



Institute for
Fiscal Studies

THE UNIVERSITY OF
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Using data to inform widening participation and retention strategies

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Introduction

- Increasing access to administrative data
- Increasing focus on evaluation
- ➔ Opportunities to identify effective access and retention strategies
- Focus on admin data and how it can be used to inform WP strategies

Data

- Linked NPD-ILR-HESA data
- National Pupil Database (NPD)
 - Census of pupils taking GCSEs in England
 - Key Stage test results at ages 11, 16 and 18 for those who sat them
 - Key Stage 4 school identifiers for all pupils
 - Plus limited background characteristics for state school pupils
 - e.g. gender, ethnicity, FSM eligibility, local area characteristics based on home postcode
- NISVQ and ILR data
 - Census of those taking qualifications in FE colleges; but only limited info
- Higher Education Statistics Agency (HESA) data
 - Census of students attending UK universities
 - Includes information on institution attended, qualification and subject studied, and qualification outcomes, e.g. completion and degree class

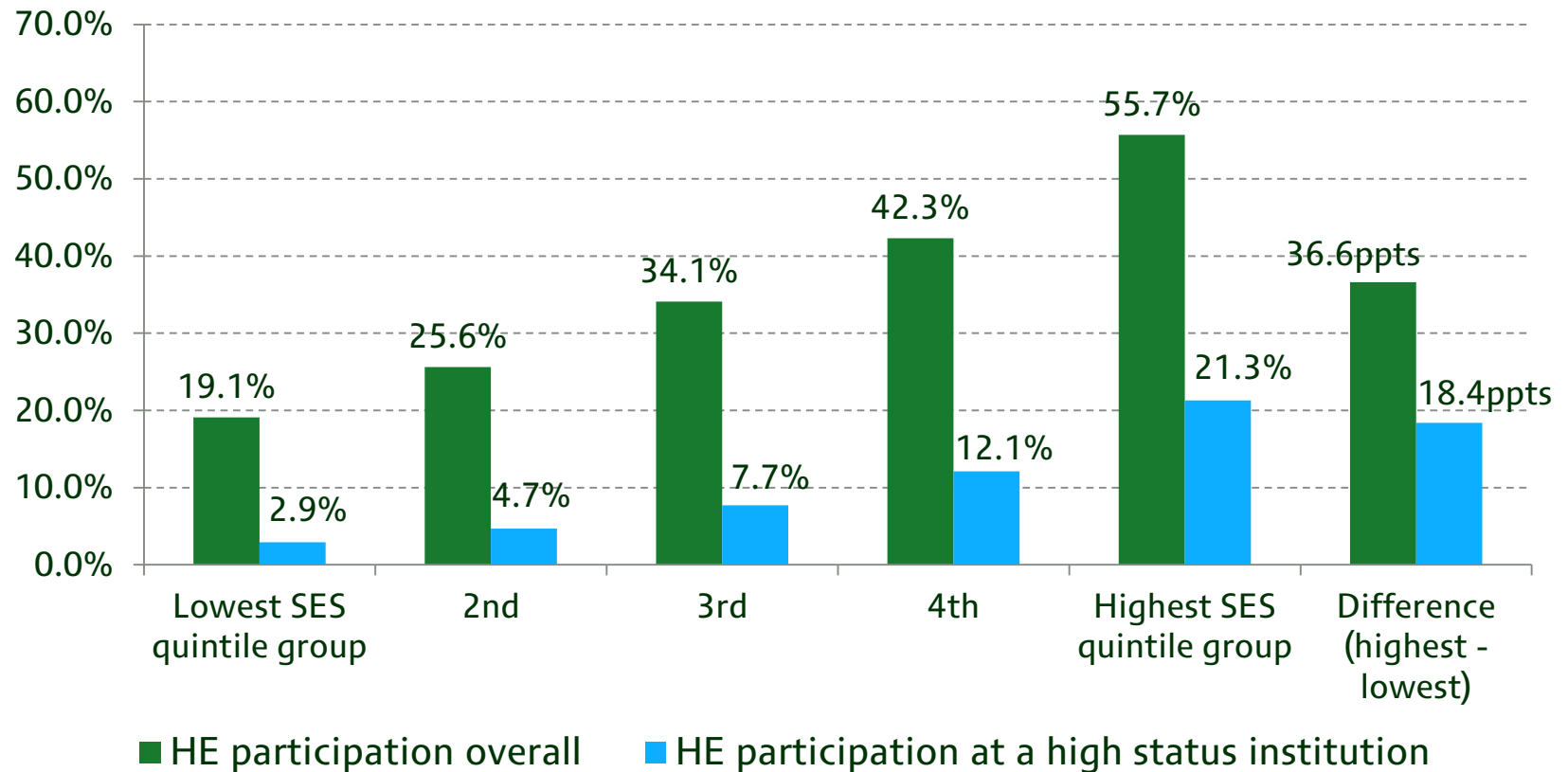
What have we done with this data?

