

Overview and scope of model



- London Economics have developed a model of the English HE funding system, with the capability and flexibility to introduce a range of changes to the student support model, for example:
 - Changes in the repayment threshold and interest rate thresholds;
 - The re-introduction of maintenance grants (previously available to first-year students starting their qualifications in 2015/16);
 - Changes in the interest rate associated with student loans; and
 - Changes to tuition fees (and associated tuition fee loans provided).
- In terms of scope, this model estimates the impact on the Exchequer, institutions and students/graduates for:
 - the 2017/18 cohort of first-year undergraduate English-domiciled students (studying anywhere in the UK), and EU-domiciled students studying in England;
 - Higher Education Institutions only; and
 - both full-time and part-time students, as well as 'other' undergraduate qualifications below first degree level.
- The model estimates a range of measures associated with the HE funding system, including:
 - The RAB charge (by income decile), student loan debt on graduation, and expected lifetime loan repayments (by income decile);
 - Total Exchequer costs including the cost of student support and Teaching Grant funding to institutions across
 the UK;
 - HEI funding in terms of tuition fee income (net of bursaries) and Teaching Grant funding from the Exchequer.

All of these measures have been discounted to reflect **net present values**, and are presented in **constant 2017/18 prices**.



Students

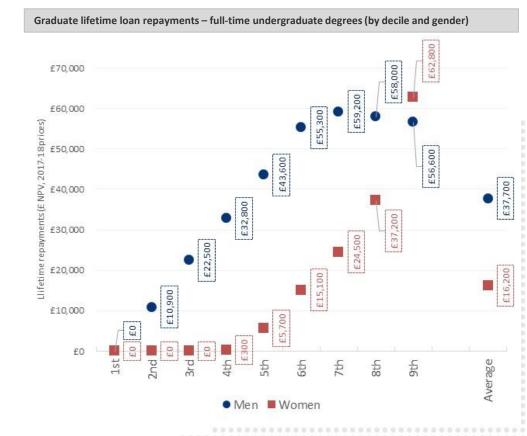
Ave. debt on graduation (FTUG)

Baseline

Repayment threshold = £25,000 Interest rate threshold = £45,000 (both frozen for 0 years)



Resource flows	Amount (£)
Exchequer	
Cost of maintenance grant	£0m
Cost of maintenance loan	(£2,728m)
Cost of tuition fee loan	(£4,469m)
Cost of teaching grants	(£1,294m)
Total	(£8,491m)
RAB Charge	45.1%
HEI income	
Gross fee income	£9,985m
Teaching grant income	£1,294m
Cost of bursary provision	(£191m)
Total	£11,087m
Net HEI resource per student p.a.	£8,800



- The total Exchequer cost of the HE system stands at £8.491bn per cohort, consisting of £2.728bn in maintenance support and £4.469bn in tuition fee loans that are never repaid, and £1.294bn in teaching grants paid to HEIs.
- 81% of students would never fully repay their loan.

£46.000

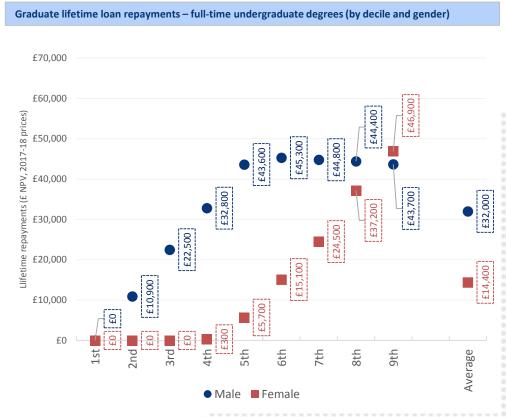
- HEIs receive £9.985bn in fee income and £1.294bn in Teaching Grant offset by £191m in bursaries
- The RAB charge was estimated to be 45.1%. Average loan repayments by men was estimated to be £37,700 and £16,200 for women (FT Degrees).



