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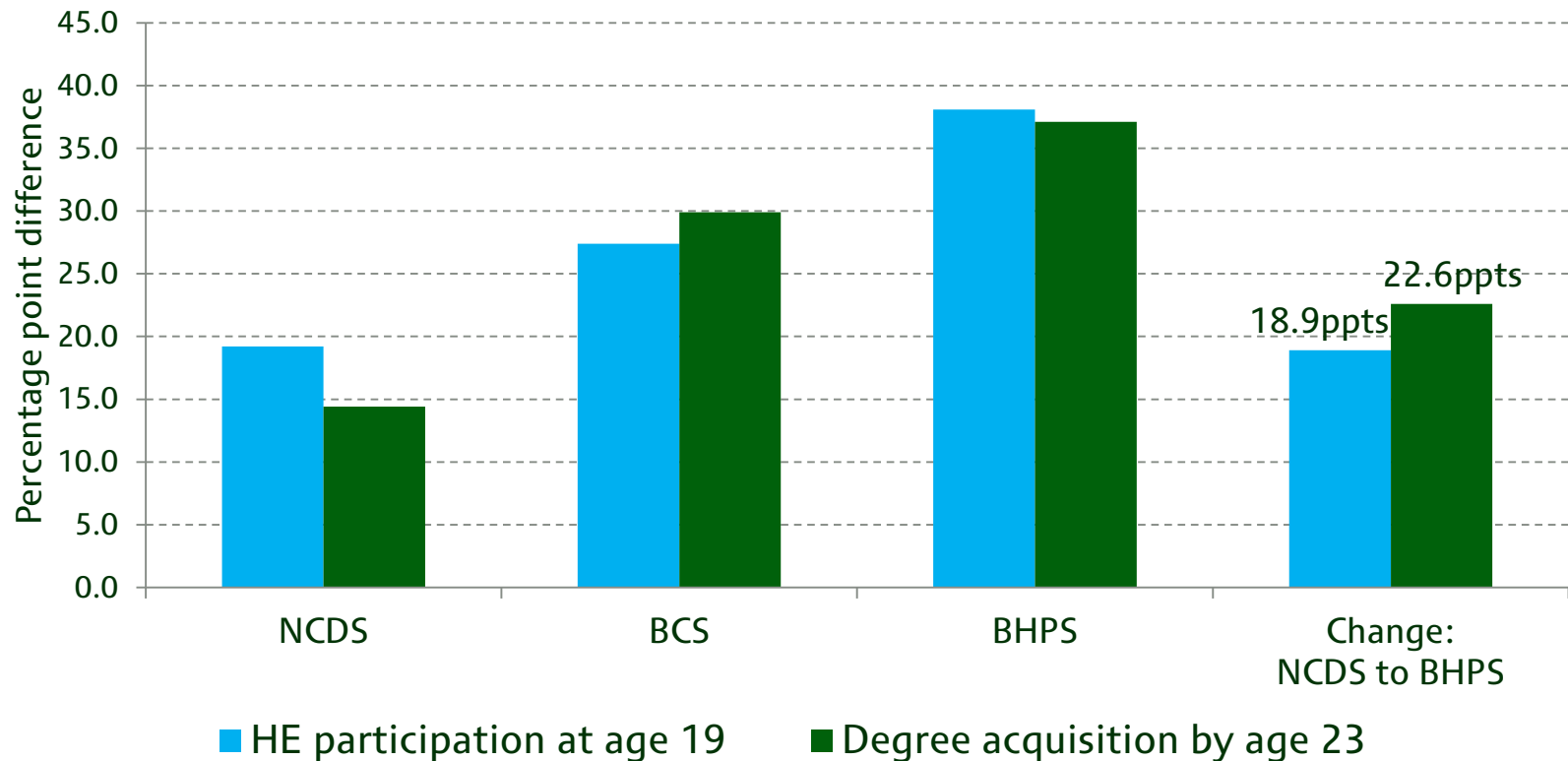
SES gaps in HE participation: what drives them and how have they changed over time?

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Motivation: rising socio-economic inequalities in HE participation and degree acquisition over time

Difference in HE participation/degree acquisition rates between those in the top and bottom income quintile groups



