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Socio-economic gaps in HE participation: how have they changed over time?

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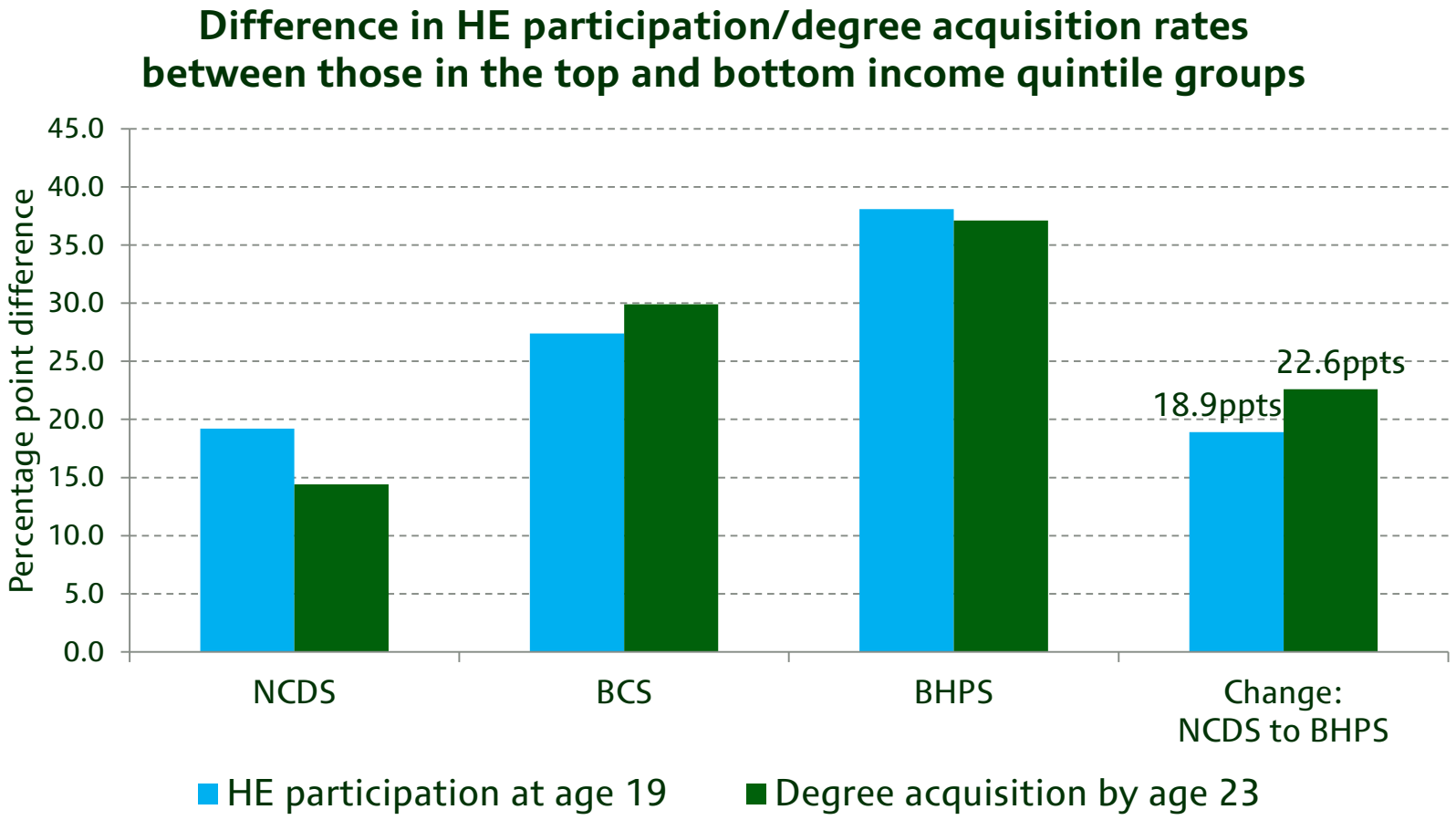
Motivation: rising socio-economic inequalities in HE participation and degree acquisition over time



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.

