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Higher education funding and access

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Overview

- Reasons for state intervention in the HE sector
- An overview of how HE is funded in England
- Overview of the 2012 reform to HE funding and implications for:
  - universities
  - students
  - graduates
  - public finances
- Access to HE from those from poor backgrounds

- What does the future hold?

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 -> more tax revenues and less spending on benefits;
    - Improve productivity and wage of other workers (imperfect substitution and human capital spill-over, Moretti 2004)
    - Better health, lower crime, more open, well informed, engaged society.
- Social returns much more difficult to quantify
- 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 receive this, with 16% receiving a partial grant
- **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) and how much you get in grants
    - E.g. students with family income of around £43,000/year can borrow the most – up to £5,912 per year for a student living away outside London

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	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 our assumptions!

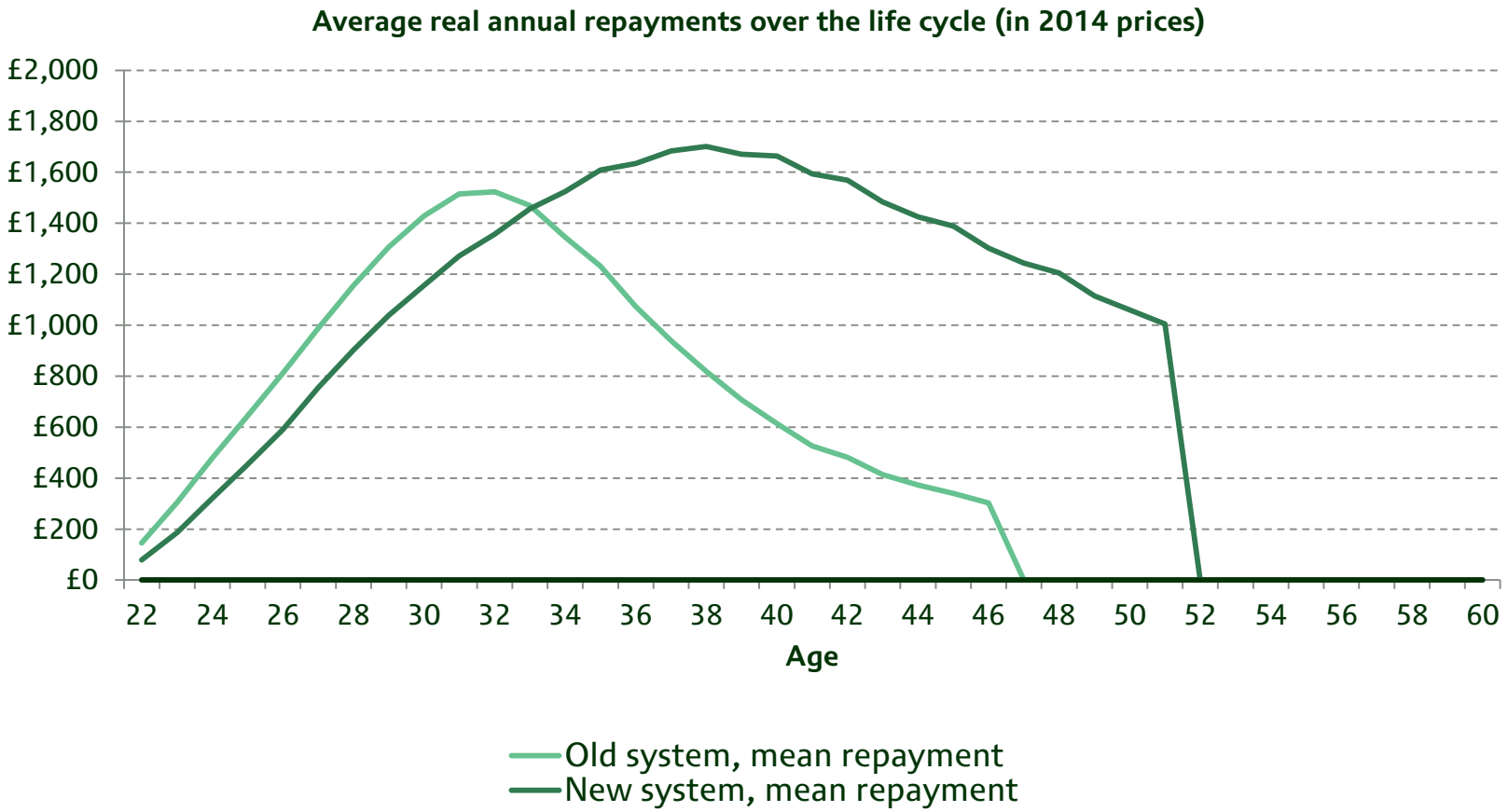
- Evaluate the financial impact of the 2012 reform for students, graduates, universities and for the taxpayer
  - A lot of political and media interest in the "RAB" charge – i.e. the % of student loans the government will have to write off.

- 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%
% loan subsidy	*37.6%*	*43.3%*	
Graduates repayments	**£15,075**	**£22,843**	**52%**
Universities	**£22,143**	**£28,250**	**28%**
Students	**£18,779**	**£19,185**	**2%**

Implications for graduates: 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