- Descriptive analysis investigating the determinants of HE entry, retention and progression
 - Insight into the most effective types of and times for WP interventions
 - And the characteristics universities may wish to prioritise when considering the use of contextualised admissions policies
- Using administrative data to construct a control group
 - Illustrates one way in which we can evaluate WP interventions which have not necessarily been designed with evaluation in mind

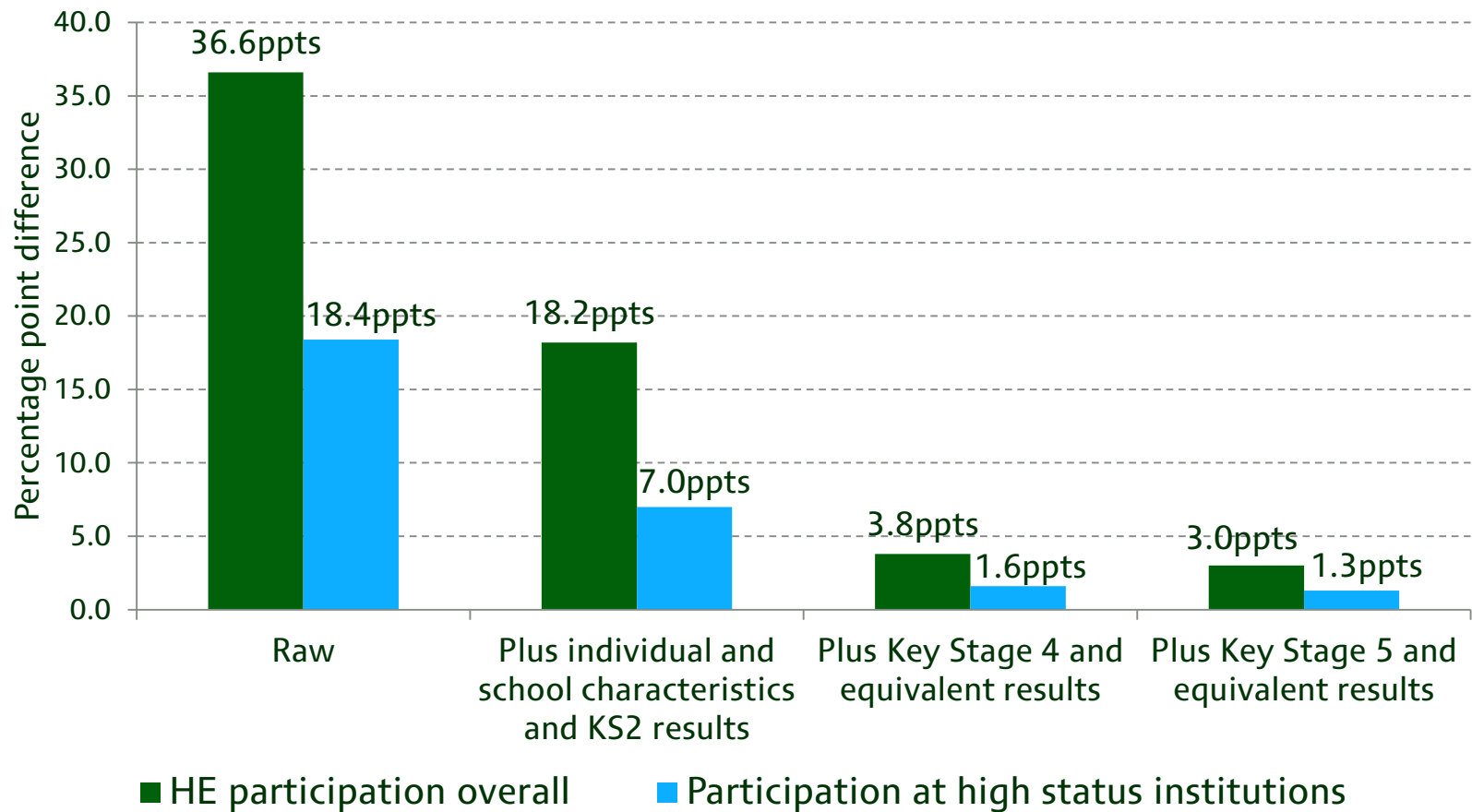
Socio-economic differences in HE outcomes