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Motivation and research questions

- Would the introduction of tuition fees in 1998 – and subsequent increases in 2006-07 and 2012-13 – damage the HE participation rates of young people from disadvantaged backgrounds and increase the socio-economic gap in HE participation still further?

- Key research questions:
  - What happened to HE participation (including at high status institutions) among state school students in England between 2004-05 and 2010-11?
  - Did the trends in HE participation change following the increase in the cap on tuition fees (and other changes to student support) in 2006-07?
  - How do these patterns vary by socio-economic status?
  - To what extent can background characteristics explain differences in HE participation over time and between socio-economic groups?

Data

- National Pupil Database (NPD)
  - Census of pupils in Year 11 in England: 2001-02 to 2006-07
  - Key Stage test results at ages 11, 16 and 18
  - 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 2010-11

- Linked NPD-HESA data:
  - Provides us with the population of state school students taking (or eligible to take) GCSEs in England between 2001-02 and 2006-07
  - Enables us to follow individuals from the end of primary school through to potential HE participation at age 18 or 19

Outcomes

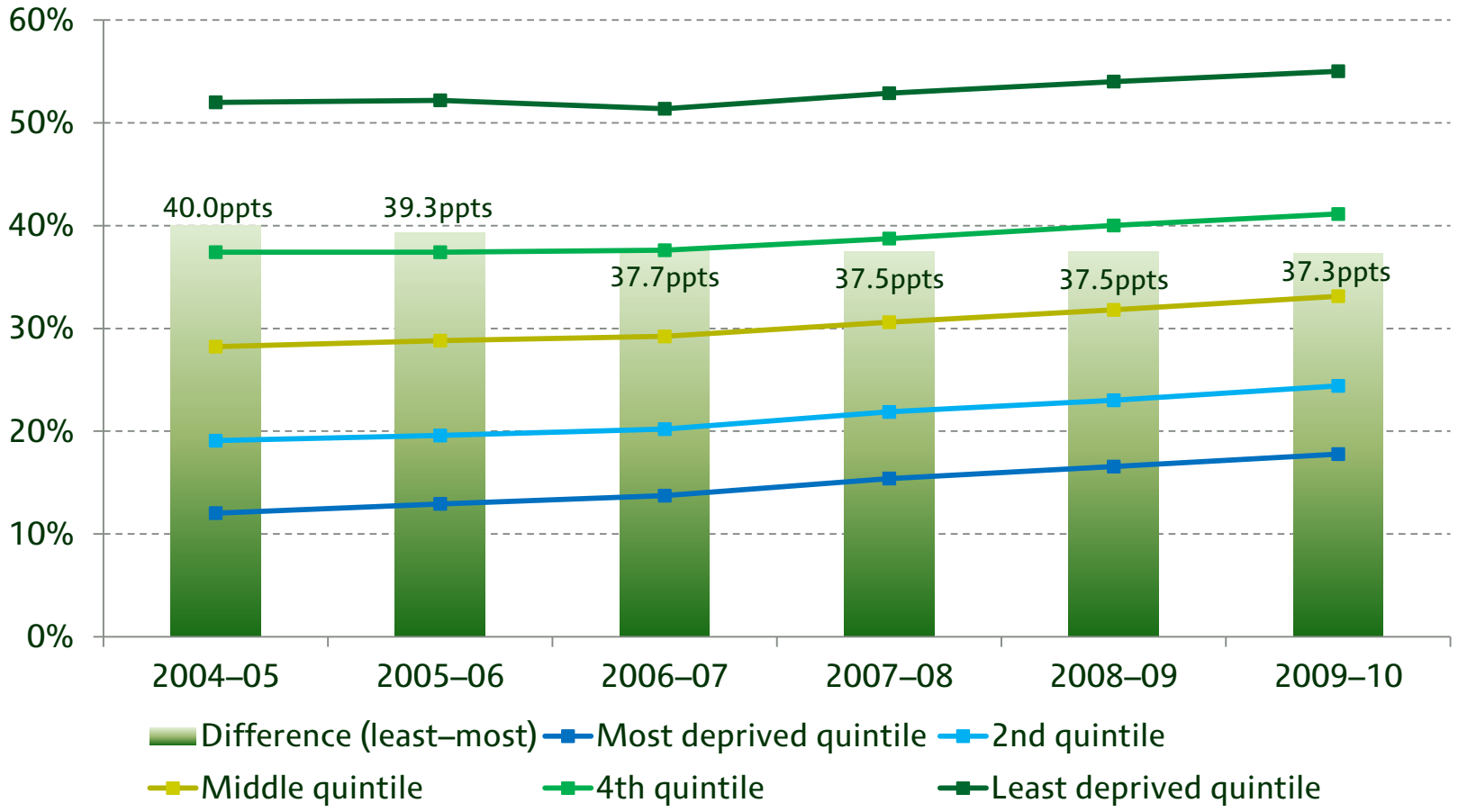
- Participation at any UK HE institution at age 18 or 19
- Participation at a "high status" institution, where high status is:
  - Russell Group institutions (20 in total pre-2012)
  - Plus any UK university with a 2001 average RAE score higher than the lowest amongst the Russell Group (an extra 21 institutions)
  - 9.8% of state school pupils attend such institutions (31% of HE participants from state schools)

