



Higher education funding

Jack Britton

Institute for Fiscal Studies



Overview

- Reasons for state intervention in the HE sector
- An overview of how HE is funded in England
- Focus on the 2012 reform to HE funding and implications for:
 - universities
 - students
 - graduates
 - public finances
 - access
- Current policy environment and ongoing research

Why might the market alone lead to inefficient outcomes?

1. Externalities
 2. Credit market failure
 3. Risk and uncertainty
 4. Information problems
- If the government is going to intervene, what is the correct level of intervention?

1. Externalities

- Education may create benefits to society over and above those that accrue to the individual
 - Total return to education = private return + social return
 - Private returns:
 - Large “graduate premium” - 17% for men and 37% for women – Blundell et al 2000
 - Britton, Shephard & Vignoles (2015) show graduates earn more than twice that of non-graduates and are much more protected against recessions
 - Social return
 - Higher employment and earnings
 - Improve productivity and wage of other workers (Moretti 2004)
 - Better health, lower crime, more open, well informed, engaged society.
- Individuals won’t take social returns into account when making decisions implying inefficient overall level.
- So government should subsidise – but for some the return is so large they will acquire the efficient level of education anyway!

2. Credit market failure

- HE study by students requires cash for fees and living expenses
- With perfect credit markets, students borrow now and repay from future income
- But credit markets are *not* perfect:
 1. Lack of collateral to secure debt against
 2. Asymmetric information: borrower has more information than lender, exposing lender to adverse selection/moral hazard.
 - These factors lead to:
 - Higher interest rates or credit rationing
 - Inefficiently small amount of borrowing and investment
- So government should provide state-backed loans. But how cheap should these be?

3. Risk and uncertainty

- Students are risk averse...
- ...and be reluctant to borrow if they have mortgage-style repayments
 - Uncertain returns to a degree: positive on average but high variance
 - Perceived risk of failing the degree (or getting a bad grade)
 - Might need high risk premium to make them invest (so high returns) or insurance that may not be efficient for the market to provide (such as income-contingent repayments).
- So government should insert insurance into these state backed loans. But how much?

4. Information problems

- To make rational decisions, individuals must be informed about
 - Nature of product (e.g. university and/or subject quality, HE experience)
 - Prices (e.g. fees, living costs, foregone earnings, debt repayments)
 - Future benefits (e.g. earnings, health, happiness....)
- Would the market be able to provide this information appropriately?
 - And would they want to? They might not want to encourage certain types of ‘high risk’ students from attending.
- There are also considerable concerns about debt aversion
- So government should intervene to improve information available to prospective students (this one is a bit easier).

How is HE funded in England?

HE funding in England – overview

- Since 1998, student contributions to the cost of their education have increased considerably
 - Upfront (but means-tested) fees of £1,000/year introduced in 1998
 - Fees rose to £3,000/year in 2006 and were subsequently increased in line with inflation; paid by all students but no longer upfront
 - Maximum fees rose to £9,000/year in 2012 and cap has stayed there since
- Meanwhile teaching grants paid directly from government to universities have fallen; only clinical and lab-based years funded now

HE funding in England – student support

- England is relatively unusual in offering students financial support to help cover living costs as well as tuition fees
- **Grants**
 - Those with family income of up to £25,000/year are entitled to the maximum grant which was expected to reach £3,489 in 2016-17
 - 41% of students received this, with 16% receiving a partial grant
 - Scrapped last year, replaced with loans for 2016/17.
- **Loans**
 - All students are entitled to borrow some money from the government
 - Amount depends on where you live (higher for London, lower for those at home)
 - Used to depend on grant allowance, now decreases with parental income (maximum of around £8,000 per year).

Overview of 2012 reform

England's HE funding system: 2011-12 vs. 2012-13

	2011-12	2012-13
Fees	Max £3,375 Deferred via fee loan No exemptions	Max £9,000 Deferred via fee loan Partial fee waivers for poorest students
Maintenance grants	Up to £2,906, plus bursaries	Up to £3,250
Maintenance loans	Up to £4,950	Up to £5,500
Loan repayment	9% of earnings above £15,795 in 2012 (uprated with inflation)	9% of earnings above £21,000 (in 2016) (uprated with earnings)
	Interest rate = RPI + 0%	Interest rate = RPI + 0% rising to RPI + 3% for income of £41,000+
	Debt write off after 25 years	RPI + 3% while studying Debt write off after 30 years

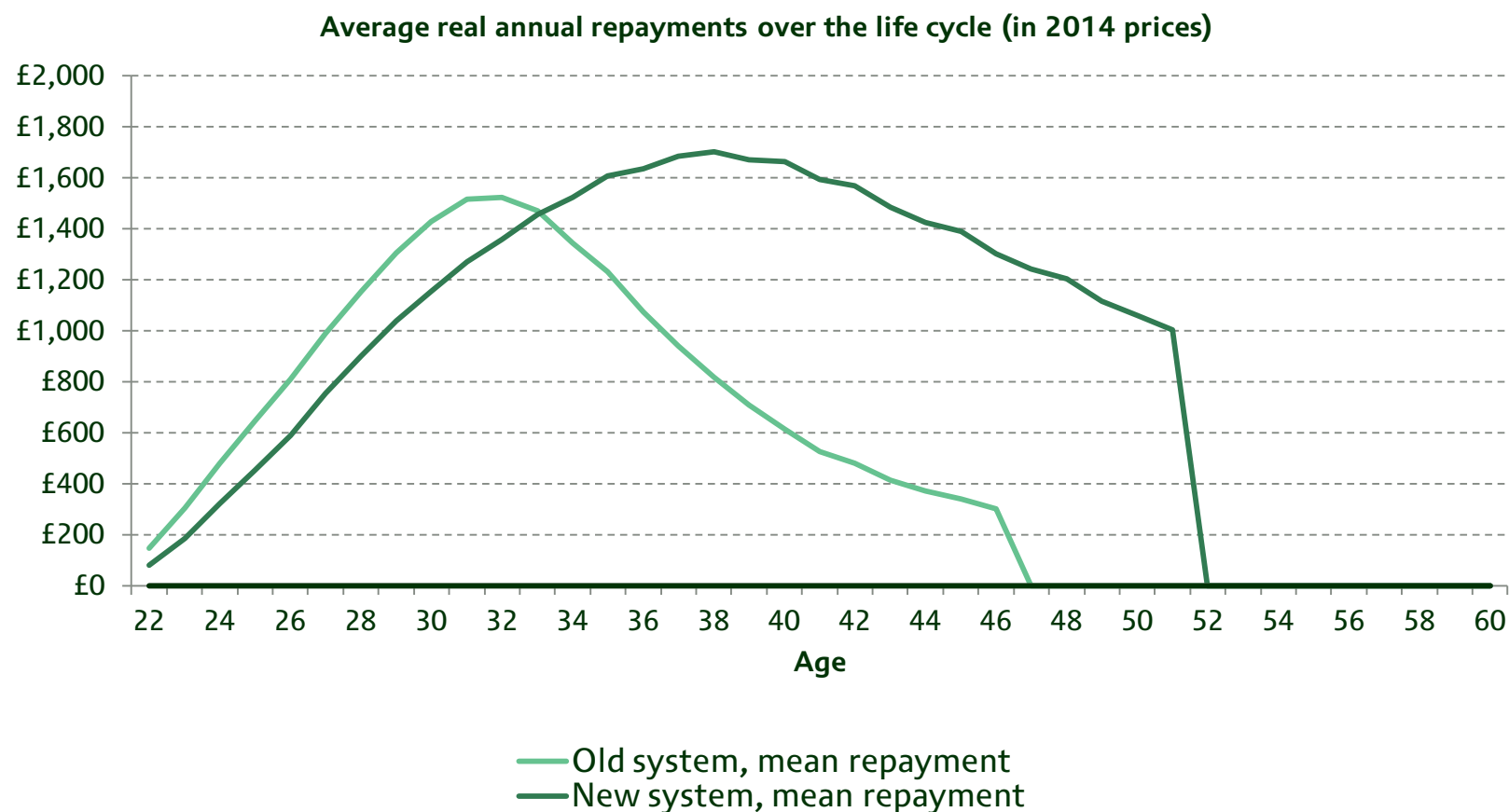
IFS analysis of the reforms

- Simulate future graduate earnings using survey data and imposing structure on earnings dynamics
- From this we can estimate repayments through the lifecycle.
 - This is a difficult exercise and results are sensitive to assumptions!
- Evaluate the financial impact of the 2012 reform for students, graduates, universities and for the taxpayer
 - A lot of political and media interest in the “RAB” charge – i.e. the % of student loans the government will have to write off.
- Investigate not only average changes but also distributional effects of policy changes

