

Higher Education: funding and access

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Tuition fee debate

"We know that the cost of higher education is a worry, which is why we are pledging to help students with an immediate freeze in maximum fee levels and by increasing the amount graduates can earn before they start paying their fees back, amounting to a saving of £360 a year, while the Government looks again at the question of funding and student finance."

Theresa May



"First of all, we want to get rid of student fees altogether [...] And I don't see why those that had the historical misfortune to be at university during the £9,000 period should be burdened excessively compared to those that went before or those that come after. I will deal with it."

Jeremy Corbyn

"In my view, fees have now become so politically diseased that they should be abolished entirely."

Lord Adonis – "architect" of fees



"As president, I will fight to make tuition in public colleges and universities free, as well as substantially lower interest rates on student loans."

Bernie Sanders

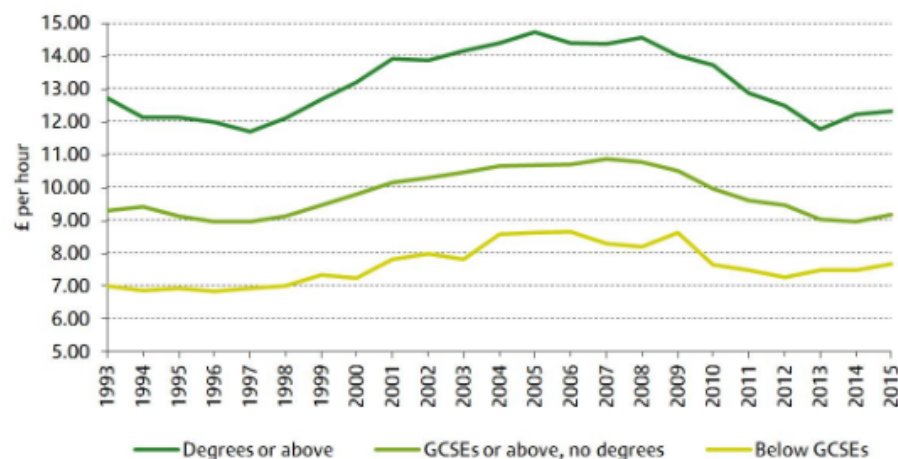
HE funding: why should government intervene?

Market may lead to inefficient outcomes due to:

1. Externalities
2. Credit market failures
3. Risk and uncertainty
4. Information problems

1. Externalities

Private returns high



Blundell et al (2016)

But also substantial social returns

- More tax revenues and less on benefits
- Improve productivity of other workers (Moretti 2004)
- Improves health (Heckman et al. 2016) and reduces crime (Lochner and Moretti 2004; Machin et al. 2011)

Individuals won't take social returns into account when deciding on education level
→ at the margin some individuals may not go to HE

2. Credit market failures

Significant upfront cost to HE and high (but uncertain) returns

- With perfect credit markets, students borrow now and repay from future income
- But:
 - Lack of collateral (slavery not allowed)
 - Asymmetric information, lender exposed to adverse selection/moral hazard
- Hence
 - High interest rates (e.g. US) or credit rationing
 - Suboptimal level of borrowing and investment in HE

3. Risk and uncertainty

Uncertain returns

- Positive on average, but high variance
- Risk of failing degree or getting a bad grade

Students are risk averse

And hence may be reluctant to borrow with mortgage-style repayments

4. Information problems

In order to make rational decision need complete information

Incomplete information on:

- Quality of degree
- HE experience
- Prices (e.g. living costs, fees, bursaries)
- Repayment of loan (may increase debt aversion)
- Future benefits (earnings, health, happiness...)

Market not always incentive to provide this information

Information on e.g. Graduate earnings and teaching quality limited

HE funding in England

How does the government intervene?

Income contingent student loans

- Alleviates credit constraints
- Provides insurance

Subsidy to HE via teaching grants and unpaid loans

- Teaching grants for e.g. medicine: high social returns
- Subsidy from unpaid loans may not be very well targeted. More on this later..

Information provision → e.g. Unistats, TEF

- This attempts to solve information problems
- May increase HE participation if people didn't realise the high private return

HE funding in England: A brief history

- **1998** - Tuition fees introduced of £1,000 - means tested, no loan
- **2006** - Fees up to £3,000, increasing with inflation – loan covering full fees
 - Teaching grants were kept constant – fees to increase university income
- **2012** - Fees up to £9,000; teaching grants cut
 - Mainly introduced to cut government cost of HE (but increased uni funding)
 - “Free is just another word for someone else pays” (Nick Barr)
 - Majority of HE Students are from wealthy backgrounds

What does providing loans cost the government?

UK student loan system

- Fee loan + maintenance loan (higher for students from low-income families)
- Pay 9% of income above threshold (£25k from 2018)
- Debt gets written off after 30 years
- Interest 0-3% + RPI

Why is this a government subsidy to HE?