Scenario 1: £6,000 Fee



Resource flows	Baseline	Scenario 1	Diff.
Exchequer			
Cost of maintenance grant	£0m	£0	-
Cost of maintenance loan	(£2,728m)	(£2,440m)	£289m
Cost of tuition fee loan	(£4,469m)	(£2,609m)	£1,694m
Cost of teaching grants	(£1,294m)	(£1,294m)	-
Total	(£8,491m)	(£6,343m)	£2,148m
RAB Charge	45.1%	40.8%	-4.3pp
HEI income			
Gross fee income	£9,985m	£6,477m	(£3,508m)
Teaching grant income	£1,294m	£1,294m	-
Cost of bursary provision	(£191m)	-	£191m
Total	£11,087m	£7,770m	(£3,317m)
Net HEI resource per student p.a.	£8,800	£6,100	(£2,700)
Students			
Ave. debt on graduation (FTUG)	£46,000	£36,600	(£9,400)



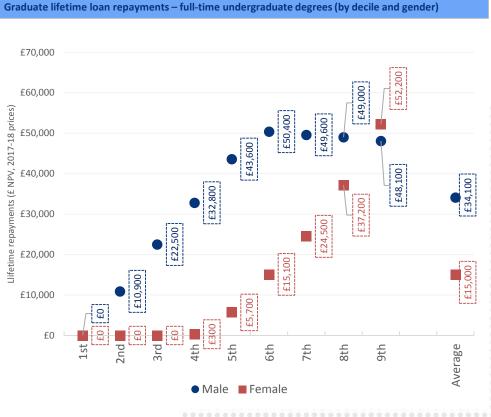
- Compared to the baseline, without compensation for lost fee income, HEIs would be £3.317bn per cohort worse off. However, the Exchequer would recoup £2.418bn in reduced maintenance and fee loan write offs (with RAB declining from 45.1% to 40.8%). If HEIs are compensated in full, the total cost to HMT stands at £1.169bn per cohort.
- 70% of students would never fully repay their loan.
- For students/graduates, although the debt on graduation would decline by £9,600, and the value of loan repayment declines marginally, for students
 in the bottom 5 deciles, their total repayments are UNCHANGED. The potential £6,000 fee only benefits wealthier graduates.



Scenario 2: Re-introduction of maintenance grants



Resource flows	Baseline	Scenario 2	Diff.
Exchequer			
Cost of maintenance grant	£0m	(£1,629m)	(£1,629m)
Cost of maintenance loan	(£2,728m)	(£1,730m)	£999m
Cost of tuition fee loan	(£4,469m)	(£4,199m)	£270m
Cost of teaching grants	(£1,294m)	(£1,294m)	-
Total	(£8,491m)	(£8,851m)	(£360m)
RAB Charge	45.1%	42.7%	-2.4pp
HEI income			
Gross fee income	£9,985m	£9,985m	-
Teaching grant income	£1,294m	£1,294m	-
Cost of bursary provision	(£191m)	(£191m)	-
Total	£11,087m	£11,087m	-
Net HEI resource per student p.a.	£8,800	£8,800	-
Students			
Ave. debt on graduation (FTUG)	£46,000	£39,800	(£6,200)



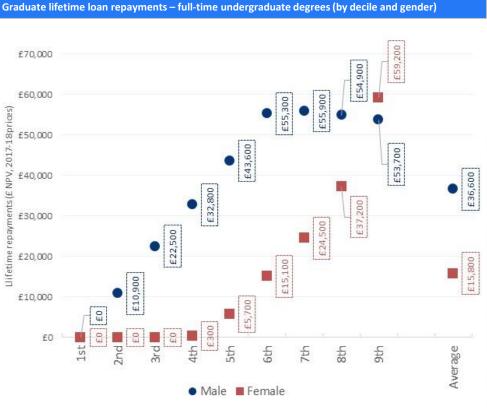
- Compared to the baseline, the cost of re-introducing maintenance grants (at 2015-16 levels) was estimated to be £1.629bn per cohort. However, the Exchequer would recoup £1.269bn in reduced maintenance and fee loan write offs (with RAB declining from 45.1% to 42.7%). The total cost to HMT stands at £0.360bn per cohort. Maintenance Grants are approximately 70% cheaper than cutting fees!
- 76% of students would never fully repay their loan.
- For students/graduates, although the debt on graduation would again decline, and the value of repayment decline compared to the baseline scenario, however, again for students in the bottom 5 deciles, their total loan repayments are **UNCHANGED**. Graduates in the upper decile have lower lifetime repayments because we assume their loan balances decline after the re-introduction of grants (but this is less than the reduction in loan balances following a reduction in fees to £6,000))



Scenario 3: 0% real interest rates during study (prior to Statutory Repayment Date)