Implications of the reforms: Sources of funding and spending per student

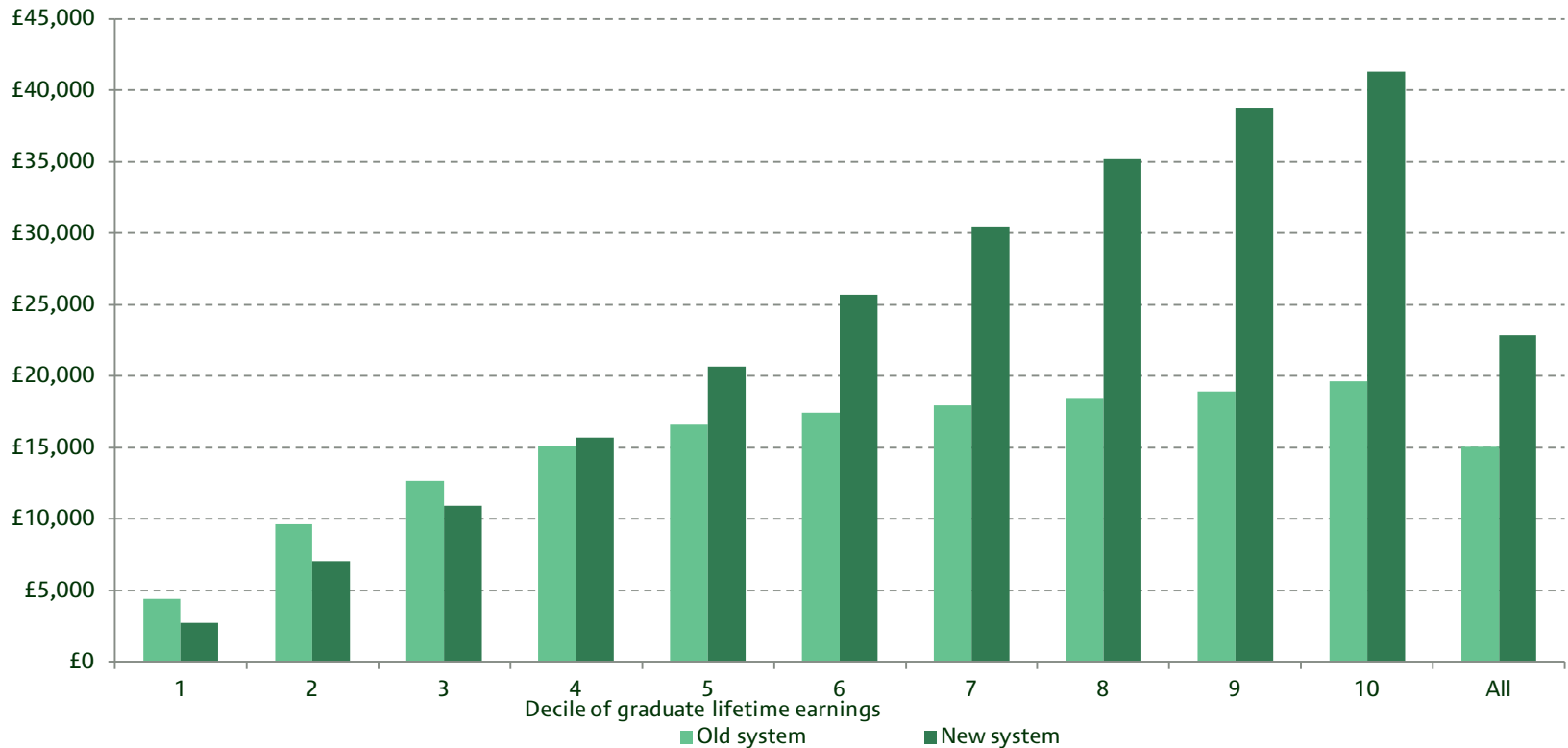
	2011 system	2012 system	% change
Taxpayers contribution	£25,847	£24,592	-5%
HEFCE funding grants	£12,012	£2,010	-83%
National Scholarship Programme	£0	£198	
Maintenance grants	£4,741	£4,941	4%
£ loan subsidy	£9,094	£17,443	92%
<i>% loan subsidy</i>	<i>37.6%</i>	<i>43.3%</i>	
Graduates repayments	£15,075	£22,843	52%
Universities	£22,143	£28,250	28%
Students	£18,779	£19,185	2%

Implications for graduates: initially lower annual repayments, but made for longer . . .

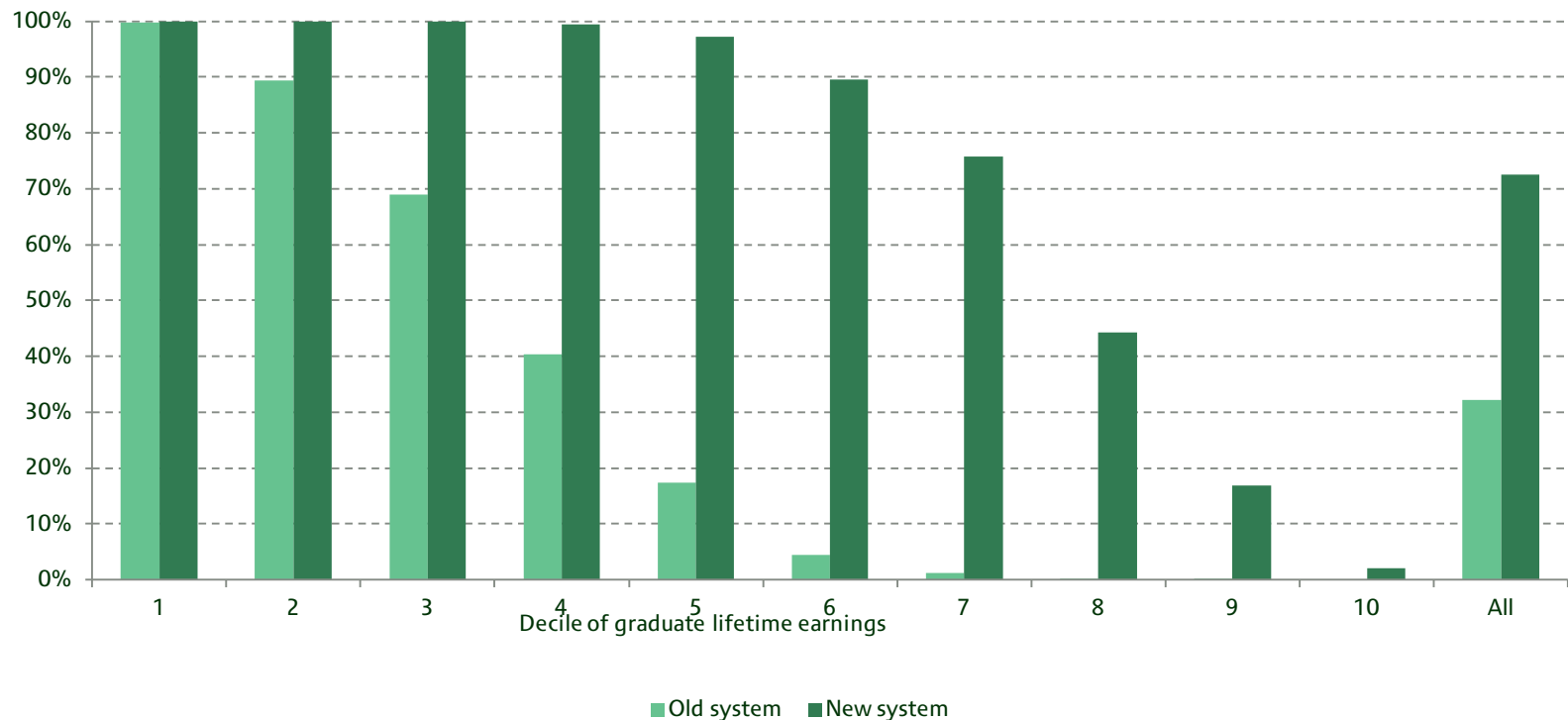


Source. Crawford, C. and Jin, W. (2014), *Payback Time? Student Debt and Loan Repayments: What Will the 2012 Reforms Mean for Graduates?*, Report No. R93, Institute for Fiscal Studies, London

Implications for graduates: NPV of total real repayments across distribution of graduate lifetime earnings



Implications for graduates: percentage of graduates with real debt write-offs across distribution of graduate lifetime earnings



Estimated costs of student loans and future earnings: sensitive to earnings growth assumptions

Real earnings growth assumption	Average loan subsidy		Total loan subsidy for intake of 300,000 students
–1% per year	51.6%	£20,806	£6,242m
0% per year	46.8%	£18,859	£5,658m
1% per year	43.7%	£17,596	£5,279m
Baseline (1.1% per year)	43.3%	£17,443	£5,233m
2% per year	40.0%	£16,121	£4,836m
3% per year	36.7%	£14,795	£4,439m

Note: Figures are for the total cost over the course of a student's degree and are in 2014 prices discounted to 2012.

