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EDUCATION POLICY INSTITUTE

The Disadvantage Gap in 16-19 Education

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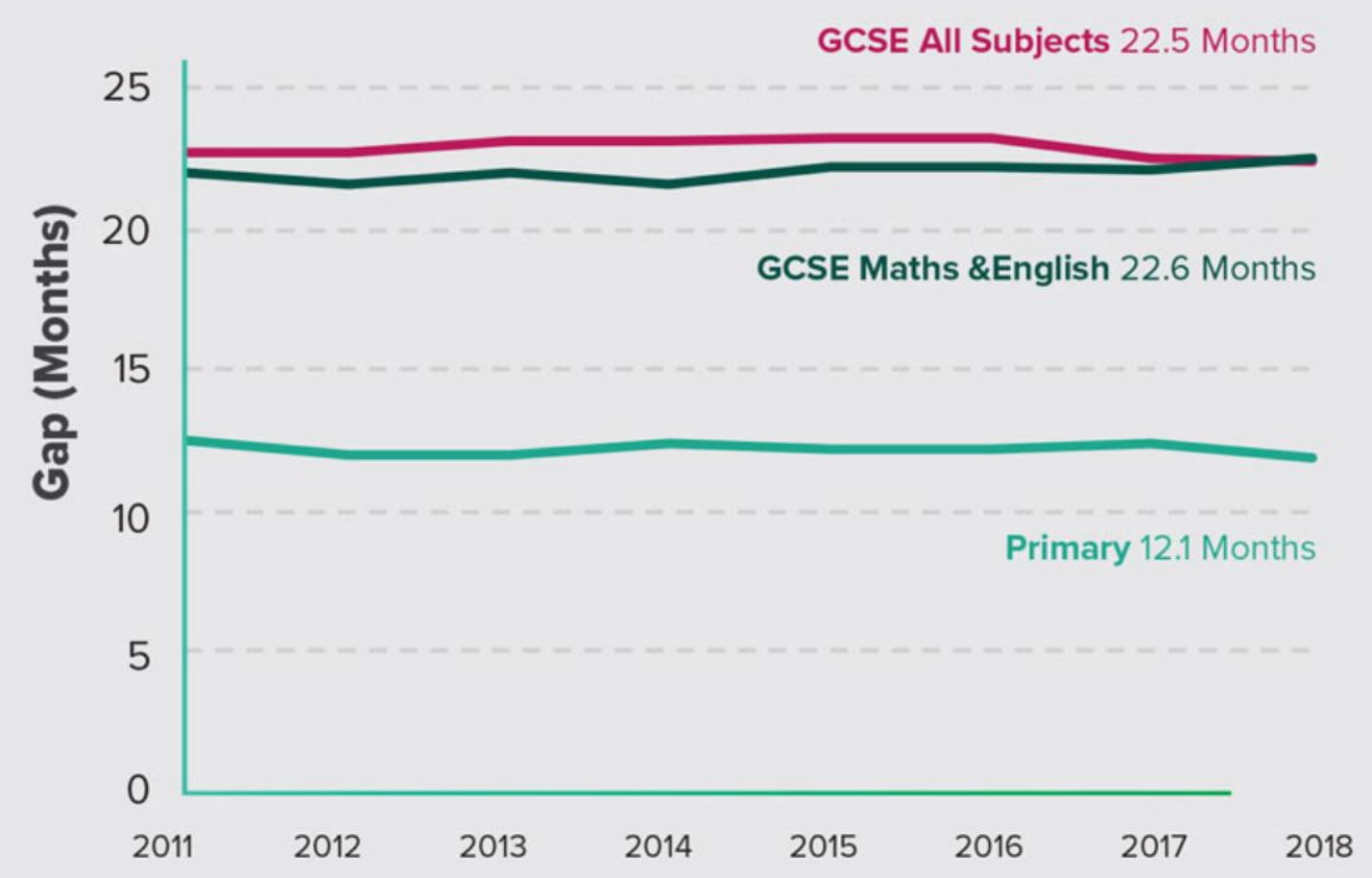
The Disadvantage Gap in 16-19 Education

- Why did we do the research?
- Where are the gaps?
- What is behind the gaps?
- Covid impact and policy implications