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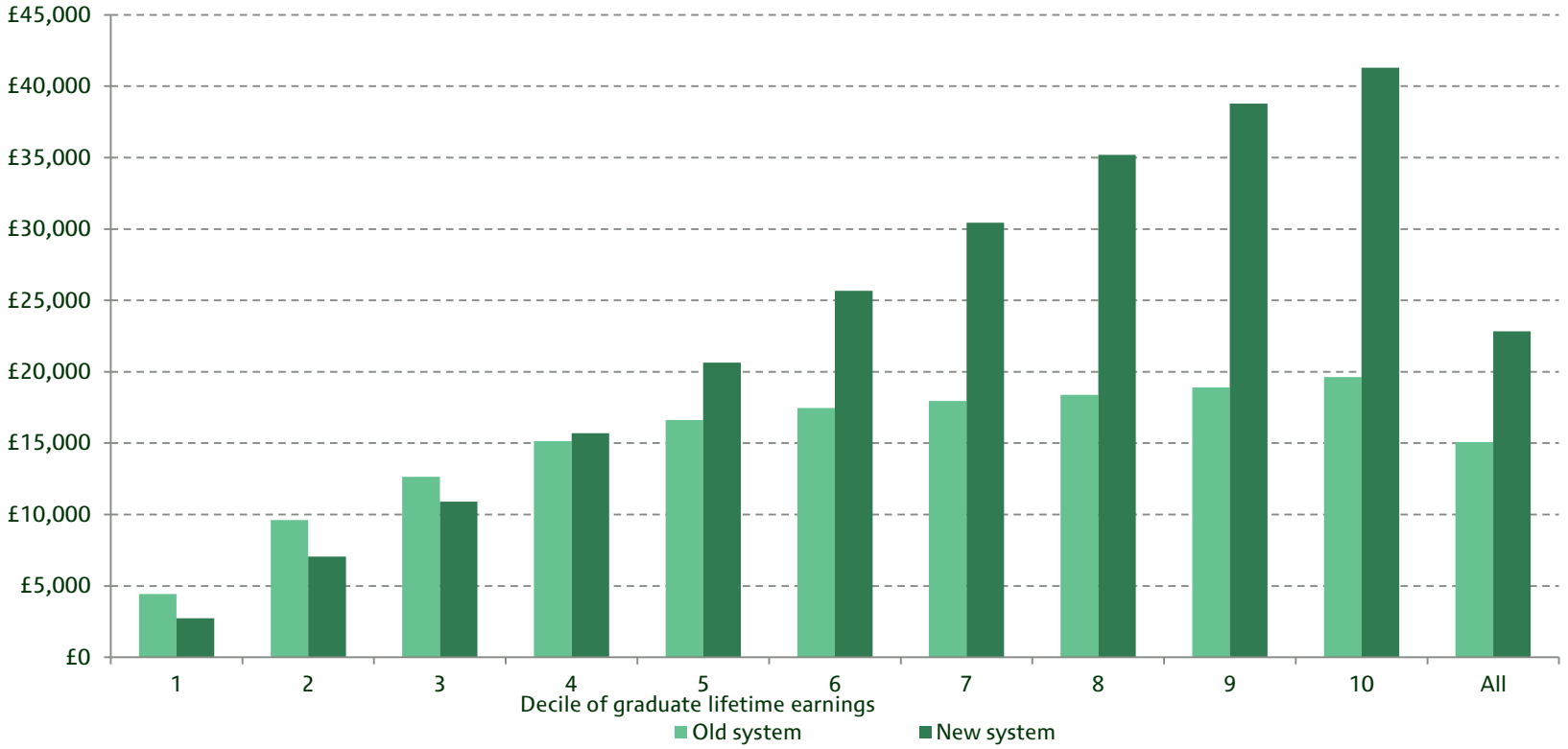
Implications for graduates: NPV of total real repayments and as a share of real NPV lifetime earnings across distribution of graduate lifetime earnings



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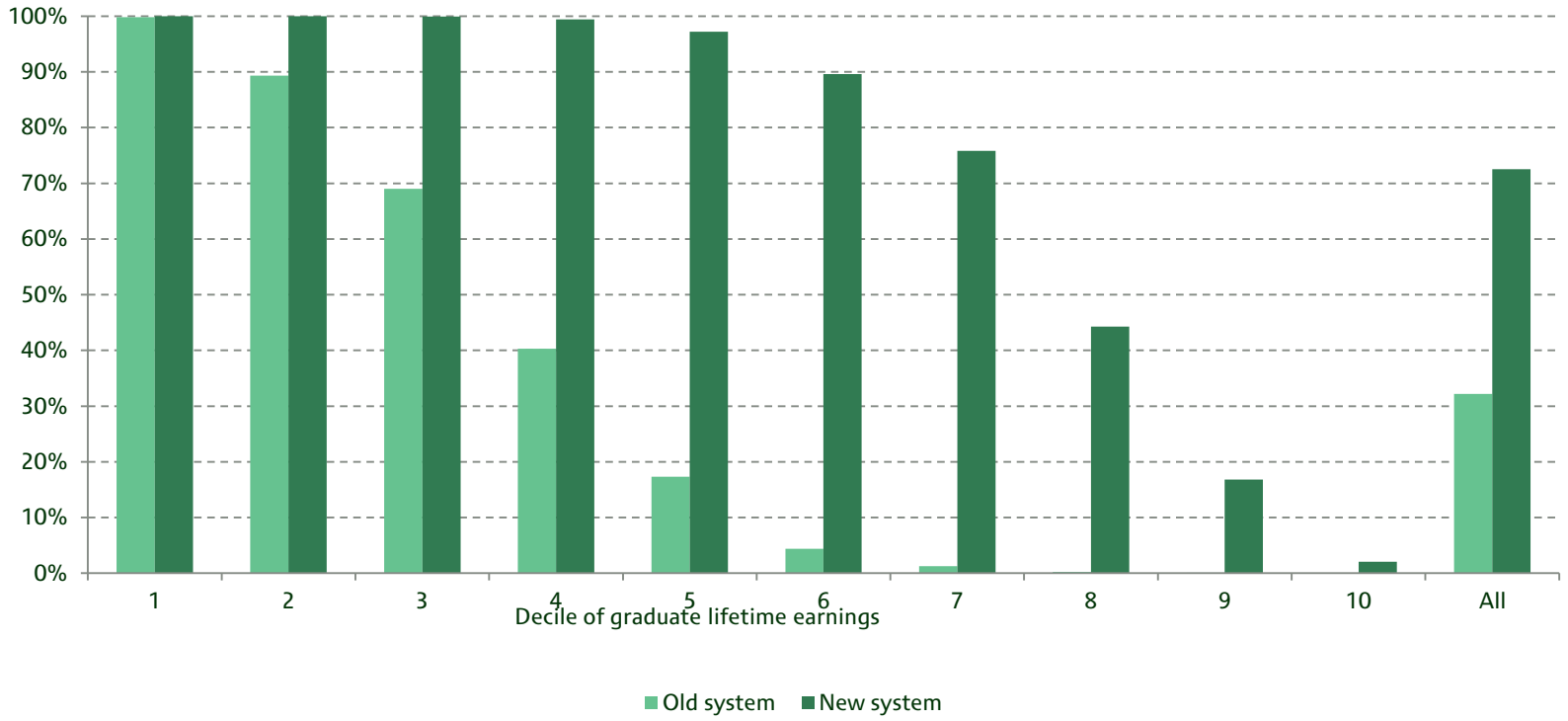
Implications for graduates: percentage of graduates with real debt write-offs across distribution of graduate lifetime earnings