Resource flows	Baseline	Scenario 3	Diff.	Graduate lif
Exchequer				
Cost of maintenance grant	£0m	£0m	-	£70,000
Cost of maintenance loan	(£2,728m)	(£2,817m)	(£89m)	£60,000
Cost of tuition fee loan	(£4,469m)	(£4,611m)	(£142m)	2007 CONTRACTOR OF THE PARTY OF
Cost of teaching grants	(£1,294m)	(£1,294m)	-	£50,000
Total	(£8,491m)	(£8,722m)	(£231m)	,2017
				£40,000
RAB Charge	45.1%	46.4%	1.4 pp	#30,000
HEI income				130,000
Gross fee income	£9,985m	£9,985m	-	Lifetime repayments (£ NPV, 2017-18prios) 620,000 630,000 630,000
Teaching grant income	£1,294m	£1,294m	-	Llifet
Cost of bursary provision	(£191m)	(£191m)	-	£10,000
Total	£11,087m	£11,087m	-	£0
Net HEI resource per student p.a.	£8,800	£8,800	-	
Students				
Ave. debt on graduation (FTUG)	£46,000	£43,900	(£2,100)	



- Compared to the baseline, the abolition of real interest rates prior to the Statutory Repayment Due Date would imply an additional Exchequer cost of £0.23bn per cohort— consisting of an additional £0.09bn and £0.14bn in maintenance and tuition fee loans that will not be repaid. 81% of students would never fully repay their loan.
- These Exchequer costs are relatively small, given that the policy would only benefit graduates on high income deciles (and only marginally so). While low-earning graduates would be unaffected (since they would never repay their full loan), high-earning graduates would repay their loans slightly earlier than before (resulting in a small reduction in the total amount they repay).
- The average debt on graduation (per full-time undergraduate degree student) would decline from £46,000 to £43,900.



Scenario 4: 0% real interest rates pre- and postgraduation



Average

Resource flows	Baseline	Scenario 4	Diff.
Exchequer			
Cost of maintenance grant	£0m	£0m	-
Cost of maintenance loan	(£2,728m)	(£3,347m)	(£619m)
Cost of tuition fee loan	(£4,469m)	(£5,431m)	(£962m)
Cost of teaching grants	(£1,294m)	(£1,294m)	-
Total	(£8,491m)	(£10,072m)	(£1,581m)
RAB Charge	45.1%	54.1%	9.1 pp
HEI income			
Gross fee income	£9,985m	£9,985m	-
Teaching grant income	£1,294m	£1,294m	-
Cost of bursary provision	(£191m)	(£191m)	-
Total	£11,087m	£11,087m	-
Net HEI resource per student p.a.	£8,800	£8,800	-
Students			
Ave. debt on graduation (FTUG)	£46,000	£43,900	(£2,100)

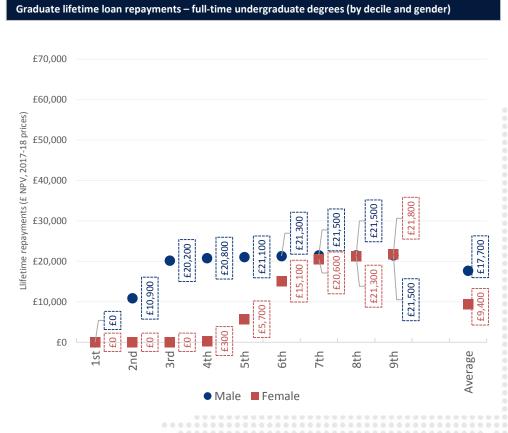
- Compared to the baseline, the abolition of real interest rates prior to the Statutory Repayment Due Date and post graduation would imply an additional Exchequer cost of £1.581bn per cohort – consisting of an additional £0.619bn and £0.962bn in maintenance and tuition fee loans (respectively) that will not be repaid. 72% of students would never fully repay their loan.
- For students/graduates, the debt on graduation would decline by £2,100 (as in Scenario 3). Average repayments would decline by £6,600 for male graduates and £2,100 for female graduates. However, for men in the lowest 4 deciles, and women in the bottom 8 deciles, total repayments would be unchanged. Only men in the upper half of the graduate earnings distribution and women in the top decile would benefit (potentially substantially).



Scenario 5: Abolition of tuition fees



Resource flows	Baseline	Scenario 5	Diff.
Exchequer			
Cost of maintenance grant	£0m	£0m	-
Cost of maintenance loan	(£2,728m)	(£1,985m)	£744m
Cost of tuition fee loan	(£4,469m)	£0m	£4,469m
Cost of teaching grants	(£1,294m)	(£1,294m)	-
Total	(£8,491m)	(£3,278m)	£5,213m
RAB Charge	45.1%	25.7%	-19.4 pp
HEI income			
Gross fee income	£9,985m	£0m	(£9,985m)
Teaching grant income	£1,294m	£1,294m	-
Cost of bursary provision	(£191m)	£0m	£191m
Total	£11,087m	£1,294m	(£9,794m)
Net HEI resource per student p.a.	£8,800	£1,000	(£7,800)
Students			
Ave. debt on graduation (FTUG)	£46,000	£19,200	(£26,800)