No comprehensive gap measure for 16-19



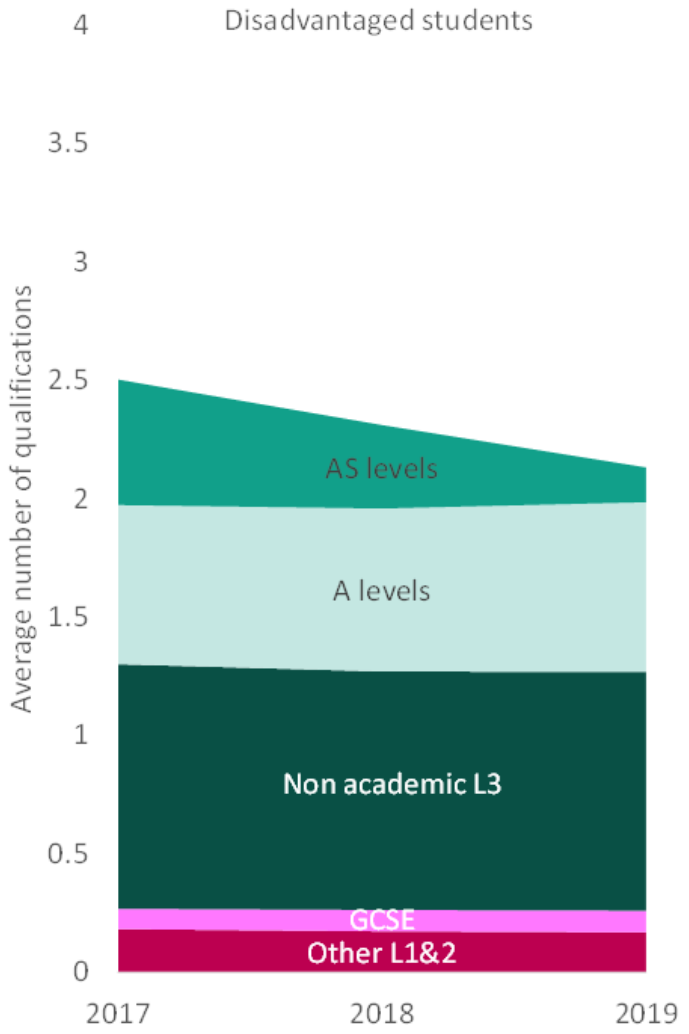
- Little evidence 16-19 compared to school age
- No research covering full range of qualifications available and grades achieved
- Leads to inconsistent policy making
- Heightened importance since participation age set at 18

Introduction to research

- Research uses National Pupil Database/Individualised Learner Record
- Using Free School Meal (FSM) eligibility during secondary school as measure for disadvantage
- We can not attribute causality, due to nature of the research (administrative data not experiments)
- Refers to students finishing their studies in 2019 – before covid and associated school closures
- But we are currently undertaking research to understand how patterns changed during the pandemic
- DfE/Ofqual data published so far indicates direction of travel

How large was the 16-19 disadvantage gap prior to COVID?