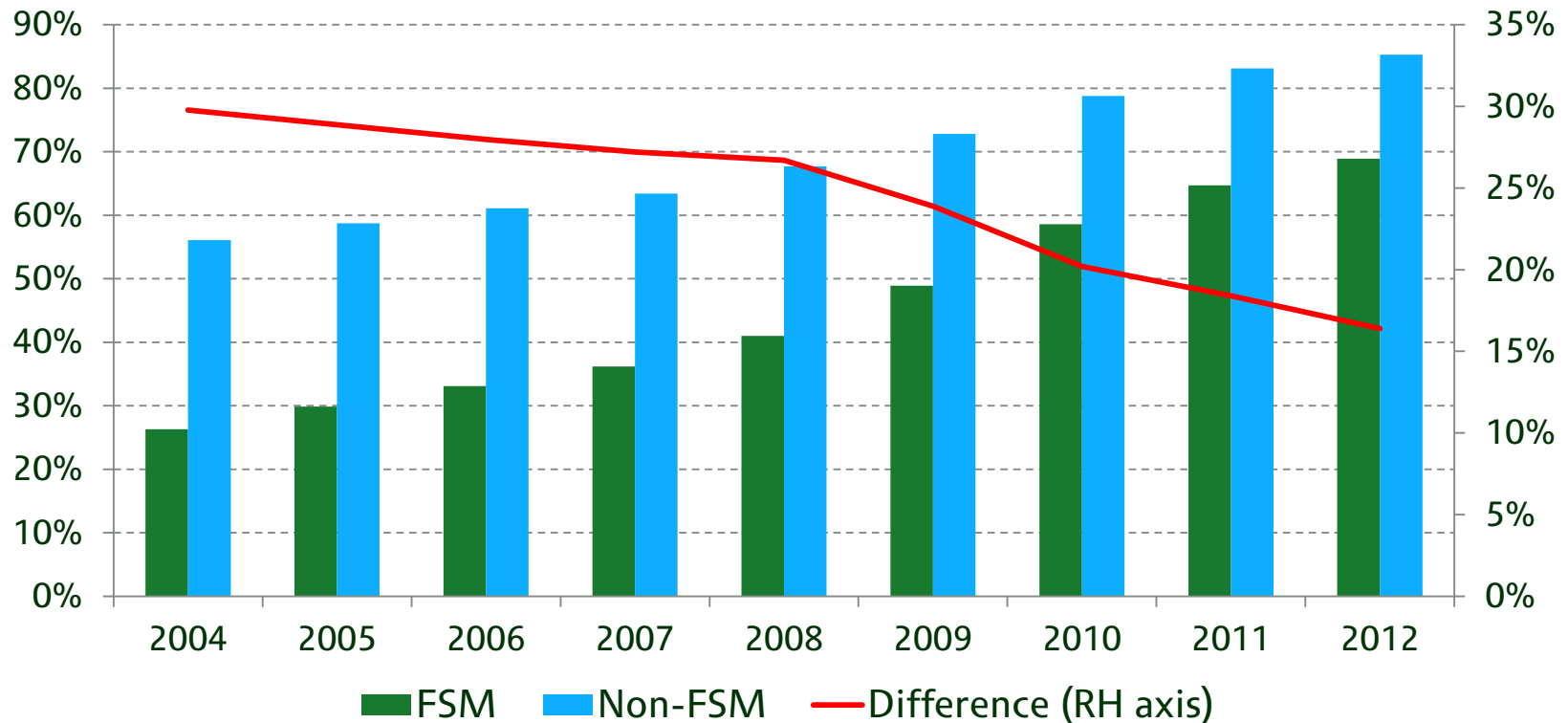
Source: Blanden & Machin (2004), Educational inequality and the expansion of UK higher education, Scottish Journal of Political Economy, Special Issue on the Economics of Education, Vol. 51, pp. 230-249.

Motivation: what has happened since then?

- Fees and student support arrangements have changed dramatically
 - 1998: upfront tuition fees of around £1,000 are introduced
 - No fee loans
 - 2006-07: deferred fees of up to £3,000 can now be charged
 - Though no longer payable upfront, and accompanied by a 0% real interest rate fee loan, repayable only above an income threshold and written off after a period of time
 - 2012-13: deferred fee cap raised to £9,000
 - Still repaid after graduation (above a higher threshold), but with a positive real interest rate while studying and for the richest graduates, and written off after a longer period
- SES differences in some measures of attainment have been falling

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

% pupils getting 5 A*-C grades in GCSEs and equivalents



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.

Motivation: what does this mean for SES gaps in HE participation over recent past and in future?

- Changes to student finance:
 - Concerns that prospect of high fees/debt levels would create a barrier to participation for poorer students and hence **increase** SES gaps
- Prior attainment:
 - Given key role in driving HE participation, poorer students “catching up” with their better off peers may **decrease** SES gaps
- Empirical question . . .

Plan for today

- Document socio-economic differences in participation overall and at high status institutions, and how these have changed over time
- Explore the extent to which these gaps can be explained by differences in other characteristics, especially prior attainment
 - Has the explanatory power of these factors changed over time?
- What might this mean for future SES gaps in HE participation?