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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"

Estimated costs of student loans and the real discount rate

Government cost of borrowing relative to RPI (discount rate)	Average loan subsidy		Total loan subsidy for intake of 300,000 students
Baseline (2.2%)	43.3%	£17,443	£5,233m
1.1%	30.5%	£12,434	£3,730m
3.5%	55.0%	£21,839	£6,552m

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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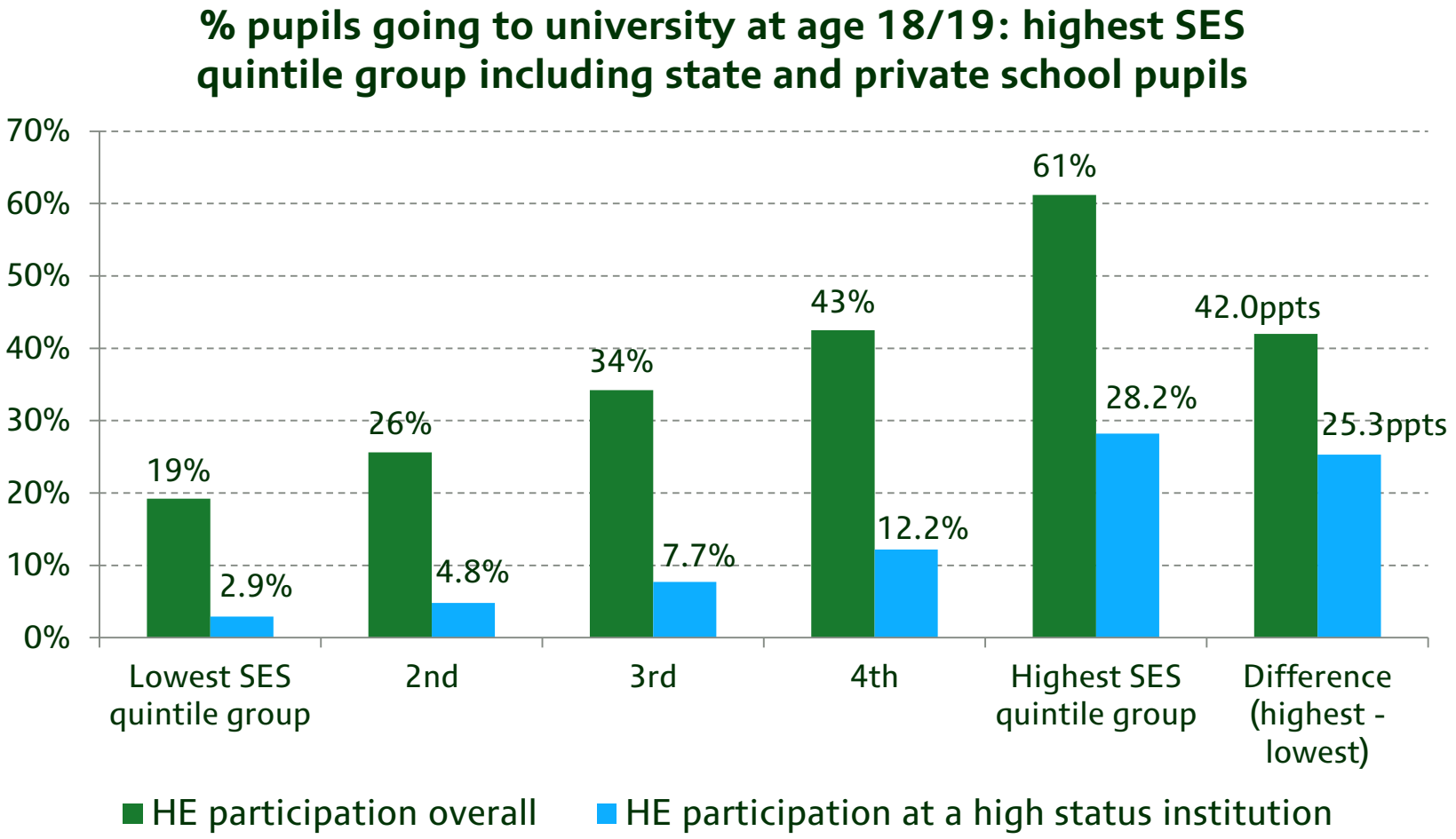
Implications for access

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



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)