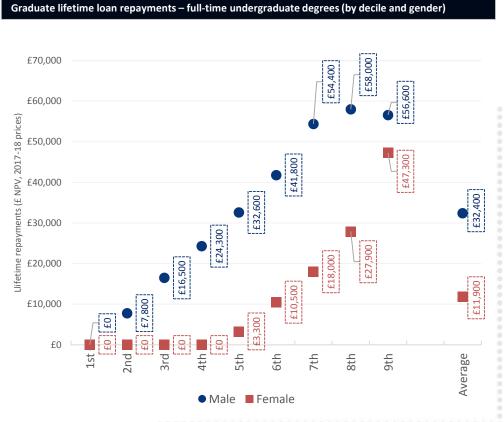
- Compared to the baseline, the abolition of tuition fees in their entirety would imply an additional Exchequer cost of £4.581bn per cohort assuming that HEIs are fully compensated for the loss of £9.794bn in net tuition fee income. This is because the reduced volume of loans issued, and the 19.4 pp reduction in the RAB charge, resulting in savings of £5.213bn. Since the increase in the repayment threshold to £25,000, the additional cost incurred by HM Treasury has declined by approximately £1bn. 42% of students would never fully repay their loan.
- For students/graduates, the debt on graduation would decline by £26,800. Average repayments would decline by approximately £20,000 for male graduates and £6,800 for female graduates, with higher earning graduates most positively impacted.



Scenario 6: Repayment period of 25 years



Resource flows	Baseline	Scenario 6	Diff.
Exchequer	<u> </u>	<u> </u>	
Cost of maintenance grant	£0m	£0m	£0m
Cost of maintenance loan	(£2,728m)	(£3,339m)	(£611m)
Cost of tuition fee loan	(£4,469m)	(£5,373m)	(£904m)
Cost of teaching grants	(£1,294m)	(£1,294m)	£0m
Total	(£8,491m)	(£10,006m)	(£1,515m)
RAB Charge	45.1%	53.0%	7.9 pp
HEI income			
Gross fee income	£9,985m	£9,985m	-
Teaching grant income	£1,294m	£1,294m	-
Cost of bursary provision	(£191m)	(£191m)	-
Total	£11,087m	£11,087m	-
Net HEI resource per student p.a.	£8,800	£8,800	-
Students			
Ave. debt on graduation (FTUG)	£46,000	£46,000	-



- Compared to the baseline, the reduction in the repayment period to 25 years (instead of the current 30 years) would increase the RAB charge on loans to 53.0% (equivalent to an increase of 7.9pp). This would result in an additional Exchequer cost of £1.515bn per cohort, made up of £904 million in additional costs associated with tuition fee and £611million in additional maintenance loan costs. 84% of students would never fully repay their loan.
- For students/graduates, the debt on graduation would be unchanged. However, average repayments would decline by approximately £5,300 for male graduates and £4,300 for female graduates, with middle income male graduates and high earning female graduates most positively impacted.



Scenario 7: £5,000 increase in repayment and interest rate thresholds



Resource flows	Baseline	Scenario 5	Diff.
Exchequer			
Cost of maintenance grant	£0m	£0m	£0m
Cost of maintenance loan	(£2,728m)	(£3,576m)	(£848m)
Cost of tuition fee loan	(£4,469m)	(£5,842m)	(£1,373m)
Cost of teaching grants	(£1,294m)	(£1,294m)	£0m
Total	(£8,491m)	(£10,712m)	(£2,221m)
RAB Charge	45.1%	58.7%	13.6 pp
HEI income			
Gross fee income	£9,985m	£9,985m	-
Teaching grant income	£1,294m	£1,294m	-
Cost of bursary provision	(£191m)	(£191m)	-
Total	£11,087m	£11,087m	-
Net HEI resource per student p.a.	£8,800	£8,800	-
Students			
Ave. debt on graduation (FTUG)	£46,000	£46,000	-

- Compared to the baseline, a further increase in the repayment threshold to £30,000 alongside a simultaneous and equally sized increase in interest rate thresholds would increase the RAB charge on loans to 58.7% (equivalent to an increase of 13.6pp). This would result in an additional Exchequer cost of £2.221bn per cohort, made up of £1.373 billion in additional costs associated with fee loans and £848 million in additional maintenance loan costs. At £10.712 billion, this is almost double the total Exchequer cost than under the £21,000 threshold (£5.637 billion) that existed in September 2017. 87% of students would never fully repay their loan.
- For students/graduates, average repayments would decline by approximately £6,400 for male graduates and £6,200 for female graduates, with middle income male graduates and high earning female graduates most positively impacted (by up to £13,300 (women on the 9th decile)).