- Subsidy comes through unpaid loans after 30 years repayment period ($\approx 80\%$ won't repay full loan)
- Repayments income-dependent
 - We need to predict graduates' lifetime income to know cost

Modelling of repayments and government cost

Build model of how earnings evolve over the lifecycle using panel data

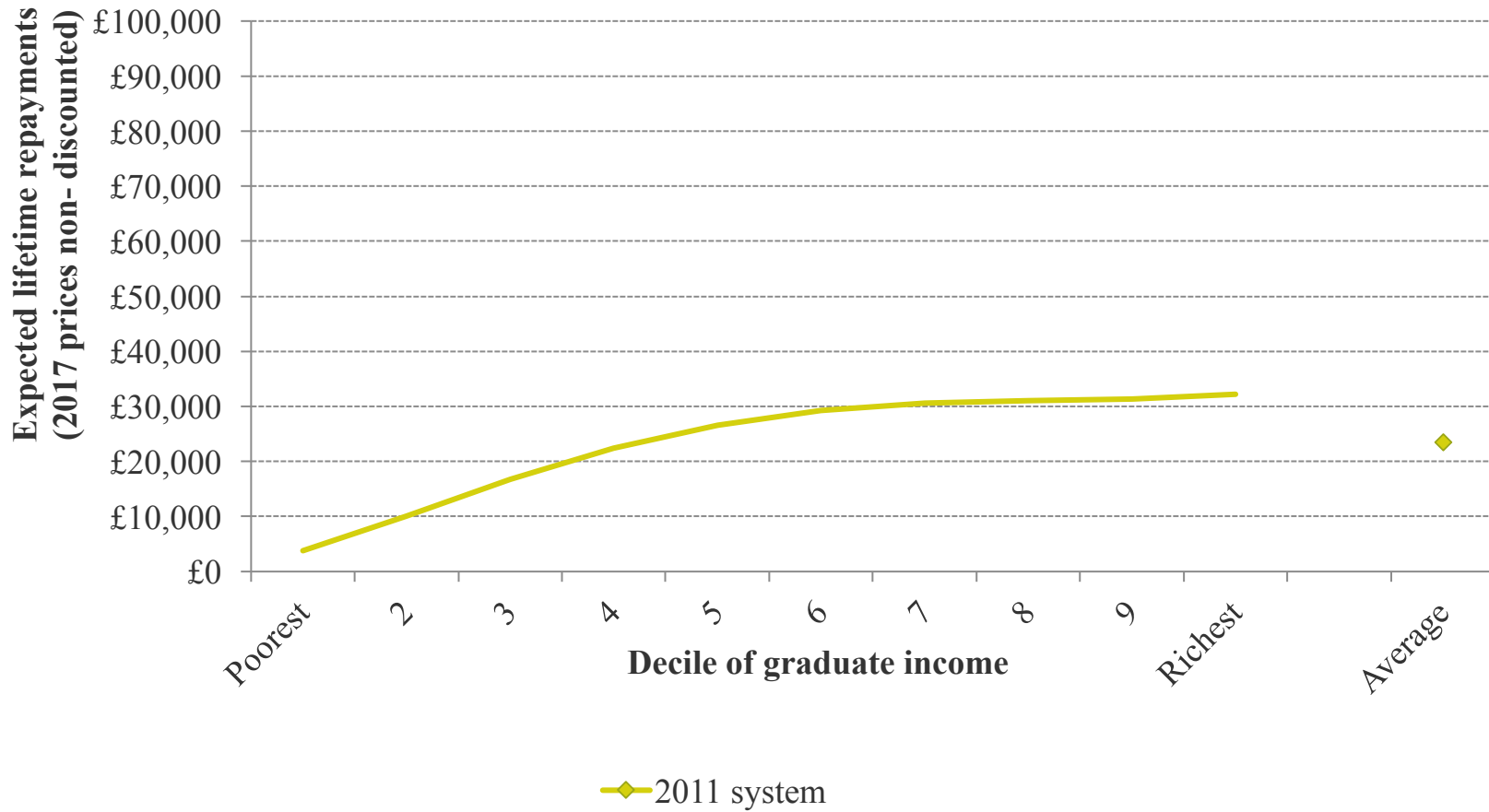
- Use this to simulate a population of students and their earnings at each age

