Assessing the costs of removing undergraduate tuition fees across the UK

Summary of findings for the University and College Union, May 2024

LE London Economics

Introduction and overview

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Introduction and context

- **London Economics were commissioned by the University and College Union to assess the impact on the Exchequer, students/graduates, and higher education institutions (HEIs) of introducing free tuition fees for undergraduate students across the UK.** This involves the removal of fees for all UK domiciled students studying anywhere in the UK, and a corresponding increase in public Teaching Grants paid to HEIs to make up for the loss in fee income. In addition, we explore the impact of the potential introduction of an Employer Levy to generate additional Exchequer revenues to cover the required increase in Teaching Grants.
- The analysis presented here predominantly focuses on the undergraduate higher education fees and funding arrangements in **England** (facing the cohort of students commencing their studies in 2023-24). In addition, using our comparable economic modelling for all other Home Nations, we also present corresponding high-level estimate for **Wales**, **Scotland**, and **Northern Ireland**, as well as a resulting total cost to the UK public purse associated with removing fees throughout the UK.

Overview of the analysis

- We provide detailed estimates for the **2023-24 cohort[1] of first-year English domiciled undergraduate students studying anywhere in the UK[2]** (including all undergraduate qualifications, i.e. first degrees and other undergraduate qualifications[3]). We also undertake a comparable analysis for **Welsh, Scottish, and Northern Irish domiciled students studying anywhere in the UK** (and present high-level results here[4]).
- The analysis considers the current **fees and funding arrangements facing the cohort of starters in 2023-24**, as well as the estimated costs **if tuition fees for this cohort were entirely removed**. We also estimate the size of a **potential Employer Levy** (operating in the same way as National Insurance employer contributions and applied to graduate salaries) that would need to be introduced to achieve cost neutrality for the Exchequer.
- The modelling assesses a range of **key metrics**, including:
  - Core student loan outcomes, such as the **Resource Accounting and Budgeting (RAB) charge[5]**, **student loan debt on graduation**, and expected **lifetime loan repayments** (by gender, lifetime income decile, mode, and level of study);
  - The **total Exchequer cost** of the system associated with the cohort, including the cost of student support provided to undergraduate students and the associated Teaching Grant funding paid to higher education institutions across the UK (where applicable); and
  - **HEI funding**, in terms of tuition fee income and Teaching Grant funding received by institutions (minus the costs of access bursaries provided to students).

[1] The underlying student numbers are based on data published by the Higher Education Statistics Agency (HESA) for the 2021-22 academic year; i.e. in the absence of more recent data, we assume the same size and characteristics for the 2023-24 cohort as for the 2021-22 cohort. Based on the coverage of this data, the analysis includes students enrolled at publicly funded higher education institutions as well as alternative providers located anywhere in the UK, but excludes further education colleges. Please see Annex I for more information on our methodological approach.

[2] i.e. the analysis focuses on students who are subject to the new Plan 5 loan repayment terms for England, following the implementation of the Department for Education's response to the Augar Review (see here for more information).

[3] We exclude students studying for undergraduate-level institutional credits only (i.e. no formal qualifications), as these students are typically not eligible for public funding.

[4] For an overview of the corresponding coverage of and methodological approach underlying the analysis for Wales, Scotland, and Northern Ireland, see here.

[5] As outlined in Annex I (here and here), to ensure that our methodology reflects the official DfE approach for estimating the cost of student loans, our analysis of the RAB charge relies on official discount rates promulgated by HM Treasury. As discussed in a recent report by the Institute for Fiscal Studies (here), these official HMT discount rates are much lower than the current Government cost of borrowing. As a result, the official DfE statistics - as well as our results here - likely understate the true cost of student loans to the Exchequer.

Funding scenarios

In addition to the **Baseline** (current funding system), we model **two alternative scenarios**[1]:

BASELINE: CURRENT SYSTEM

Current fees and funding arrangements for English domiciled students who start undergraduate qualifications in 2023-24:

- **Tuition fees of £9,250 per full-time student**[2], backed by **fee loans**
- **Means-tested maintenance loans of up to £9,978 for students living away from home outside of London** ('LAFHOL')
- **Repayment threshold of £25,000**, frozen until 2026-27 (inclusive), and uprated with Retail Price Index (RPI) inflation thereafter. **No real interest rates** applied to loans (so nominal interest = 0% + RPI). Repayment period of **40 years**.

SCENARIO 1: ELIMINATION OF TUITION FEES AND HIGHER TEACHING GRANTS

Removal of fees and corresponding increase in Teaching Grants paid to higher education institutions:

- **Removal of tuition fees (and associated fee loans) for all English domiciled students studying anywhere in the UK** (for both full-time and part-time students)
- **Corresponding increase in Teaching Grants paid to HEIs** by the relevant HE funding body[2] (to compensate for the reduction in fees)

SCENARIO 2: SCENARIO 1 + EMPLOYER LEVY

Removal of fees and corresponding increase in Teaching Grants, and introduction of an Employer Levy:

- **Removal of tuition fees (and associated fee loans) for all English domiciled students studying anywhere in the UK** (for both full-time and part-time students)
- **Corresponding increase in Teaching Grants paid to HEIs** by the relevant HE funding body[3] (to compensate for the reduction in fees)
- **Introduction of an Employer Levy** to achieve Exchequer cost neutrality

[1] Again, while the detailed results presented in the following focus on the English HE fees and funding system, we also modelled comparable scenarios for Wales, Scotland, and Northern Ireland.
[2] Fees, fee loans, and maintenance loans for part-time students are set on a pro-rata basis (i.e. based on study intensity multiplied by the full-time rate; we assume an average 50% study intensity for part-time students throughout the analysis).
[3] i.e. this includes the Teaching Grants paid to English HEIs by the Office for Students; to Welsh HEIs by the Higher Education Funding Council for Wales; to Scottish HEIs by the Scottish Funding Council; and to Northern Irish HEIs by the Department for the Economy Northern Ireland.

Findings

Baseline (current system): Results for England

Baseline system

Resource flows (£/£m/%)	Baseline
Net Exchequer cost (adjusted for RAB)	
Cost of maintenance loans	(£326m)
Cost of tuition fee loans	(£423m)
Cost of Teaching Grants	(£1,257m)
Total	**(£2,006m)**
RAB charge (%)	**4.1%**
Net HEI income	
Gross fee income	£11,302m
Teaching Grant income	£1,257m
Cost of bursary provision	(£108m)
Total	**£12,451m**
Students/Graduates (FT first degree students from Eng studying in Eng)	
Average debt on graduation	**£50,500**
Average lifetime repayments (M/F)	**£53,800/£42,100**

- Under the current English funding system in 2023-24, the **Exchequer** contributes **£2.01bn** per cohort of English domiciled students (comprising **£1.99bn** from the Westminster Government and **£17m** from HE funding bodies in the rest of the UK (RUK)[1]).
- Reflecting an average RAB charge of **4.1%** (across all study levels and modes[2]), **maintenance loan write-offs** cost the public purse approximately **£326m** per cohort, while **fee loan write-offs** cost **£423m**. The cost associated with the provision of **Teaching Grants** to HEIs stands at **£1.26bn** per cohort, including **£1.24bn** for English HEIs (allocated by the Office for Students (OfS)) and **£17m** for Welsh HEIs (allocated by the Higher Education Funding Council for Wales).
- The current average Exchequer cost per full-time English domiciled student studying in England per year (in 2023-24, across all qualification levels) was estimated at **£1,600**.
- **HEIs** receive **£12.45bn** in net income per cohort, including **£11.30bn** in **fees** and **£1.26bn** in **Teaching Grants**. Against this income, HEIs contribute **£108m** per cohort in fee and maintenance **bursaries**. The average HEI income per full-time English domiciled student studying in England per year (in 2023-24, across all qualification levels) was estimated at **£10,200**.
- The average debt on graduation per student in the cohort (for full-time first degree students studying in England[3]) was estimated at **£50,500**, with average lifetime repayments of **£53,800** and **£42,100** for male and female graduates, respectively.
- More detailed results for England under the Baseline (as well as Scenario 1) are presented in Annex II.

Note: All monetary values have been discounted to net present values and are presented in constant 2023-24 prices. Values per student have been rounded to the nearest £100, and totals have been rounded to the nearest £1m. 'Gross fee income' refers to fee income before the deduction of bursaries provided to students. [1] The **£17m** relates to Teaching Grants paid to Welsh HEIs by the Higher Education Funding Council for Wales only (which will be replaced the Commission for Tertiary Education and Research from August 2024 onwards). English domiciled students studying in Scotland or Northern Ireland currently typically do not attract any Teaching Grant funding (from the Scottish Funding Council or the Department for the Economy Northern Ireland, respectively), since these students are charged much higher tuition fees as compared to 'home' students studying in these Home Nations – so that the Teaching Grants paid to Scottish and Northern Irish HEIs generally apply to 'home' domiciled students only. [2] For comparison, the corresponding RAB estimate produced by the Institute for Fiscal Studies' (IFS) student finance calculator (here) – focusing on *full-time students only* (but excluding part-time students) – stands at **13%**. From our understanding, the IFS estimates are based on a 0% real discount rate, rather than the negative real discount rates stipulated by HM Treasury that are used by the DfE in its own student loan forecasts (here) and which we use throughout our analysis here (see Annex I). If, similar to the IFS, we assumed a 0% real interest rate instead, then our estimated RAB charge - for full-time students only - would increase from **3.5%** to **11.4%**. [3] Debt on graduation and expected lifetime repayments are presented for full-time first degree English domiciled students studying in England only; in both the Baseline and in Scenarios 1 and 2 here, these estimates are the same for English domiciled students studying in the rest of the UK.

Scenario 1: Results for England

Scenario 1: Zero fees and higher TGs

Resource flows (£/£m/%)	Baseline	Scenario 1	Difference
Net Exchequer cost (adjusted for RAB)			
Cost of maintenance loans	(£326m)	£178m	£504m
Cost of tuition fee loans	(£423m)	-	£423m
Cost of Teaching Grants	(£1,257m)	(£12,559m)	(£11,302m)
Total	**(£2,006m)**	**(£12,381m)**	**(£10,376m)**
RAB charge (%)	**4.1%**	**-2.2%**	**-6.3 pp**
Net HEI income			
Gross fee income	£11,302m	-	(£11,302m)
Teaching Grant income	£1,257m	£12,559m	£11,302m
Cost of bursary provision	(£108m)	-	£108m
Total	**£12,451m**	**£12,559m**	**£108m**
Students/Graduates (FT first degree students from England studying in England)			
Average debt on graduation	**£50,500**	**£22,000**	**(£28,500)**
Average lifetime repayments (M/F)	**£53,800/£42,100**	**£23,700/£20,500**	**(£30,100)/(£21,600)**

Note: All monetary values have been discounted to net present values and are presented in constant 2023-24 prices. Values per student have been rounded to the nearest £100, and totals have been rounded to the nearest £1m.

- The removal of tuition fees and corresponding increase in Teaching Grants under Scenario 1 would **increase the total Exchequer cost of the English system 5-fold, by approximately £10.38bn per cohort (517%)**. While the Exchequer would save **£423m** from the removal of fee loans and **£504m** from lower maintenance loan write-offs (due to the overall lower loan outlay), these cost savings would be far outweighed by the significant incremental cost associated with the additional Teaching Grant funding (**£11.30bn**) to compensate HEIs for the reduction in fee income.
- Driven by the lower loan outlay associated with the removal of fees and fee loans, the RAB charge would decline by **6.3 percentage points**, to **minus 2.2%**.
- The average Exchequer cost per full-time English domiciled student studying in England per year would stand at approximately **£10,100** (**£8,500** more than under the current system).
- **HEIs would benefit from an additional £108m in net income per cohort**. The reduction in fee income would be exactly offset by the higher Teaching Grants, but HEIs would no longer be required to provide access bursaries to students (saving **£108m** per cohort).
- The average debt on graduation (per full-time first degree student studying in England) would decline by **£28,500** (to **£22,000**). Average lifetime repayments would decline by **£30,100** for male graduates and by **£21,600** for female graduates.

Scenario 1: Results for all Home Nations

Total Exchequer costs across the UK

	Baseline	No fees	Difference
	£2.006bn	£12.381bn	(£10.376bn)
	£0.253bn	£0.826bn	(£0.574bn)
	£1.366bn	£1.430bn	(£0.064bn)
	£0.172bn	£0.383bn	(£0.211bn)
Total	**£3.797bn**	**£15.020bn**	**(£11.225bn)**

- As the fees and funding arrangements vary significantly across the Home Nations (depending on where students are from - and where they study), the abolition of fees (and compensating increase in Teaching Grants) would cost the public purse varying amounts.
- In **Scotland**, as the fees charged to Scottish domiciled full-time students studying in Scotland are already covered by a full non-means tested fee grant, the extension of free fees to Scottish domiciled students studying in RUK (and to part-time students) adds only **£64 million** per cohort to the total Exchequer cost[1].
- In contrast, in **Wales**, where the fee system is much more similar to England (and the main Exchequer costs relate to the provision of generous maintenance support), abolishing tuition fees would increase the Exchequer costs by **£574 million** per cohort.
- In Northern Ireland, where the current fee charged to full time students stands at £4,710 in 2023-24, the removal of fees would increase the public cost by **£211 million** per cohort.
- The total increase in the Exchequer cost per cohort across the entire UK (i.e. for students from anywhere in the UK studying anywhere in the UK) associated with the removal of undergraduate tuition fees and a compensatory increase in Teaching Grants would stand at **£11.225 billion**. This represents an almost **four-fold increase** in the Exchequer cost per cohort.

[1] More detailed underlying results for Scotland, Wales, and Northern Ireland are presented in the supplementary findings in Annex III.

Scenario 2: Results for all Home Nations

Total Exchequer costs across the UK

	Baseline	No fees	Difference	Required Levy
	£2.006bn	£12.381bn	(£10.376bn)	**1.13%**
	£0.253bn	£0.826bn	(£0.574bn)	**1.06%**
	£1.366bn	£1.430bn	(£0.064bn)	**0.07%**
	£0.172bn	£0.383bn	(£0.211bn)	**0.80%**
Total	**£3.797bn**	**£15.020bn**	**(£11.225bn)**	-

- As outlined above, the abolition of fees (and corresponding increase in Teaching Grants) would place significant burdens on the Exchequer. Therefore, we modelled the **size of a potential levy** on graduates' employers that would ensure that the additional costs to the Exchequer are compensated for (i.e. so that the fee abolition policy is fiscally neutral from the perspective of the Exchequer).
- As one option for this Levy, we have modelled it to function in a similar way to **employers' National Insurance contributions** and to only apply to organisations employing graduates who commenced their studies in 2023-24 (i.e. focusing only the relevant cohort of students covered throughout the analysis here[1]). The resulting required Levy (i.e. contribution rate) for employers of English domiciled students in the cohort was estimated to be **1.13%**[2]. Reflecting the limited additional cost in Scotland of abolishing fees, the corresponding Levy for employers of Scottish domiciled students/graduates was estimated at only **0.07%**. In Wales and Northern Ireland, the Levy was estimated at **1.06%** and **0.80%**, respectively.
- Alternatively, and indicatively, the required additional funding could be raised through an approximately **3 percentage point increase in the Corporation Tax rate** (including both the small profits rate (currently **19%**) and the main rate (currently **25%**)[3]). Note that this Corporation Tax increase would apply to the profits of *all* UK resident companies (irrespective of whether they employ graduates (or how many)).