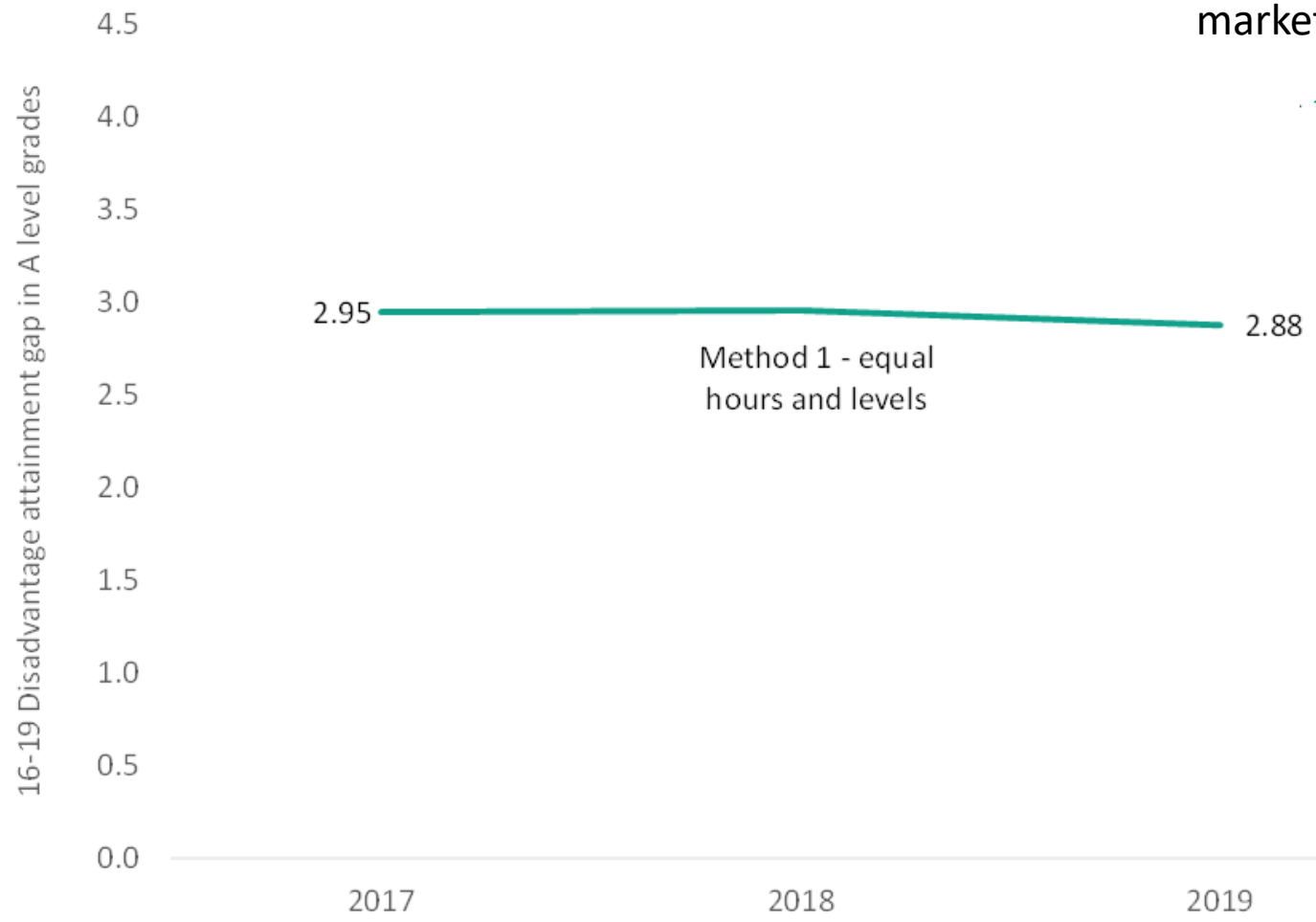
Disadvantaged students take fewer, and less academic, qualifications