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

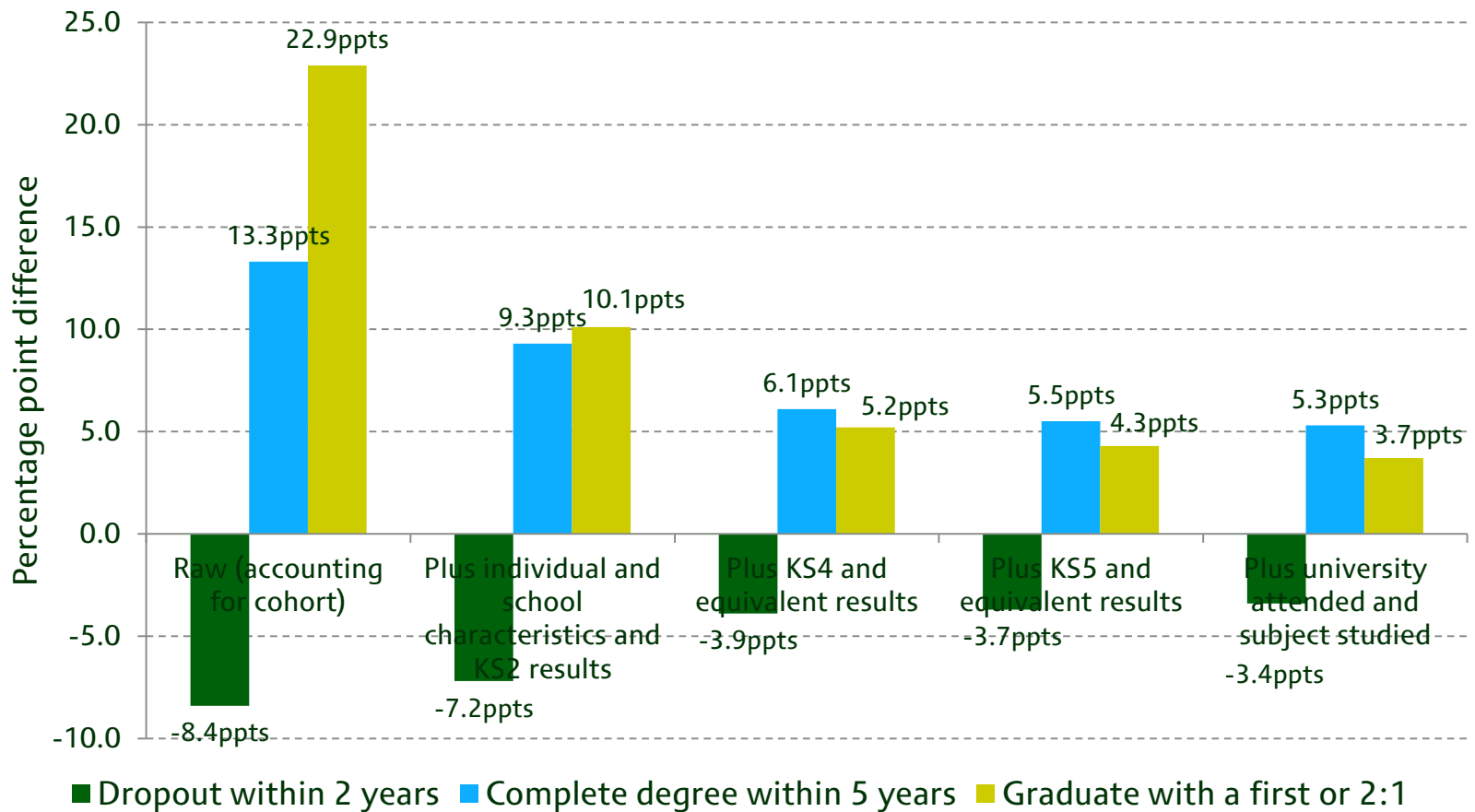
% pupils going to university at age 18/19: highest SES quintile group including state school pupils only



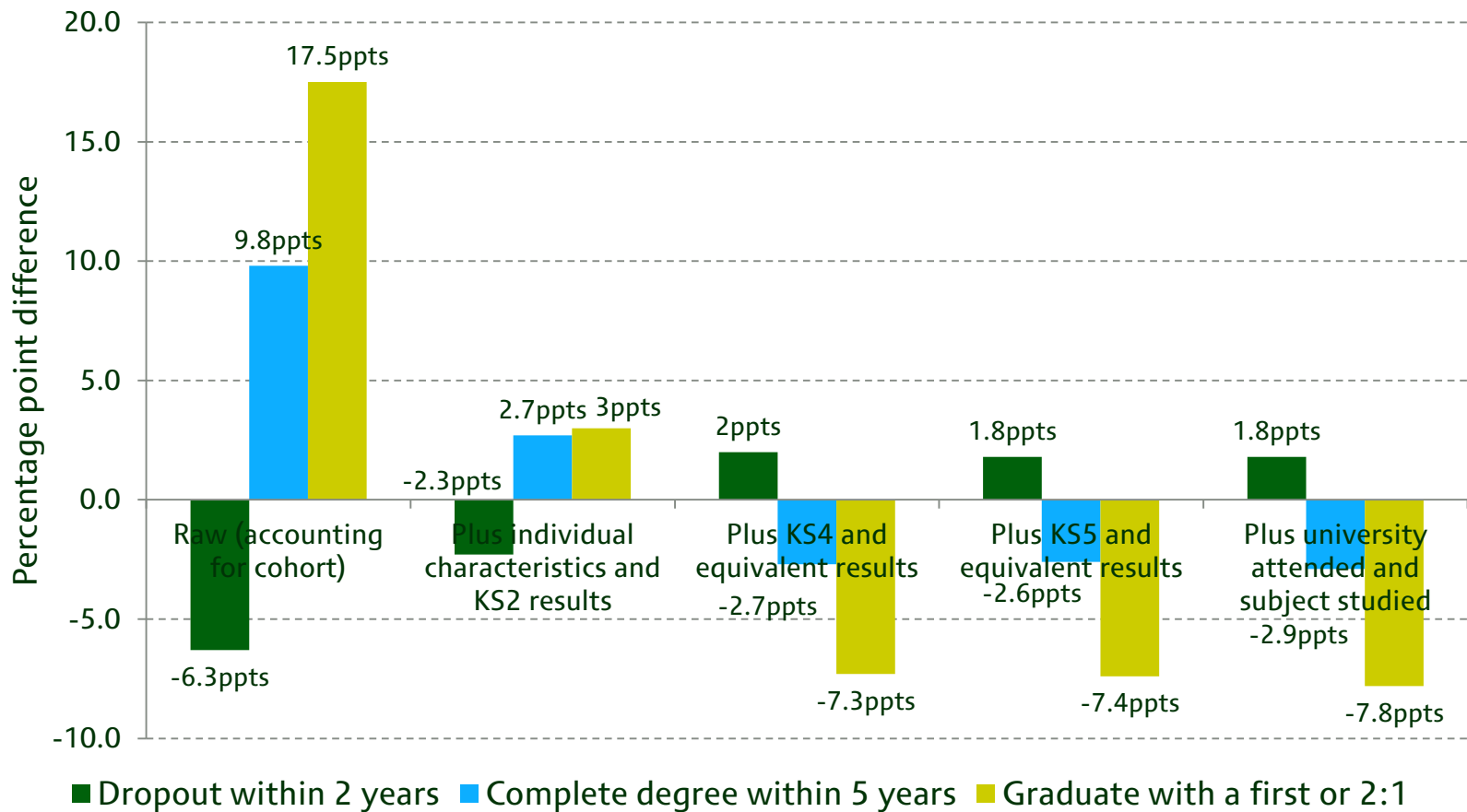
What explains differences in HE participation between state school pupils from most and least deprived backgrounds?