[1] Similar to the RAB charge (which is calculated as a proportion of the loan outlay), we estimate the expected Employer Levy contributions as a proportion of the total Exchequer cost 'outlay' including fee and maintenance grants, fee and maintenance loans, and Teaching Grants (where applicable), again for the 2023-24 cohort only (i.e. students who started their qualifications in the 2023-24 academic year). We then apply the resulting proportions to the estimated total grant and loan 'outlay' associated with the cohort, to estimate the potential Employer Levy contributions associated with these students in monetary terms.

[2] Similar to employers' NI contributions, this relates to the % contribution rate on employees' earnings above the secondary threshold (currently £9,100 per year).

[3] For more information on current Corporation Tax rates, see here. The calculation of the required Corporation Tax increase is based on HMRC's 'ready reckoners' on direct effects of illustrative tax changes, available here (and note that our estimates here are based on information for 2024-25, as data for 2023-24 was not available from the current version of the 'ready reckoners').

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ANNEX I
Methodology and assumptions
(for model for England only)

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Assumptions and methodology

- The model considers the total number of full-time and part-time **English-domiciled first-year students starting undergraduate qualifications at any higher education institution in the UK in the 2023-24 academic year**. We use student data published by the Higher Education Statistics Agency (HESA, here) for 2021-22, assuming that the size and characteristics of the student cohort have **remained unchanged** between 2021-22 and 2023-24 (in the absence of more recent published data). Hence, the analysis assumes that there are **515,790 first-year undergraduate English domiciled students in the relevant cohort of interest** (see next slide)[1].
- Part-time students are assumed to study at **50%** full-time equivalence (FTE)[2].
- The underlying analysis of loan repayment outcomes is undertaken separately by gender. Based on HESA information on English domiciled qualification completers (who graduated from institutions anywhere in the UK in 2021-22) by gender and qualification level (here), we assume the following **gender split**:

Qualification level	Full-time		Part-time	
	Male	Female	Male	Female
Other undergraduate	48%	52%	36%	64%
HNC/HND	50%	50%	85%	16%
Foundation Degree	26%	74%	35%	65%
First degree	41%	59%	44%	56%

- We assume the following **average age at enrolment** (based on HESA information[3]) and **average duration of qualification attainment** (by qualification level and study mode):

	Age at enrolment		Study duration	
Qualification level	Full-time	Part-time	Full-time	Part-time
Other undergraduate	29	34	1	2
HNC/HND	23	28	2	4
Foundation Degree	28	32	2	4
First degree	22	31	3	6

- Based on data published by the Office for Students (here), we assume an annual continuation rate of **90.5%** for full-time first degree students and **78.2%** for part-time first degree students. At sub-degree level, the assumptions stand at **81.3%** for full-time students and **83.1%** for part-time students. These percentages capture the proportion of students that were continuing in the study of a HE qualification (or had gained a qualification) approximately 1 year after they started their course (for full-time students who entered between 2017-18 and 2020-21) or 2 years after their started their course (for part-time students who entered between 2016-17 and 2019-20 - where we have assumed a constant drop-out rate each year to get to an assumed *annual* continuation rate). The continuation rate data covers UK domiciled students studying at HEIs and further education colleges located in England only.

[1] The analysis includes students studying at higher education institutions only (including alternative providers), but generally excludes students at further education colleges (except colleges based in Wales, which are included in the relevant HESA data - but there are only very few English domiciled students studying at these institutions, so the number is negligible). We further exclude students studying for institutional credits only (i.e. no formal qualifications), as these students are typically not eligible for public funding.

[2] Based on data provided to us by HESA on the average study intensity among all UK domiciled first-year part-time students in 2021-22 (separately by study level, and again excluding students studying for credit only).

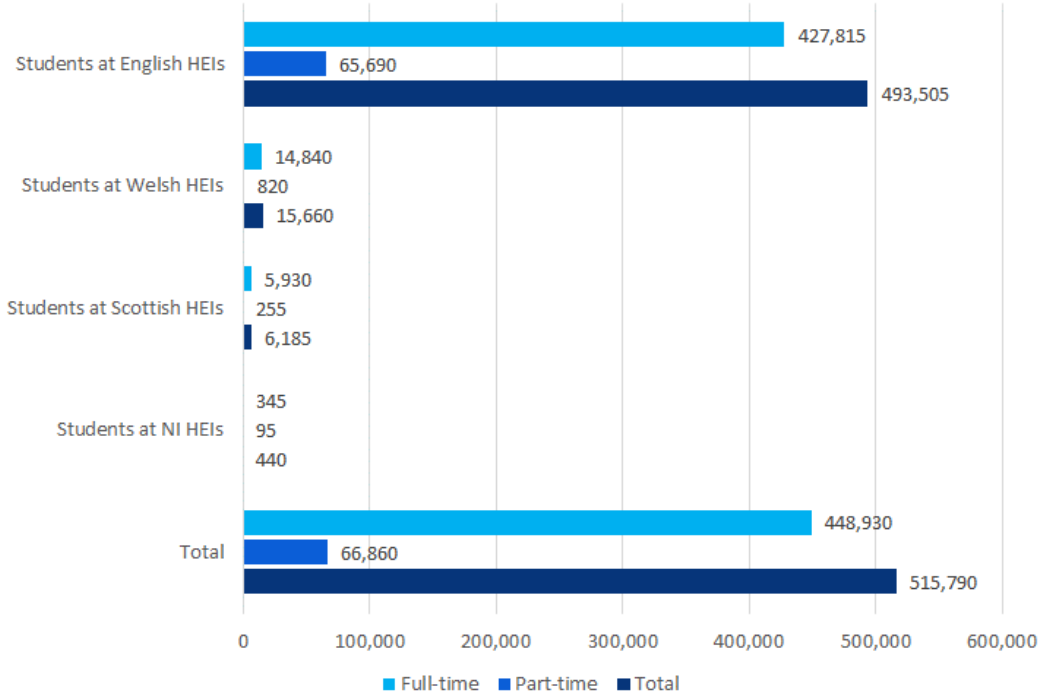
[3] The assumptions in relation to the age at enrolment are based on data provided to us by HESA on the average age at enrolment among all UK domiciled first-year students starting HE qualifications anywhere in the UK in 2021-22 (separately by study level and mode).

Assumptions and methodology

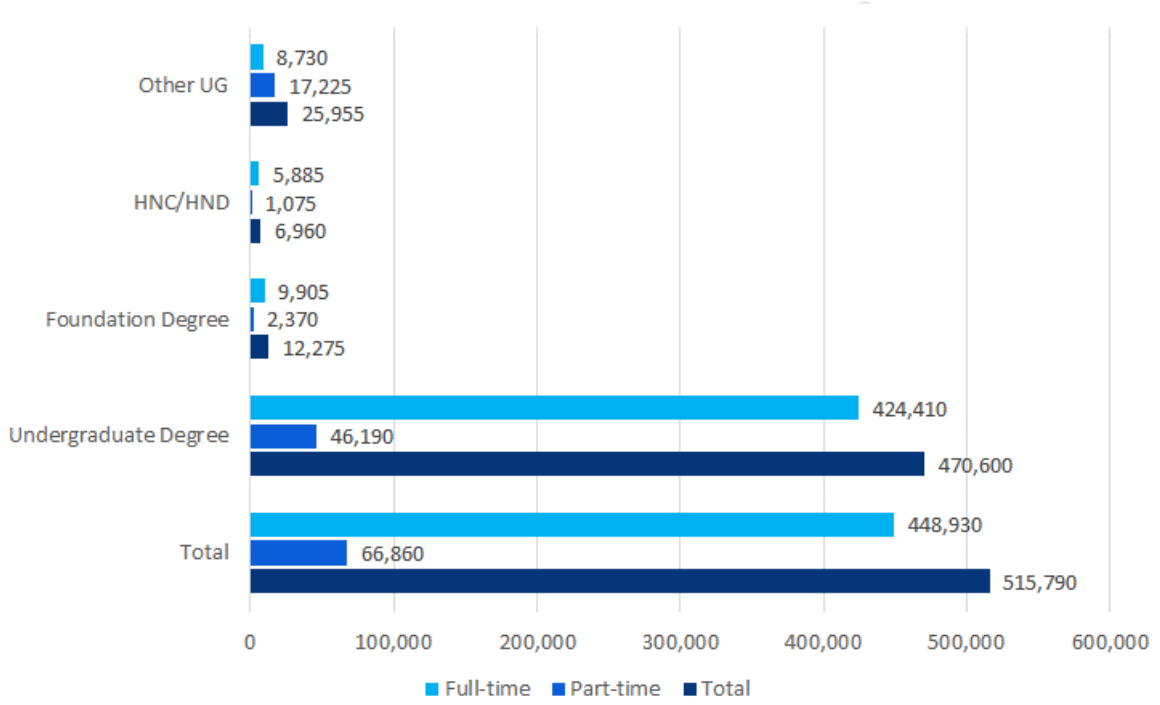
Student profile

- The analysis is based on a total of **515,790 first-year undergraduate English-domiciled students studying anywhere in the UK:**

By location of study and study mode



By study level and mode



Note: All student numbers are rounded to the nearest 5. The information is based on the 2021-22 academic year, and, in the absence of more recent data, we assume the same size and characteristics for the 2023-24 cohort as for the 2021-22 cohort. The analysis generally includes students studying at higher education institutions only (excluding further education colleges, apart from a very small number of students studying at Welsh further education colleges), and excludes students studying for institutional credits at undergraduate level (i.e. students who are not studying for a qualification).
Source: London Economics' analysis based on data published by the Higher Education Statistics Agency (here)

Assumptions and methodology

Fees, fee loans, and bursaries

- For the **current funding system (Baseline)**, the analysis assumes a **(gross) tuition fee charged** to English domiciled **full-time students studying anywhere in the UK** in 2023-24 of **£9,250**, and **£4,625** for part-time students (pro-rata, based on the corresponding full-time fee adjusted for part-time study intensity).
- The above fees constitute *gross* fees before the deduction of any fee waivers. In terms of these **fee waivers as well as other (non-fee) bursaries** provided to students, based on Office for Student data from its access and participation plans monitoring exercise (last undertaken in 2020-21, here), according to institutions' access plans for 2023-24, we assume that approximately **0.3%** of the tuition fee charged in excess of the Basic Fee (of **£6,165** per annum for full-time students) is handed back to students in the form of **fee waivers/bursaries**, with an additional **9.6%** provided through **maintenance bursaries**. Mirroring the current household income thresholds associated with maintenance loans for English domiciled undergraduate students, we assume that these bursaries are only available to students with a household income of **£25,000** or less. In the absence of corresponding bursary data for RUK institutions, we assume that these bursaries available in England also apply to English domiciled students studying in **Wales**, **Scotland**, and **Northern Ireland**.
- We deduct the resulting estimated fee bursary/waiver from the above average fees per student per year (though note again that the relatively low estimated fee bursary has a negligible impact on the assumed 'net' fee, as the resulting average fee bursary per student is very small).
- We assume that both full-time and part-time students cover the resulting average net fees by taking out a (non-means-tested) **tuition fee loan** of the same amount from the Student Loans Company. Based on SLC data on student support provided to English students in 2021-22, we assume a **fee loan take-up rate of 96% for full-time students**[1] (i.e. that 96% of all full-time students in the relevant student body avail of this fee loan), and **44% for part-time students**.
- In terms of growth in subsequent academic years, we assume that the resulting fees and fee loans will continue to **remain frozen** in every subsequent year of study for the cohort (i.e. 2024-25 onwards).
- In **Scenarios 1 and 2** (zero tuition fees and higher Teaching Grants):
  - We assume that **English domiciled students (irrespective of where they study)** would see their fees (and associated fee loans) decrease to £0.
  - As a result, in terms of **bursaries**, we have assumed that HEIs would no longer be required to provide access bursaries to students (i.e. we assume that bursaries would no longer be offered for English domiciled students studying anywhere in the UK).

[1] The full-time take-up rate was calculated by dividing the number of English domiciled full-time undergraduate students in receipt of SLC fee loans in 2021-22 (i.e. *funded* students from SLC data, here) by the *total* number of English domiciled full-time undergraduate students studying at UK HEIs in 2021-22 (from HESA data, here). We undertook similar calculations for part-time students to estimate the part-time fee loan take-up rate.

Assumptions and methodology

Maintenance loans

- In terms of **maintenance funding**, under the current funding system (in 2023-24)[1]:
  - **Full-time students** living away from home outside of London (**LAFHOL**) are eligible for a maximum maintenance loan of **£9,978** (for household income **up to £25,000**), declining to a minimum of **£4,651** (for household income of **more than £62,343**). Students living away from home in London (**LAFHIL**) are eligible for a maximum loan of **£13,022** (for household income **up to £25,000**), declining to a minimum of **£6,485** (for household income of **more than £70,040**); and students living at home (**LAH**) are eligible for a maximum loan of **£8,400** (for household income **up to £25,000**), declining to a minimum of **£3,698** (for household income of more than **£58,291**).
  - **Part-time students** are eligible for the same maintenance loans as full-time students but on a pro-rata basis, and using the same household income thresholds (so that, based on the assumed 50% study intensity, we assume that LAFHOL part-time students are eligible for a maximum maintenance loan of **£4,989** (again for household income **up to £25,000**)).
- We have modelled full-time students' maintenance loan eligibility by **students' living conditions**, separately for full-time students living at home (LAH, **23%** of students), living away from home outside of London (LAFHOL, **63%** of students) and living away from home in London (LAFHIL, **14%** of students)[2]. For part-time students, based on the same sources, we assume that **25%** live at home (LAH), **68%** live away from home outside of London (LAFHOL), and **7%** live away from home in London (LAFHIL).
- In terms of **maintenance loan take-up rates**, again based on SLC data on student support for English domiciled undergraduate students in 2021-22, we assume a **maintenance loan take-up rate of 94% for full-time students**, and **44% for part-time students**[3].
- Students' eligibility for maintenance loans is based on their **household income**:
  - As there is no comparable information on students' household income levels available for English domiciled students, we combine the above-described household income thresholds with separate information from the Student Loans Company (SLC, here) on the distribution of *Welsh* domiciled undergraduate students by household income. Specifically, our assumptions are based on the proportion of Welsh domiciled students in receipt of full, partial, or nil maintenance grants from Student Finance Wales in 2021-22 (and the associated household income thresholds applicable to Welsh maintenance grants in that year) – separately for full-time students and part-time students.
  - We then adjust the information to 2023-24 values to reflect the fact that average household income is expected to grow over time, by applying OBR estimates of UK annual average earnings growth in 2022-23 and 2023-24 (here).
  - In addition, as the information is based on Wales, we adjust the assumptions for differences in average household income between England and Wales. Specifically, we adjust the assumptions for the ratio of median gross weekly earnings in England vs. Wales, based on 2022 data from the Annual Survey of Hours and Earnings published by StatsWales (here; note that 2022 was the latest year for which this information was available).