Source: IFS report "estimating the public cost of student loans"

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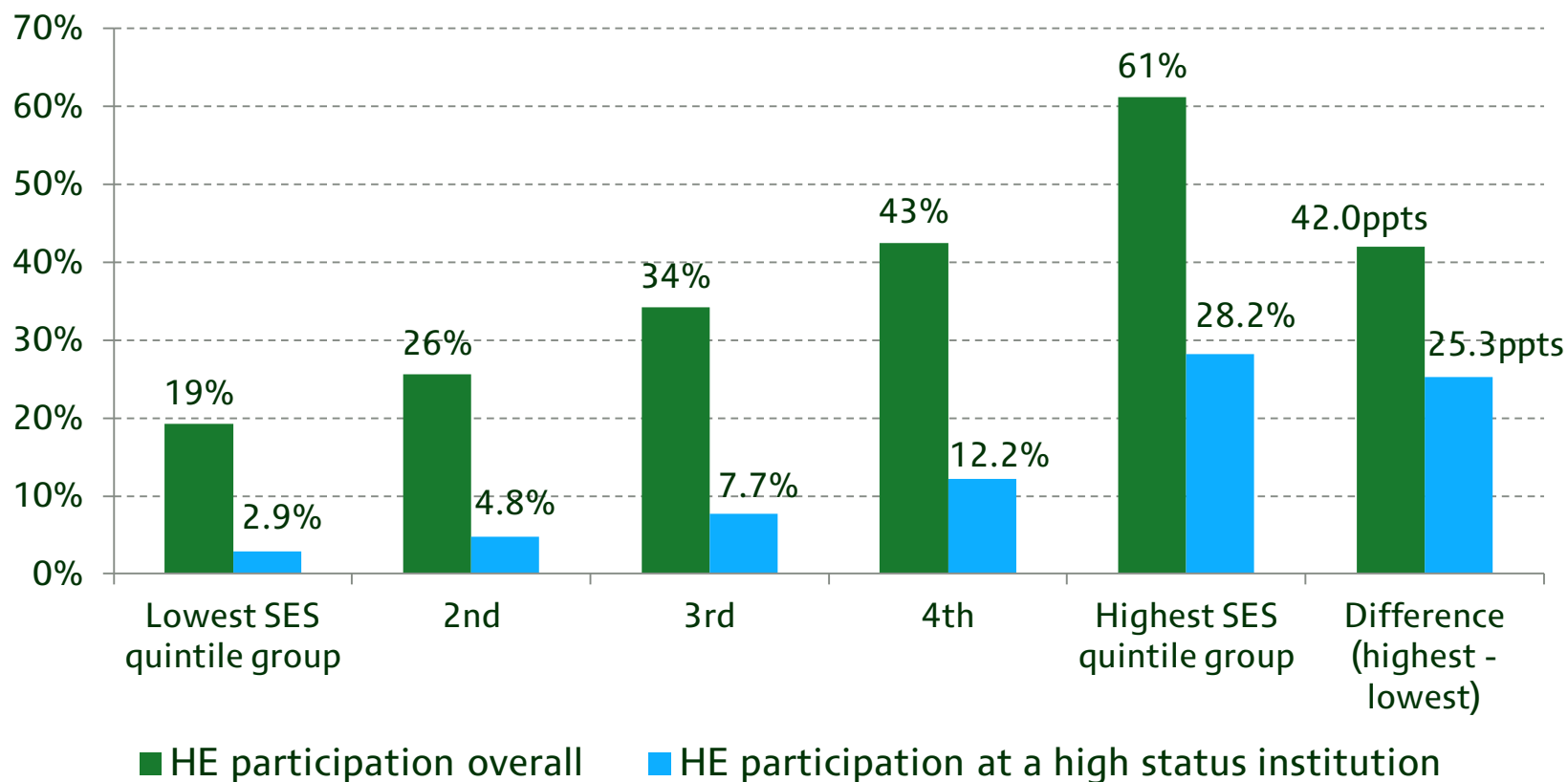
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Implications for access

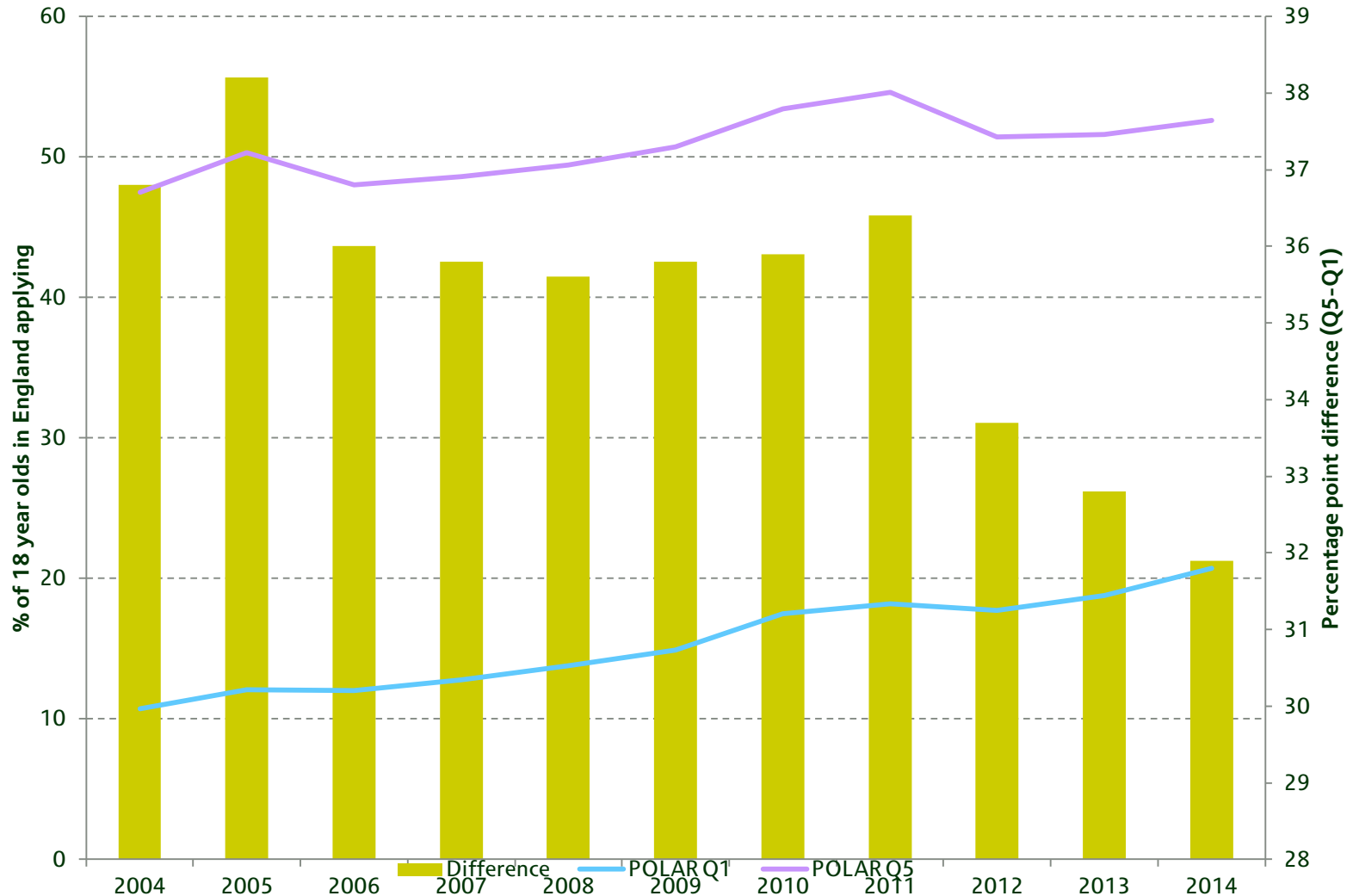
HE participation overall and at high status institutions for all pupils first eligible to go in 2010-11, by SES

% pupils going to university at age 18/19: highest SES quintile group including state and private school pupils