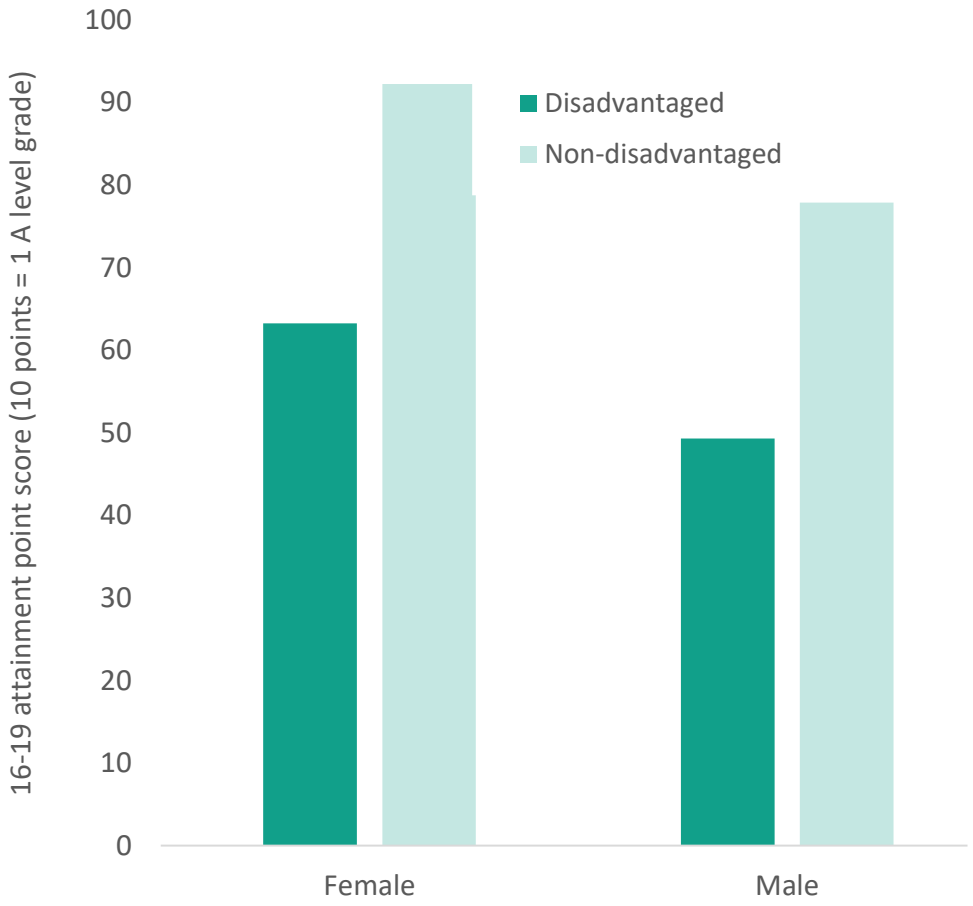
- On average, disadvantaged students enter fewer qualifications during the 16-19 phase
- They are also underrepresented