- Amongst the cohort first eligible to go to university in 2009-10:
  - 34.4% of state school pupils participated at age 18 or 19
  - 9.9% attended a high status institution (28.8% 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 at age 18 or 19 (state school pupils)



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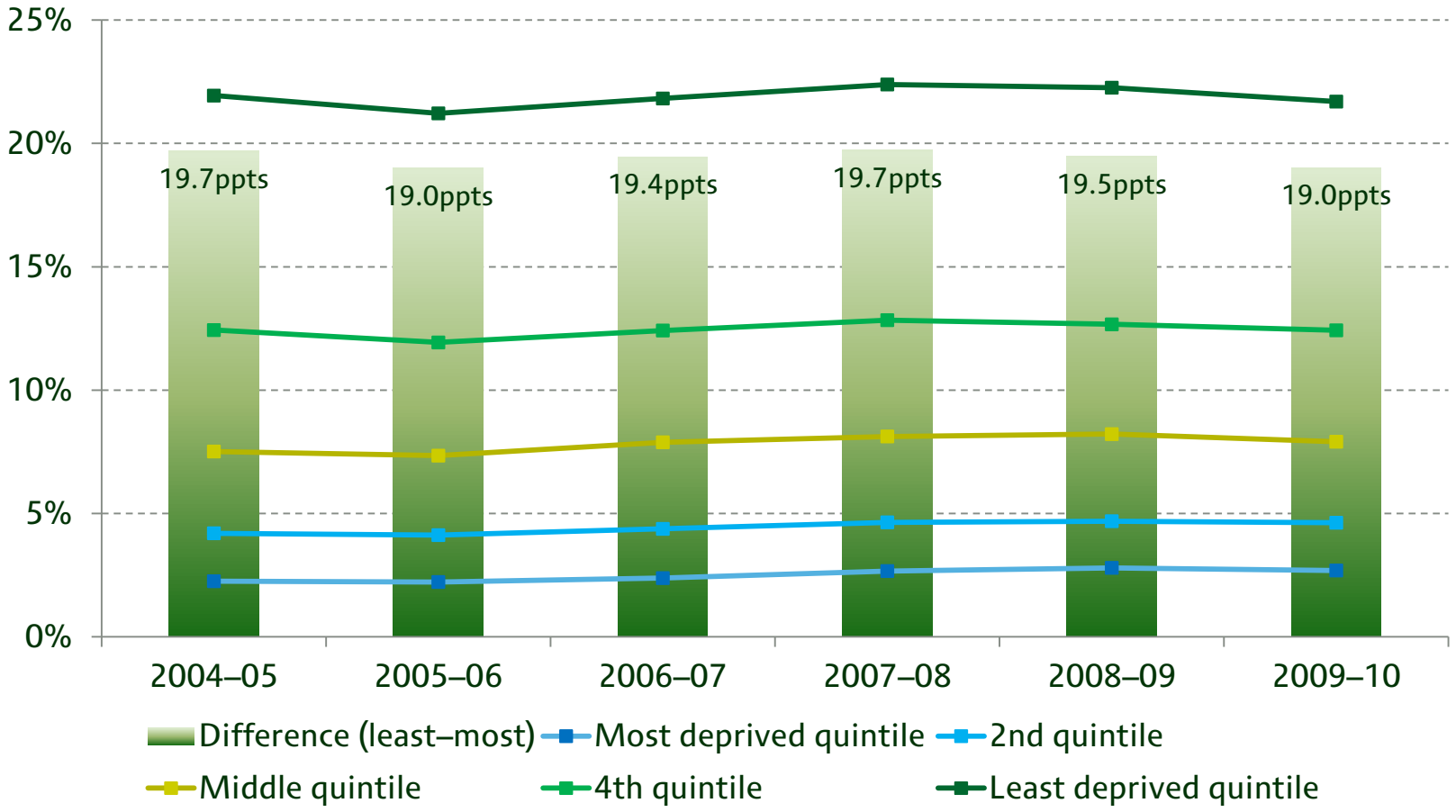
HE participation at a high status institution at age 18 or 19 (amongst state school pupils)