[1] For more information on these current funding rates, see Student Loans Company (2023). 'Student finance: how you're assessed and paid 2023 to 2024' (here).
[2] The distribution of students across these different living conditions is based on information from the 2014-15 Student Income and Expenditure Survey for England (on the proportion of full-time students living at home vs. living away from home; here), combined with HESA data on the number of first-year English domiciled full-time undergraduate students living in London vs. elsewhere in the UK, in 2021-22 (here). The 2014-15 Student Income and Expenditure Survey was the most recent iteration of the survey available at the time that the analysis was undertaken.
[2] The full-time take-up rate was calculated by dividing the number of English domiciled full-time undergraduate students in receipt of SLC maintenance loans in 2021-22 (i.e. *funded* students from SLC data, here) by the *total* number of English domiciled full-time undergraduate students studying at UK HEIs in 2021-22 (from HESA data, here). Part-time maintenance loans were only introduced for new students starting from 2018-19 onwards, so it was not sensible to undertake a similar calculation for these students here; therefore, we instead assume that the part-time maintenance loan take-up rate is the same as the above-discussed part-time fee loan take-up rate (44%).

Assumptions and methodology

Maintenance loans

- In terms of **growth over time**, under the current system, we assume that:
  - **Students' household income** increases with UK-wide nominal average earnings growth in each year;
  - **Maximum maintenance loans** grow with forecast RPIX inflation in each year; and
  - The **household income thresholds associated with maintenance loans** (which have remained almost unchanged since the abolition of (full-time) maintenance grants in 2016-17) remain constant in all years.
- In **Scenarios 1 and 2**, we assume the **same maintenance support (and associated growth rates over time) as under the current system**.

Assumptions and methodology

Loan repayment terms

- In terms of student loan repayment terms, based on the new Plan 5 loan repayment terms (here) introduced for English domiciled students starting undergraduate qualifications from 2023-24 onwards (as part of the DfE's response to the Augar Review), under the **current funding system**:
  - Student loans accumulate **0% real interest**; instead, outstanding loan balances are only indexed against **RPI inflation** (i.e. adjusted with inflation each year), so that all graduates (irrespective of income) are charged the same interest rate[1, 2].
  - Loans are repaid at a rate of **9% of earnings in excess of £25,000** per annum (with the earnings threshold frozen until 2026-27 inclusive, and uprated with RPI inflation thereafter (also see the next slide for more information)); and
  - All loans are written off **40 years** from the Statutory Repayment Due Date (SRDD).
- In **Scenarios 1 and 2**, we assume the same loan repayment terms as under the current system.

Calculating the RAB

- We use the following equation to calculate the RAB charge:

$$RAB\ charge = \frac{NPV\ loan\ outlay - NPV\ repayments}{NPV\ loan\ outlay}$$

- The RAB charge is therefore calculated based on the net present value of the aggregate loan outlay provided to students in the 2023-24 cohort over the course of their studies (i.e. in total throughout all years of study), as well as the net present value of the total estimated loan repayments expected to be made by these students after they graduate.

[1] Under the currently exceptionally high RPI inflation rates, where the (nominal) student loan interest rate is too high in comparison to the prevailing commercial market rate, the Government will temporarily cap the maximum loan interest rate. We assume that an interest cap of 7.5% (in nominal terms) applies in 2023-24 (based on the interest rate cap for Plan 5 loans as of 1st December 2023, here). This cap is applied to all scenarios modelled here.
[2] For more information on how RPI affects loan interest rates, see the next slide.

Assumptions and methodology

Inflation, growth & discount rates

- We use OBR medium- and long-term forecasts in relation to the expected **RPI** per annum as well as expected **nominal average earnings growth** per annum (see here (for medium-term projections from the OBR's November 2023 Economic and Fiscal Outlook), and here (for long-term projections from the OBR's March 2023 Economic and Fiscal Outlook, which are the most recent long-term forecasts currently available from the OBR)). Where applicable, we also rely on historical RPI data published by the Office for National Statistics (ONS; here)[1].
- Specifically, the **loan interest rate** is usually set in September each year, based on the RPI of *March in that same year*. Hence, the RPI figure used in calculating the interest rate for academic year 2023-24 is based on March 2023 RPI data from the ONS[2]. For subsequent academic years, the OBR only publishes quarterly medium-term forecasts, and only annual forecasts (for each fiscal year) in the long-term. We therefore use the forecast for the corresponding first quarter (January to March) of each year from the OBR's medium-term projections (e.g. we use forecasts for Q1 2025 for the assumed interest rate in 2025-26), and the annual figure for the corresponding previous financial year from the long-term projections (e.g. we use forecasts for financial year 2030-31 for the assumed interest rate in 2031-32) .
- **Maximum maintenance loan levels** are uprated each year based on OBR RPIX *forecasts*. Specifically, again using the OBR's medium-term projections, we assume that maintenance loans increase with RPIX for the corresponding first quarter (January to March) of the next full calendar year (e.g. we use predicted RPIX for 2025 Q1 to forecast maintenance loan levels in academic year 2024-25).
- Under the new Plan 5 loan repayment terms, the **loan repayment threshold** is frozen until 2026-27 inclusive. In subsequent years, we assume that the loan repayment threshold will increase in April each year in line with RPI in the year to the *previous March* (e.g. we assume that the threshold in 2027-28 will increase in line with March 2026 RPI, again using OBR RPI forecasts for Q1 2026 as a proxy in this case[3]).
- In relation to **discount rates for the estimation of aggregate financial flows across the cohort**, for the first 30 years, 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.** The assumed rates for Year 31 onwards stand at **3.0%** in real terms, and **3.0% + RPI** in nominal terms.
- In terms of **discount rates used to calculate the RAB charge** (which is based on expected loan repayments and loan outlay in NPV terms in constant prices, see above), we assume a discount rate of **-1.3% + RPI** up to and including 2029-30, and **-0.2% + RPI** from 2030-31 onwards (based on official HM Treasury discount rates for financial instruments to be applied as of 31st March 2023, see here and here). These discount rates match the assumptions used by the Department for Education in its forecasts of the RAB charge and the associated long-run cost of student loans (here). **Importantly, these real discount rates are lower than the current long-term real Government cost of borrowing** (i.e. Government gilt yields), since the official discount rates applied to student loans predominantly reflect *historical* rather than current gilt yields (e.g. see a recent report by the Institute for Fiscal Studies (here)). This results in a significant *underestimation* of the true Exchequer cost of providing student loans, and, therefore, an effective implicit public subsidy for these loans. While our use of the above discount rates reflects the Government's own approach to measuring the cost of student loans, this constitutes one of the key caveats associated with our estimates, as further discussed below (see this slide).

[1] Note that the Retail Price Index will be effectively abolished from 2030 onwards, after which it will equal the (lower) measure of Consumer Price Index inflation.
[2] According to the ONS data, March 2023 RPI inflation stood at **13.5%** (i.e. the Retail Price Index was 13.5% higher in March 2023 than in March 2022). As noted on the previous slide, given this exceptionally high level of inflation, the Plan 5 interest rate is currently capped at **7.5%** (as of 1st December 2023).
[3] This is the same approach to forecasting the Plan 5 loan repayment threshold that is used by the Department for Education in its own student loan forecasts for England (see here (Table 6b)). This also mirrors the current policy approach to loan threshold uprating in Northern Ireland (under Plan 1 loan repayment terms) and Scotland (under Plan 4 loan repayment terms).

Assumptions and methodology

Teaching Grants

- As outlined above, the analysis focuses on **English domiciled students in the 2023-24 cohort studying at higher education institutions anywhere in the UK**. Therefore, the estimated level of Teaching Grant funding associated with the cohort includes Teaching Grants paid to **English HEIs** (by the Office for Students) and **Welsh HEIs** (by the Higher Education Funding Council for Wales).
- In contrast, English students studying in **Scotland** and **Northern Ireland** typically do not attract any Teaching Grant funding (from the Scottish Funding Council and the Department for the Economy Northern Ireland, respectively). This is because these students are charged much higher tuition fees as compared to 'home' students studying in Scotland and Northern Ireland, so that the Teaching Grant paid to HEIs by the respective HE funding bodies in these Home Nations generally applies to 'home' domiciled students only.
- The average Teaching Grant per student studying in **England** is derived by combining information on the high-cost subject funding rate per FTE student by subject band in 2023-24 with information on the distribution of students by subject band (both published by the Office for Students, here), as follows:

Subject band	Funding per FTE, £	% of FTE students
Band A	£11,290	2%
Band B	£1,694	21%
Band C1.1	£282	10%
Band C1.2	£126	11%
Band C2	-	18%
Band D	-	37%
Total	-	**100%**

- Combining this with the average 'other targeted allocations' funding per student in England (e.g. including premium funding to support successful student outcomes), the average total Teaching Grant per full-time student studying in **England** was estimated at approximately **£1,060** per year. Based on average study intensity, the corresponding average funding per part-time student was estimated at **£530**.
- To estimate the average level of Teaching Grant per student per year for students studying in **Wales**, we use HESA financial data (here) and student data (here) for the 2021-22 academic year (in the absence of more recent information). We divide the total Teaching Grant income received by institutions in Wales by the total number of relevant students to whom these Teaching Grants typically apply (where we exclude any non-EU domiciled students and higher degree research students, as well as EU first-year students (since, from 2021-22 onwards, these students are typically no longer eligible for Teaching Grant funding due to the significant changes to funding rules for EU students post-Brexit)). We again adjusted for the assumed average study intensity among full-time students vs. part-time students, to arrive at separate rates of Teaching Grant funding per student per year by study mode.
- Using this approach, we assume the following **average Teaching Grant funding rates per student per year** in other Home Nations (rounded to the nearest £10) :

Study location	Full-time	Part-time
Wales	£490	£240
Scotland	-	-
Northern Ireland	-	-

- We assume that these Teaching Grant funding rates do *not* increase over time (i.e. we assume the same amount per student per year in every year of interest throughout the analysis here).
- The Teaching Grant funding rates are increased in **Scenarios 1 and 2 to reflect the reduction in tuition fee income**. Specifically, we have **increased the OfS Teaching Grants in England to offset the assumed decrease in tuition fees for English domiciled students studying in England**, by **£9,250** per full-time student (from an average of **£1,060** to **£10,310**) and by **£4,625** per part-time student. In addition, to similarly compensate HEIs in RUK for the loss in fee income from English domiciled students, we have also **increased the Teaching Grants for English domiciled students studying in Wales, Scotland, and Northern Ireland** (again by **£9,250** per full time student, and by **£4,625** per part time student).

Assumptions and methodology

- The estimation of student loan outcomes (such as the RAB charge) relies on **forecasting the student cohort's predicted lifetime earnings** by qualification level (again broken down into first degrees, Foundation Degrees, HNCs/HNDs and other undergraduate qualifications), gender, study mode, and lifetime income decile. To estimate these lifetime earnings profiles, we make use of **pooled UK Quarterly Labour Force Survey (LFS) data for the period 2010 Q1 to 2023 Q2**, combined with information from the **1970 British Cohort Study (BCS)** (which follows a cohort of individuals born in a single week of April 1970 (in England, Wales, and Scotland), with the most recent data available for age 46 of the cohort).
- Using the **Labour Force Survey** data, we first assessed the annual salaries (expressed in June 2023 prices, inflated using Consumer Price Index (CPI) data) of individuals in possession of each of the different higher education qualifications[1]. For each type of qualification, the earnings were assessed separately by income decile (including the 1st to 9th income deciles and the 95th percentile[2]), gender, and age (for first degrees) or age band (for qualifications below degree level (due to sample size)). To generate 'smoothed' age-earnings profiles for sub-degree qualifications, the original results by age band were assigned to the mid-point of the given band (e.g. age 28 for age band 26-30), and we then assumed constant annual growth between two given mid-points (e.g. we assumed constant annual growth between age 28 (the mid-point of band 26-30) and 33 (the mid-point for band 31-35)).
- To assess the expected loan repayments for part-time students specifically (who typically start repaying their loans *during study*), we further calculated earnings by decile (and the 95th percentile) for individuals in possession of Level 3 qualifications as their highest level of attainment (used as part-time students' assumed earnings during study), again separately by age and gender.
- The LFS analysis provided us with earnings estimates by decile (and qualification level, mode, and gender), where the earnings deciles are defined *at each individual age* (e.g. the 1st decile at age 30 means that 10% of individuals in the data have earnings smaller than or equal to the given earnings *at that age*). However, to take account of graduates' income mobility over their lifetime (i.e. the extent to which graduates move across the income distribution over time), we then **combined the LFS results with an analysis of data from the BCS** (focusing on data for ages 26 to 46 of the 1970 cohort) to generate **age-earnings profiles by lifetime earnings decile**.
- Specifically, based on weekly earnings information available within the BCS data, we again divided individuals within the distribution into 10 income deciles *at each individual age* observed in the study[3]. Again, the analysis was undertaken separately by gender and qualification level attained, where we distinguished between individuals in possession of first degrees vs. all other undergraduate qualifications (note that a further disaggregation into different types of sub-degree qualifications was not possible within the BCS data).
- From the LFS analysis, we then imported the estimated annual earnings value (in June 2023 prices) corresponding to each age and income decile (again separately by qualification level[4]).

[1] This includes all individuals in possession of the given qualification, *irrespective of* whether that qualification was their highest educational attainment or not (e.g. the average earnings for individuals in possession of first degrees includes individuals who subsequently completed a Master and/or Doctorate degree).
[2] The 95th percentile here was used to approximate the earnings for individuals on the 10th decile (i.e. rather than using the actual value for the 10th (i.e. 100th percentile) within the LFS data, since this captures the maximum earnings value observed in the data in each instance and is likely to include significant outliers).
[3] Note that the BCS data is not available for each separate age but is instead based on multiple 'sweeps' of data collections undertaken at specific ages for the cohort (e.g. age 26, 30, 34, 38, 42, and 46; see here for more information). We assume here that individuals stay in the same decile between two sweeps (and stay in the last recorded decile after the age of 46). In addition, to boost sample size, imputation was undertaken in case of a respondent not being available at a given age (or missing information more generally).
[4] Again, separately for first degrees, Foundation Degrees, HNCs/HNDs, and other undergraduate qualifications.