Assign debt based on parental income, living situation and course length

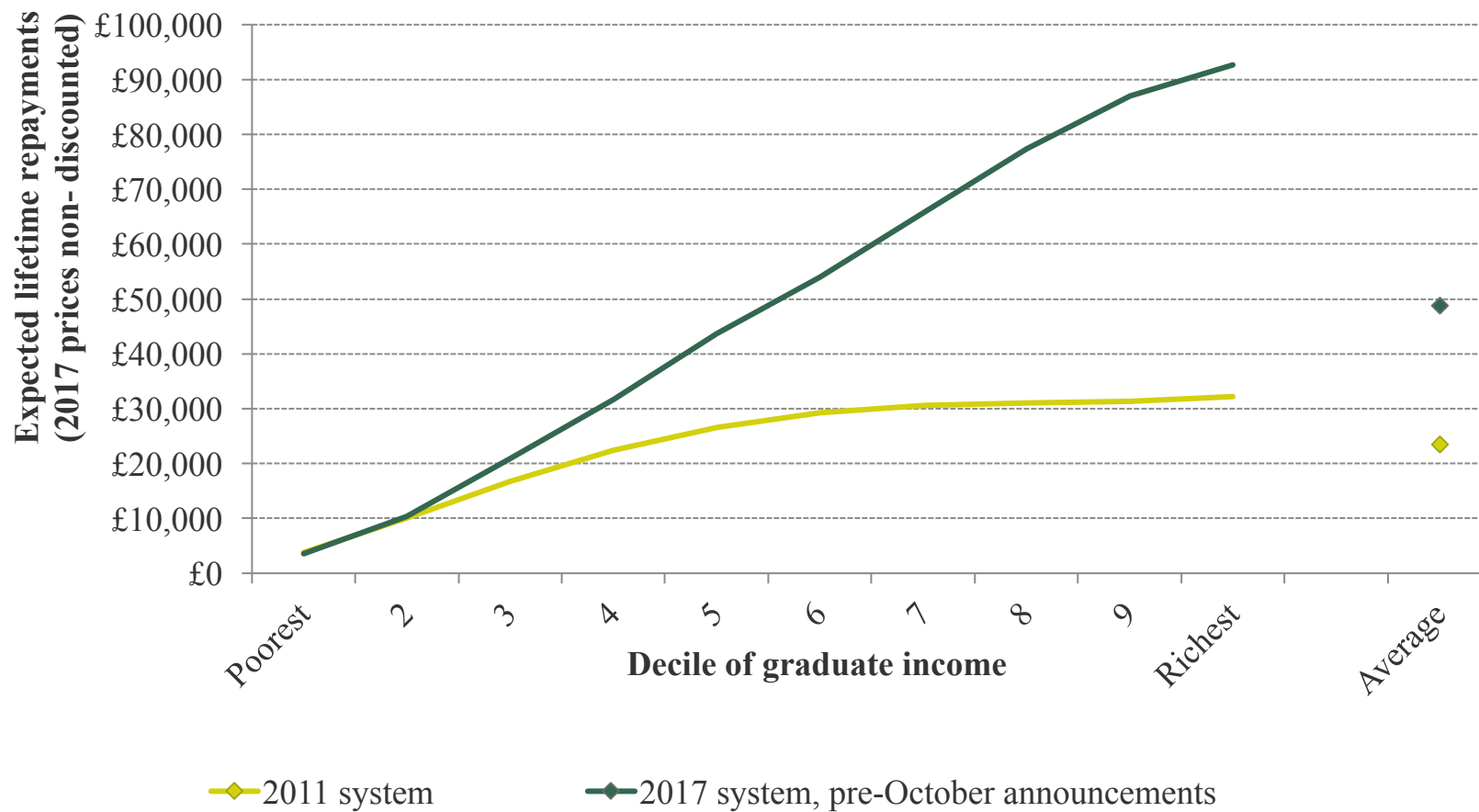
- Use debt level and earnings at each age to compute repayments
- This gives us cost to government and lifetime repayments by students