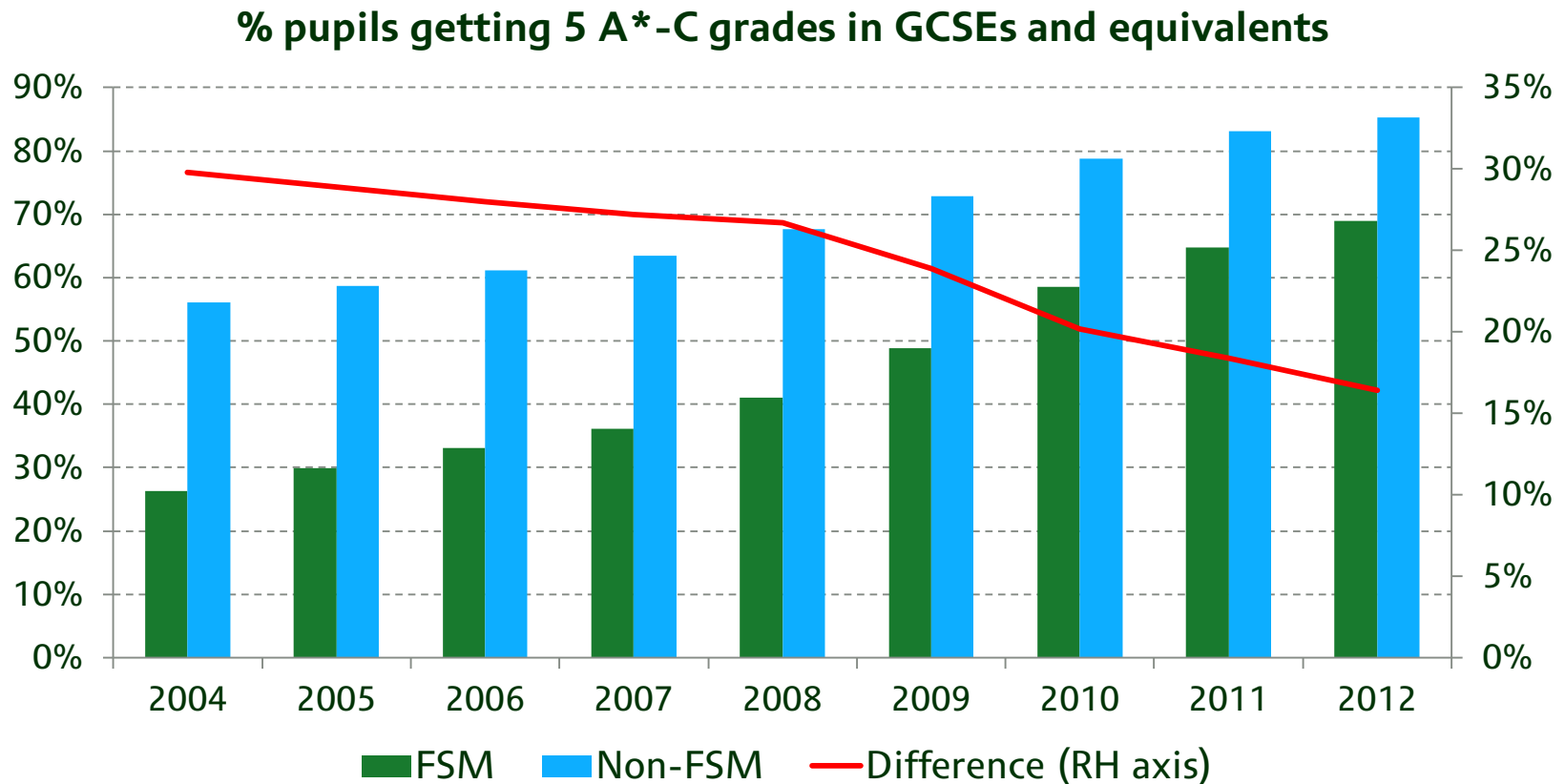


Source: authors' calculations based on linked schools and universities administrative data for the cohort first eligible to start university in 2010-11 (who sat their GCSEs in 2007-08)

The SES gap in university applications



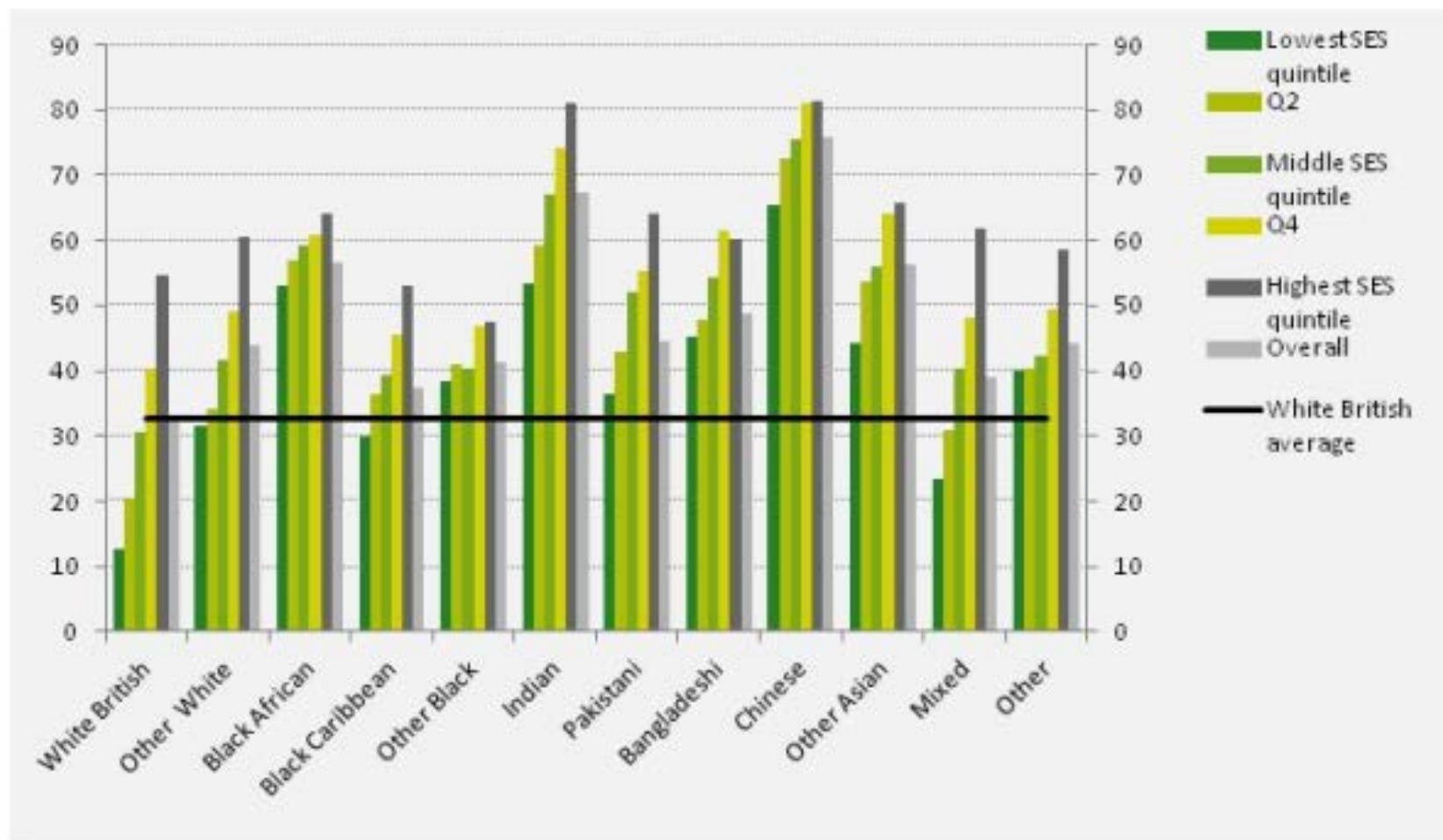
BUT: SES gap in terms of % getting 5 A*-C grades in GCSEs and equivalents has fallen substantially



2010-2012 figures based on SFR 04/2013: GCSE and Equivalent Attainment by Pupil Characteristics in England.
2006-2009 figures based on SFR 37/2010: GCSE and Equivalent Attainment by Pupil Characteristics in England.
2004-2005 figures based on authors' calculations using Key Stage 4 and PLASC data.

AND: the socio-economic gaps in participation are smaller for non white-British ethnic groups...

Figure 1: Percentage of pupils taking their GCSEs in 2008 who go on to university at age 18 or 19, by ethnicity and socio-economic quintile group



Current policy environment & ongoing research

Summarising the trends in government reforms

Gone from an entirely government funded system to an almost entirely fee funded system. Why?

- Partly because of issues with fairness
 - “Free is just another word for somebody else pays”. Nick Barr
- Primarily it is because of concerns about quality:
 - University funding becomes part of government finances and inevitably gets squeezed.
 - No fees weakens competitive incentives for universities.

However they got some of this wrong:

- Demand exceeds supply, loans reduce price sensitivity, information is incomplete.
- Consequently almost all universities set fees equal to £9k.