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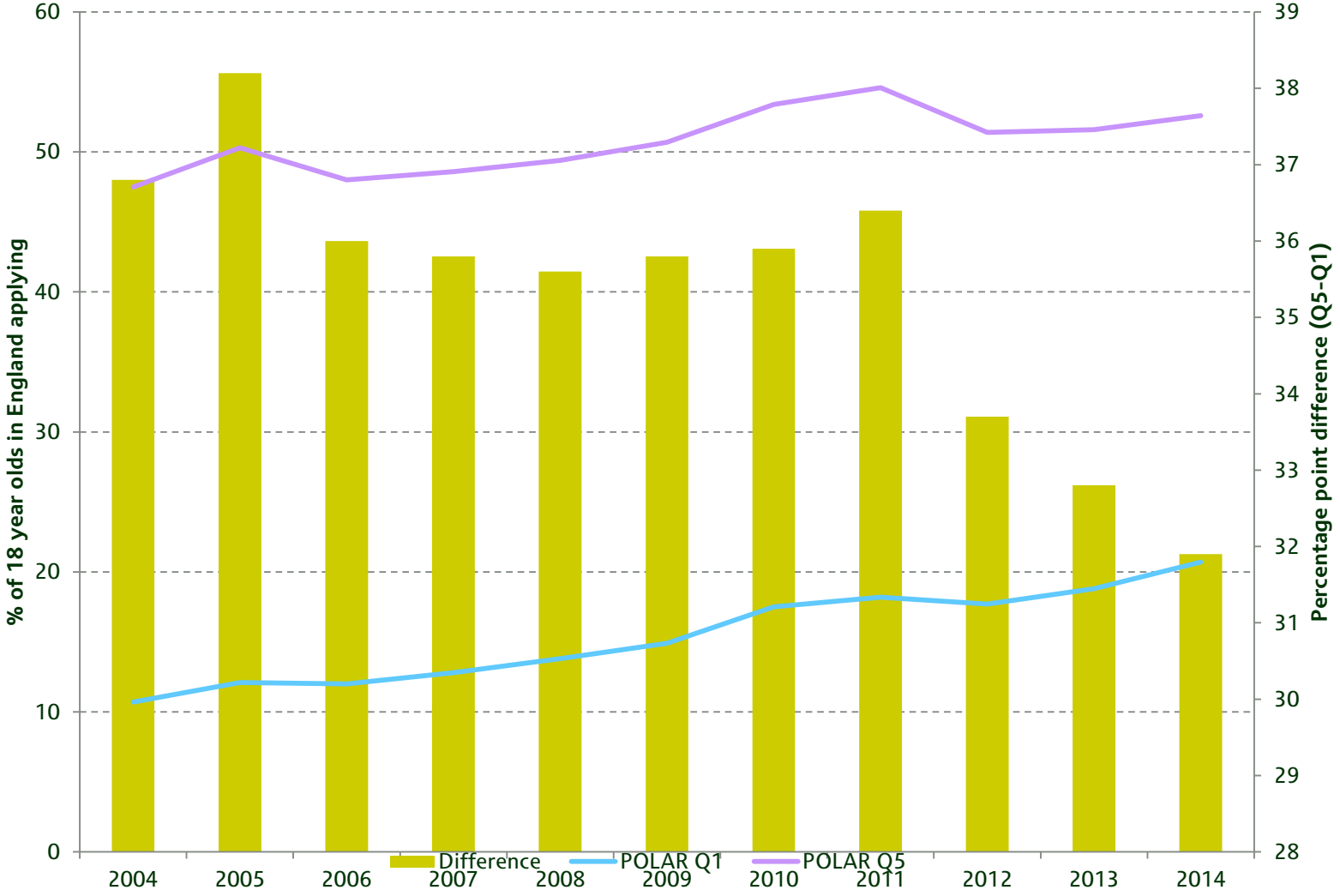
The SES gap in university applications



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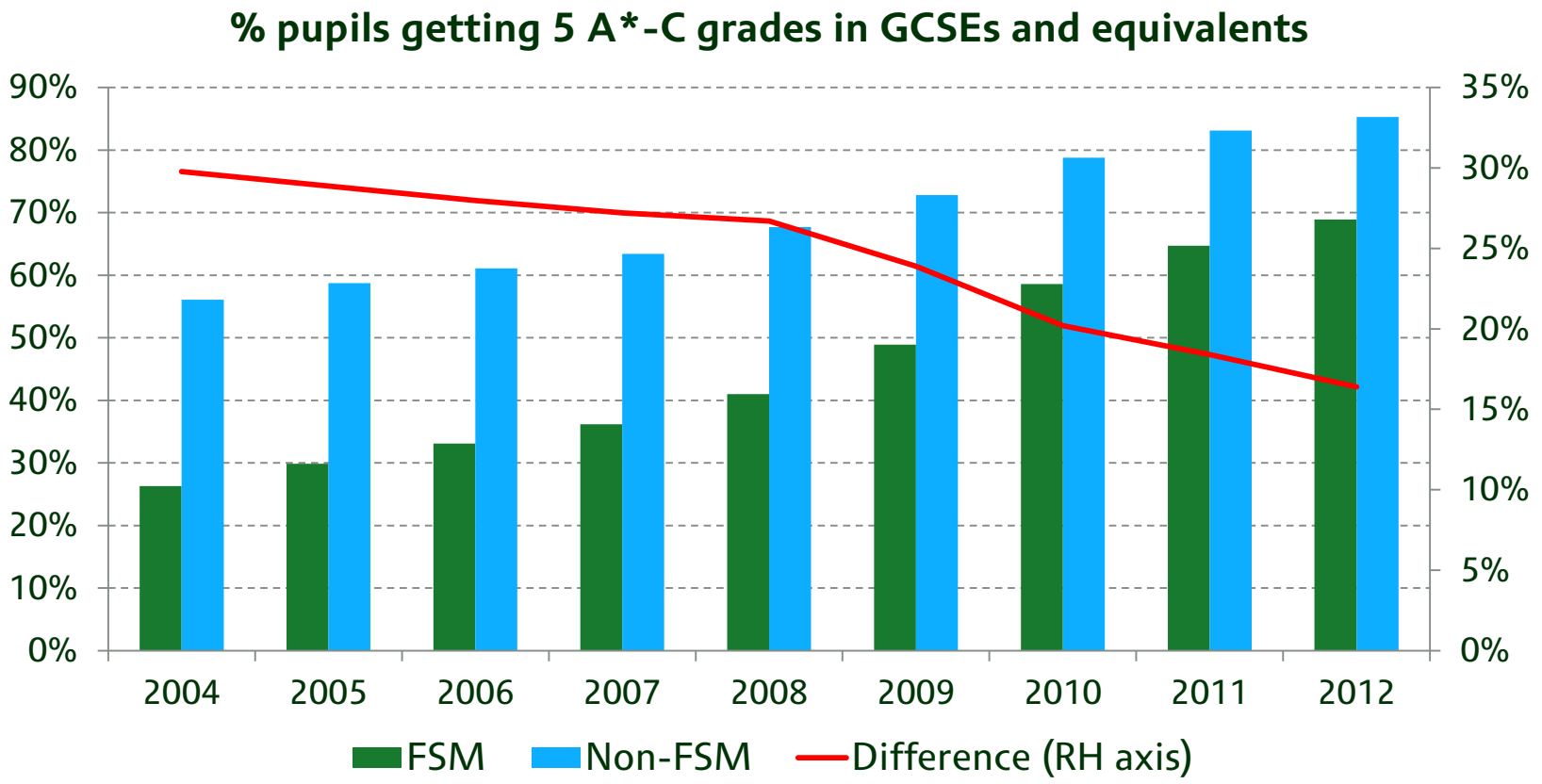
BUT: SES gap in terms of % getting 5 A*-C grades in GCSEs and equivalents has fallen substantially