Difficult exercise, and very sensitive to assumptions

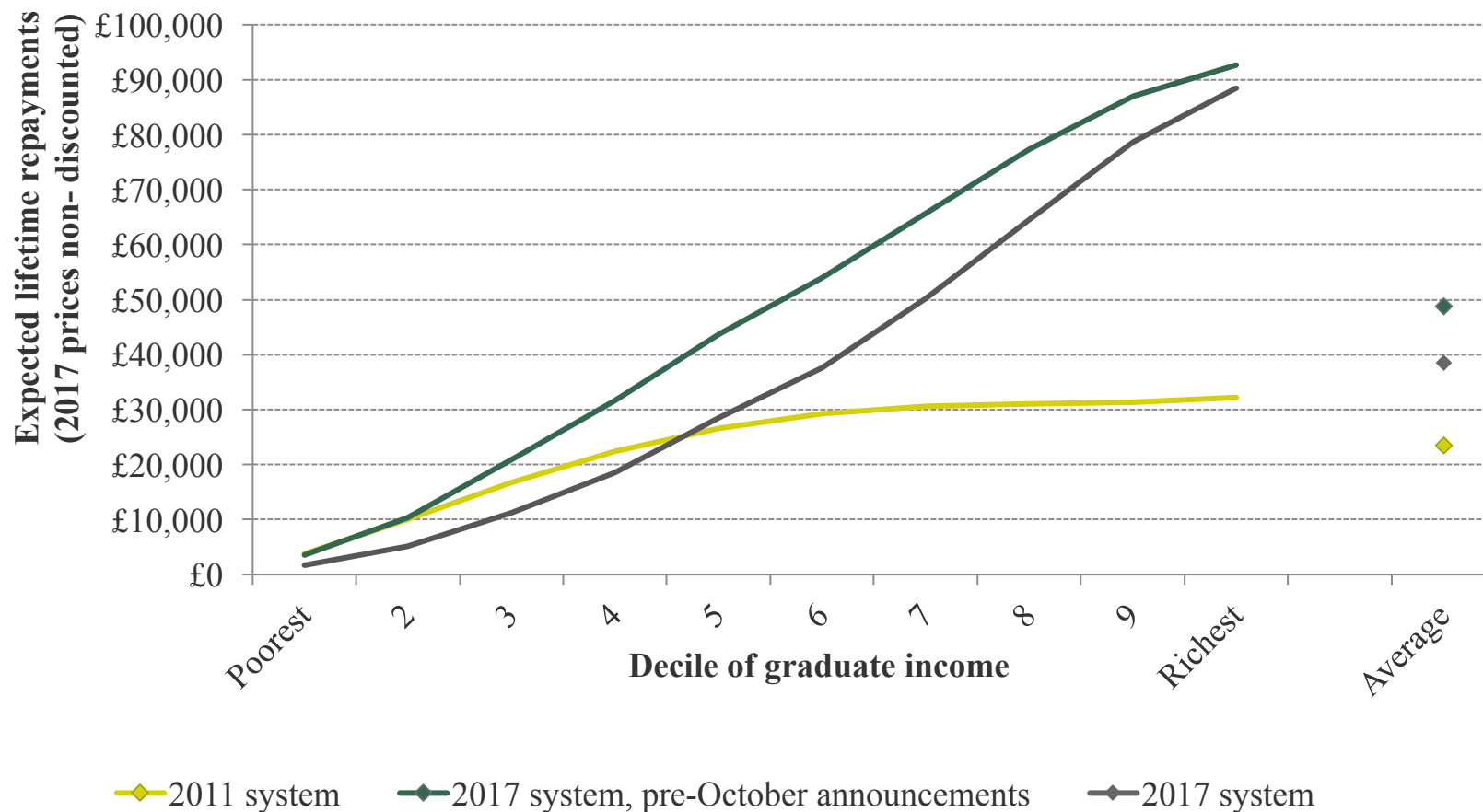
Modelling impact of reforms



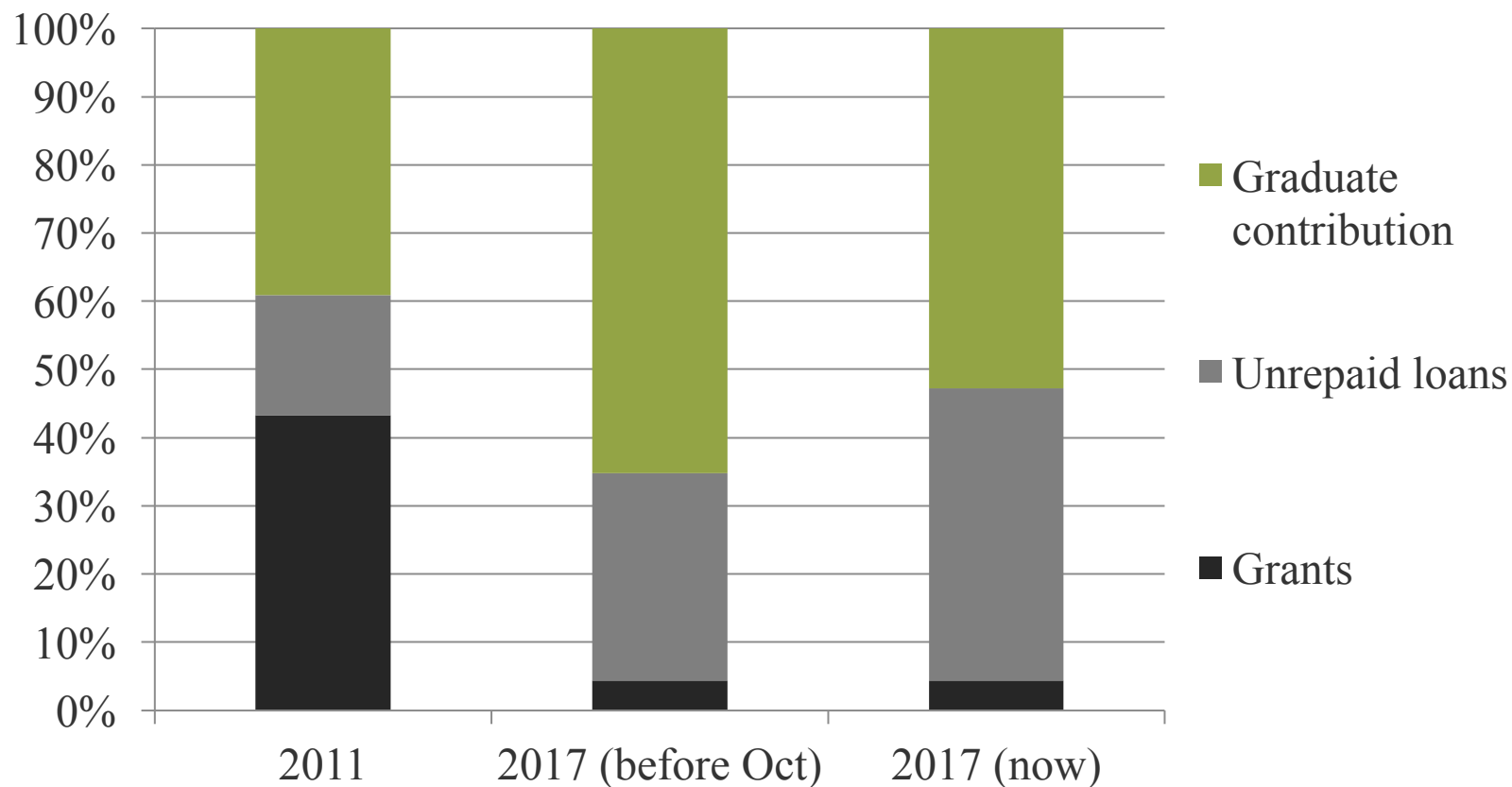
Modelling impact of reforms



Modelling impact of reforms



Who pays for Higher Education?