Data

- National Pupil Database (NPD)
 - Census of pupils taking GCSEs in England: 2001-02 to 2007-08 [here](#)
 - Key Stage test results at ages 11, 16 and 18 for those who sat them
 - Limited background characteristics for those in state schools
 - e.g. gender, ethnicity, FSM eligibility, home postcode
- Higher Education Statistics Agency (HESA) data
 - Census of students attending UK universities: 2004-05 to 2011-12 [here](#)
- Linked NPD-HESA data:
 - Enables us to follow these cohorts of individuals from the end of primary school through to potential HE participation at age 18 or 19
 - Focus on state school pupils because of problems linking private school pupils to HESA data in 2004-05; crucial for looking at changes over time
 - Other work suggests omitting private school pupils won't unduly bias our results

Outcomes

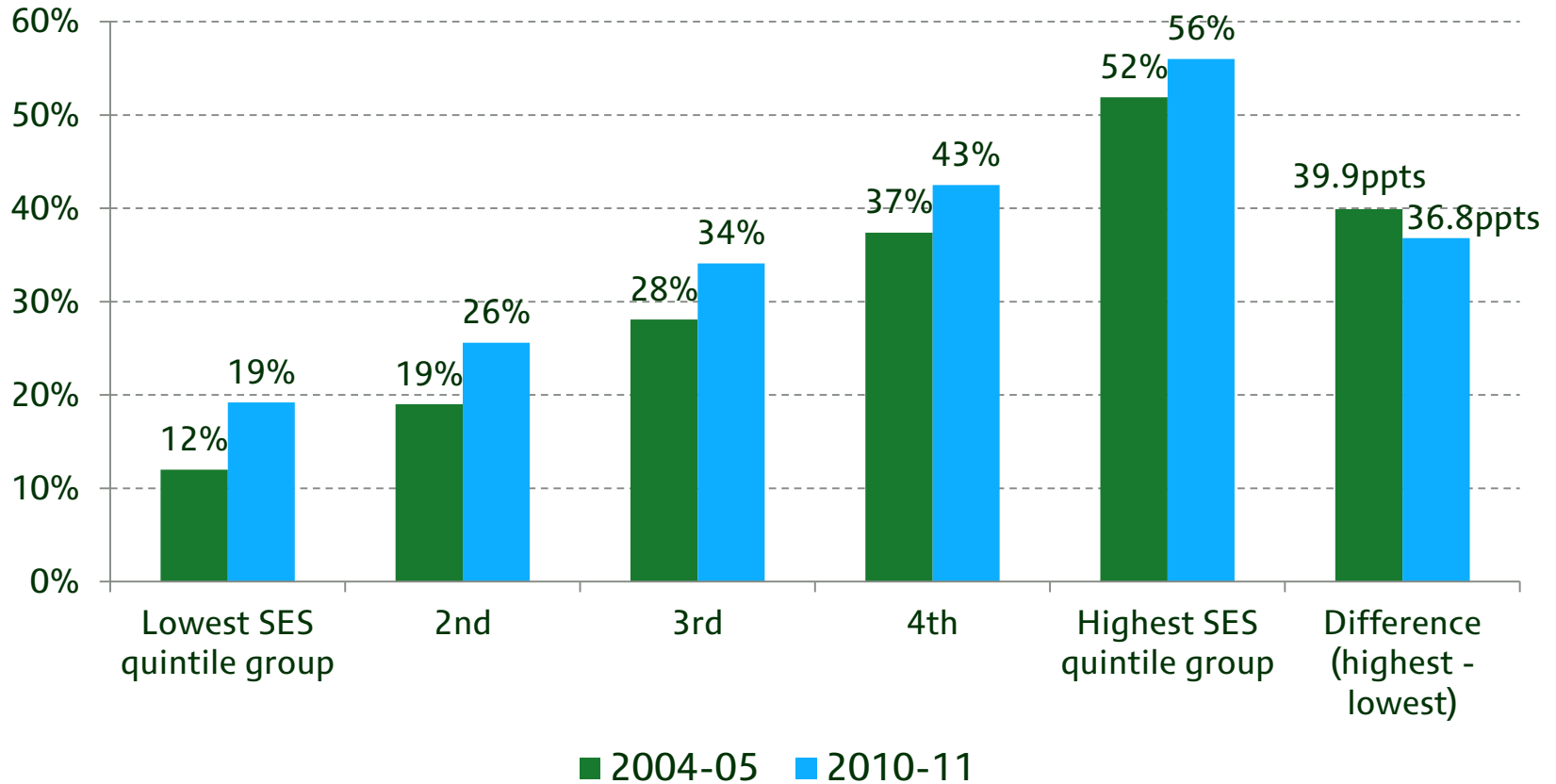
- Participation at any UK HE institution at age 18 or 19
- Participation at a “high status” institution, where high status is:
 - Russell Group institutions (20 in total pre-2012)
 - Plus any UK university with a 2001 average RAE score higher than the lowest amongst the Russell Group (an extra 21 institutions)
- Amongst the cohort first eligible to go to university in 2010-11:
 - 35.5% of state school pupils participated at age 18 or 19
 - 9.8% attended a high status institution (27.6% of participants)