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.

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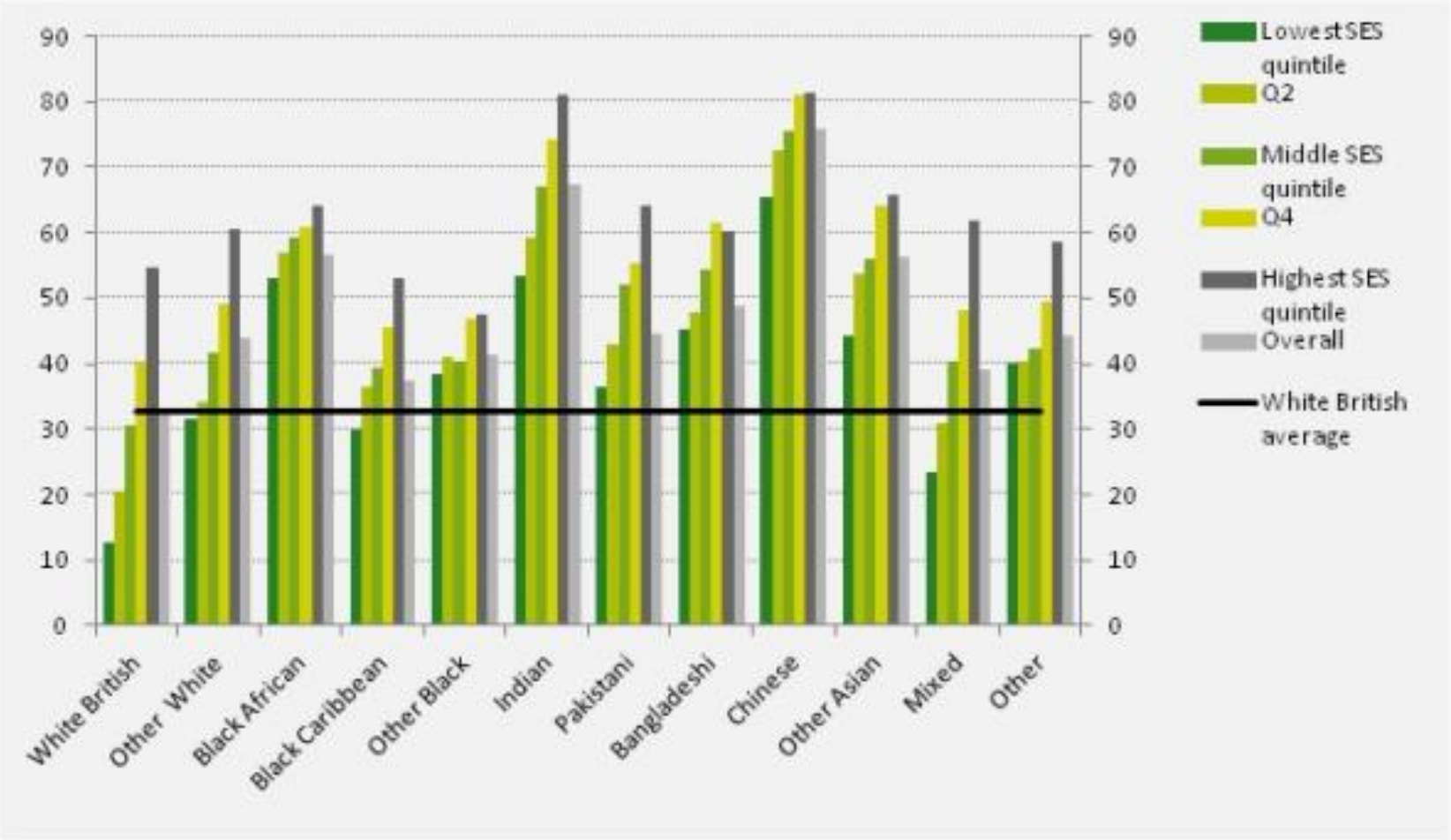
AND: the socio-economic gaps in participation are smaller for non white-British ethnic groups…