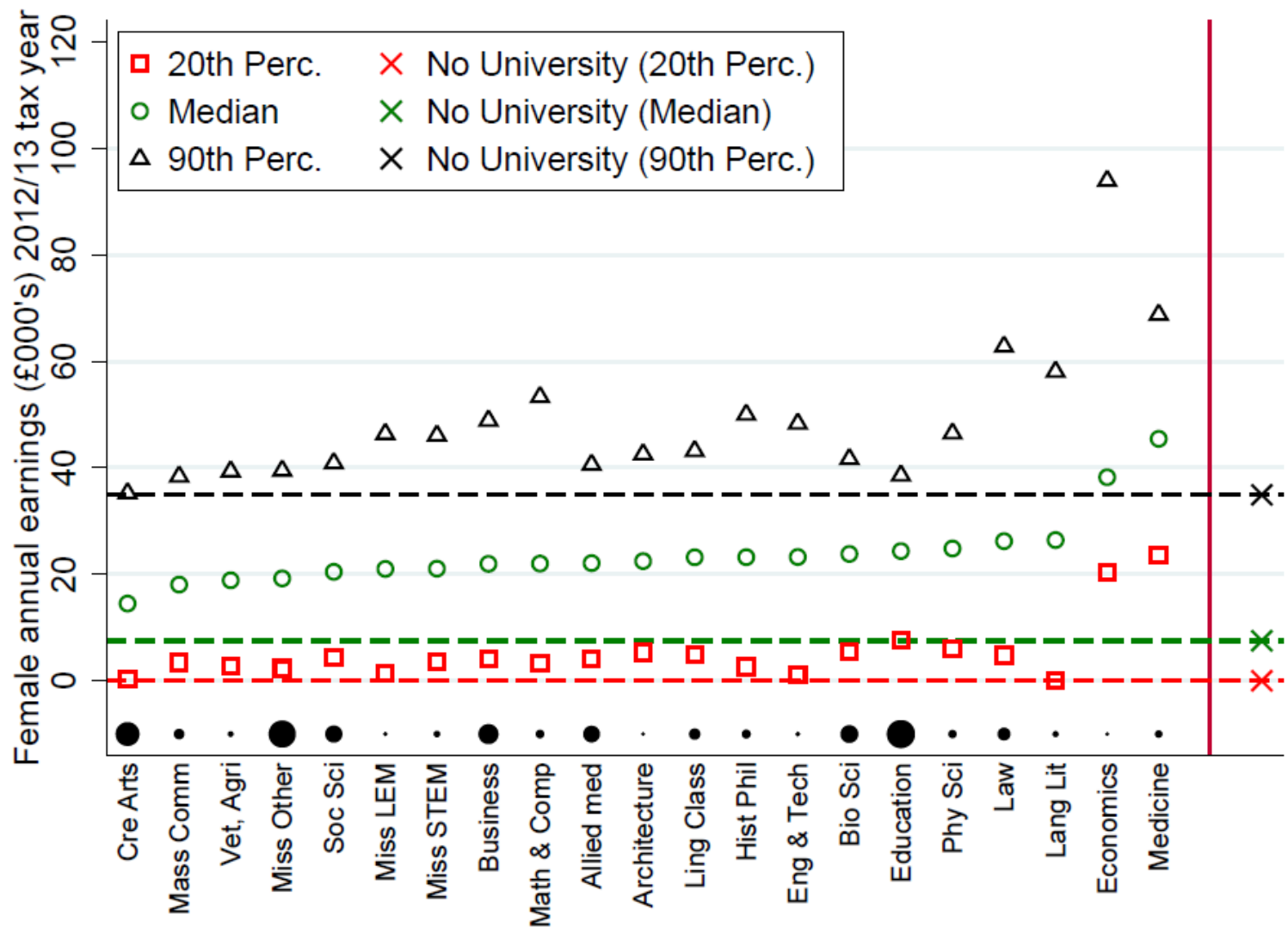
Impact of 2012 reforms on subsequent policy

- This blew up the government cost resulting in:
 - Freezing of fees from 2012, recreating funding pressures.
 - Freezing of the repayment threshold
 - Cuts to bursaries (nurses, NSP) and maintenance grants.
 - Cutting of the discount rate applied to future repayments
- Meanwhile, competition remains on the agenda:
 - Removal of the cap in student numbers
 - Reduced barriers to entry for private providers
 - Teaching excellence framework.

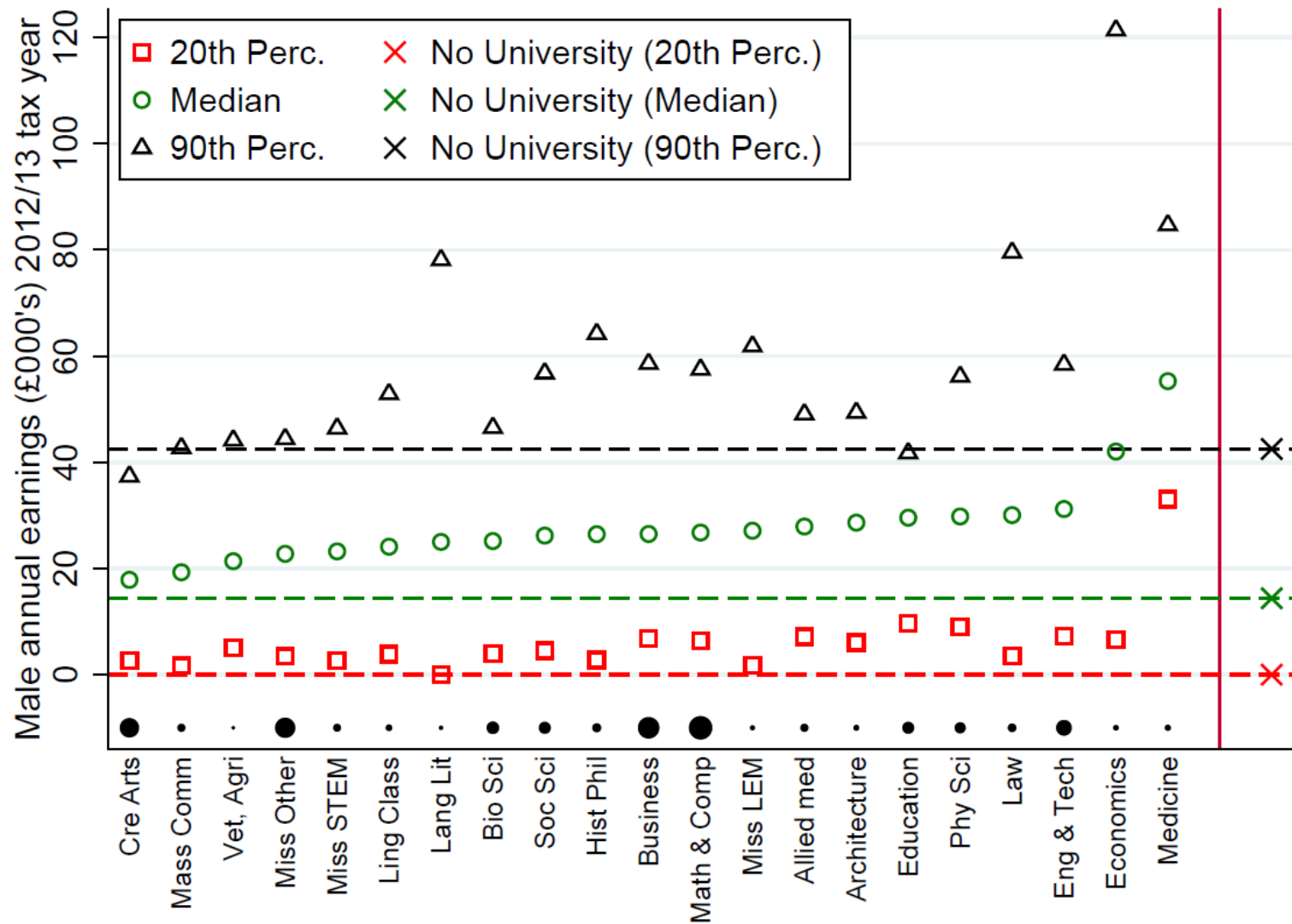
Ongoing research

- Further issues associated with the current system:
 - Almost all of the subsidy coming through unpaid loans
 - Consequently, subsidy is not targeted efficiently. Also open question of how effective an uncertain subsidy is.
 - There remain information failures
- With Anna Vignoles (Cambridge), Neil Shephard (Harvard) I have developed a new data source that addresses these issues
 - We link all borrowers from the Student Loan Company to HMRC administrative tax records. We therefore get:
 - For 2.6 million borrowers, institution, subject and amount borrowed.
 - We can use this to estimate much more precisely where the loan subsidy is targeted.
 - Also addresses information failures.