Assumptions and methodology

Graduate earnings

- Using the merged LFS/BCS data, we then computed the lifetime earnings for each individual within the data, based on the sum of annual earnings between the assumed first year post-graduation for our relevant cohort of s students (i.e. the age at completion for each given qualification (e.g. age 25 for full-time first degrees)[1]) and the assumed age of retirement (68). This allowed us to assign each individual to a *lifetime* earnings decile (again by gender and qualification level).
- Finally, for each single year of age, we then computed the **average earnings among all individuals within the specific lifetime earnings decile** (e.g. the average earnings at age 30 among individuals in the 1st lifetime earnings decile), i.e. we generated age-earnings profiles by lifetime decile (for each gender and qualification). We then further 'smoothed' these age-earnings profiles using 3-year rolling averages.

Graduate employment probabilities

- Again using LFS data, we also calculated the **employment rate** (i.e. the proportion of individuals in employment) for individuals in possession of the different qualification levels of interest, by age/age band, and gender.
- To reflect the fact that the age of retirement is planned to be increased to age 68 (compared to 65 for most respondents in the historical LFS data), we assume that the trend in employment rates observed from the age of 55 onwards will reflect the trend currently observed from age 52 onwards (in other words, the analysis 'shifts' the decline in employment rates due to approaching the age of retirement back by 3 years). As a result, the decline in employment rates occurs at a slower rate than what is observed in the historical LFS data[2], so that our estimated employment rates at age 68 are in line with what is currently observed at age 65.
- Combining the resulting age-earnings and age-employment profiles, we then estimate the **employment-adjusted annual age-earnings profiles** of individuals in possession of each qualification, by study mode, gender, and lifetime earnings decile. We **adjust these age-earnings profiles for expected future growth, i.e. to account for the fact that earnings are expected to increase over time** (using the above-mentioned Office for Budget Responsibility forecasts of average nominal earnings growth per year (see this slide)).

[1] See this slide for more information on the assumed age at graduation by qualification level and mode among the 2023-24 student cohort.
[2] We use a 2-year annualised change to determine these new rates of decline (to provide a smoother evolution).

Assumptions and methodology

Key limitations and caveats

- Our modelling is based on a range of key simplifying assumptions to avoid excessive complexity and to keep the analysis flexible and tractable. Therefore, our modelling is subject to **several key limitations and caveats**:
  - The analysis is based on estimated (employment-adjusted) average lifetime earnings profiles across a range of different groups of graduates (estimated separately by gender, age, qualification level, mode of study, and lifetime earnings decile), which are necessary to allow us to estimate graduates' expected lifetime loan repayments under each scenario. These estimates are highly uncertain, and rely on (and are sensitive to) forecasts of average earnings growth and inflation many years into the future.
  - We implicitly assume that, aside from any changes modelled under the different scenarios here, there will be no change in HE fees and funding policy for many decades into the future (e.g. aside from any changes modelled here, we assume that there will be no further change in repayment terms for the relevant cohort going forward).
  - All our estimates are based on the 2023-24 entry cohort and are 'static' in the sense that we do *not* take account of the impact of potential funding changes on the size or characteristics of this cohort. Instead, we assume that there are no changes in the number or characteristics of students in the cohort under each scenario.
  - We also assume that the HE funding system (including loan repayment conditions) does *not* affect graduates' gross lifetime earnings.
  - To avoid excessive complexity, our estimates of graduates' lifetime loan repayments do *not* adjust for potential graduate income from investments; early or voluntary repayments; early loan cancellation (e.g. due to death or disability); or loan repayments by drop-outs.
- **Another important caveat relates to our use of official discount rates to estimate the cost of student loans.** As noted above, the official HM Treasury discount rates applied by the DfE to estimate the RAB charge and the long-run cost of student loans are substantially lower than the current Government cost of borrowing.

  Specifically, as detailed in a recent report by the Institute for Fiscal Studies (IFS, here):

  "*If the government can borrow at a lower rate of interest than the interest it charges on student loans, then borrowing to lend money to a student who goes on to repay the loan in full will be a profitable transaction for the government (because the interest it pays on its extra borrowing is more than offset by the interest it receives from the student). When the opposite is true, the transaction is loss-making: it becomes costly for the government to provide student loans even to those students who go on to repay them in full, because the interest costs on the government's borrowing exceed the interest payments received from the student.*"

  Hypothetically, in the calculation of the long-run Exchequer cost of student loans, the Government's borrowing costs are accounted for through the discount rate, which determines the effective value of expected future repayments relative to the up-front loan outlay (and a higher discount rate means that future repayments are valued less). However, the HMT discount rates used by the DfE to produce its official student loan statistics are much lower than the current long-term Government cost of borrowing (measured by long-term gilt yields), since the official discount rates reflect *historical* (as opposed to current) gilt yields (see next slide for further details).

Assumptions and methodology

Key limitations and caveats

Specifically, the Government's borrowing costs have increased significantly over the last two years, with the annual yield on 15-year gilts standing at 4.0% at the end of 2023[1], which is 1.6 percentage points higher than projected RPI (2.4%) over the next 15 years. In other words, the gilt yield equals **RPI+1.6%**[2]. In contrast, the official discount rates for student loans stand at **RPI-1.3%** pre-2030 and **RPI-0.2%** from 2030 onwards, which are substantially lower than the current gilt yield. At the same time, with the student loan interest rate now equal to RPI under the post Augar system (rather than up to RPI+3% under the pre Augar system), this means that student loan interest rates are now 1.6 percentage points *lower* than the current gilt yield – so that, in addition to the loss of loan write-offs, the Government now *also* makes an expected loss on loans that are fully repaid.

All of this implies that the DfE's official statistics likely understate the true cost of student loans to the Exchequer. Since we use the same HMT discount rates for consistency with the Government's own official student loan calculations, the same applies to our estimates here.

Since expected loan repayments reach far into the future, the results are very sensitive to the discount rate, so the impact of these assumptions on the size of the estimates is substantial. For example, if we instead assumed a discount rate of **RPI+1.6%** to estimate the RAB charge (to mirror the above 15-year gilt yield)[2], the estimated Exchequer cost of the current funding system associated with the 2023-24 entry cohort would increase from **£2.01bn** to **£6.77bn** (**+£4.76bn**; see the table on the right-hand side).

Net Exchequer cost associated with the 2023-24 English domiciled student cohort under different discount rates for calculating the RAB charge (NPV in 2023-24 prices)

Net Exchequer cost (adjusted for RAB)	Baseline (current system)
Original estimates (discount rate of RPI-1.3%/RPI-0.2%)	
Cost of maintenance loans	(£326m)
Cost of tuition fee loans	(£423m)
Cost of Teaching Grants	(£1,257m)
Total	**(£2,006m)**
Revised estimates (discount rate of RPI+1.6%)	
Cost of maintenance loans	(£2,379m)
Cost of tuition fee loans	(£3,134m)
Cost of Teaching Grants	(£1,257m)
Total	**(£6,770m)**

Note: All values have been discounted to net present values (using the different discount rates indicated), are presented in constant 2023-24 prices, and have been rounded to the nearest £1m.

[1] Up from 1.2% at the end of 2021. All numbers here are based on Bank of England historical 15-year gilt yields and OBR RPI forecasts as reported by the IFS (again, see here).

[2] As noted above, the HMT's official negative real discount rates are *only* used to calculate the RAB charge throughout our analysis, which is then applied to the aggregate loan outlay associated with the cohort to estimate the net (RAB-adjusted) Exchequer cost associated with these loans. The aggregate loan outlay, as well as all other aggregate financial flows associated with the cohort (e.g. Teaching Grants), are discounted using the standard HMT Green Book discount rates of **3.5% + RPI** (Years 1 to 30) and **3.0% + RPI** (Year 31 and onwards). As a result, all Exchequer costs *except* the cost of student loans are *not* impacted by the sensitivity analysis w.r.t. the discount rate here (i.e. the 'revised' estimates for these costs are the same as the 'original' estimates).

ANNEX II
Supplementary findings for England

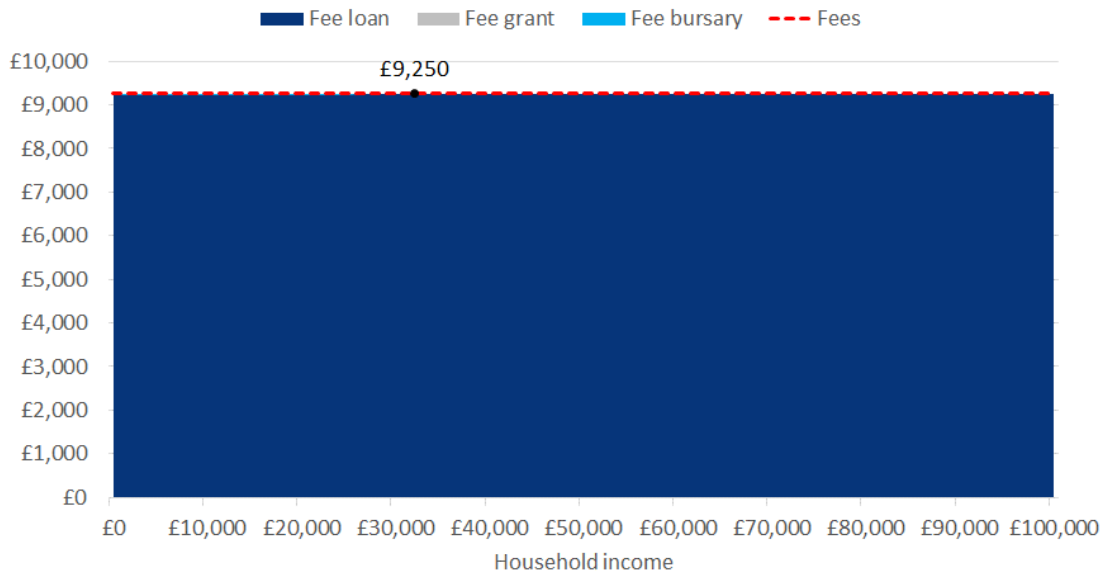
LE London Economics

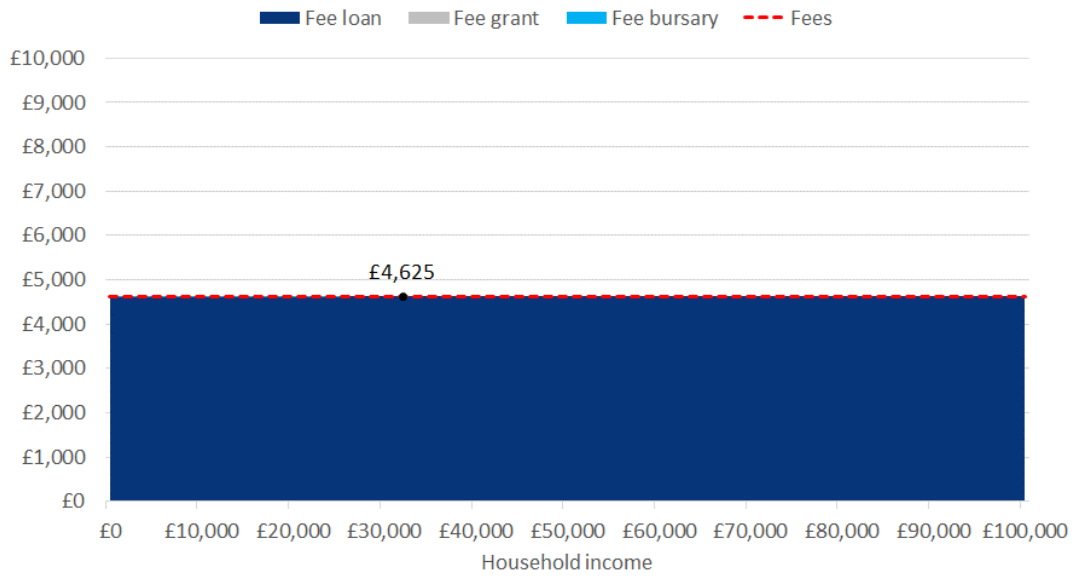
Baseline: Current funding system

Baseline (current system): Fees and fee support

- Under the **current system**, the fees for **full-time** English domiciled students studying anywhere in the UK stand at **£9,250**, supported by (non-means-tested) fee loans as well as access bursaries provided by universities themselves[1].
- **Part-time** fees are the same as full-time fees, calculated on a pro-rata basis. We assume a study intensity of 50% for part-time students, resulting in fees of **£4,625**. These fees are again supported through non-means-tested fee loans and access bursaries provided by HEIs.

Fees and fee support per year for English domiciled students studying anywhere in the UK, by household income





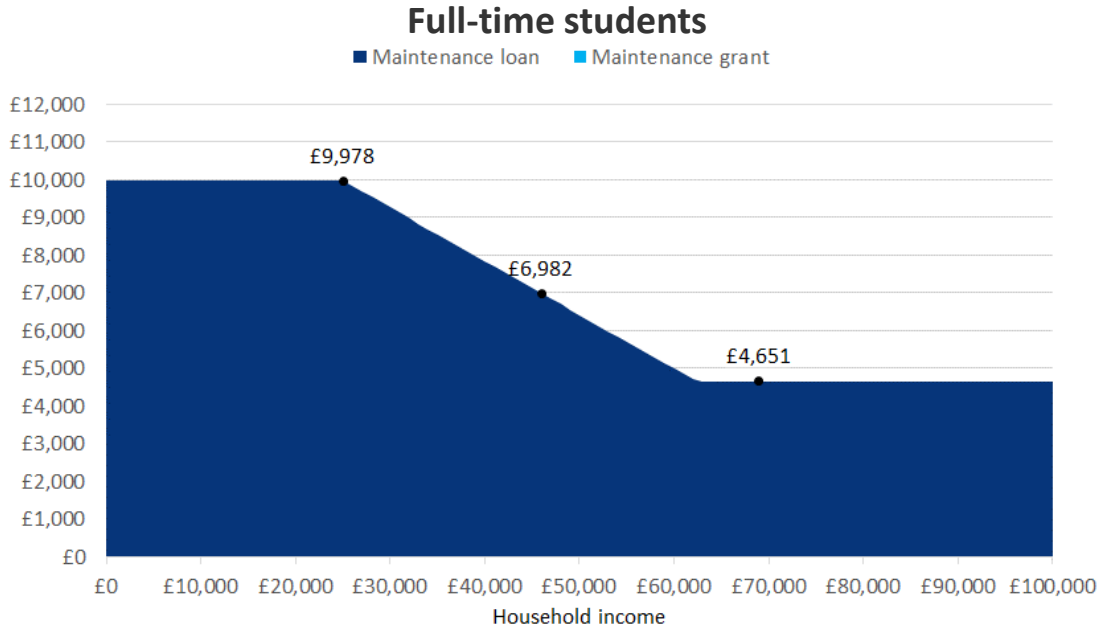
Note: The figures relate to fees and fee support in 2023-24, and we assume that these figures remain 'frozen' over the cohort's entire study duration. Also see Annex I for more information on our methodology.