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

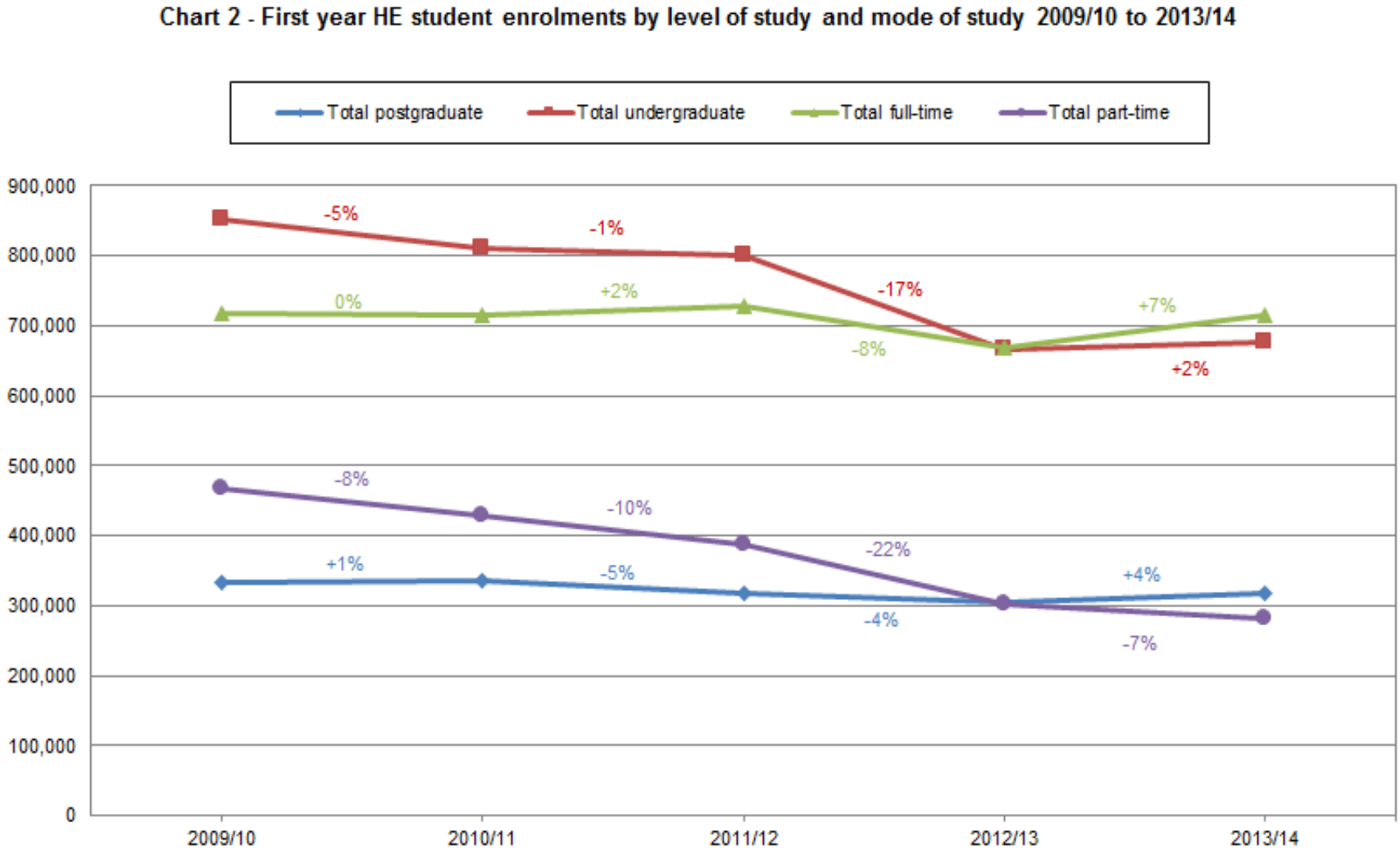


Summary on access

- So the gap in participation is large
- But doesn't seems to have increased as a result of the reform
  - Many take this as positive evidence for the 2012 reforms
- However, attainment amongst poor students has improved considerably, so maybe the gap would have declined further in absence of the reform
- There have been important changes when looking by different ethnic groups … maybe the overall change is driven by a more complex immigration story.

- In any case this has focussed on full time 18/19 year old undergraduates…

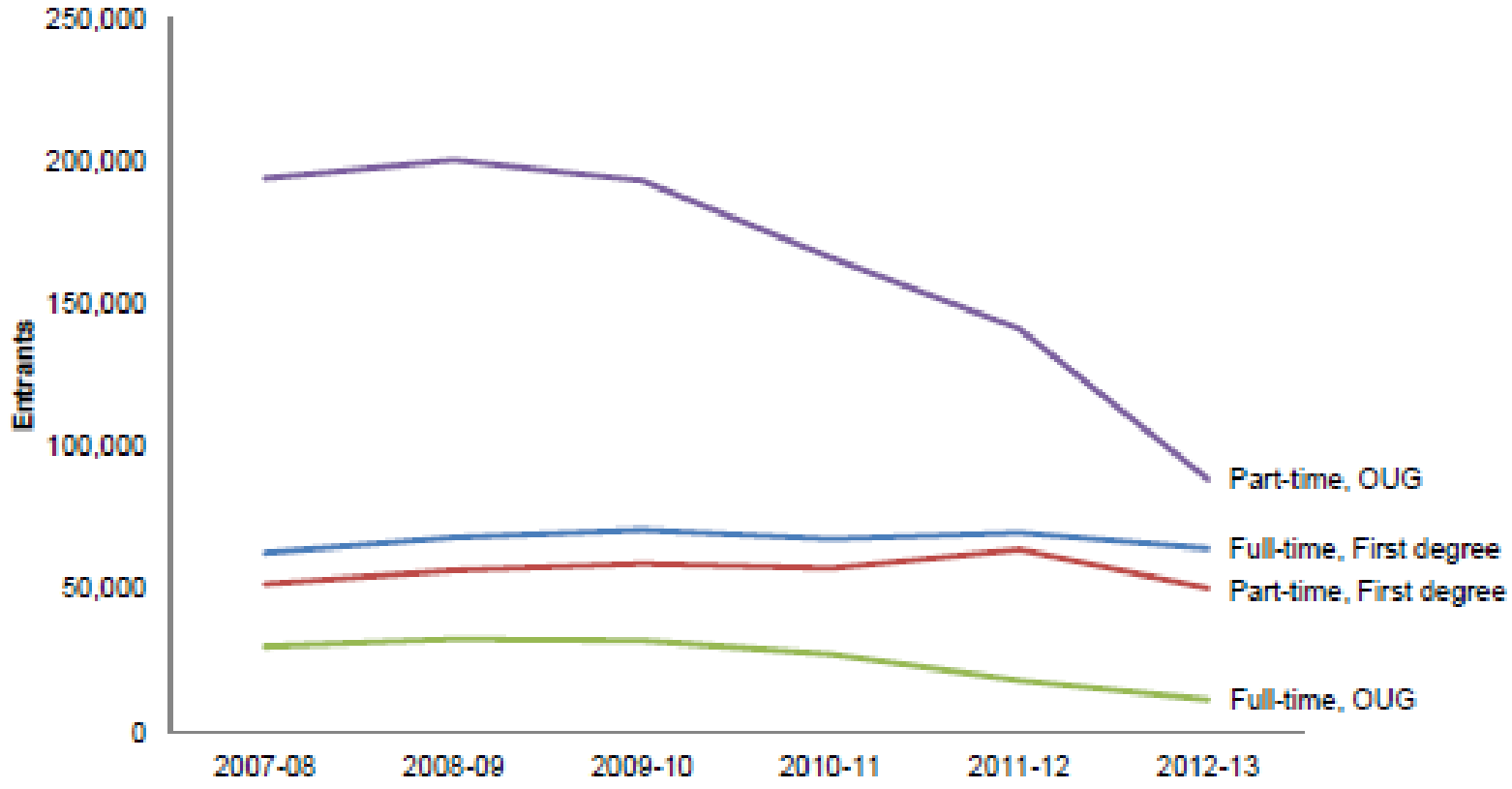
Part-time participation has fallen substantially