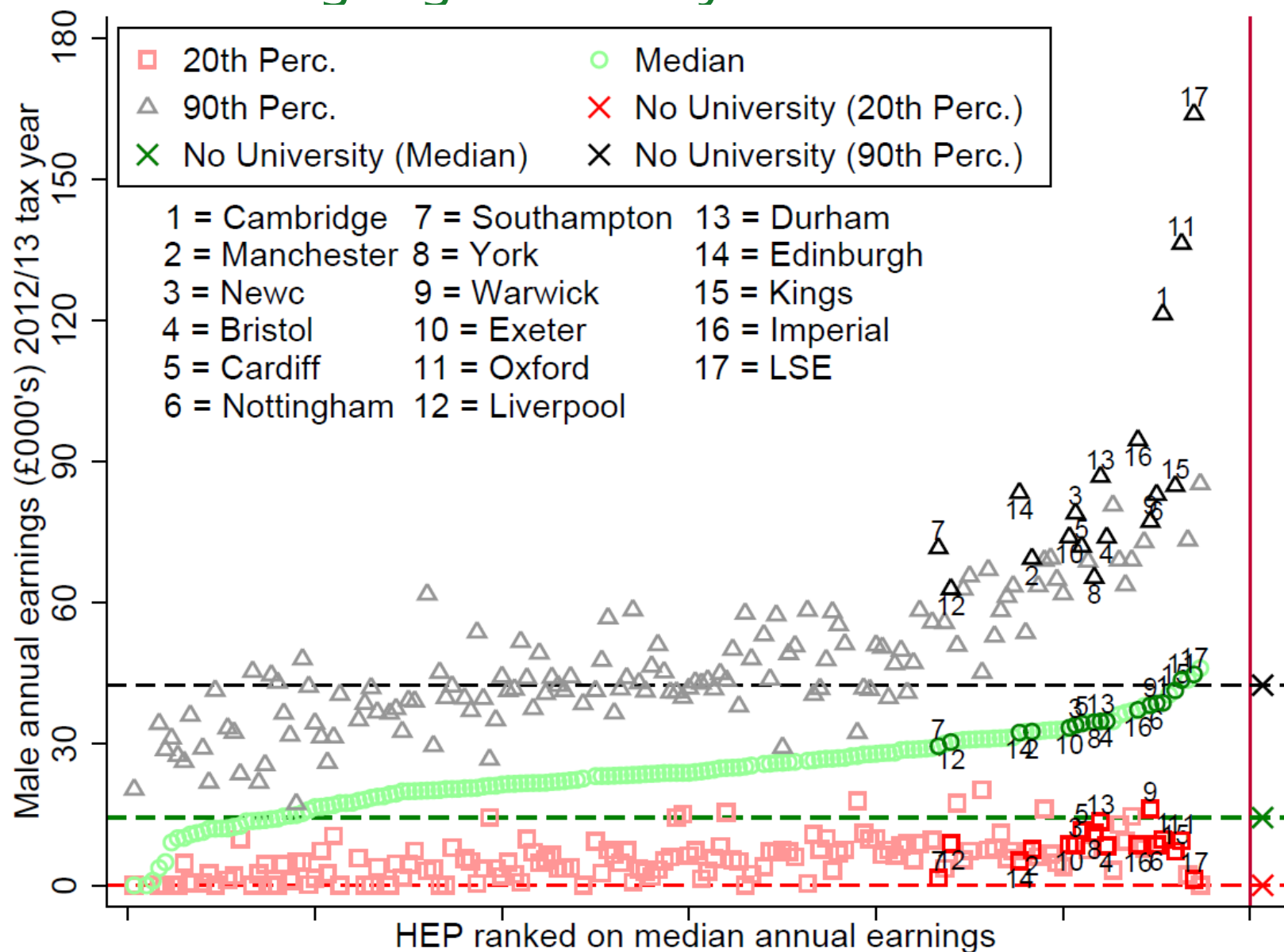
Female earnings age 31/32 by subject



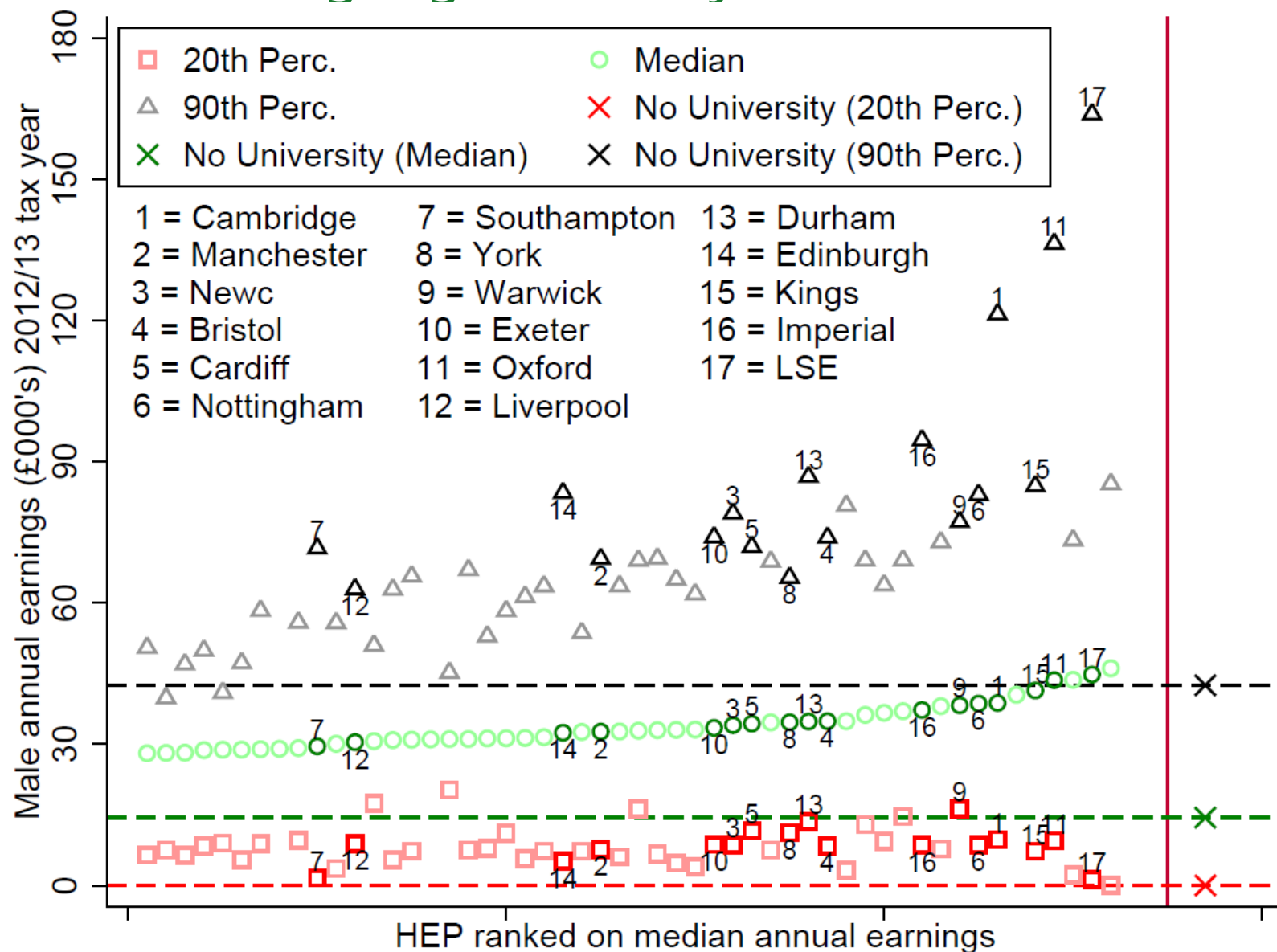
Male earnings age 31/32 by subject



Male earnings age 31/32 by institution



Male earnings age 31/32 by institution

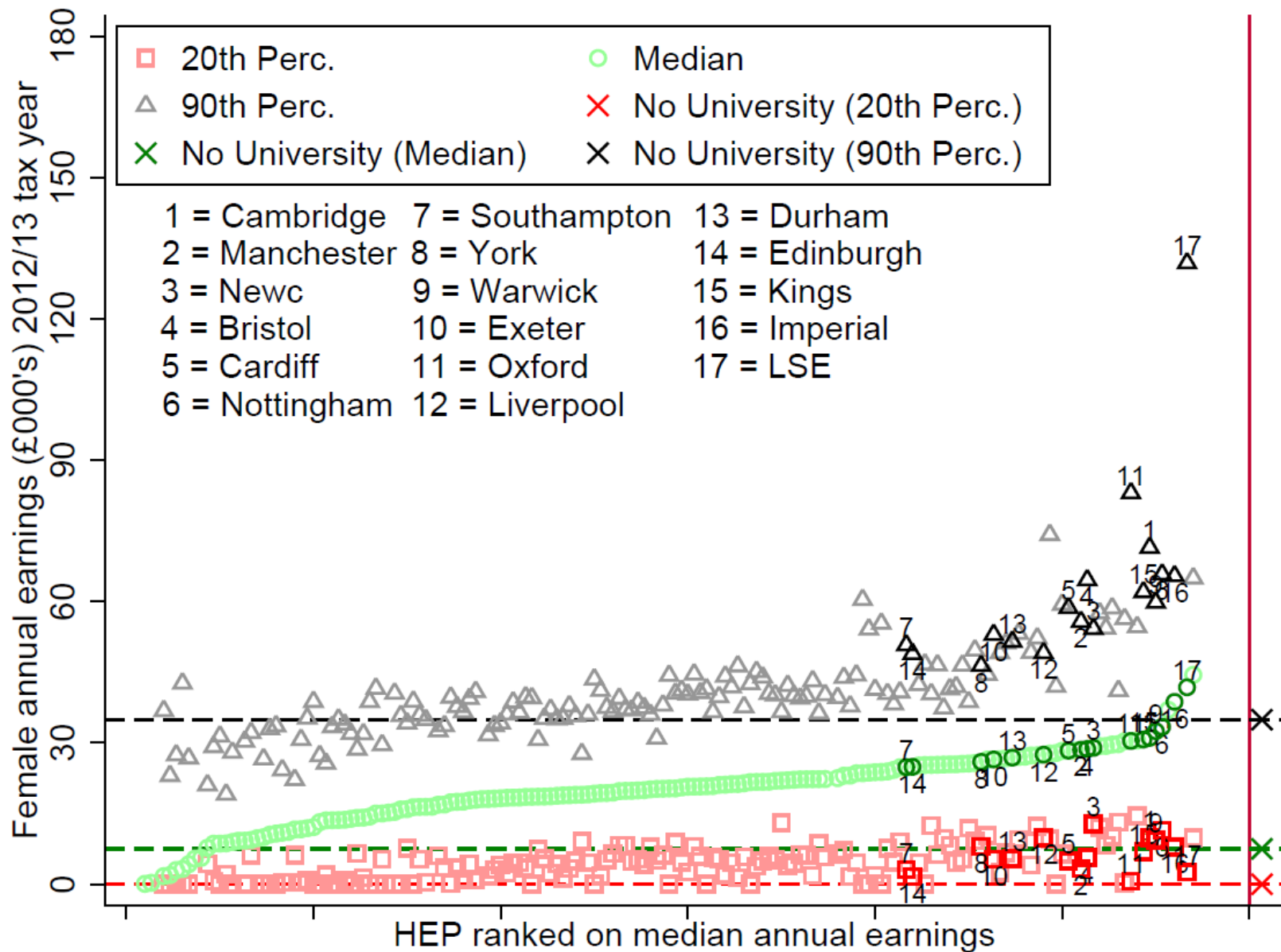


Summary

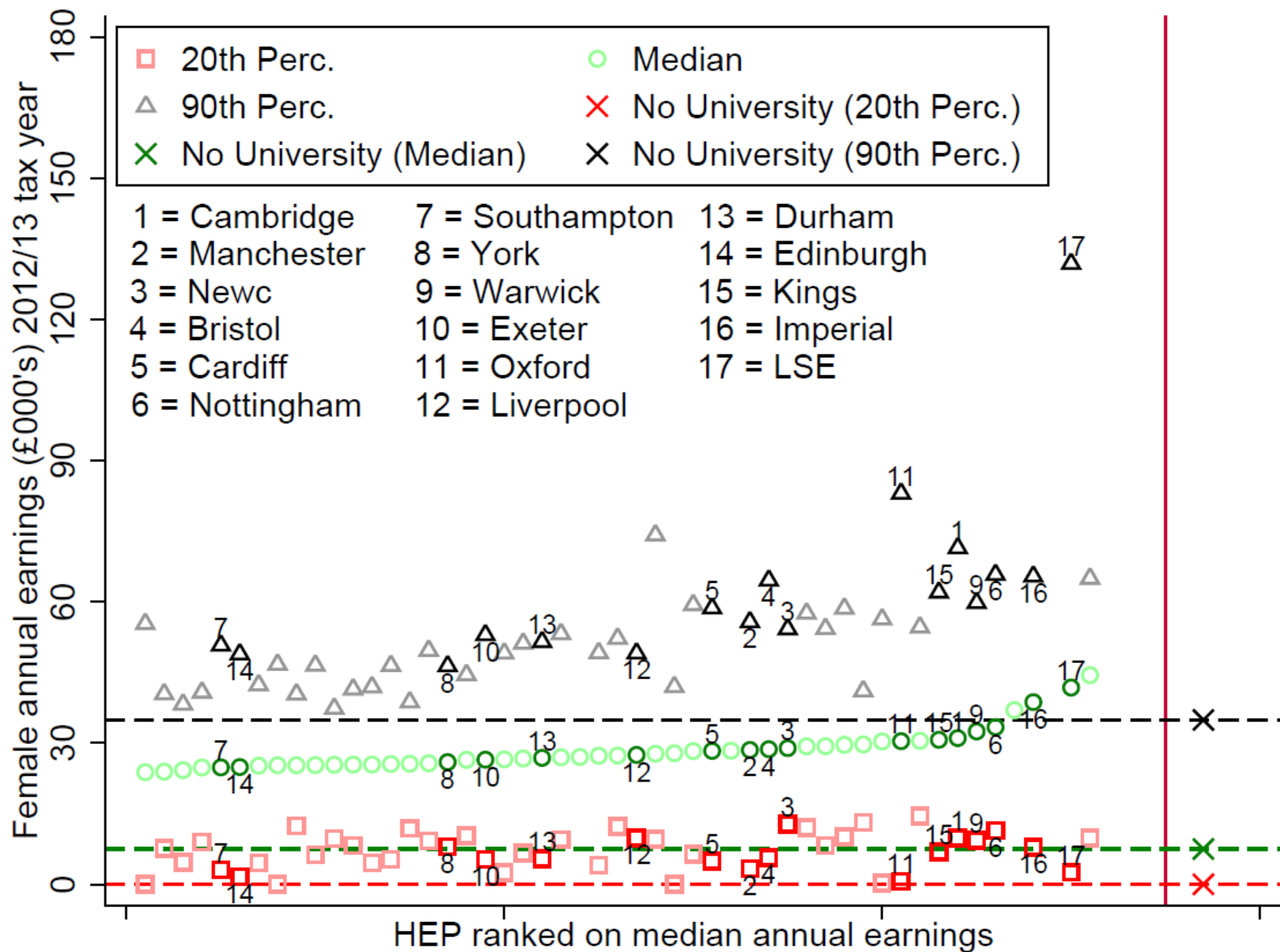
- Good economic justification for intervention in HE.
- Also good reasons to reform the system to make graduates pay.
 - Fairness, competitive incentives
- 2012 reforms successfully increased university funding, primarily by increasing the graduate contribution considerably