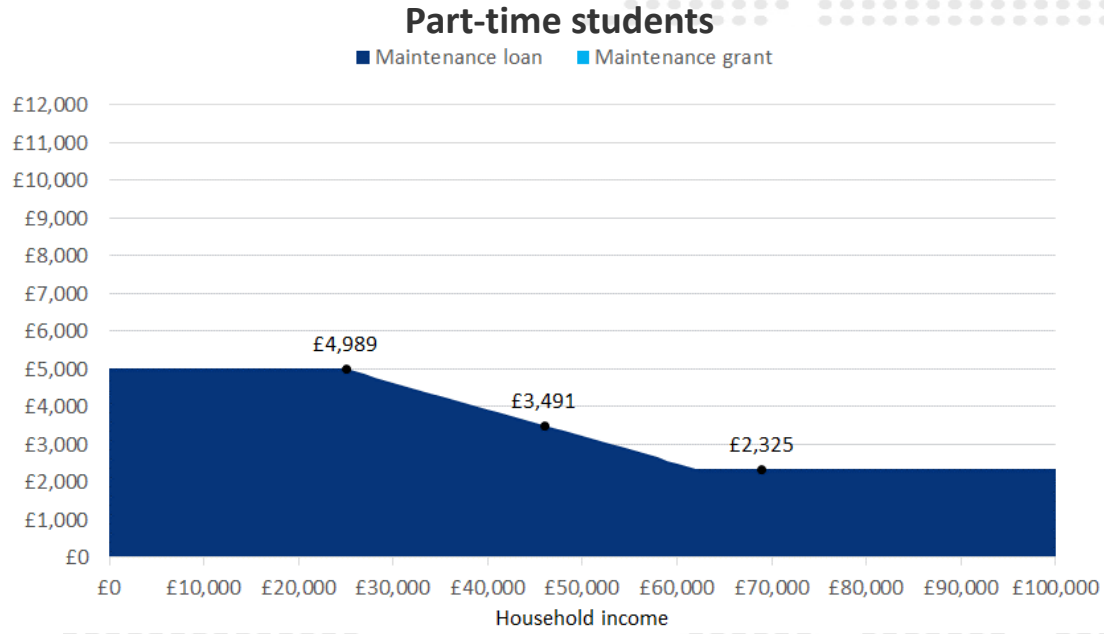
[1] Based on Office for Student data (here), according to institutions' access plans for 2023-24, we assume that (on average) approximately **0.3%** of the tuition fee charged in excess of the Basic Fee (of **£6,165** per annum for full-time students) is handed back to students in the form of fee waivers. Mirroring the current household income thresholds associated with maintenance loans for English domiciled undergraduate students, we assume that these bursaries are only available to students with a household income of **£25,000 or less**. We assume that these bursaries available in England also apply to English domiciled students studying in Wales, Scotland, and Northern Ireland (again, also see Annex I for more information on our methodological approach and assumptions). The resulting fee bursaries are very small (approximately **£10** per eligible full-time student per year), so that they are not displayed in the figures here.

Baseline (current system): Maintenance support

- The current system provides **relatively limited maintenance support to students**. Maintenance grants for English domiciled (full-time) students were abolished from 2016-17 onwards, and students who entered higher education since then have only been able to access maintenance loans.
- **Full-time** undergraduate students living away from home outside of London (LAFHOL) are currently eligible for a maximum loan of **£9,978 per annum** (for household income **up to £25,000**), with a minimum loan of **£4,651** (for household income of **£62,343 or more**)[1]. With support for part-time students provided on a pro-rata basis (based on study intensity), the corresponding maximum and minimum loan rates for part-time LAFHOL students stand at **£4,989** and **£2,325**, respectively (based on the same household income thresholds as for full-time students).

Maintenance support per year for English domiciled LAFHOL students (studying anywhere in the UK), by household income



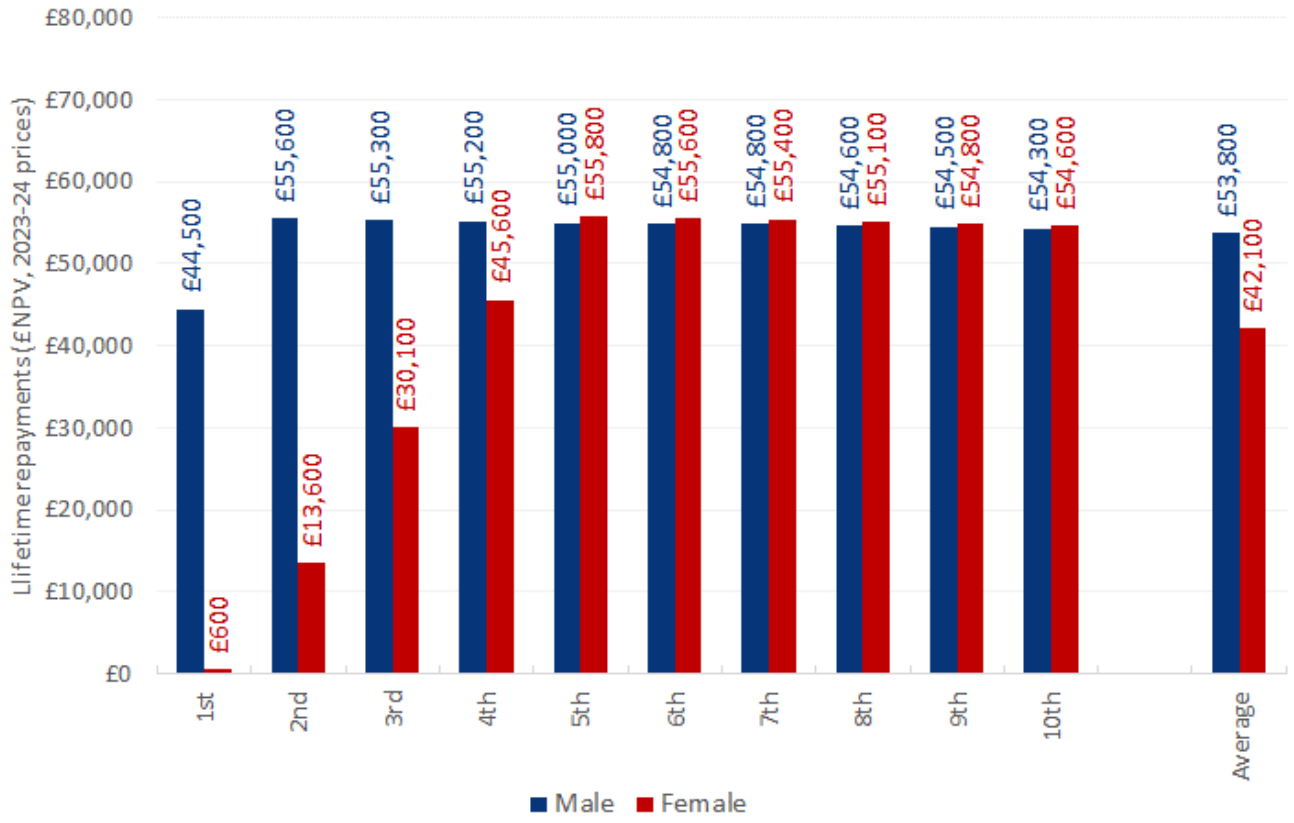


Note: The figures relate to maintenance support in 2023-24, and we assume that these figures increase with RPIX (Retail Price Index excluding mortgage interest payments) in each subsequent year of study for the cohort of interest. Again, see Annex I for more information. [1] Students living away from home in London (LAFHIL) are instead eligible for a maximum loan of **£13,022** (for household income **up to £25,000**), with a minimum of **£6,485** (for household income of **£70,040 or more**). Students living at home (LAH) are eligible for a maximum loan of **£8,400** (for household income **up to £25,000**) and a minimum of **£3,698** (for household income of **£58,291 or more**).

Baseline (current system): Graduate loan repayments

Baseline system

Total loan repayments by English domiciled students who complete FT first degrees in England[1] (NPV in 2023-24 prices), by lifetime earnings decile and gender



- The average repayments made by **male graduates** stand at **£53,800**. The new Plan 5 repayment conditions (introduced by the Department for Education in response to the Augar Review) have increased repayments for low- to middle-income graduates, but effectively 'guillotined' the repayments made by higher earning graduates. As such, these reforms are regressive. Male graduates on the 2nd to 10th income decile now all make roughly the same total level of loan repayments (in real NPV terms), standing at between **£54,300** and **£55,600**.
- The average lifetime repayments made by **female graduates** stand at **£42,100**. Female graduates in the bottom decile are expected to repay only approximately **£600** over the 40-year repayment period. However, repayments increase sharply thereafter, with female graduates on the 5th to 10th decile all expected to repay between **£54,600** and **£55,800**.

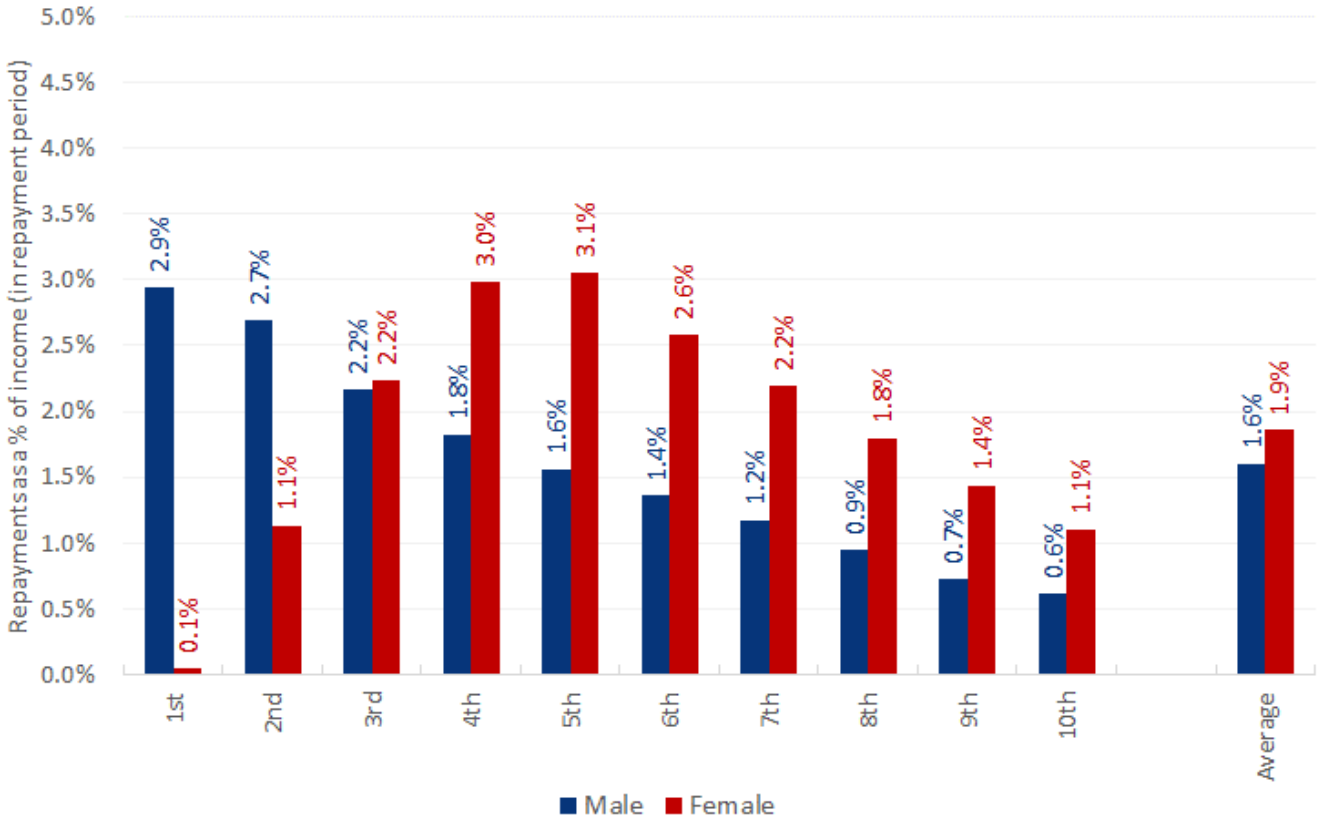
Note: All values have been discounted to net present values, are presented in constant 2023-24 prices, and have been rounded to the nearest £100.

[1] Again, under both the Baseline and Scenarios 1 and 2 modelled here, lifetime repayments for English domiciled students studying in *RUK* are the same as for English domiciled students studying in *England*.

Baseline (current system): Loan repayment progressivity

Baseline system

Total loan repayments by English domiciled students who complete FT first degrees in England as a % of income (during repayment period), by lifetime earnings decile and gender



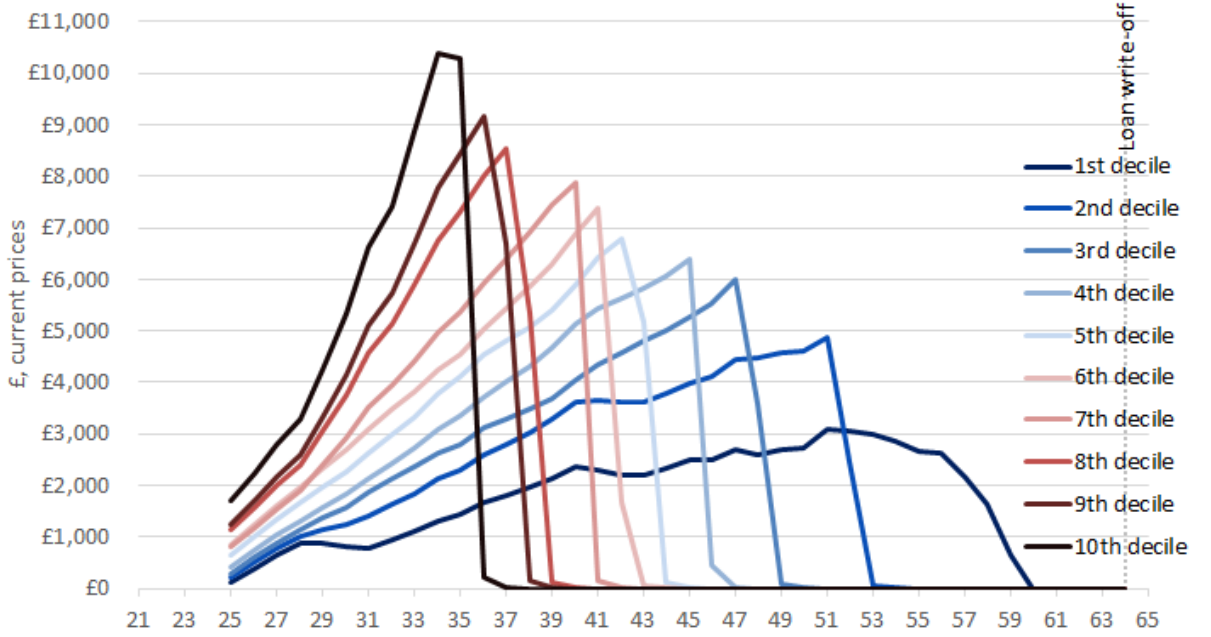
- The current loan system (again, based on the new Plan 5 repayment system) is **regressive for most of the graduate earnings distribution** (and even more regressive than the previous Plan 2 repayment system that applies to students who entered HE prior to 2023-24 (as a result of the extension of the repayment period to 40 years and the reduction, freeze, and subsequent slower uprating of the repayment threshold)).
- Reflecting lifetime loan repayments, male graduates on the **1st earnings decile** contribute **2.9%** of their income in loan repayments over the 40-year repayment period. Illustrating the regressivity of the system, this proportion declines when moving up the earnings distribution, to only **0.6%** for the highest earning male graduates (**10th decile**).
- Female graduates in the **bottom decile** contribute **0.1%** of their earnings in repayments, increasing to approximately **3.1%** for female graduates on the **5th decile**. However, the proportion again decreases for successive earnings deciles, declining to **1.4%** for women on the **9th decile** and **1.1%** on the **10th decile**.