amongst students entering academic qualifications

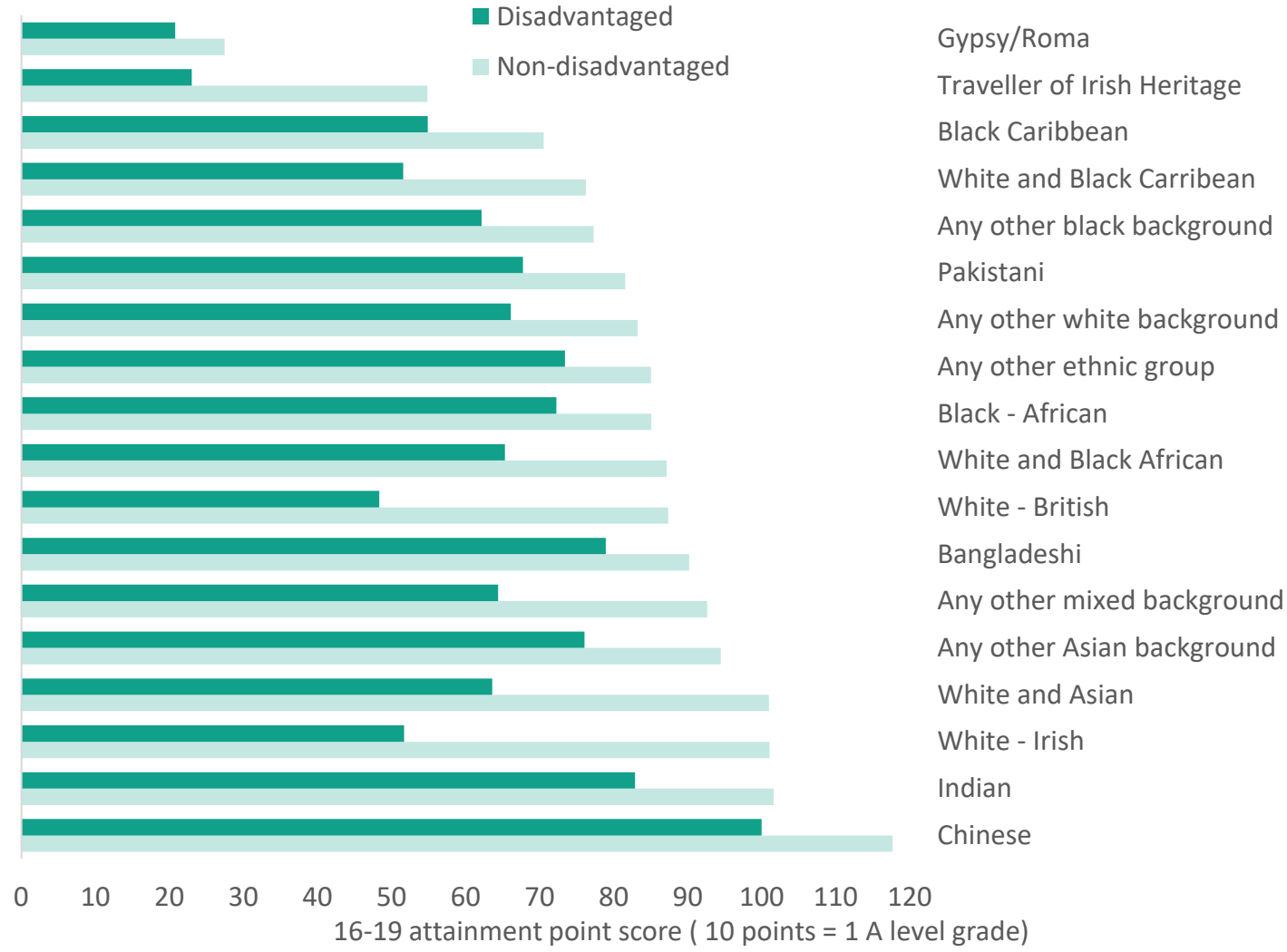
The gap was equivalent to almost 3 A level grades in 2019