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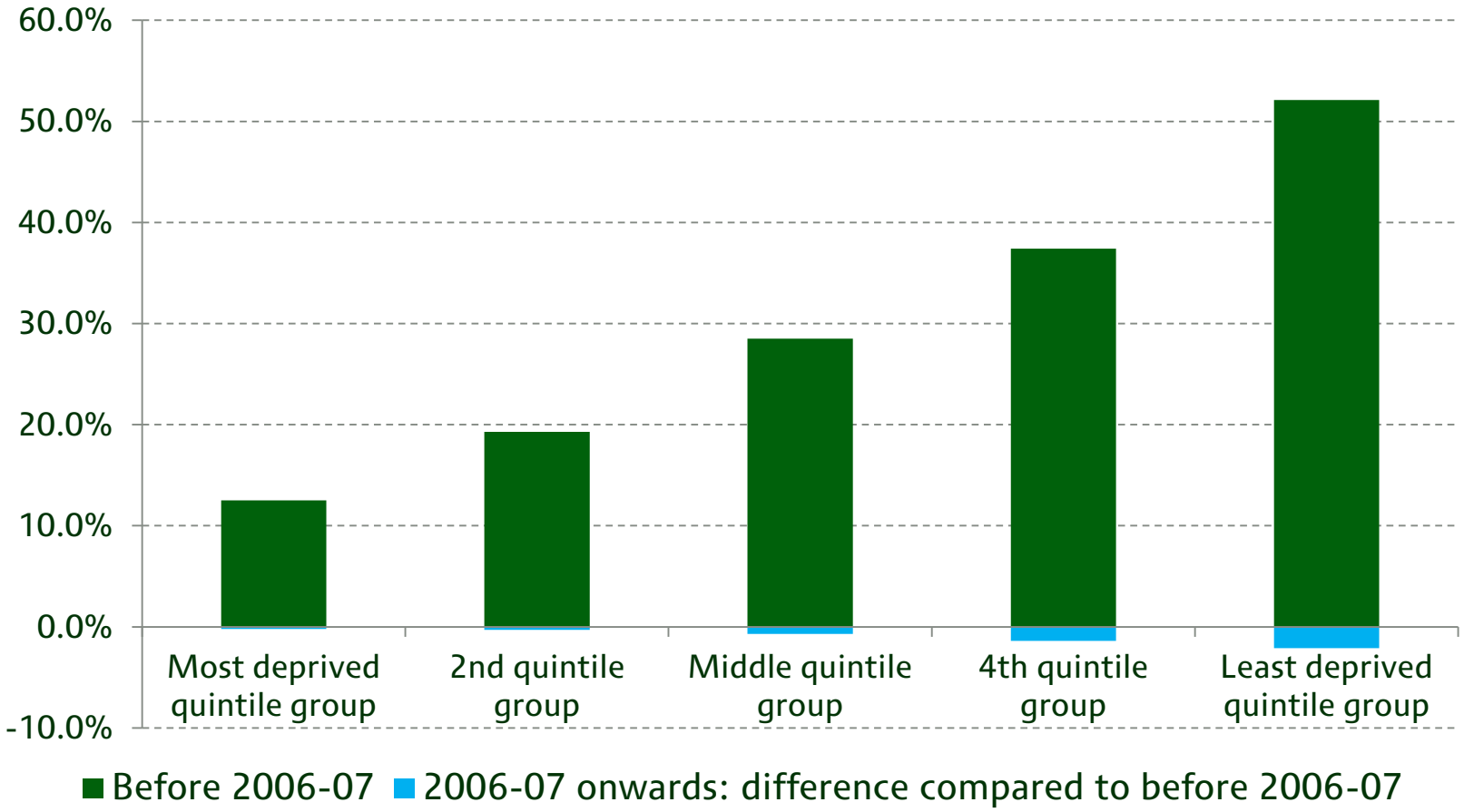
Modelling HE participation (1)