Source: Higher Education Student Enrolments and Qualifications Obtained at Higher Education Providers in the United Kingdom 2013/14, HESA SFR 210

Especially for courses other than first degrees

Figure 10: Trend in UK- and EU-domiciled mature undergraduate entrants to higher education institutions in England by mode of study and qualification type, 2007–08 to 2012–13



Note: OUG refers to other undergraduate courses, those other than first degrees
Source: HESA

What does the future hold?

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

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More changes to the HE funding system

- Government made several announcements in the July budget
- From 2016-17, maintenance grants for the poorest students will be scrapped and replaced with slightly higher maintenance loans
  - Poorest students will now graduate with the largest debts
  - And pay back more than they would have done under the old system
  - But they will have slightly more "cash in pocket" whilst at university

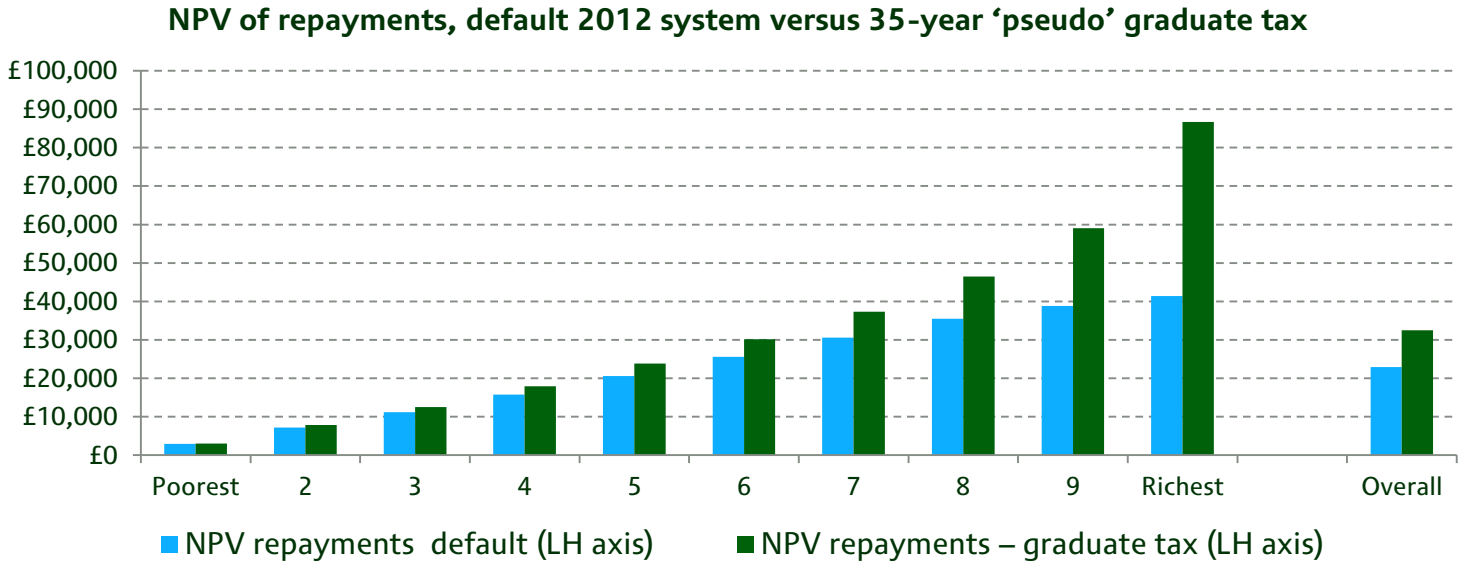
- Upfront support rises by around £340m per cohort
- Whether or not the government saves money in the long-run depends on how much of the new (larger) loans are repaid
  - We estimate they will receive around £600m more in loan repayments, hence saving around £270m (3%) in the long-run

What else might be down the road?

- The government is also consulting on three other proposals:
  - Freezing the threshold above which loan repayments start to be made for five years from 2016
    - Extracts higher repayments from low to middle income graduates
    - Graduate contribution estimated to increase to 62% if implemented
  - Allowing universities with high teaching quality to increase fees in line with inflation from 2017 onwards
    - Higher fees likely to mean higher write-offs (though more resources for universities)
  - Reducing the discount rate attached to student loan repayments in government accounts from RPI+2.2% to RPI+1.1%
    - No change in actual repayments, but means future repayments valued more highly today
    - Affects perception of the value for money of the system only

How similar is the system to a graduate tax?

- With many graduates likely to have some debt being written off, system is similar in many respects to a (hypothecated) graduate tax
- If moved to a system with a minimum repayment period instead, then would extract very high repayments from highest earners
  - Potentially problematic if these individuals can opt out of system



Source. Britton, J. and C. Crawford (2015), *Estimating the Cost to Government of Providing Undergraduate and Postgraduate Education*, Report No. R105, Institute for Fiscal Studies.