What explains differences in university outcomes between pupils from high and low SES backgrounds?



How does this compare to the differences between pupils from the highest and lowest performing schools?



Summary (1)

- Large differences in HE participation overall and at high status institutions on the basis of socio-economic status
- But these gaps can largely be explained by differences in prior attainment between pupils from different backgrounds
 - Particularly emphasise the substantial explanatory power of KS4
- Suggests that before the end of secondary school is a potentially vital period for interventions to “widen” participation in HE

Summary (2)

- Differences in HE outcomes smaller, on average, than participation, and in expected direction (but amongst selected sample)
- Controlling for attainment on entry to university substantially reduces SES differences; comparing students on the same courses makes little difference over and above accounting for attainment
 - Students from high SES backgrounds still, on average, less likely to drop out, more likely to complete degree and more likely to get first or 2:1 than students from low SES backgrounds
- Different picture when comparing outcomes by school performance
 - Students from high-performing schools are, on average, *more* likely to drop out, *less* likely to complete degree and *less* likely to get first or 2:1 once we account for differences in attainment prior to university entry

Policy implications?

- Attainment during secondary school still a key driver of progression and performance at university, so SES gaps in these outcomes may fall if attainment rises earlier in the school system
- Differences by school characteristics suggest that pupils from low performing schools with the same attainment as those from high performing schools have, on average, higher “potential”
 - Universities may wish to account for this in making entry offers
 - If they do, they are likely to get it right **on average**
- Same is not true for individual/neighbourhood measures of SES
 - Does not mean that no students from lower SES backgrounds will go on to outperform students from higher SES backgrounds at university
 - But it is not true **on average**: makes it more challenging for universities to identify low SES students with high potential to do well