Note: Figures relate to repayments as a % of income throughout the repayment period (calculated based on cash terms (not discounted), for both income and repayments).

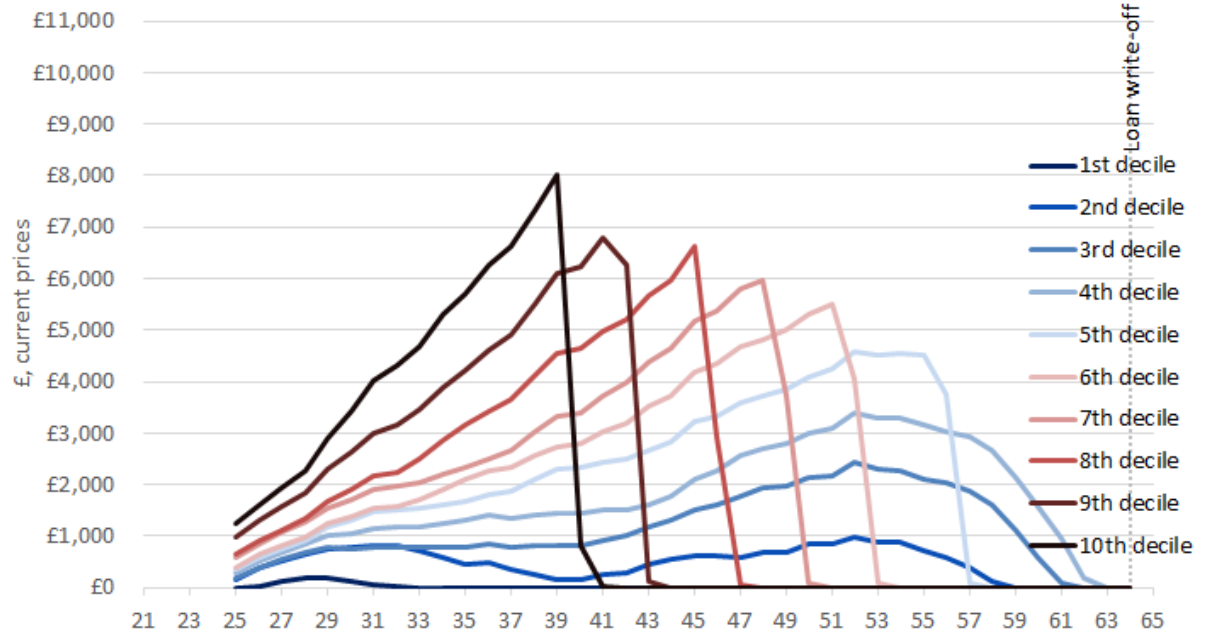
Baseline (current system): Loan repayment profiles

Lifetime loan repayment profiles (by age) for English domiciled students who complete FT first degrees in England (cash terms (not discounted) in current prices), by lifetime earnings decile

Baseline: Male graduates



Baseline: Female graduates



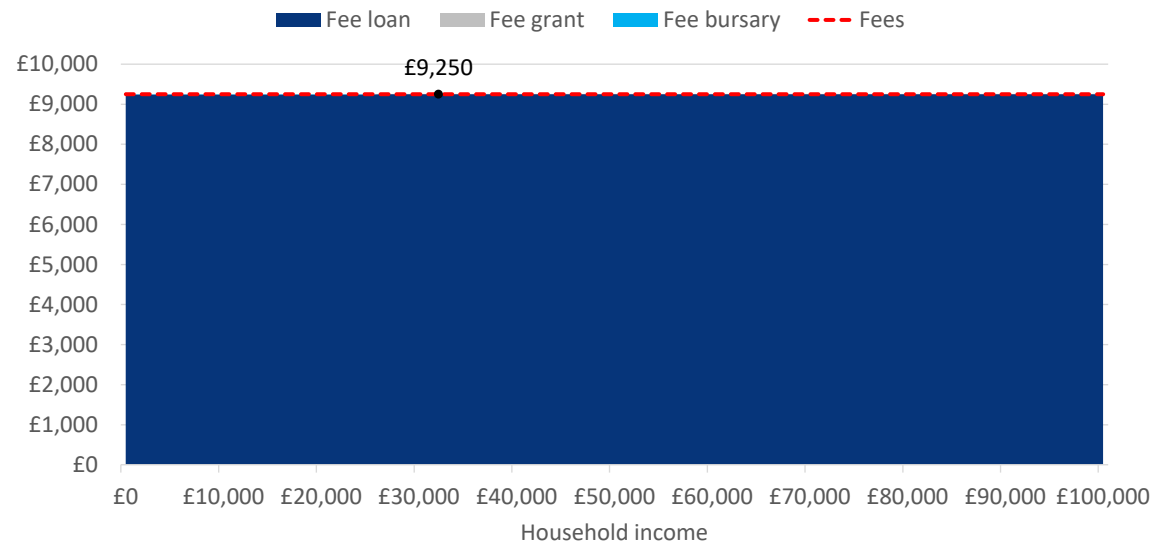
- Under the current system, **high-income graduates** make higher *annual* repayments while they repay, and so are able to fully repay their loan relatively early on (and the higher their income, the earlier they tend to pay off their loan). In contrast, **middle-income graduates** instead make lower *annual* repayments, and therefore repay their loans for longer – so that (in real NPV terms) they end up repaying roughly the same total amount as graduates at the top of the earnings distribution.
- **Low-income graduates** (1st decile for men, and 1st to 4th decile for women) would typically also make repayments for most of the repayment period, but without ever repaying the full loan, as their annual repayments would be too low to allow them to fully repay by the end of the 40-year period. Low-income graduates are especially impacted by the extension of the repayment period to 40 years.

Scenario 1: Zero fees and higher Teaching Grants

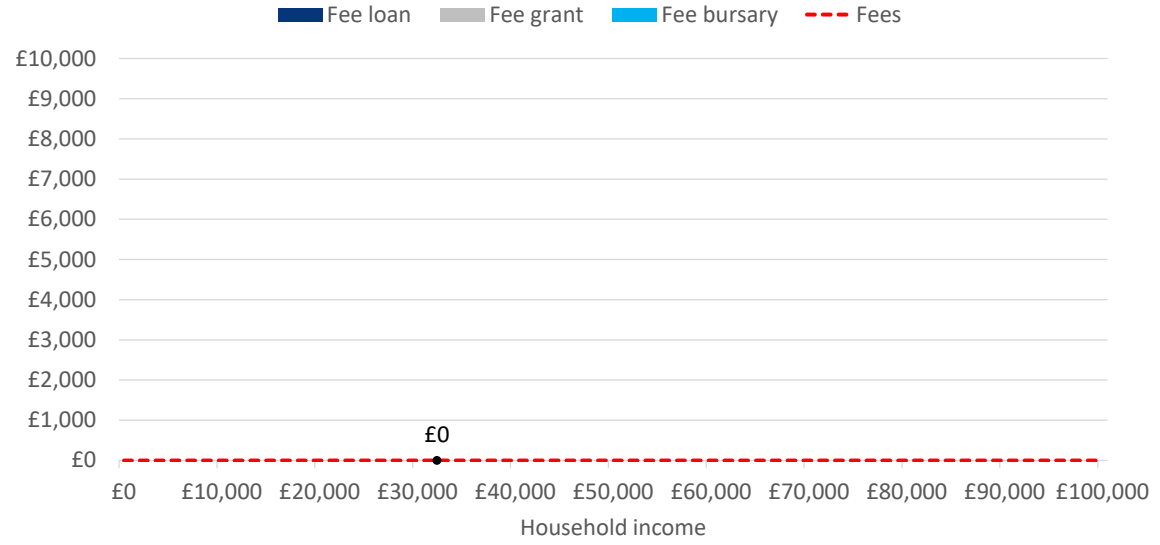
Scenario 1: Fees and fee support

Fees and fee support per year for English domiciled full-time students studying anywhere in the UK, by household income

Baseline



Scenario 1: Zero fees and higher TGs



- **Scenario 1** illustrates the **impact of the abolition of tuition fees for all English domiciled undergraduate students studying anywhere in the UK** (including both full-time and part-time students).
- As a result of the removal of fees, we assume that HEIs would no longer be required to provide access bursaries to students (i.e. we assume that these bursaries would no longer be offered[1]).

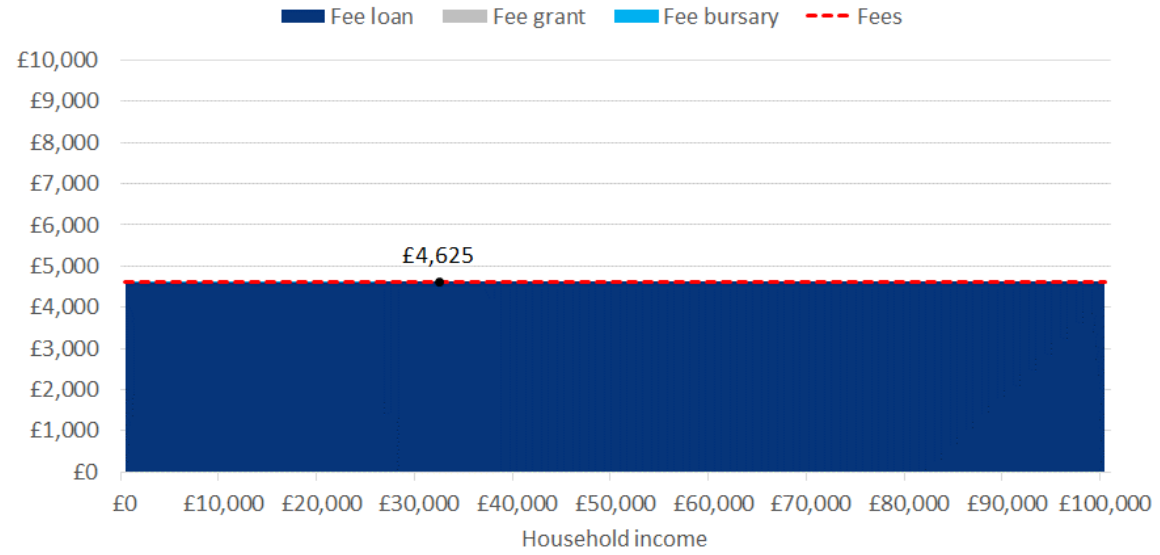
Note: The figures relate to fees and fee support in 2023-24.

[1] Again, note that the current estimated average levels of fee bursaries are very small (approximately **£10** per eligible full-time student per year), so that they are not displayed in the Baseline figure here.

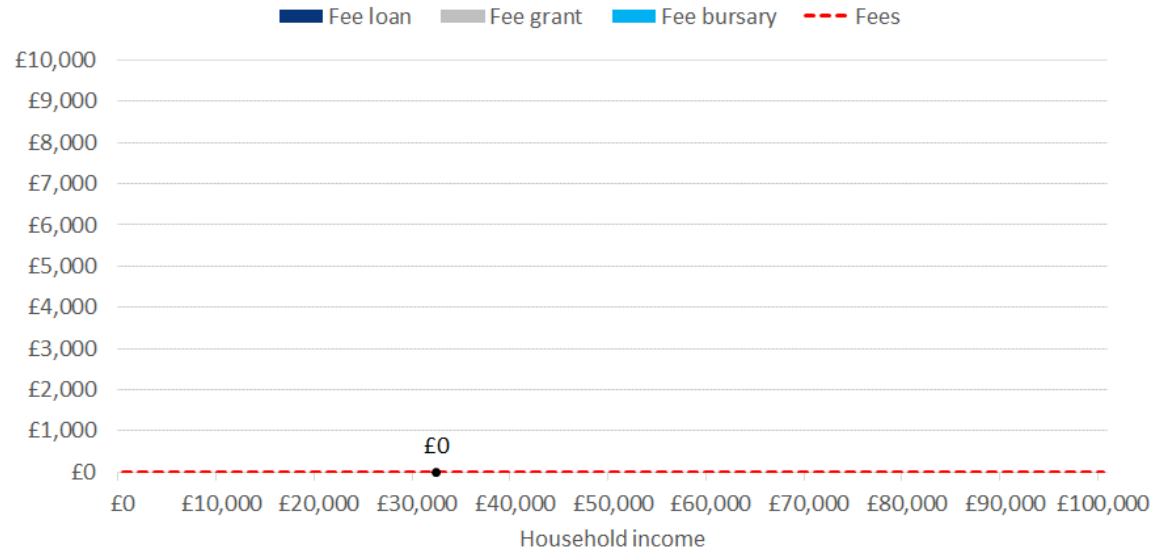
Scenario 1: Fees and fee support

Fees and fee support per year for English domiciled part-time students studying anywhere in the UK, by household income

Baseline



Scenario 1: Zero fees and higher TGs



- **Scenario 1** illustrates the **impact of the abolition of tuition fees for all English domiciled undergraduate students studying anywhere in the UK** (including both full-time and part-time students).
- As a result of the removal of fees, we assume that HEIs would no longer be required to provide access bursaries to students (i.e. we assume that these bursaries would no longer be offered[1]).

Note: The figures relate to fees and fee support in 2023-24.