 - Uncertain, but it did not appear to significantly harm access to HE, although this remains an issue.
- However reforms did not succeed in considerably lowering the taxpayer contribution and there were design flaws:
 - Namely, almost all universities moving the cap meant the subsidy is not necessarily well targeted.
 - Creates cost pressures, without properly addressing competitive issues.
 - Recent reforms *may* resolve some of these.

Additional Slides

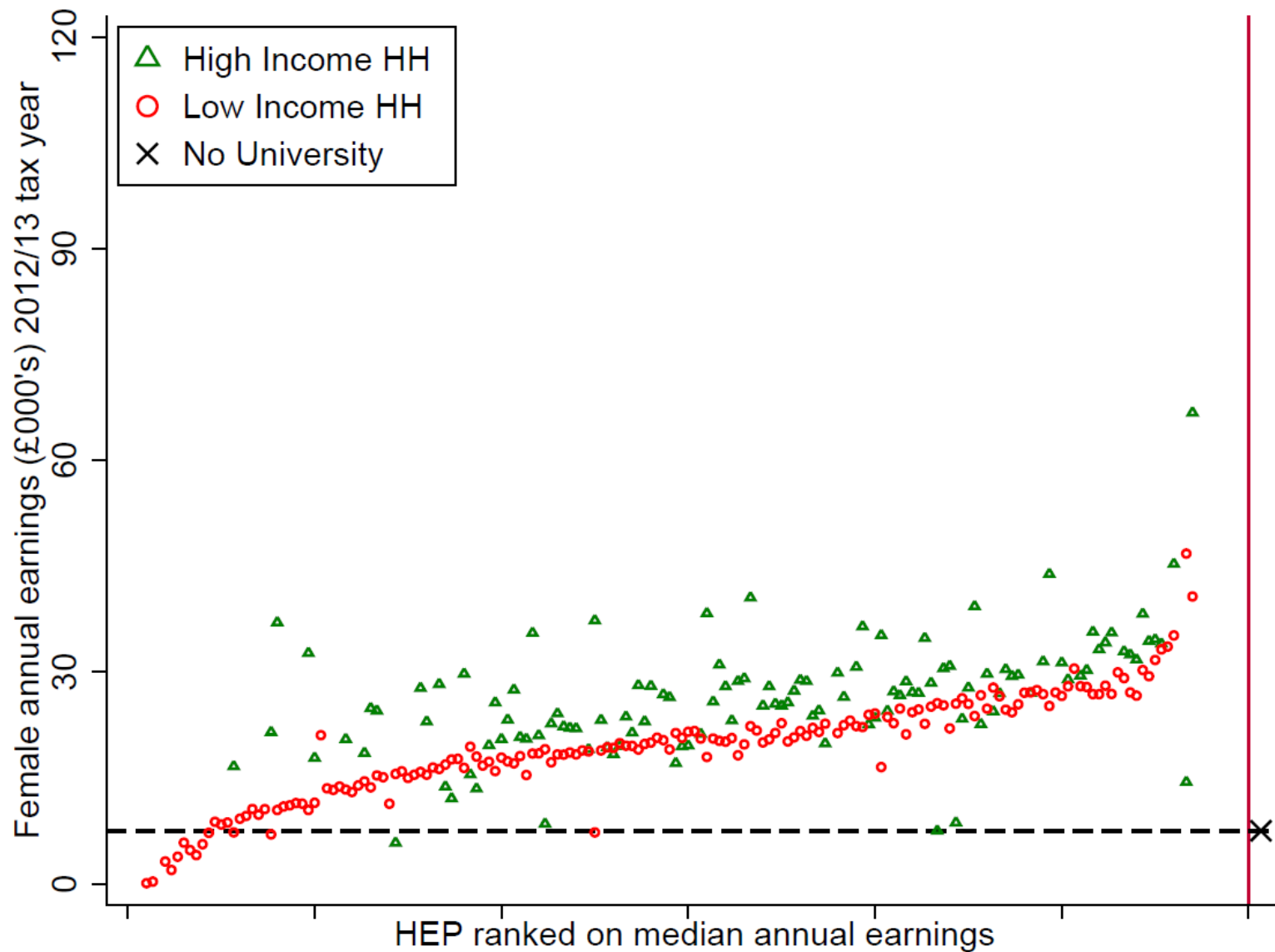
Female earnings age 31/32 by institution