- Were the changes to HE finance introduced in 2006-07 associated with changes in (the socio-economic gradient in) HE participation?
- Try to model what would have happened to HE participation (in the absence of supply constraints) had there been no policy changes
- Include in our model:
  - The four highest quintile groups on the basis of our SES index
  - A linear time trend
  - An indicator for first being eligible to go to HE in or after 2006-07
  - Interactions between SES quintile group and our post 2006-07 indicator
- Aim is to understand whether participation in and after 2006-07 was higher or lower than might have been expected on the basis of prior trends and whether this differs by socio-economic background
  - **NOT** a causal analysis

HE participation at age 18 or 19 amongst state school pupils before and after 2006-07



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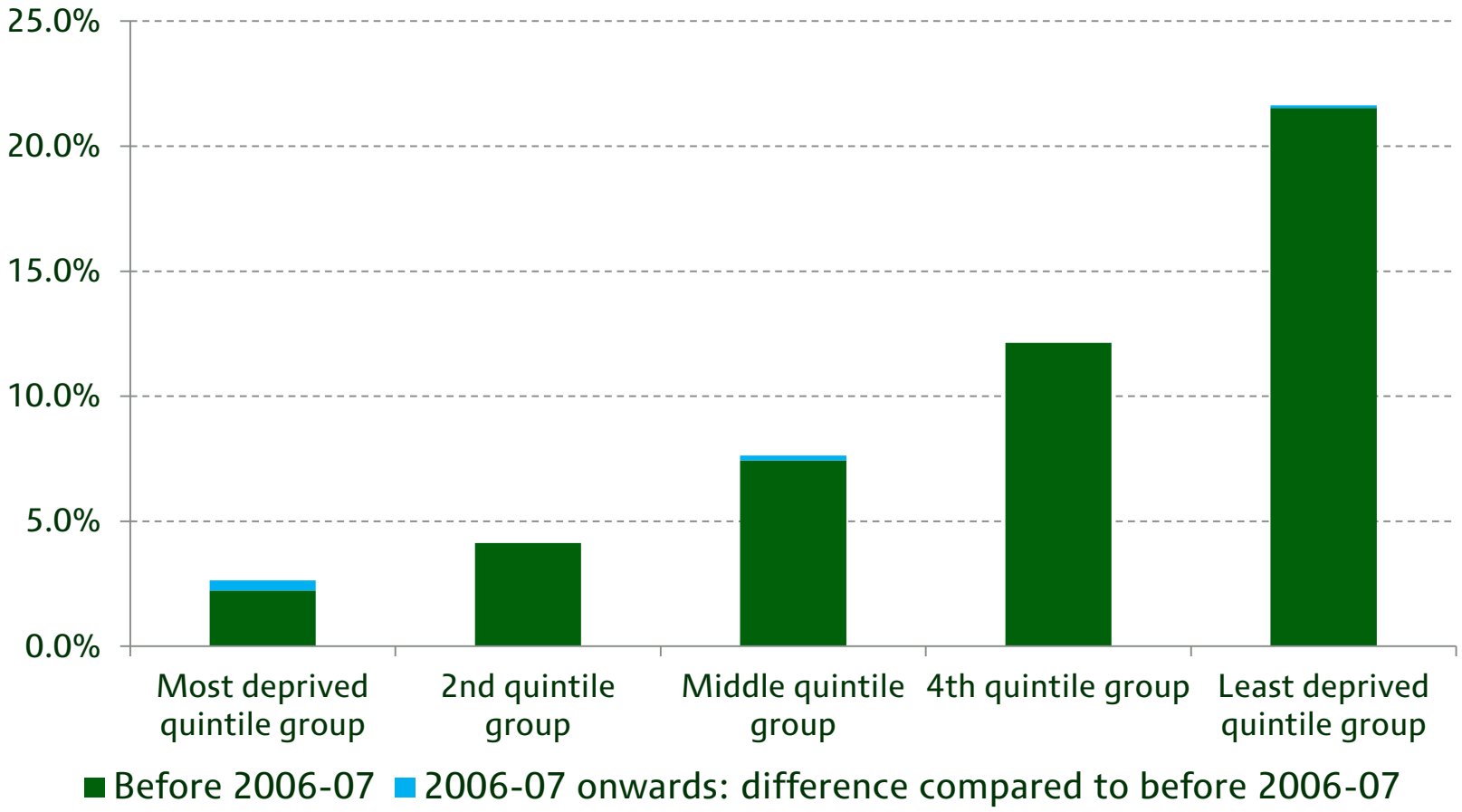
High status participation at age 18 or 19 amongst state school pupils before and after 2006-07