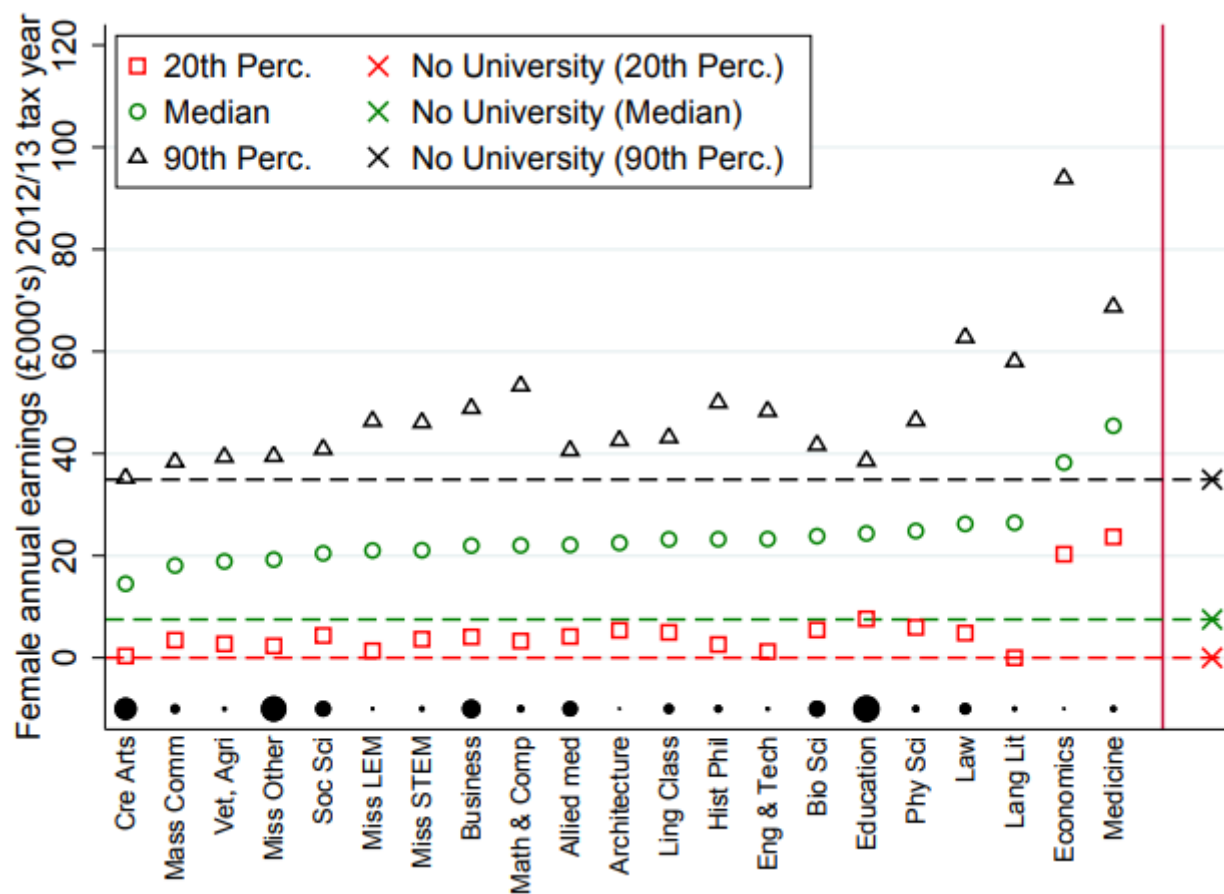


Note: Percentage of total upfront cost to HE. Excludes spending by students who do not take out loans

Where does the subsidy go?

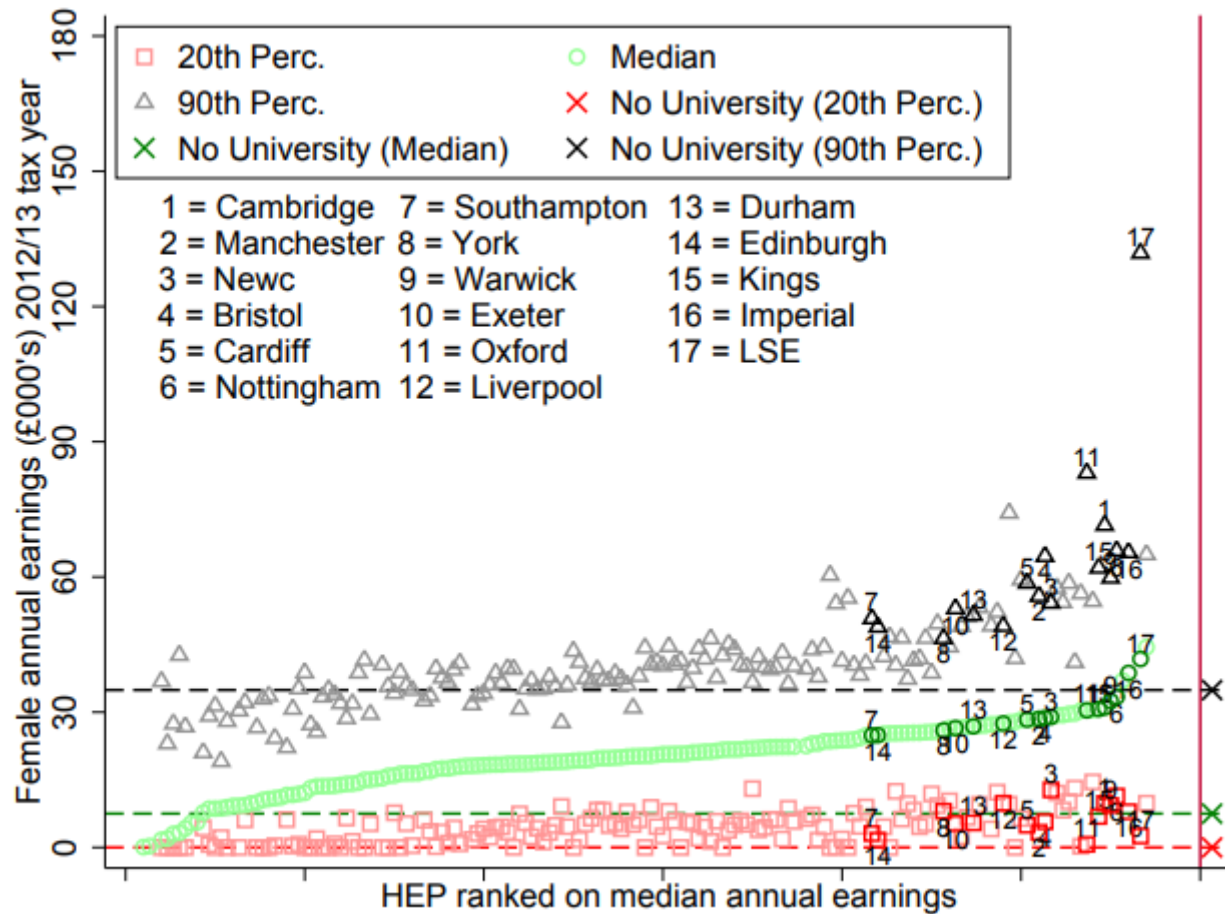
- Does this subsidy go towards solving the problems we talked about?
 - Subsidy mainly goes to the lowest earning graduates
 - Insurance vs. subsidising courses with low social and private benefit
 - Little room for targeting of subsidy towards priority students/subjects
- Evidence on how much of subsidy goes to specific subjects/institutions is lacking
 - Using HMRC linked to SLC and HESA data we will be able to say more about this