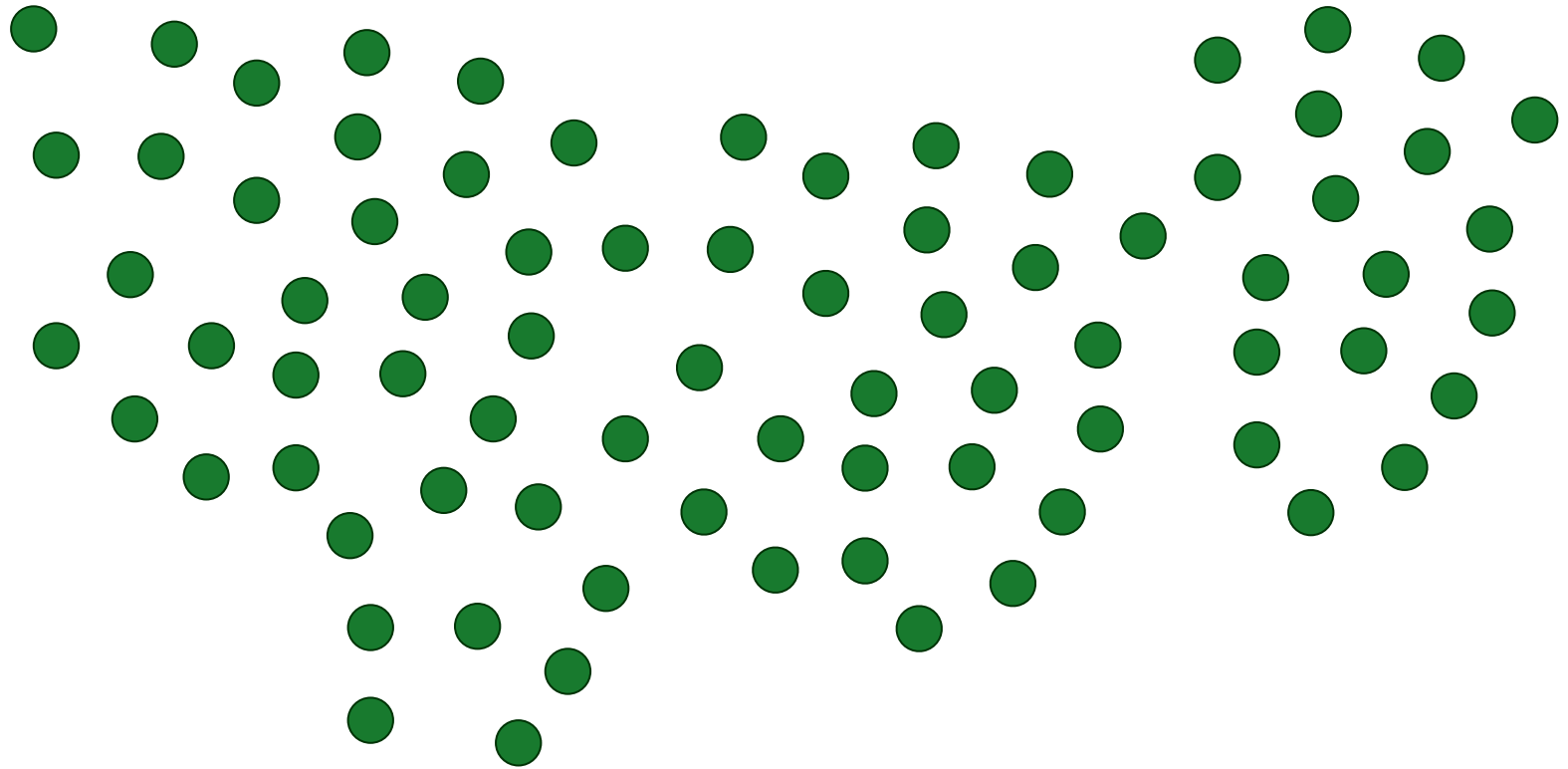
Evaluating WP programmes using admin data

The importance of evaluation

- With limited funding, need to understand which programmes are most effective at raising the outcomes of under-represented pupils
- Robust evaluation should help to ensure that scarce resources are targeted effectively, and hopefully help narrow the gaps