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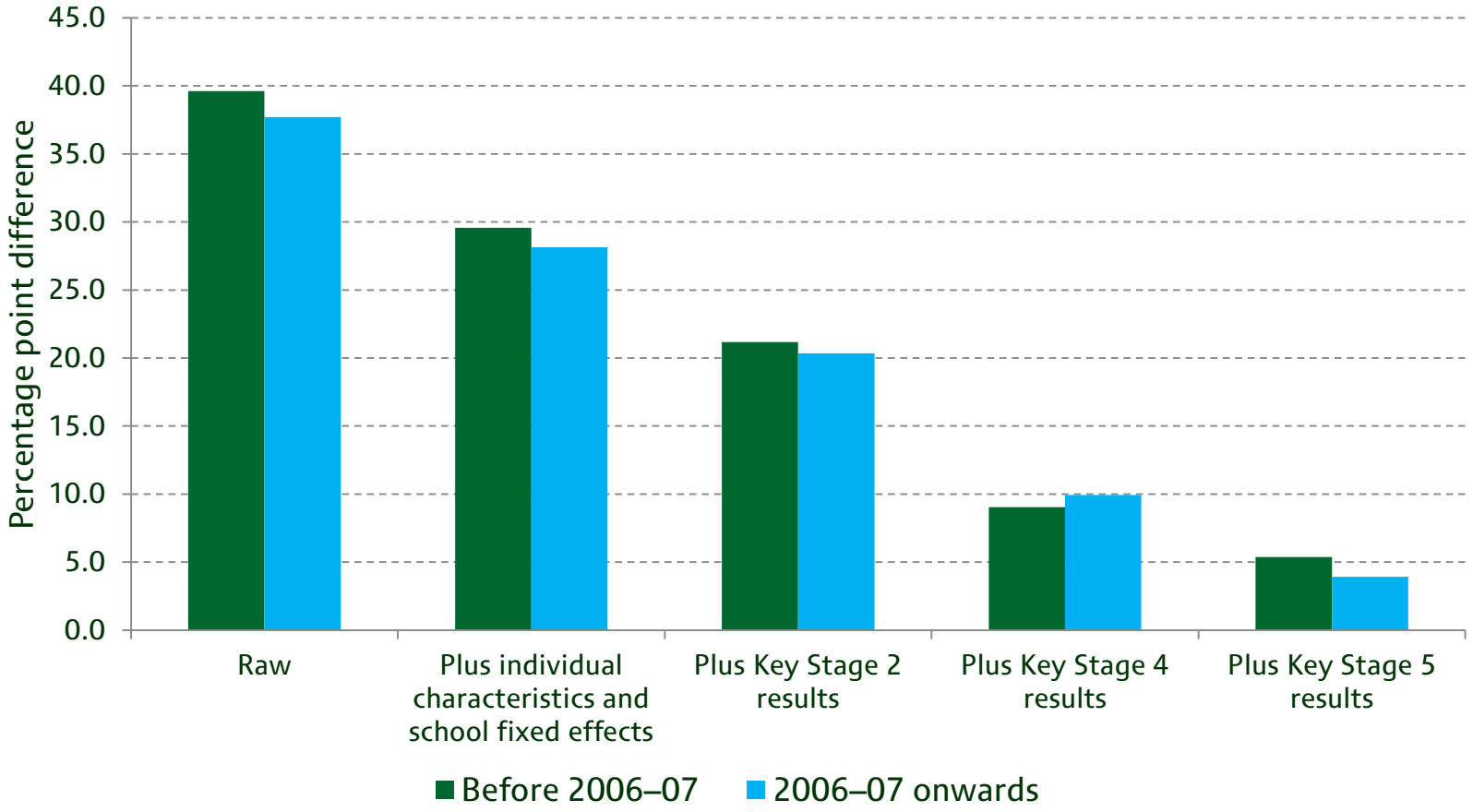
Modelling HE participation (2)

- Investigate the extent to which differences in HE participation by SES and over time can be explained by differences in the composition of state school pupils, 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)

Differences in HE participation between most and least deprived quintile groups before and after 2006-07



