjusting for study intensity, the average T-Grant per full-time student in Wales and Northern Ireland is estimated to be **£300** and **£3,030** per student per annum respectively. The corresponding estimates for part-time students stand at **£120** and **£1,200** per student per annum.

Assumptions and methodology

Loan interest and repayment terms

- Under the **Baseline funding system**, tuition fee and maintenance loans accumulate **interest** at 3% + RPI during the period of study. After graduation, loans accumulate interest depending on earnings, with individuals earning **£26,575** incurring interest at 0% + RPI, increasing to 3% + RPI for individuals with earnings of **£47,835** per annum or above. For part-time students, we also apply current SLC rules in relation to the accumulation of interest during study.
- In the **Baseline**, we assume that loan repayment is **9%** of earnings in excess of **£26,575** per annum, and that all loans are written off 30 years from the Statutory Repayment Due Date (SRDD).
- In the **Baseline**, we assume that the relevant earnings **thresholds** for interest accumulation and loan repayment (of **£26,575** and **£47,835**) increase with the rate of average nominal earnings growth per year.
- We use the most recent Office for Budget Responsibility medium- and long-term forecasts in relation to the expected **Retail Price Index** per annum, as well as expected **nominal average earnings growth** per annum (here and here).
- In relation to the estimation of the **RAB charge and lifetime loan repayments (in NPV)**, we assume a real discount rate of **0.7%** as used in the governmental accounts, with the nominal discount rate amounting to **0.7% + RPI**.
- In relation to the estimation of aggregate financial flows across the cohort, we assume the standard HMT Green Book real discount rate of **3.5%** (see here), with the nominal discount rate amounting to **3.5% + RPI**.
- In the **first scenario (Scenario 1)**, we assume that real interest rates are **eliminated – both during study and after graduation**
- As a supplement, we also model **an extension of the repayment period to 35 years** (maintaining real interest rates as in the Baseline)

Graduate earnings and employment probabilities

- In **Scenario 2**, we assume that the repayment threshold is the same as the current income tax free allowance threshold (**£12,570**) with real interest rates removed.
- In **Scenario 3**, we assume that the repayment threshold is the same as the current threshold associated with Plan 1 student loans (**£19,390**) with real interest rates removed.
- In **Scenario 4**, we assume the same repayment threshold as in Scenario 3, but re-introduce real interest rates ranging between 0% and 3%. e that under the Baseline, an individual earning **£21,260** in excess of the initial repayment threshold is charged 3% real interest.
- To estimate graduates' lifetime loan repayments (by qualification level (i.e. first degrees, Foundation Degrees, HNCs/HNDs and other undergraduate qualifications), gender, study mode and decile), we make use of **pooled UK Quarterly Labour Force Survey data for the period 2010Q1-2020Q2**.
- Using this data, we estimate the **average earnings** (in June 2020 prices) among individuals in possession of each of the different qualifications as their highest level of attainment, separately by age (for first degrees) or age band (for qualifications below degree level (due to sample size)), gender, and income decile. To assess loan repayments for part-time students (who typically start repaying their loans *during study*), we further estimate the average earnings of individuals in possession of Level 3 qualifications as their highest level of attainment (used as part-time students' assumed earnings during study), separately by age, decile and gender.
- We also estimate the **average probability of being in employment**, again by qualification level, age or age band, and gender.
- Based on the above, we then estimate the **employment-adjusted annual earnings profiles** of graduates associated with each qualification, by study mode, gender and decile. We adjust these age-earnings profiles to account for the fact that earnings are expected to increase over time (again using Office for Budget Responsibility forecasts of average nominal earnings growth per year (here and here).