[1] As for full-time students, the current average levels of fee bursaries for part-time students are too small to be displayed in the Baseline figure here.

Scenario 1: Teaching Grants

Average Teaching Grants per student per year for English domiciled students studying anywhere in the UK

Baseline

Location of study	Full-time	Part-time
England	£1,060	£530
Wales	£485	£245
Scotland[1]	-	-
Northern Ireland[1]	-	-

Scenario 1: Zero fees and higher TGs

Location of study	Full-time	Part-time
England	£10,310	£5,155
Wales	£9,735	£4,870
Scotland	£9,250	£4,625
Northern Ireland	£9,250	£4,625

- To compensate higher education institutions for the removal of tuition fees, under Scenario 1, we have modelled a corresponding **increase in Teaching Grant funding** by the size of the current fees. This includes increasing the Teaching Grants paid to English HEIs by the OfS as well as the Teaching Grants for English domiciled students studying in RUK (i.e. this assumes that the relevant funding bodies in Wales, Scotland, and Northern Ireland would fully compensate HEIs in each of those Home Nations for the loss of fee income from English domiciled students).
- We have therefore **increased** the Teaching Grants by the level of the current fee charged – so that the average Teaching Grant would increase by **£9,250** per full-time student and **£4,625** per part-time student in each instance[2].

Note: For more information on these Teaching Grant assumptions, please refer to Annex I.

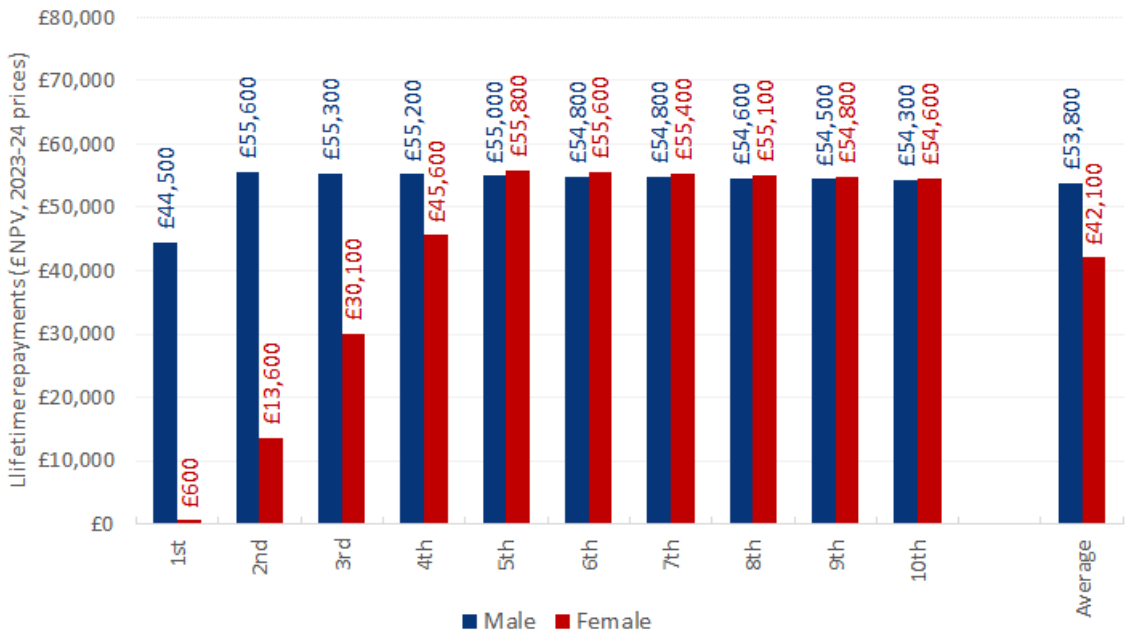
[1] Note that under the Baseline, English domiciled students studying in Scotland or Northern Ireland typically do not attract any Teaching Grant funding (from the Scottish Funding Council or the Department for the Economy Northern Ireland, respectively), since these students are charged much higher tuition fees as compared to 'home' students studying in these Home Nations – so that the Teaching Grants currently paid to Scottish and Northern Irish HEIs generally apply to 'home' domiciled students only.

[2] All estimates here are rounded to the nearest £5.

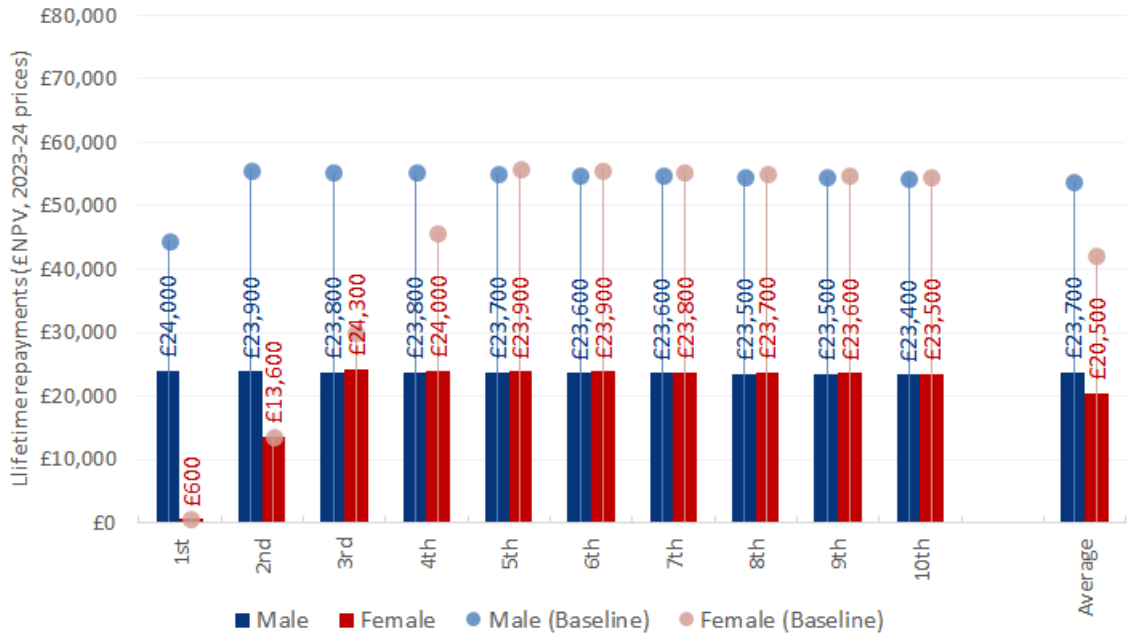
Scenario 1: Graduate loan repayments

Total loan repayments by English domiciled students who complete FT first degrees in England (NPV in 2023-24 prices), by lifetime earnings decile and gender

Baseline



Scenario 1: Zero fees and higher TGs

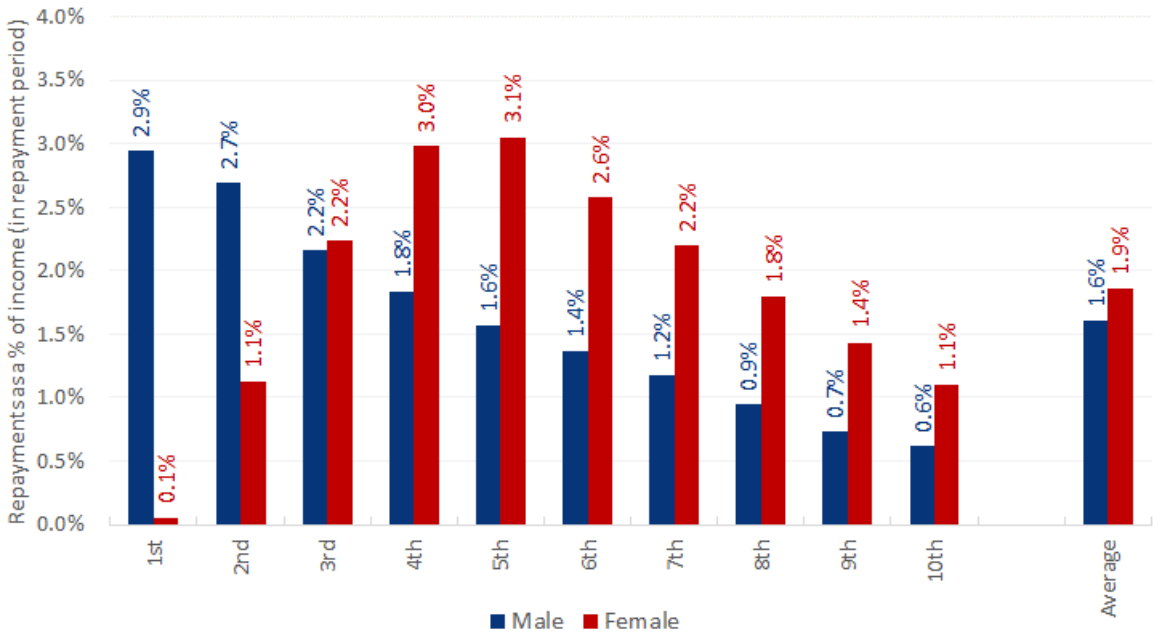


- Under Scenario 1, while **middle- and high-income graduates would make significantly *lower* loan repayments, graduates at the very bottom of the income distribution** (1st and 2nd deciles for women) **would be *unaffected* by the removal of fees and resulting lower loan balance**. This is because these graduates would already be expected to never fully pay off their loan by the end of the repayment period – so their repayments are not impacted by the elimination of fee loans. The limited impact of eliminating tuition fees on the very lowest earning graduates is one of the most widely misunderstood aspects of the HE fees and funding system.
- In other words, **the removal of fees under Scenario 1 would make the loan repayment system marginally more regressive**.

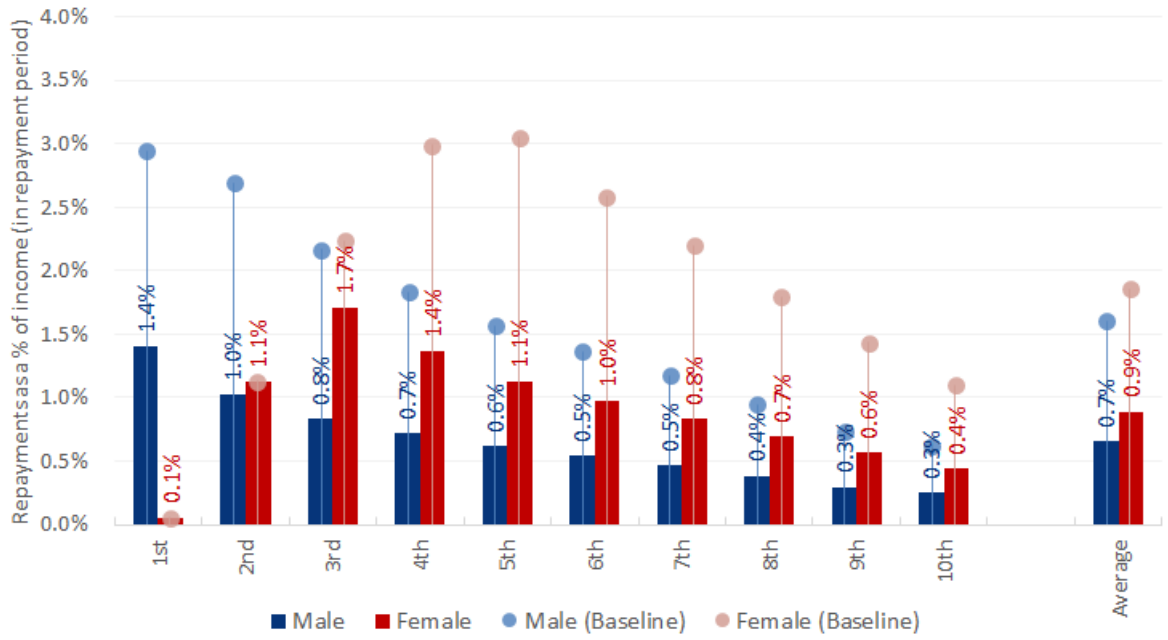
Scenario 1: Loan repayment progressivity

Total loan repayments by English domiciled students who complete FT first degrees in England as a % of income (during repayment period), by lifetime earnings decile and gender

Baseline



Scenario 1: Zero fees and higher TGs

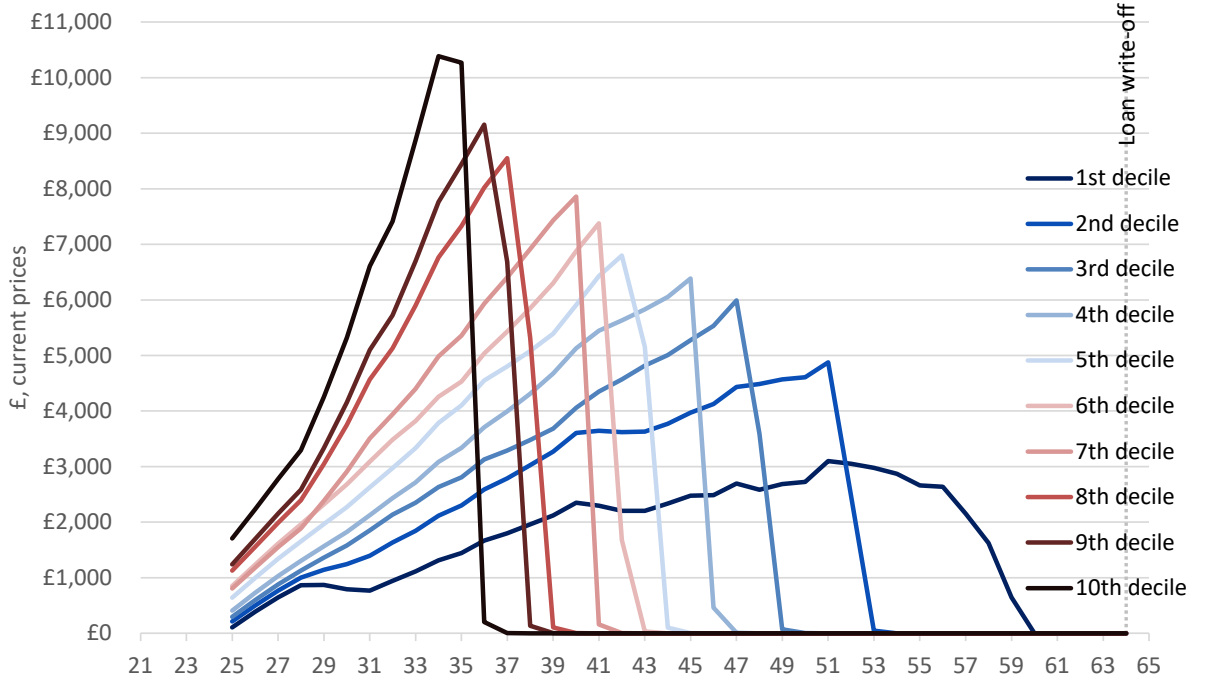


- The Baseline loan system is already **regressive for most of the graduate earnings distribution** (with lower earning graduates paying a higher proportion of post-graduation earnings than high-income graduates).
- Under Scenario 1, although average repayments decline, **the removal of fees would make the loan system marginally more regressive**. Male graduates on the **1st earnings decile** would now contribute **1.4%** of their income in loan repayments over the 40-year repayment period, declining to only **0.3%** for the highest earning male graduates (**10th decile**).
- Female graduates in the **bottom decile** would contribute **0.1%** of their earnings in repayments (same as in the Baseline), increasing to **1.7%** for female graduates on the **3rd decile**. However, the proportion again decreases for successive earnings deciles, declining to **0.4%** for women on the **10th decile**.