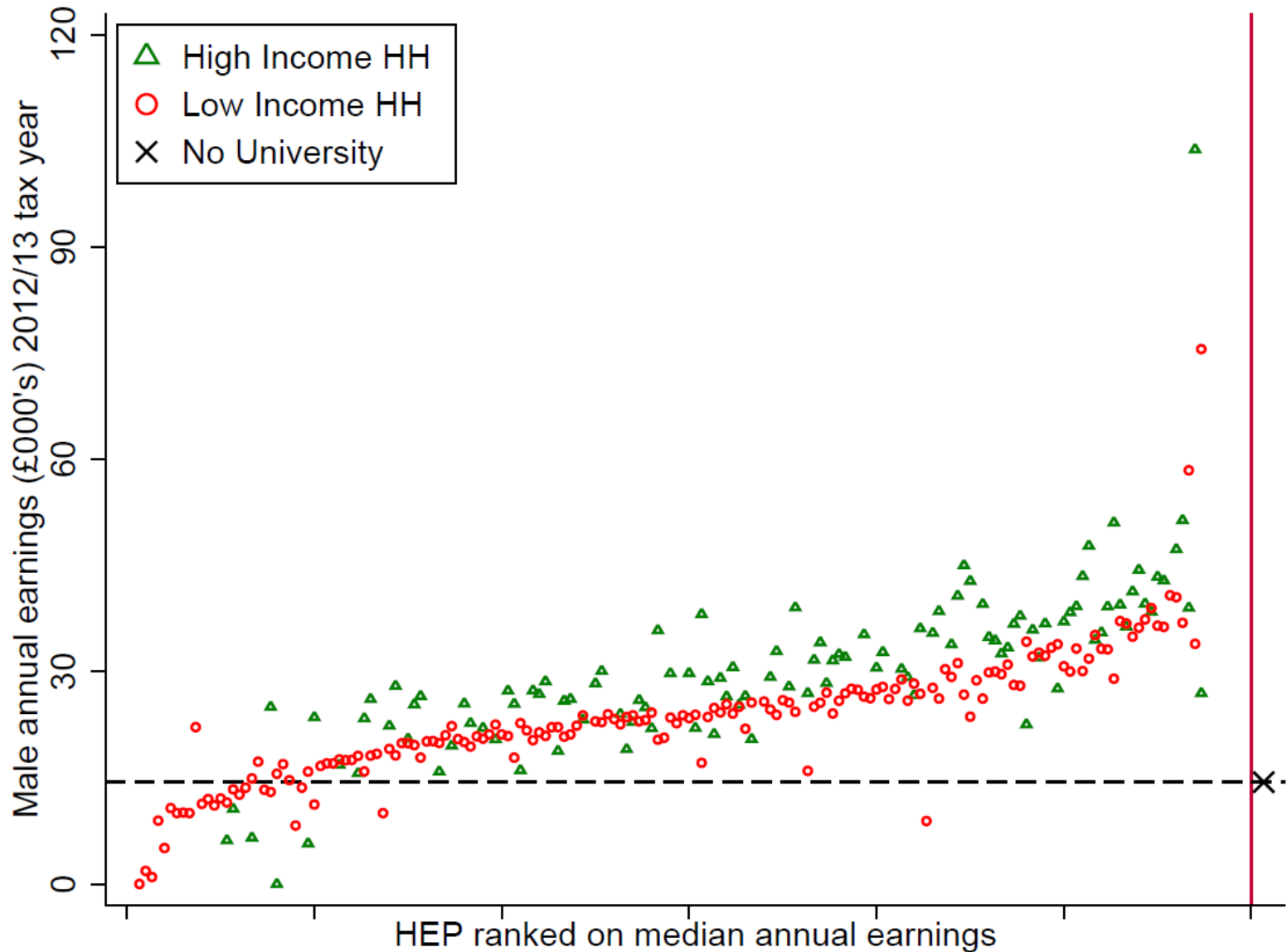
Female earnings age 31/32 by institution



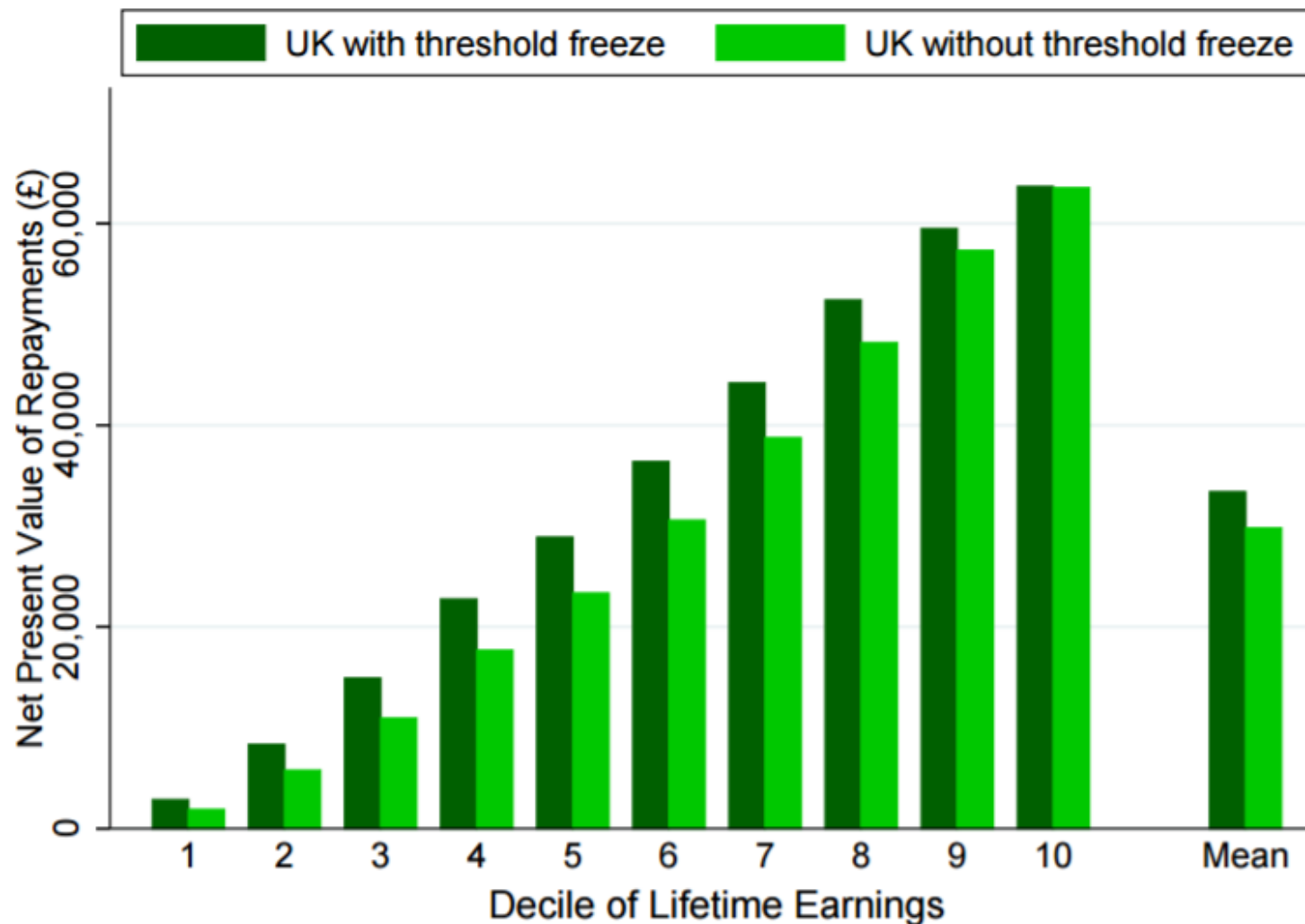
Female earnings age 31/32 “rich vs. rest”



Male earnings age 31/32 “rich vs. rest”



Freezing the repayment threshold



More students at university?

- Until 2015-16, universities faced limits on the no. of undergraduate students they could recruit . . . but now the cap has been lifted
- Government predicted up to 60,000 more students would enter
- How much this increases the cost of HE depends on how likely the new students are to repay their loans

If the extra students are similar to ...	Average loan subsidy per extra student	Total loan subsidy for extra 60,000 students	Total taxpayer contribution for extra 60,000 students
... the current graduate population	£17,443	£1,047m	£1,476m
... the bottom 25% of graduate lifetime earners	£33,514	£2,011m	£2,455m
... the bottom 50% of graduate lifetime earners	£28,275	£1,697m	£2,126m
... the bottom 75% of graduate lifetime earners	£22,564	£1,354m	£1,780m

Source. Crawford, C., Crawford, R. and Jin, W. (2014), *Estimating the Public Cost of Student Loans*, Report No. R94, Institute for Fiscal Studies, London