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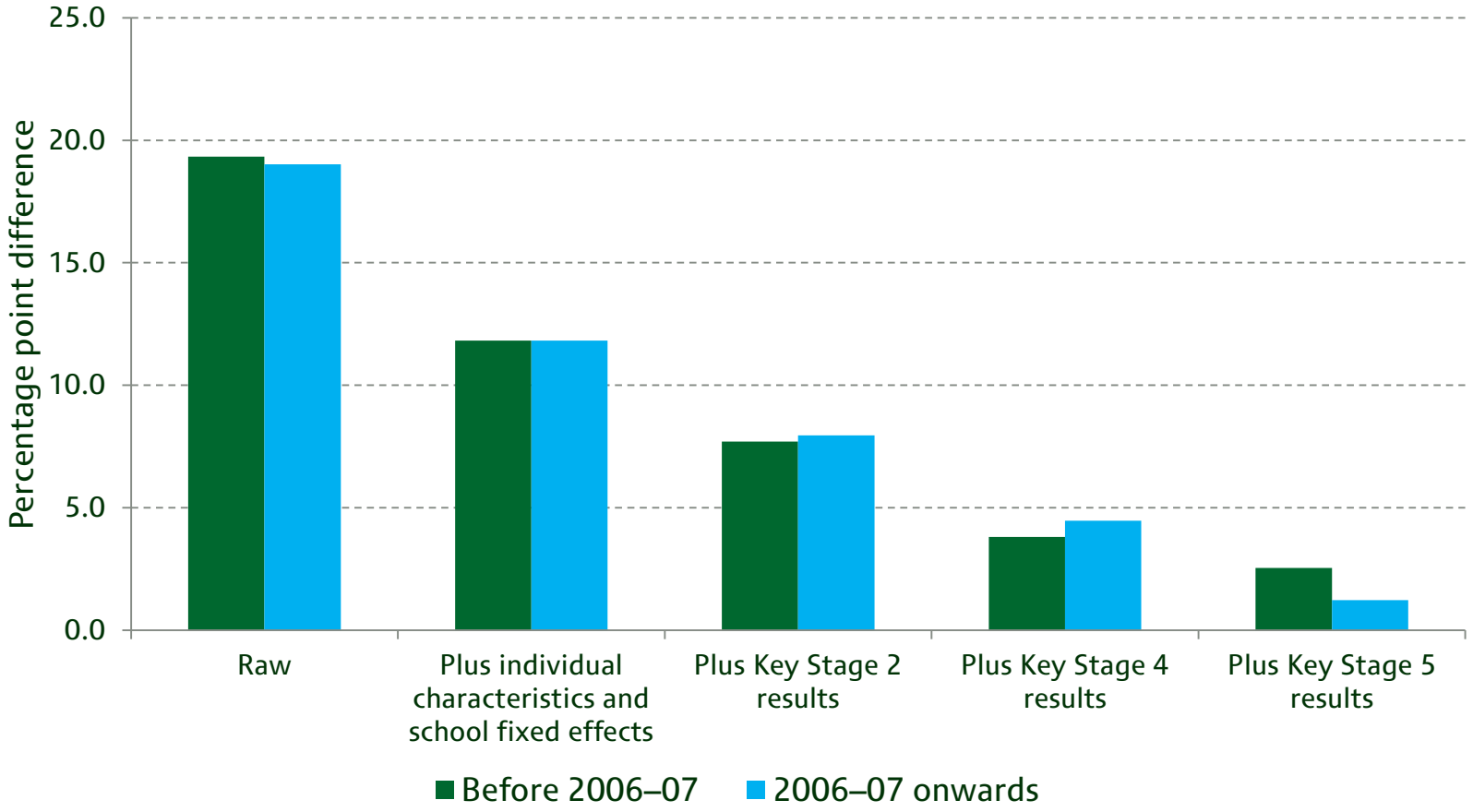
Differences in high status participation between most and least deprived quintile groups before and after 2006-07



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Summary and conclusions (1)

- HE participation amongst state school pupils at age 18 or 19 rose by almost 5 percentage points between 2004-05 and 2010-11
  - But there was little change in participation at high status institutions
- Participation increased more quickly for pupils from deprived backgrounds, such that the gap in HE participation – and to a lesser extent high status participation – fell over this period
  - Gap in participation between state school students from the most and least deprived quintile groups fell from 40 ppts to 37 ppts
- Improved relative performance of deprived pupils in earlier achievement tests partly explains decrease in participation gap

Summary and conclusions (2)

- Evidence of a small but temporary dip in participation in 2006-07
  - Largest amongst state school pupils from better-off families
- Upward trend in HE participation continued after 2006-07
  - More quickly for those from the poorest backgrounds
- Cannot say for sure that this change arose *as a consequence of* the new HE finance regime introduced in 2006-07, but:
  - Was coincident with it and cannot be explained using other characteristics observed in our data
  - Is a plausible response to the reforms, which were more generous to students from poor families and hit richer students relatively harder