Measure of socio-economic status

- Combine FSM eligibility at age 16 with measures of local area deprivation based on pupils' home postcode at age 16 using PCA
 - Index of Multiple Deprivation score (SOA level; approx. 700 HHs)
 - ACORN group (postcode level; approx. 15 HHs)
 - % of population from 2001 census (OA level; approx. 150 HHs):
 - Who work in higher or lower managerial/professional occupations
 - Whose highest educational qualification is NQF Level 3 or above
 - Who own (either outright or through a mortgage) their home
- Split state school population into quintile groups based on this index

HE participation in 2004-05 and 2010-11, by SES

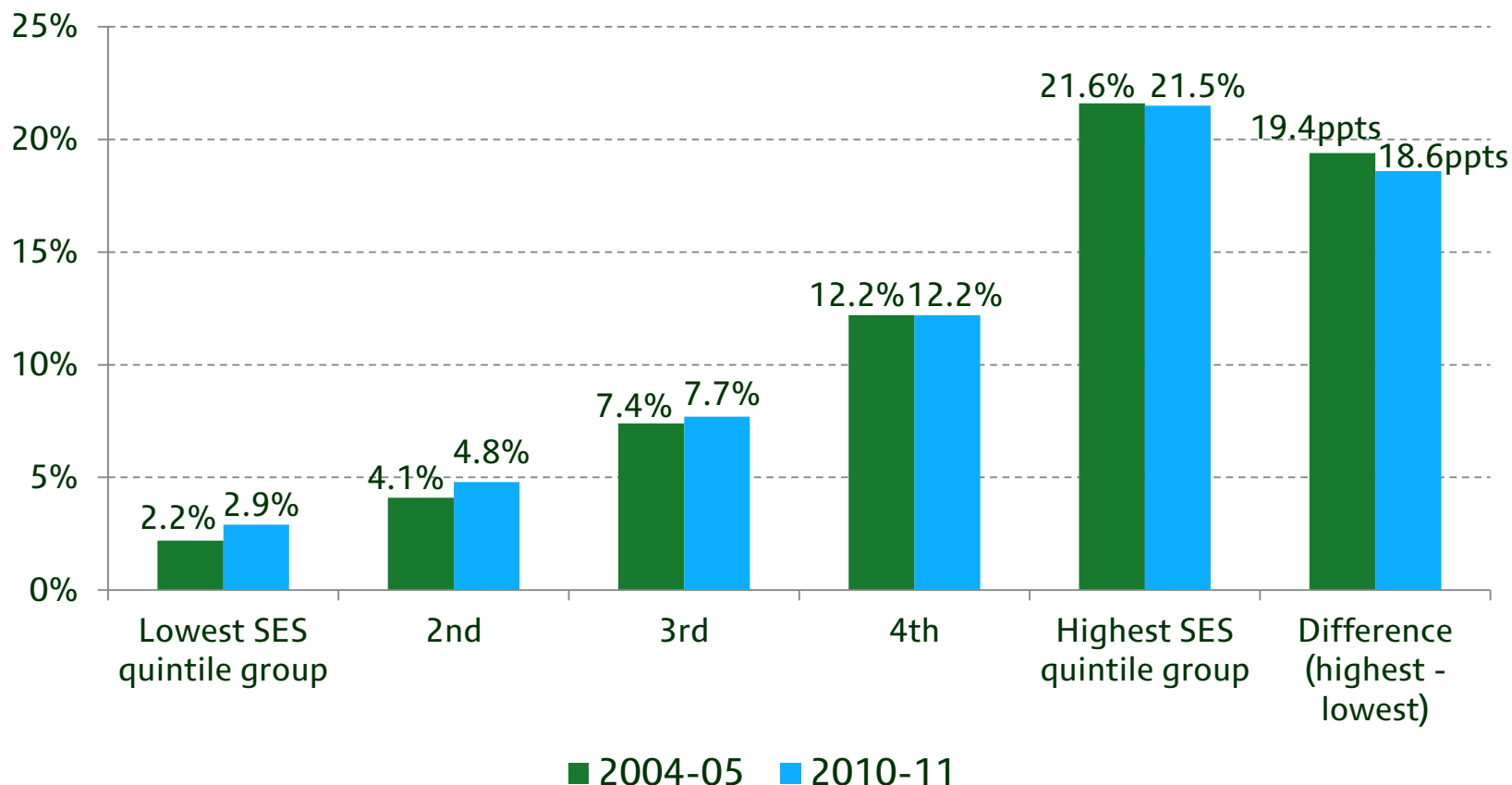
% pupils going to university at age 18/19