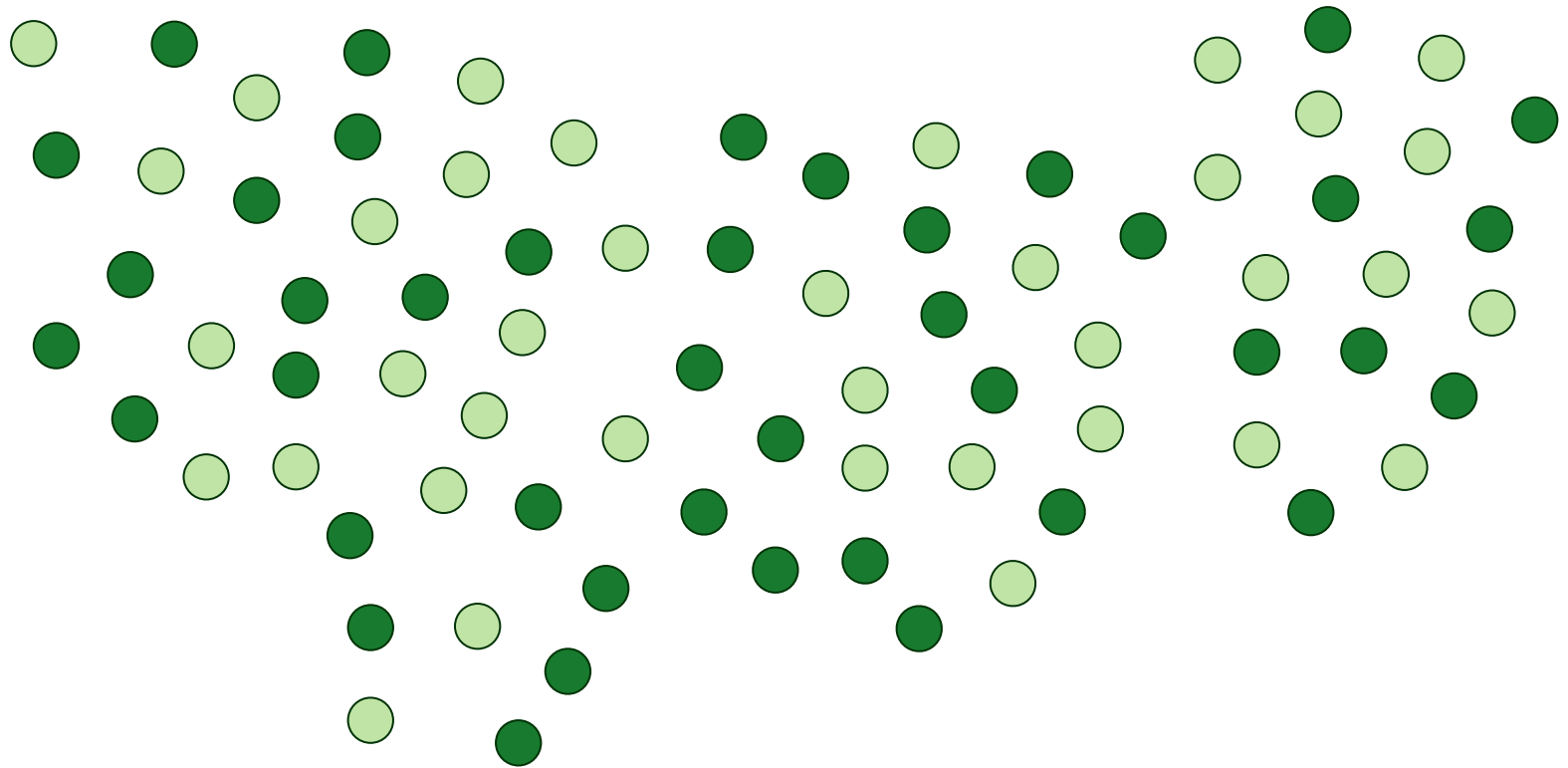
“Gold-standard” evaluation

- Use group of potential participants (e.g. successful applicants)



“Gold-standard” evaluation

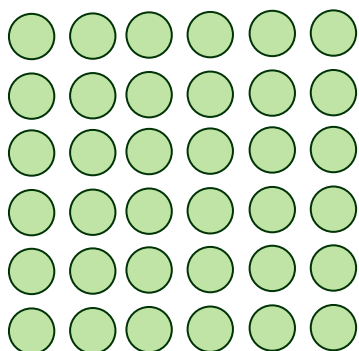
- Randomly assign potential participants to two groups



“Gold-standard” evaluation

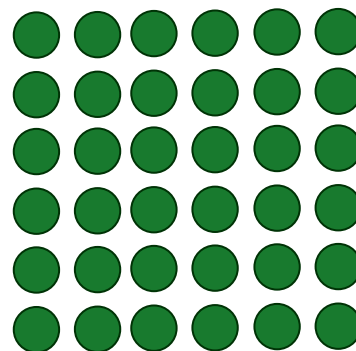
Programme group

Receive programme



Comparison group

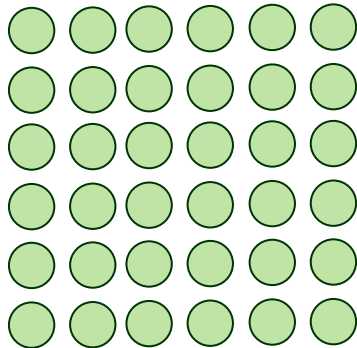
Counterfactual for programme group



“Gold-standard” evaluation

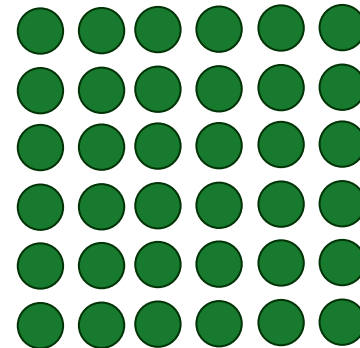
Programme group

60% attend Russell Group institutions



Comparison group

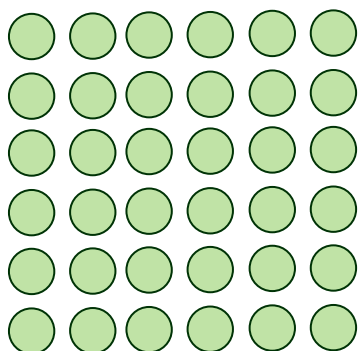
50% attend Russell Group institutions



In this example the impact of the programme is 10 percentage points (20% increase)

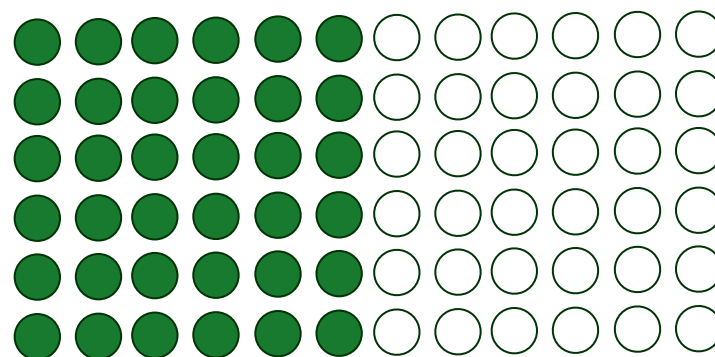
Feasible evaluation

Programme group



Comparison group

Choose individuals with very similar characteristics to programme group



Disadvantage: we may not observe all the important ways in which treatment and comparison groups differ