Student profile

- The model considers the total number of full time and part time English domiciled first year students undertaking higher education qualifications at any institution in the UK. In addition, all EU students engaged in undergraduate education studying in English HEIs are also included. We have applied various changes to HE fees and funding arrangements based on the most recent HESA data relating to the 2016-17 cohort comprising 491,075 students (466,265 English and 24,810 EU domiciled students; 388,855 full-time and 102,220 part-time).
- Amongst full-time students, 95% are undertaking first degrees (33% part-time), with 2% engaged in Other HE (59%), 1% HNCs/HNDs (3%), and 2% Foundation degrees (5%).
- Part-time students are estimated to study at 40% FTE
- Estimated continuation rate was estimated to be 92.6% for full-time students and 82.3% for part-time students
- Based on HESA data, to determine the size of maintenance loans received, first year students 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, and we base eligibility for loans using information from SLC Statistical First Releases on the proportion of students that were previously in receipt of full or partial maintenance grants. For example, the average maintenance loan received by a full-time first degree undergraduate student stands at £6,538 p.s.p.a.

Student profile

- The average gross tuition fee in 2017-18 is £9,250, but as a result of Access agreements and the provision of bursaries and fee waivers by HEIs, the net tuition fee is lower (£9,101). Based on average study intensity, the average part-time tuition net tuition fee was estimated to be £3,607 per annum. We have assumed that fees do not increase over the duration of students' courses.
- We have modelled loan eligibility by location of study (i.e. Living at Home (21% (full-time students)), Living away from home outside of London (67%), and Living away from home in London (12%)) using the current thresholds provided by Student Finance England
- All analyses are undertaken by gender. For those individuals undertaking Other HE on a full-time basis, the gender split is 48/52, with the corresponding estimates for HNCs/HNDs, Foundation Degrees and undergraduate degrees standing at 53/47, 40/60, and 42/58 respectively
- The average age of enrolment for full time students undertaking Other HE, HNCs/HNDs, Foundation Degrees and undergraduate degrees was 28, 21, 25 and 20 respectively. The corresponding estimates for part-time students were 36, 27, 30 and 31 respectively.
- The average duration of qualification attainment for full time students undertaking Other HE, HNCs/HNDs, Foundation Degrees and undergraduate degrees was 1, 2, 2 and 3 years respectively. Based on study intensity, the corresponding estimates for part-time students were 2, 5, 5 and 7 years respectively



Assumptions and methodology



Repayments

- Loans accumulate interest at RPI +3% during the period of study. Post graduation, loans accumulate interest depending on earnings, with individuals earning £25,000 incurring a 0% real rate of interest, increasing to 3% real rate of interest on earnings of £45,000 per annum or above. For part-time students, we apply current SLC rules in relation to the accumulation of interest during study.
- In Scenario 3, we assume that there is a zero real rate of interest applied during the period of study, while in Scenario 4, we further assume that the real interest rate on loans is removed following graduation.
- In the Baseline scenario, there are no maintenance grants. We have assumed in those scenarios where they occur that the level of maintenance grant that would be received is equivalent to the level of maintenance grant that is received by 2015-16 cohort continuing students (£1,740 per student per annum). In this scenario, there is a reduction in loan availability declining from £6,538 p.s.p.a to £4,442 p.s.p.a.
- We assume that all thresholds increase in line with average nominal earnings growth (with forecasts taken from medium term and long term OBR forecasts).
- We assume that loan repayment is 9% of earnings in excess of £25,000 per annum and that all loans are written off 30 years from the date of SSRD.

Exchequer funding

- In relation to Teaching Grants, we assume that the average teaching grant per student by Home Nation is derived by dividing the total teaching grant funding in each Home Nation by the total number of students, which is the adjusted for the duration of study. The average Teaching grant per student in England, Wales, Scotland, and Northern Ireland is estimated to be £1,146, £454, £5,521, and £2,698 per student per annum respectively. The corresponding estimates for part-time students stand at £454, £180, £2,186, and £1,069 per student per annum
- In relation to the estimation of the RAB charge and other financial flows, we assume a real discount rate of 0.7% as per standard practice.
- We have adopted OBR forecasts in relation to expected Retail Price Index, which were as follows between Year 1 and Year 6: 3.7%, 3.6%, 3.1%, 3.1%, 3.2% and 3.0%. We have also taken OBR forecasts in relation to expected nominal earnings growth between Year 1 and Year 6: 0.0%, 2.7%, 3.0%, 3.4%, 3.6% and 4.3%.

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