Source: authors' calculations based on linked schools and universities administrative data for the cohorts first eligible to start university in 2004-05 and 2010-11 (who sat their GCSEs in 2001-02 and 2007-08 respectively)

High status participation in 2004-05 and 2010-11, by SES

% pupils attending a high status institution at age 18/19

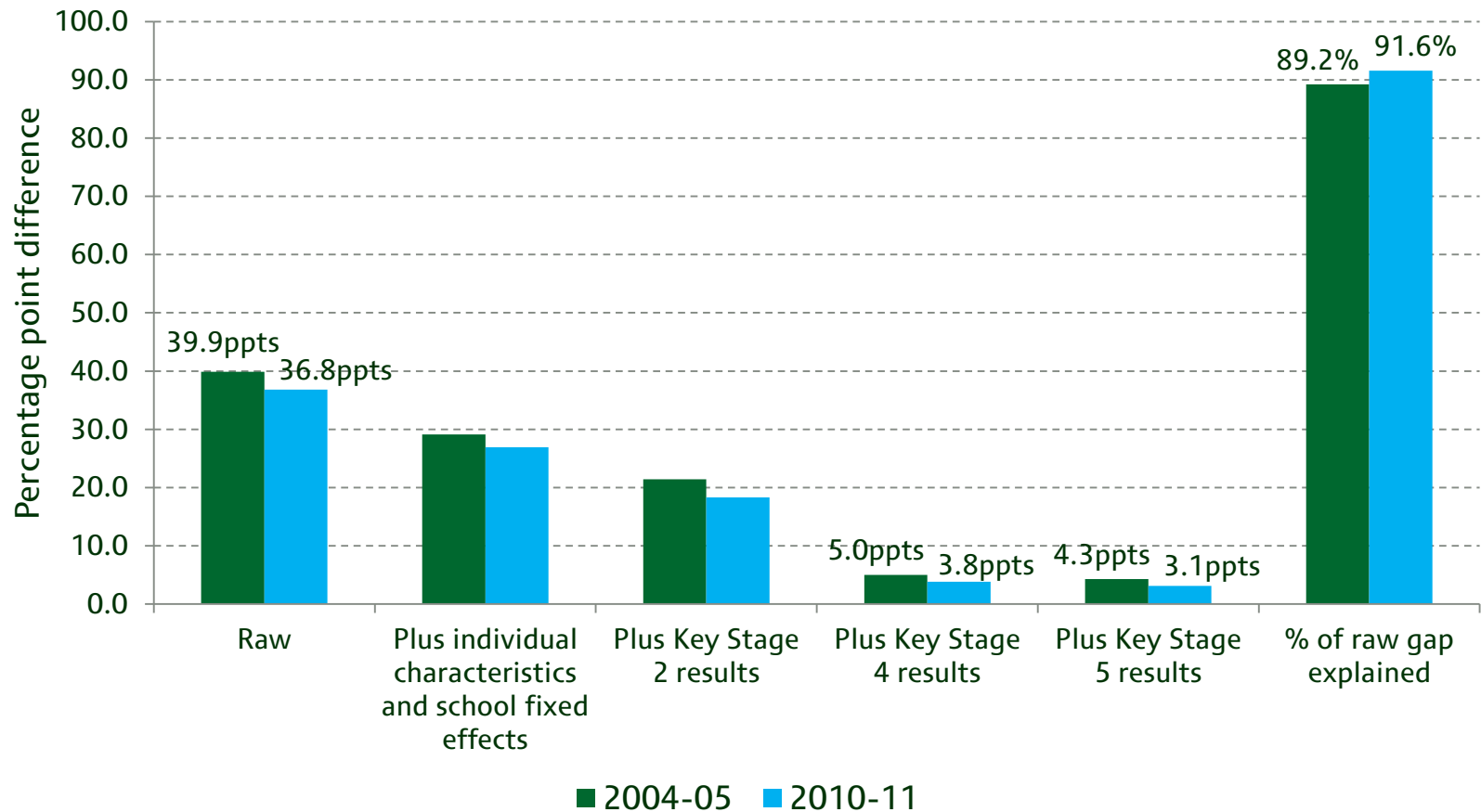


Source: authors' calculations based on linked schools and universities administrative data for the cohorts first eligible to start university in 2004-05 and 2010-11 (who sat their GCSEs in 2001-02 and 2007-08 respectively)