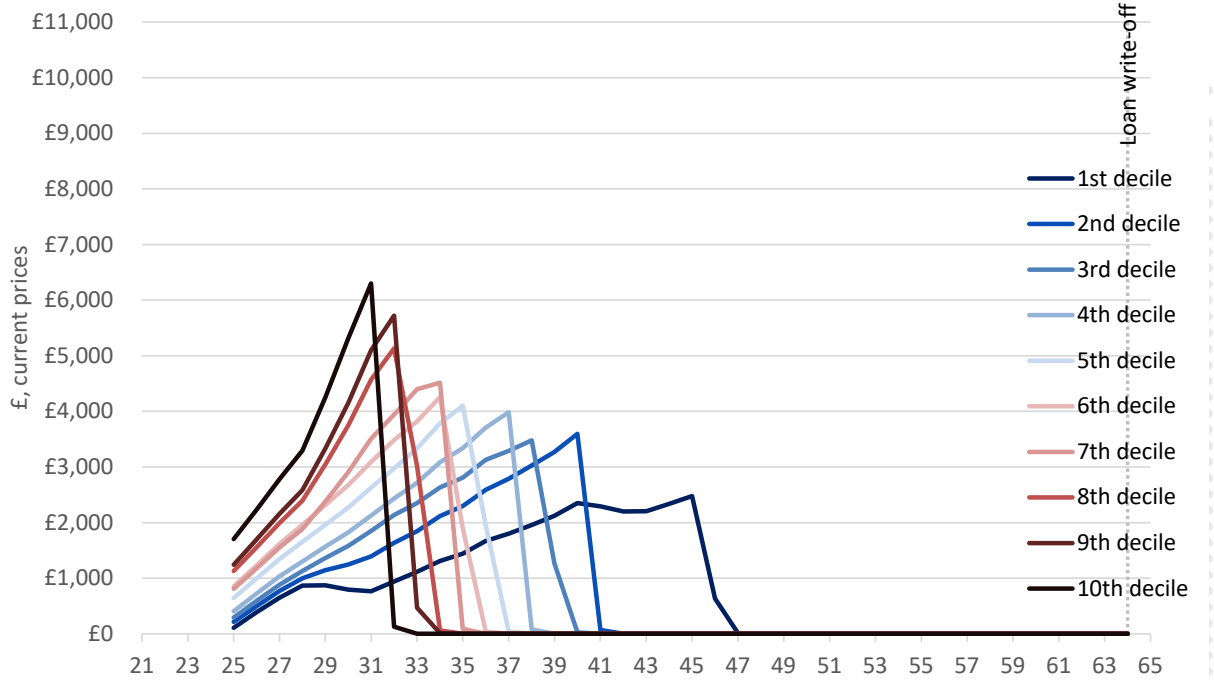
Scenario 1: Loan repayment profiles (men)

Lifetime loan repayment profiles (by age) for English domiciled *male* students who complete FT first degrees in England (cash terms (not discounted) in current prices), by lifetime earnings decile

Baseline



Scenario 1: Zero fees and higher TGs

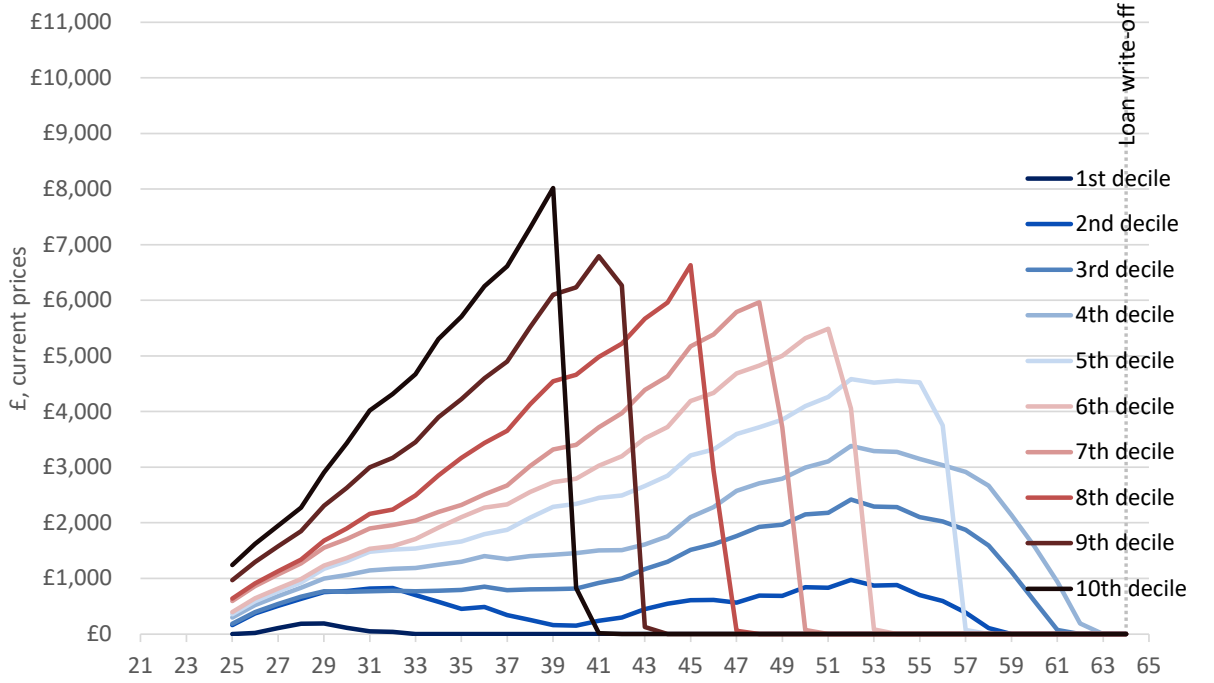


- **Middle- and high-earning graduates** (male graduates on all deciles and 3rd decile and above for female graduates) **would benefit from the removal of fees**, since the lower loan outlay would allow them to repay their loans more quickly.
- However, **graduates at the very bottom of the earnings distribution** would make essentially the same repayments as under the current system.

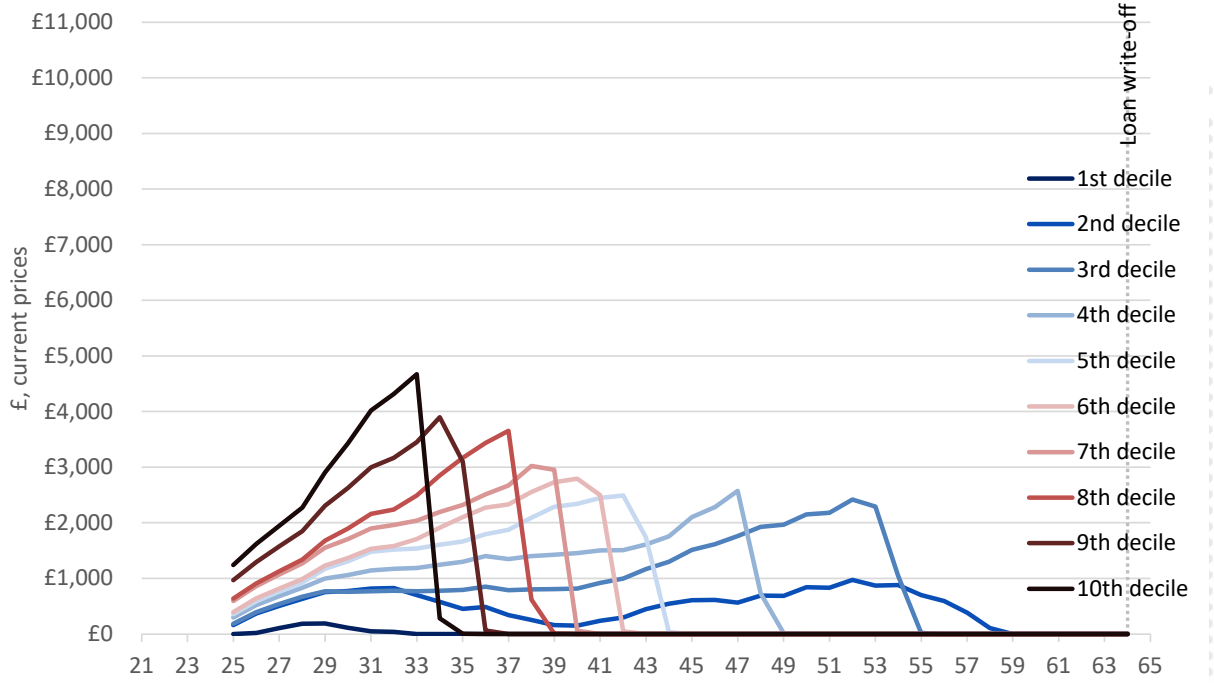
Scenario 1: Loan repayment profiles (women)

Lifetime loan repayment profiles (by age) for English domiciled *female* students who complete FT first degrees in England (cash terms (not discounted) in current prices), by lifetime earnings decile

Baseline



Scenario 1: Zero fees and higher TGs



- **Middle- and high-earning graduates** (male graduates on all deciles and 3rd decile and above for female graduates) **would benefit from the removal of fees**, since the lower loan outlay would allow them to repay their loans more quickly.
- However, **graduates at the very bottom of the earnings distribution** would make essentially the same repayments as under the current system.

ANNEX III
Supplementary findings for Wales, Scotland, and Northern Ireland

LE London Economics

Scenario 1: Total costs for Welsh domiciled cohort

Scenario 1: Zero fees and higher TGs

Resource flows (£/£m/%)	Baseline	Scenario 1	Difference
Net Exchequer cost (adjusted for RAB)			
Cost of maintenance grants	(£251m)	(£251m)	-
Cost of maintenance loans	£17m	£28m	£11m
Cost of tuition fee loans	£19m	-	(£19m)
Cost of Teaching Grants	(£38m)	(£603m)	(£565m)
Total	**(£253m)**	**(£826m)**	**(£574m)**
RAB charge (%)	**-4.1%**	**-6.7%**	**-2.6 pp**
Net HEI income			
Gross fee income	£565m	-	(£565m)
Teaching Grant income	£38m	£603m	£565m
Cost of bursary provision	(£14m)	-	£14m
Total	**£589m**	**£603m**	**£14m**
Students/Graduates (FT first degree students from Wales studying in Wales)			
Average debt on graduation	**£54,500**	**£25,500**	**(£29,000)**
Average lifetime repayments (M/F)	**£70,400/£43,800**	**£30,900/£23,000**	**(£39,500)/(£20,800)**

Note: All monetary values have been discounted to net present values and are presented in constant 2023-24 prices. Values per student have been rounded to the nearest £100, and totals have been rounded to the nearest £1m.
For an overview of the coverage of and methodological approach underlying the analysis for Wales, Scotland, and Northern Ireland, see our recent examination of HE fees and funding systems across the UK (on behalf of the Nuffield Foundation), here.

Scenario 1: Total costs for Scottish domiciled cohort

Scenario 1: Zero fees and higher TGs

Resource flows (£/£m/%)	Baseline	Scenario 1	Difference
Net Exchequer cost (adjusted for RAB)			
Cost of maintenance grants	(£76m)	(£76m)	-
Cost of maintenance loans	(£147m)	(£144m)	£4m
Cost of tuition fee loans	(£247m)	-	£247m
Cost of tuition fee grants	(£12m)	-	£12m
Cost of Teaching Grants	(£884m)	(£1,210m)	(£326m)
Total	**(£1,366m)**	**(£1,430m)**	**(£64m)**
RAB charge (%)	**20.6%**	**19.5%**	**-1.0pp**
Net HEI income			
Gross fee income	£326m	-	(£326m)
Teaching Grant income	£884m	£1,210m	£326m
Cost of bursary provision	(£1m)	-	£1m
Total	**£1,210m**	**£1,210m**	**£1m**
Students/Graduates (FT first degree students from Scotland studying at Scottish HEIs)			
Average debt on graduation	**£32,600**	**£32,600**	**-**
Average lifetime repayments (M/F)	**£33,200/£22,000**	**£33,200/£22,000**	**-/-**

Note: All monetary values have been discounted to net present values and are presented in constant 2023-24 prices. Values per student have been rounded to the nearest £100, and totals have been rounded to the nearest £1m.
For an overview of the coverage of and methodological approach underlying the analysis for Wales, Scotland, and Northern Ireland, see our recent examination of HE fees and funding systems across the UK (on behalf of the Nuffield Foundation), here.

Scenario 1: Total costs for Northern Irish domiciled cohort

Scenario 1: Zero fees and higher TGs

Resource flows (£/£m/%)	Baseline	Scenario 1	Difference
Net Exchequer cost (adjusted for RAB)			
Cost of maintenance grants	(£40m)	(£40m)	-
Cost of maintenance loans	(£15m)	(£2m)	£13m
Cost of tuition fee grants	(£3m)	-	£3m
Cost of tuition fee loans	(£22m)	-	£22m
Cost of Teaching Grants	(£93m)	(£342m)	(£249m)
Total	**(£172m)**	**(£383m)**	**(£211m)**
RAB charge (%)	**10.0%**	**1.2%**	**-8.8 pp**
Net HEI income			
Gross fee income	£247m	-	(£247m)
Teaching Grant income	£93m	£342m	£249m
Cost of bursary provision	(£4m)	-	£4m
Total	**£335m**	**£342m**	**£6m**
Students/Graduates (FT first degree students from Northern Ireland studying in Northern Ireland)			
Average debt on graduation	**£29,500**	**£15,000**	**(£14,500)**
Average lifetime repayments (M/F)	**£31,100/£23,100**	**£16,100/£13,000**	**(£15,000)/(£10,100)**

Note: All monetary values have been discounted to net present values and are presented in constant 2023-24 prices. Values per student have been rounded to the nearest £100, and totals have been rounded to the nearest £1m.
For an overview of the coverage of and methodological approach underlying the analysis for Wales, Scotland, and Northern Ireland, see our recent examination of HE fees and funding systems across the UK (on behalf of the Nuffield Foundation), here.