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Summary

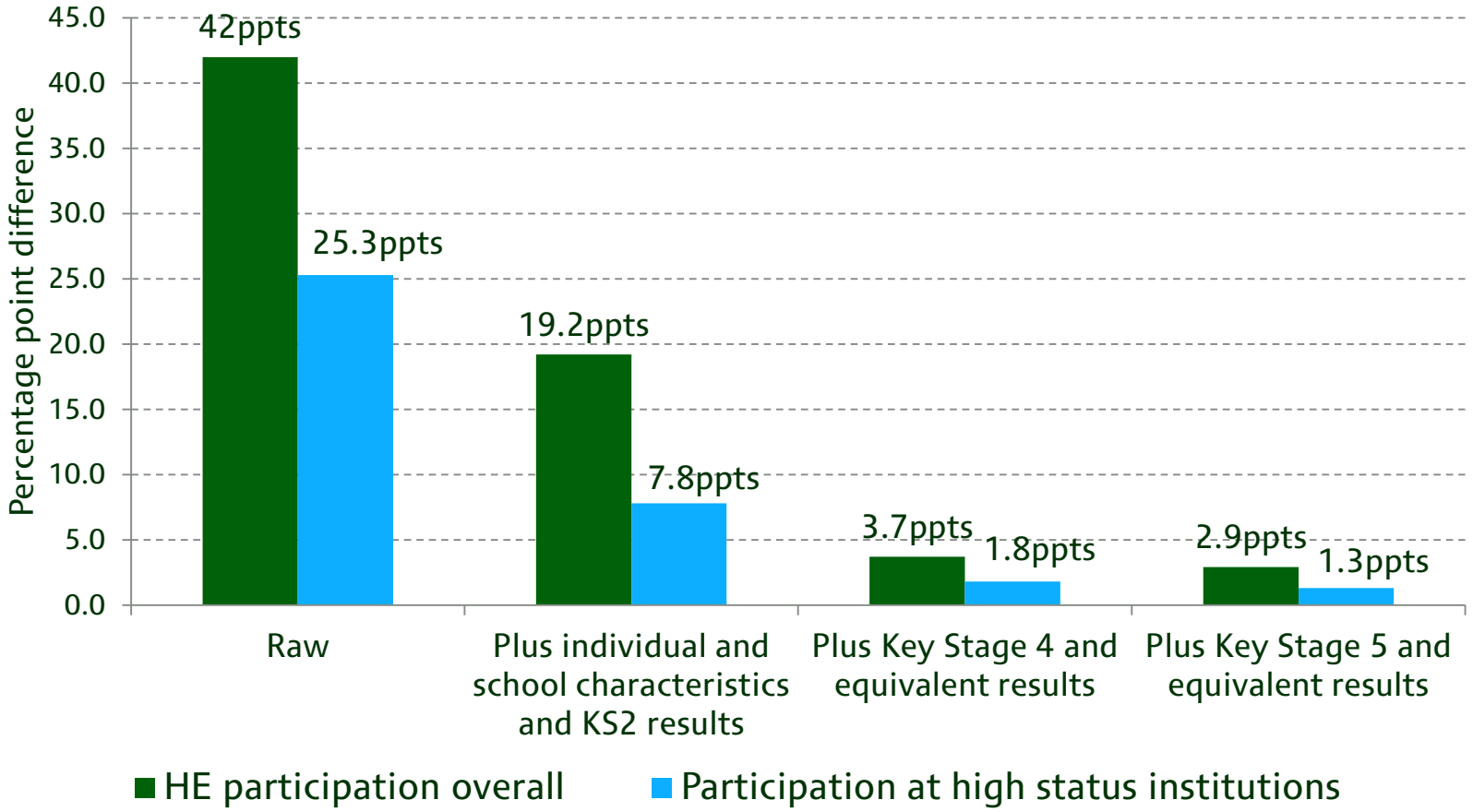
- The significant reforms of 2012 resulted in:
  - More money for universities
  - Higher average cost for graduates, but lower for lowest earning 30%.
  - No big average change for taxpayers
    - But shift toward more progressive distribution of repayments
    - Also big increase in uncertainty: uncertain loan costs replacing certain Tgrant costs
- Gap in participation between rich and poor is large
  - Evidence on 2012 impact on this is weak, but government frequently cites figure showing participation gap has declined since 2012.
  - However, this could plausibly be the impact of improving qualifications or an immigration story.
  - But to the extent that tuition costs affect prior attainment, there might be a lagged effect.
  - Removal of NSP may also have an effect from 2015.

Summary/discussion

- Further tweaks to the system announced in the Summer will reduce the long-run cost to government
- Yet current system has desirable features
  - Loan with reasonable interest rates and protection against low income.
  - Fees paid up front and living-expense loans available to help the liquidity-constrained to access university.
  - Progressive repayment system whereby highest earners repay the most, resulting in subsidy targeted at those who benefit the least from HE
- And its flaws:
  - Subsidy not observed until many years down the line, perhaps reducing its efficacy.
  - Reforms created perverse incentives for universities to set high fees.
  - The T.E.F. proposals could potentially be a significant change.

Questions?

What explains differences in HE participation between pupils from most and least deprived backgrounds?



Source: authors' calculations based on linked schools and universities administrative data for the cohort first eligible to start university in2010-11 (who sat their GCSEs in 2007-08)

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Implications for students while at university

- No big changes to available finance on average…
- But large changes to support for disadvantaged students through the National Scholarship Programme (NSP)
  - bursaries/fee-waivers for low income individuals.
  - had its flaws (unclear, illogical payment rules – students paid after starting, and money often used to pay fees rather than living costs).
  - Money tended to be focussed on high achieving (AAB/ABB) students and was much more generous at higher-ranking institutions.
- Funding cut again for this in 2014/15 and the program was abolished completely for 2015/16.