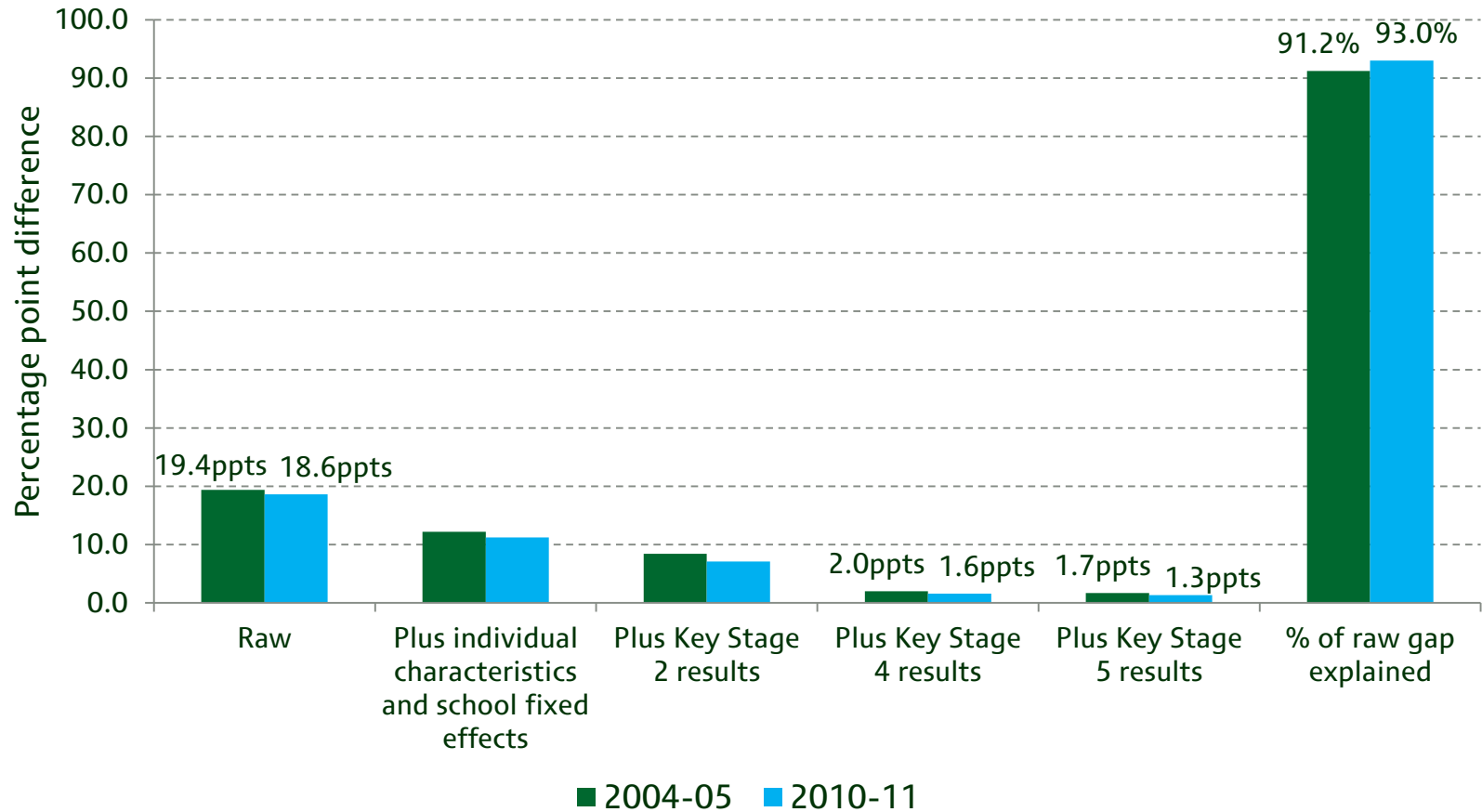
What drives SES differences in HE participation and has this changed over time?

- Investigate the extent to which SES differences in HE participation can be explained by other characteristics, by successively adding:
 - Individual characteristics (gender, ethnicity, special educational needs, month of birth, English as a second language) and school fixed effects
 - Key Stage 2 attainment (age 11)
 - Key Stage 4 attainment (age 16)
 - Key Stage 5 attainment (age 18)
- Has the proportion of the gap we can explain changed over time?

What explains differences in participation between most and least deprived quintile groups in 2004-05 and 2010-11?