Large differences in earnings by subject



Source: Britton et al. (2016)

Large differences in earnings by institution



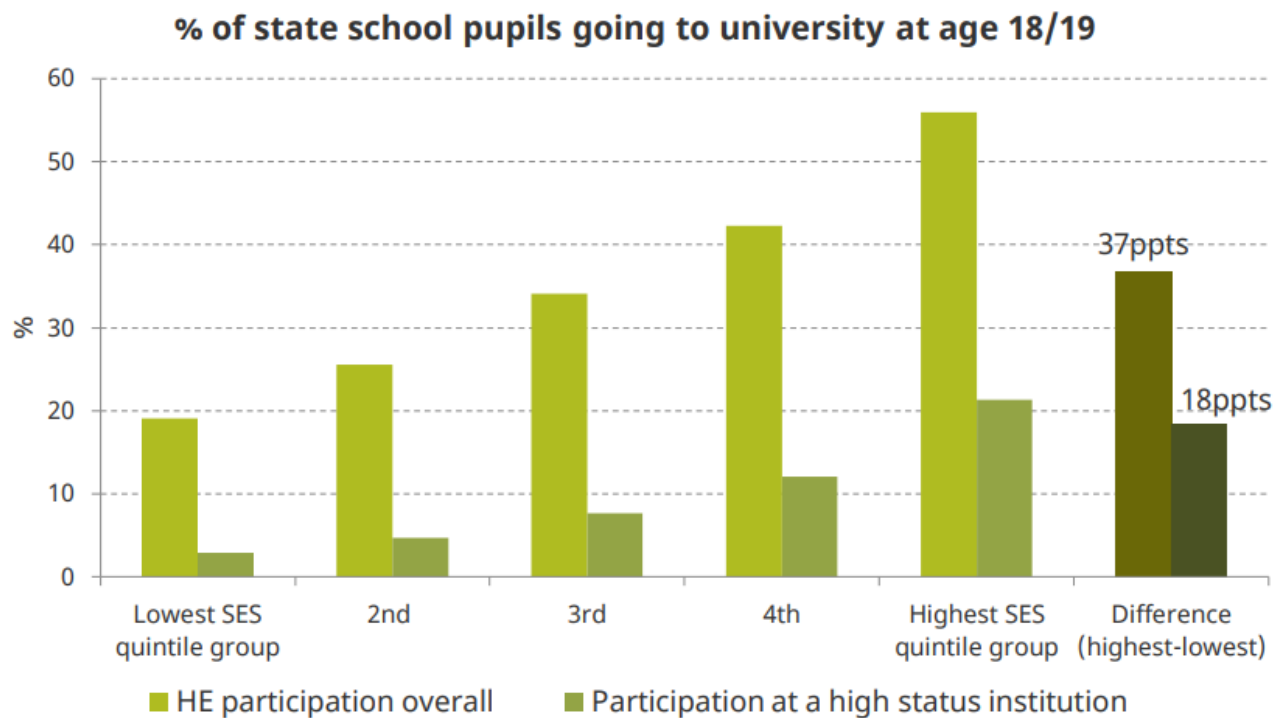
Source: Britton et al. (2016)