What we did

- Evaluated the impact of the Social Mobility Foundation's Aspiring Professionals Programme on HE participation and institution choice
- The programme:
 - Delivered to Year 12 students with high academic attainment and low socio-economic status
 - Offers mentoring, internships, skills development, events and trips to universities, university application support
- The outcomes we looked at:
 - HE participation
 - Amongst those who go to university:
 - Whether they attend a Russell Group institution
 - (And subject choice and whether attend institution in same region, but not shown here)

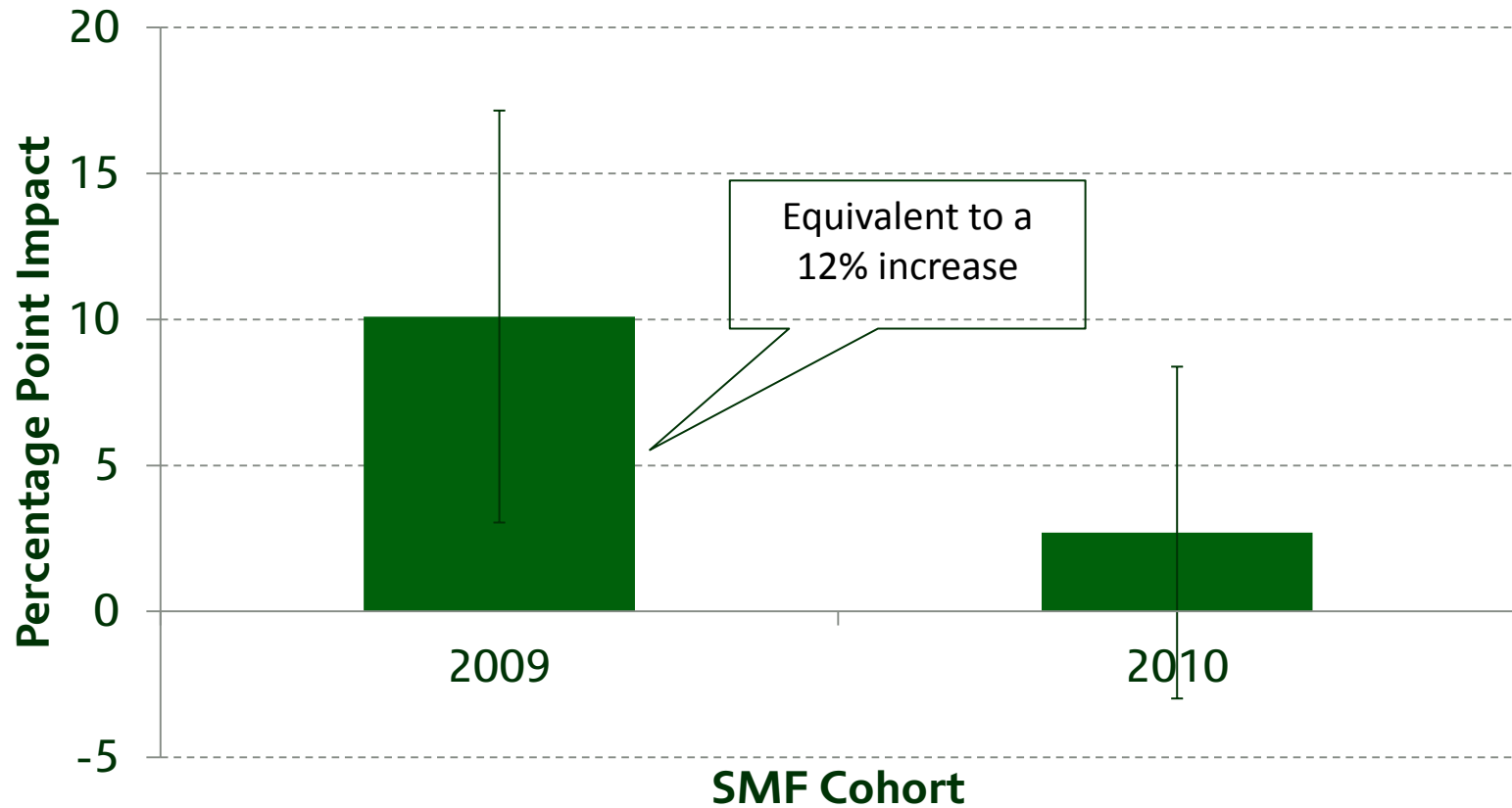
What did we know about SMF participants?