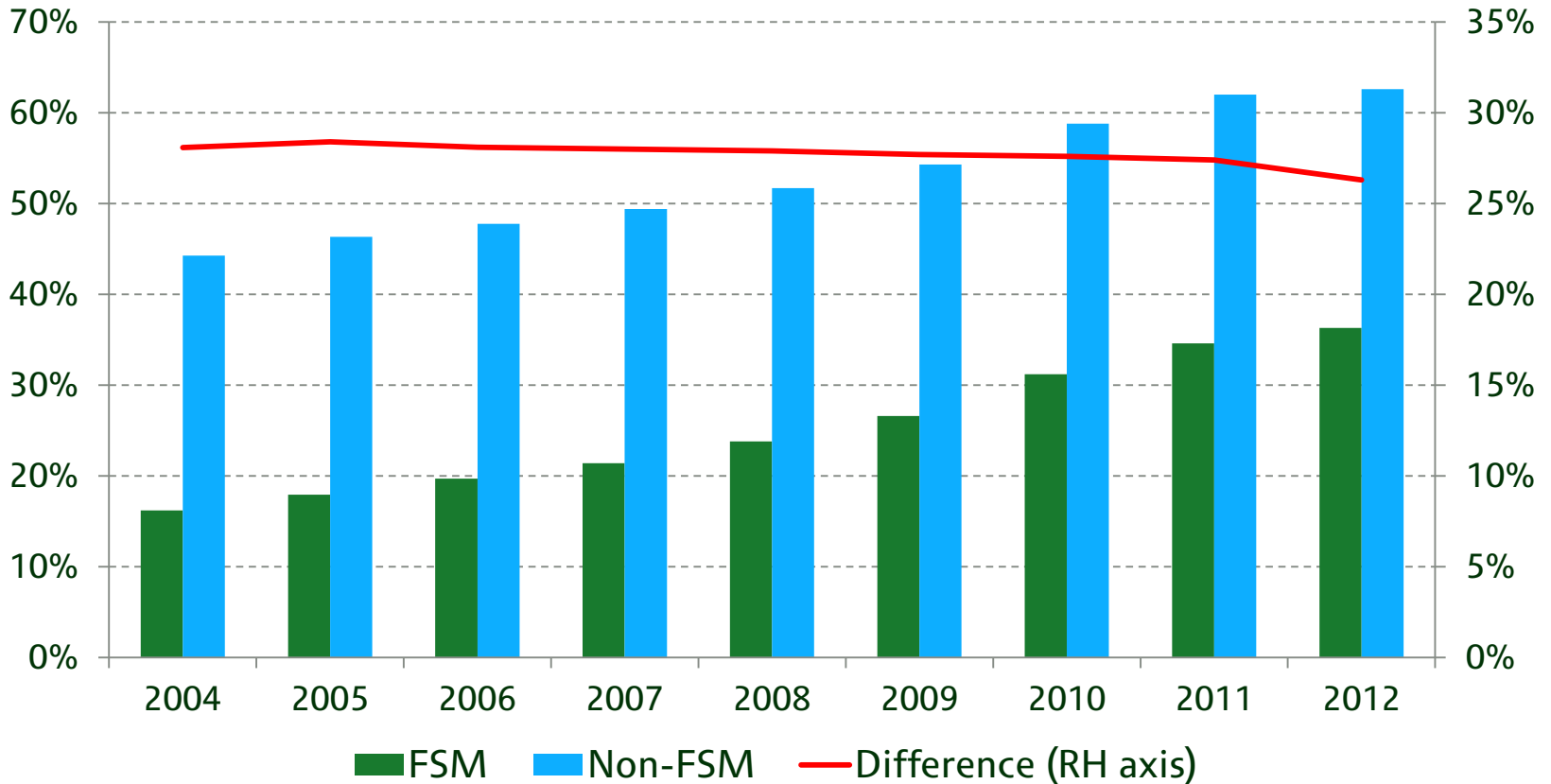
What about high status participation?



What might happen to SES gaps in future?

- Reduction in SES gap in % of cohort achieving 5 A*-C grades in GCSEs and equivalents sped up amongst cohorts following ours
 - Might suggest further falls in SES gaps in HE participation
 - But reduction in gap is not so strong if we ignore GCSE equivalents

SES gap in % of pupils getting 5 A*-C grades at GCSE including English and Maths has not fallen much