HE and family background

HE and family background

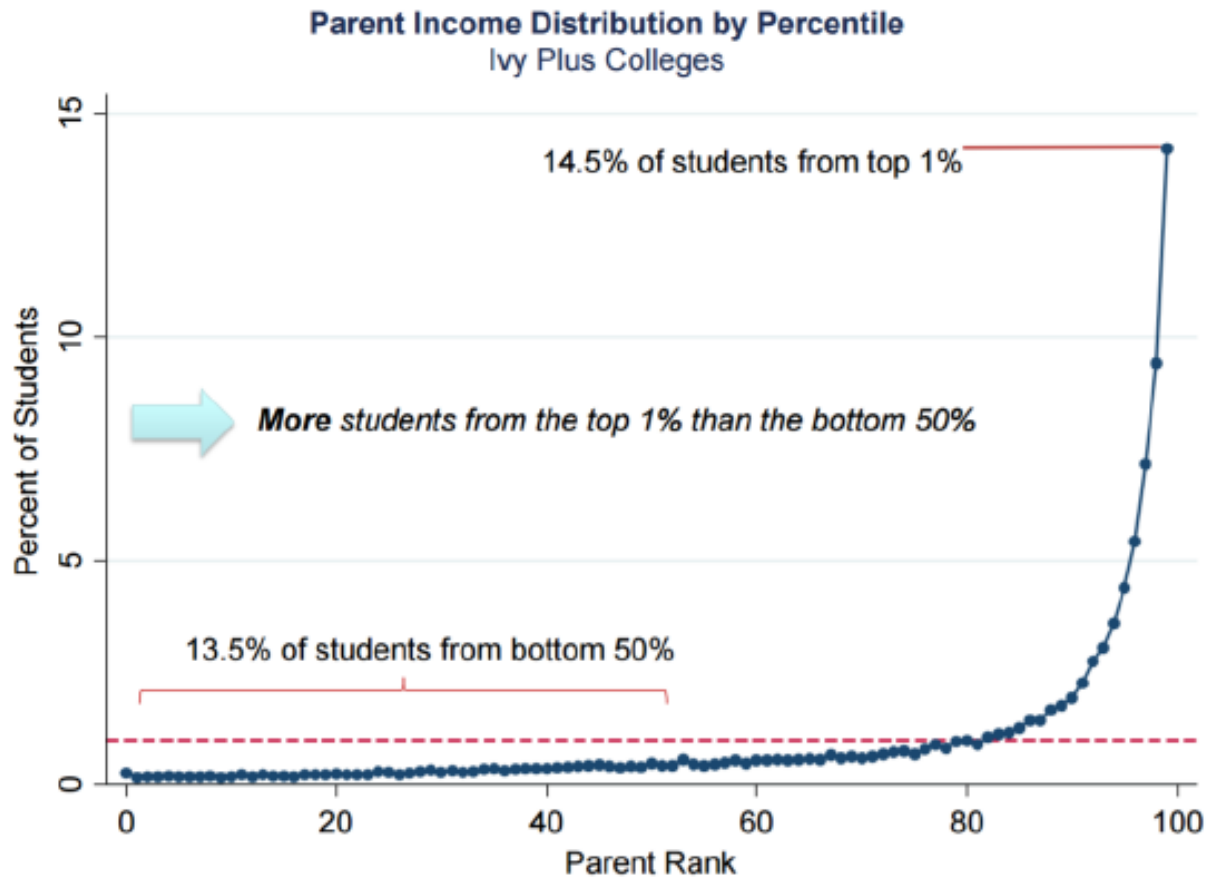
- Credit constraints, lack of information, risk aversion and externalities likely to be worse for students from low income backgrounds
 - This may have implications for access
- Equity may be a desirable end in itself
 - HE, particularly high-status institutions, route to social mobility
 - Ensuring equal access to HE, and high-status institutions, important for social mobility
- This may justify targeting intervention at those students

We do indeed see large gap in access in the UK...



Source: Crawford et al. (2017)

... and the US

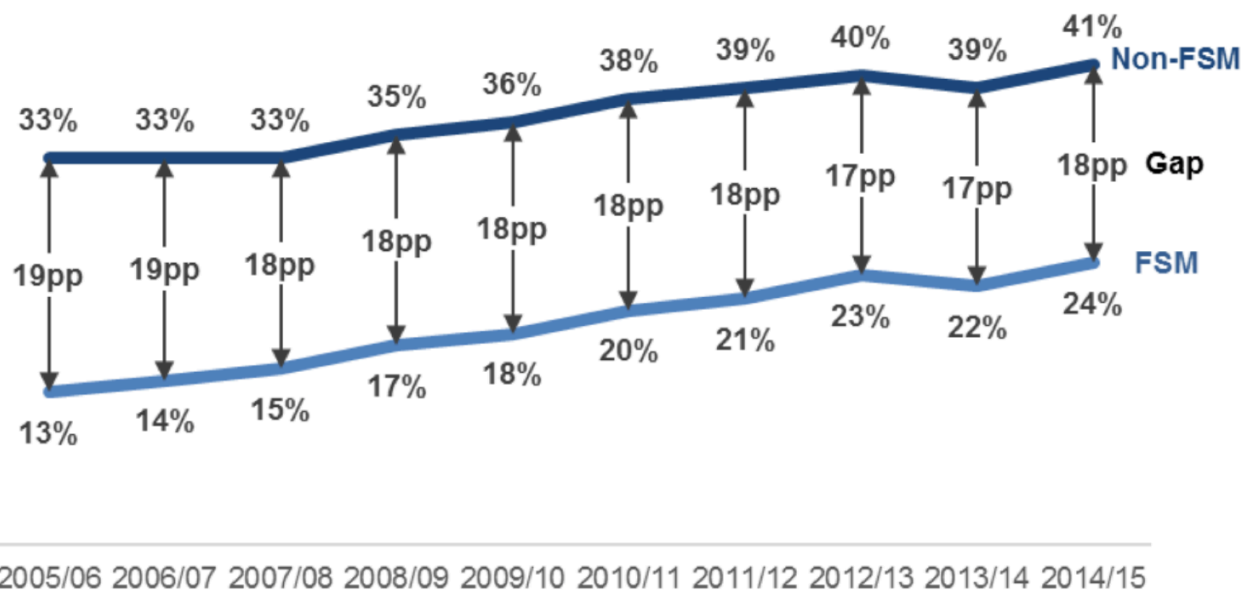


Source: Chetty et al. (2017)

What explains these gaps?