- Background characteristics from application form
 - GCSE attainment
 - Ethnic group
 - Eligibility for free school meals/education maintenance allowance
 - Postcode
- A-Level attainment from subsequent SMF survey
- HE destination and subject choice from subsequent SMF survey

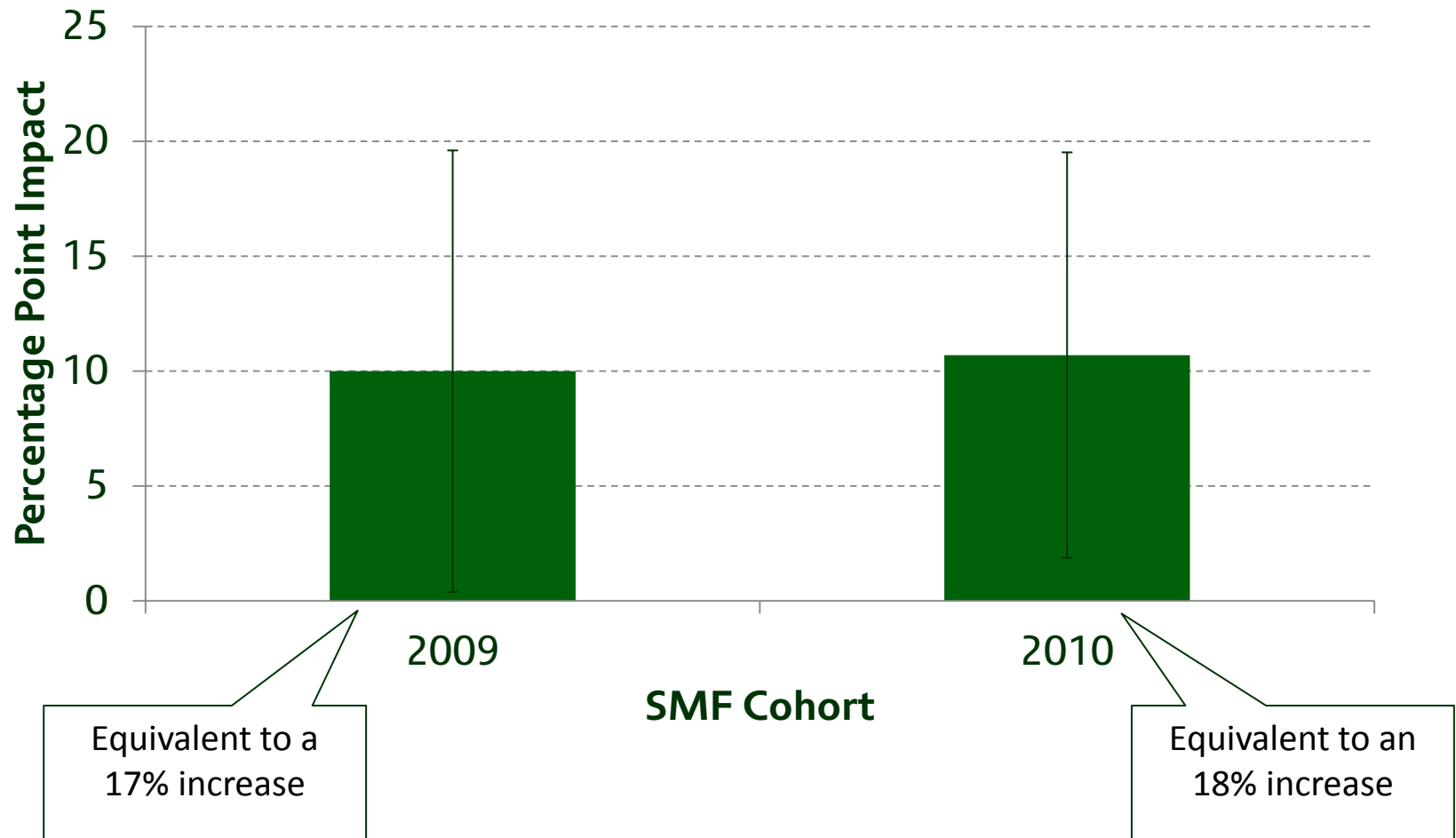
Approach to constructing comparison group

- Use administrative data to find individuals with similar characteristics to act as our comparison group
 - Eligibility for free school meals
 - Local area characteristics
 - Prior attainment
 - Ethnic group
- } proxy for family income
- ➔ Need rich data on background characteristics and outcomes of programme participants, similar to those available in admin data

University participation



Russell Group participation (amongst those going to university)



Summary

- The SMF programme seems to have had a sizeable positive effect on institution choice and/or Russell Group application success amongst high achieving young people from disadvantaged backgrounds who might otherwise have gone to different universities
- Magnitude is roughly equivalent to the difference between pupils who achieve three A grades at A-level and three A* grades at A-level, on average, conditional on participation

Conclusion

- Estimation method could be replicated for other programmes to determine effectiveness of different WP strategies
- Advantages:
 - Cost-effective (no need to collect data on control group)
 - Can be undertaken even in cases where programme was not designed with evaluation in mind (certainly better than no evaluation)
- Disadvantages:
 - Restricted to outcomes that can be observed in admin data
 - Always a danger that there are unobserved factors that differ between treatment and control groups that we cannot account for
 - Especially likely in programmes where participants have to “select in”