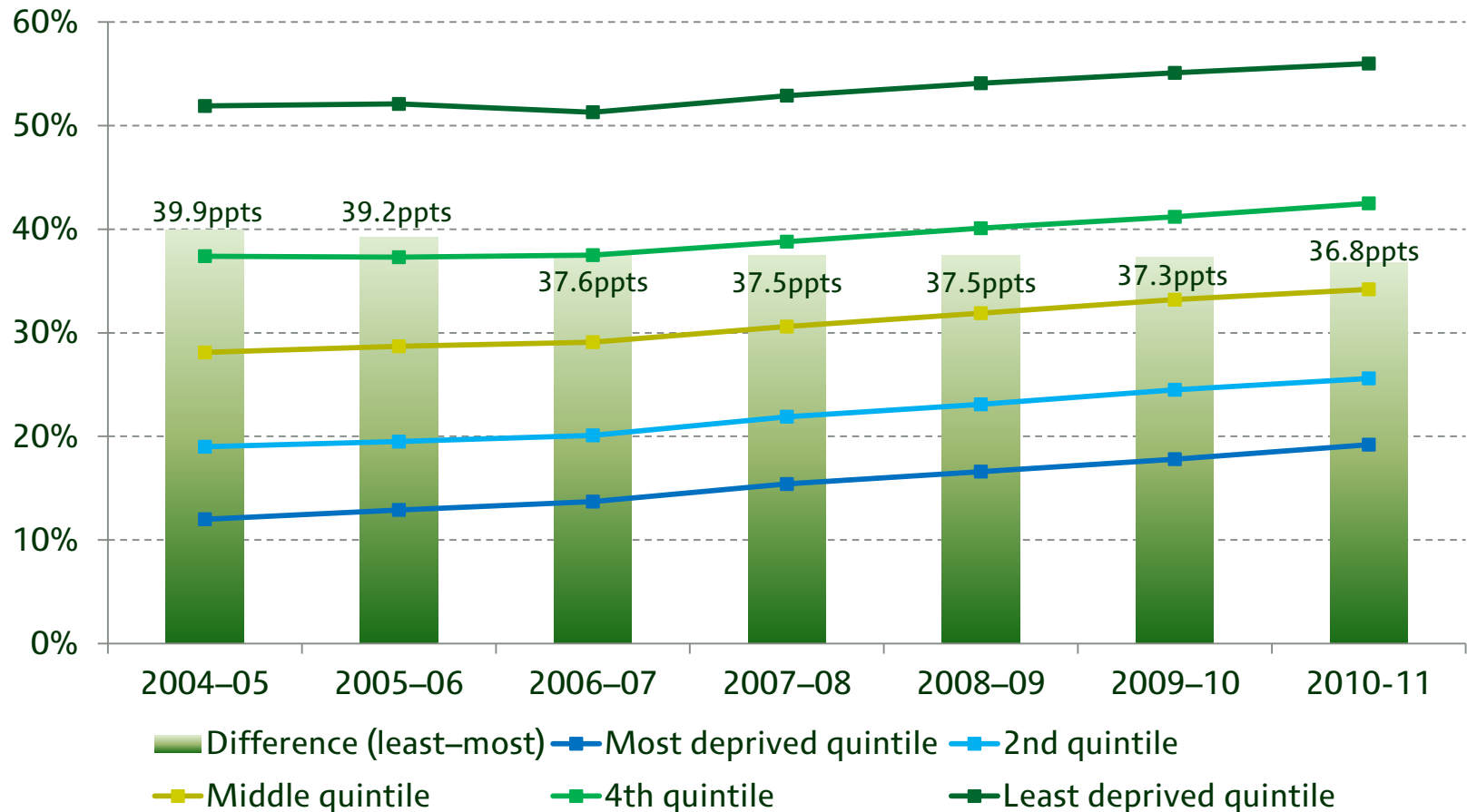


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 - But reduction in gap is not so strong if we ignore GCSE equivalents
- Further substantial rise in tuition fees (and associated student support via grants and loans) in 2012-13
 - UCAS data suggests fewer applications in total, but % of 18 year olds from disadvantaged backgrounds being accepted continued to rise
 - Saw a similar pattern in terms of entry at 18 or 19 around 2006-07 . . .

HE participation at age 18 or 19 (state school pupils)



Summary and conclusions (1)

- Socio-economic differences in HE participation are large:
 - The most advantaged fifth of state school pupils were, on average, 40 ppts (more than 4 times) more likely to go to university at age 18 or 19 in 2004-05 than the least advantaged fifth of state school pupils
 - Gap at high status universities was 19.4ppts (nearly 10 times more likely)
- Vast majority (around 90%) of this gap can be explained by differences in other characteristics, notably attainment at KS4/KS5
 - Unexplained gap between highest and lowest quintile groups is 4.3ppts for participation overall and 1.7ppts for high status participation
- Highlights potential importance of earlier interventions to increase KS4/KS5 attainment in raising HE participation rates
 - But remaining SES differences are significant; why are similarly qualified kids from deprived backgrounds still less likely to go to university?

Summary and conclusions (2)

- HE participation rates increased rapidly over this period:
 - By almost 6ppts overall between 2004-05 and 2011-12
 - But little change in participation at high status institutions
- Participation increased more rapidly for disadvantaged pupils
 - Gap between most and least deprived groups fell from 40ppts to 37ppts
 - Most advantaged now around 3 (rather than 4) times more likely to go
 - Absolute reduction in high status participation small (less than 1ppt)
 - But most advantaged now around 7 (rather than 10) times more likely to go
- Improved relative performance of deprived pupils in earlier achievement tests partly explains decrease in participation gap
- Will this continue? No obvious negative signs so far . . .