- Funding doesn't seem to be the main reason
 - Very good support for low-income students at elite private college in the US
 - Large gaps when HE was “free” in the UK and participation gap has fallen as tuition fees went up

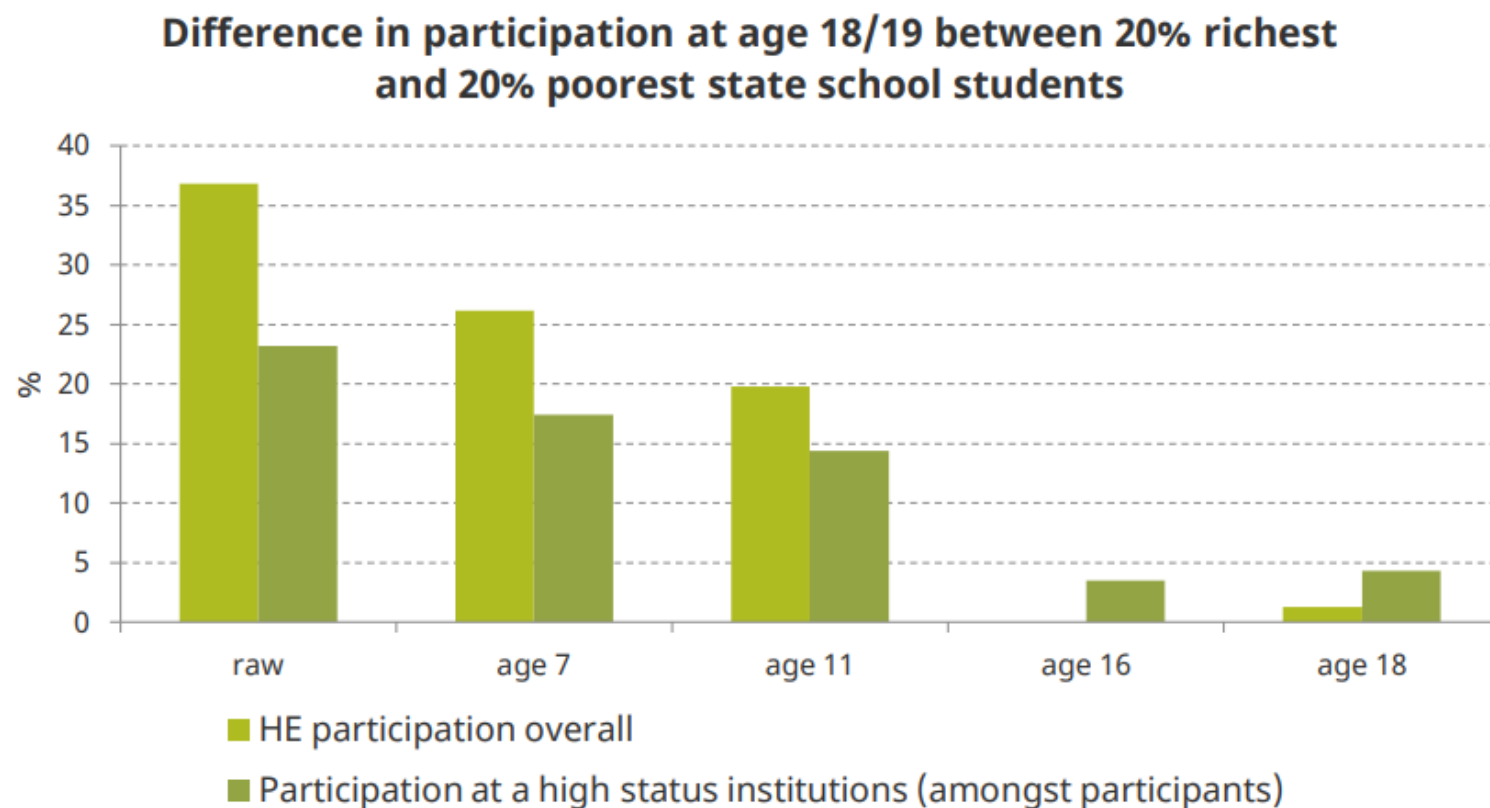
Estimated percentage of 15 year old state-funded pupils by FSM status who entered HE by age 19



Source: DfE 2017

Attainment seems to be a large part of the story

- Secondary school potentially vital period for intervention to improve access to HE



Source: Figure 5.1 of Crawford et al. (2017)

Differences in access to high-status institutions

Differences remain in access to high-status institutions

- Potential role for information provision

Expanding College Opportunities (ECO) project in US (Hoxby and Turner 2013, 2015)

- Info on applications, cost and attributes of college to low-income high achievers
- Large effects on probability of applying to better colleges
- Proximity to good unis determinant of applications – potentially important in UK

Information campaign for Year 10 students in London (McGuigan et al 2016)

- Finds lack of knowledge of cost of university in UK (though not focus on elite unis)
- Information campaign changes perception of cost and increases probability of post-compulsory education

Conclusion

- Current HE system solves many of the market failures in HE market
 - But targeting of subsidy may be sub-optimal
 - Ongoing research is estimating more precisely where subsidy is targeted
- Large gaps in access to (high status) universities, implications for social mobility
 - HE funding system does however not seem to be the main driver
 - A lot of the gap can be explained by prior attainment
 - Differences in access to high-status institutions remain, information provision could be one way to improve this