Wider still if you give extra weight to academic qualifications, reflecting labour market returns

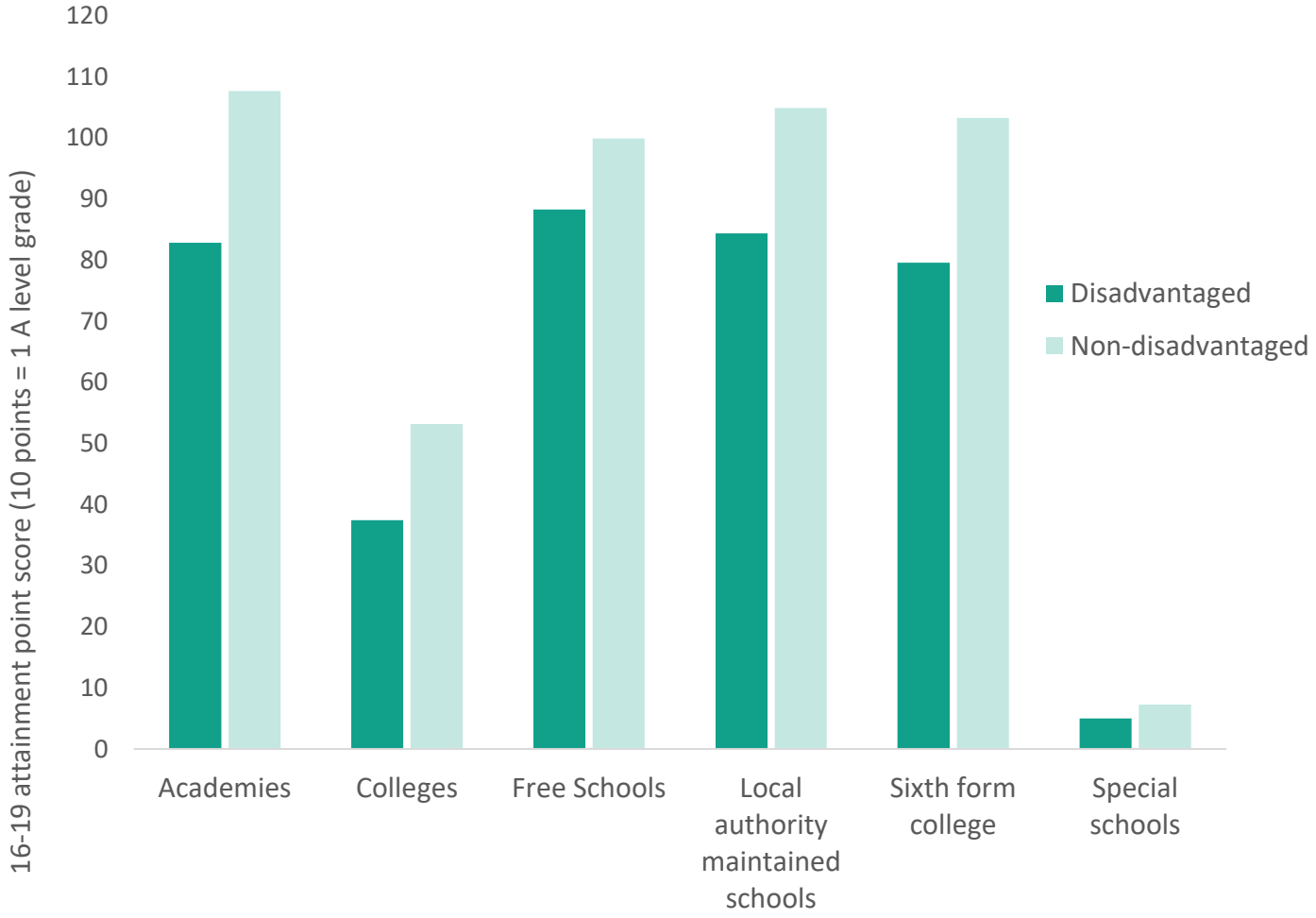


The gap existed across different student populations



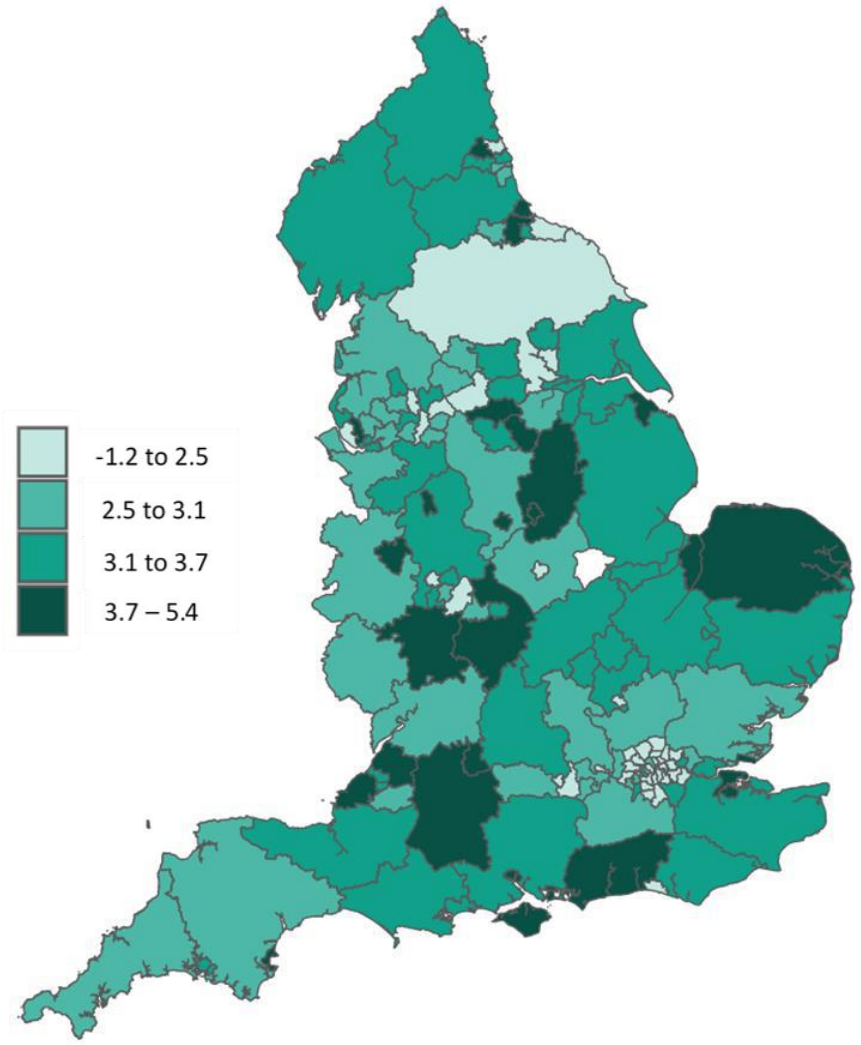


Size of gap varied by institution types



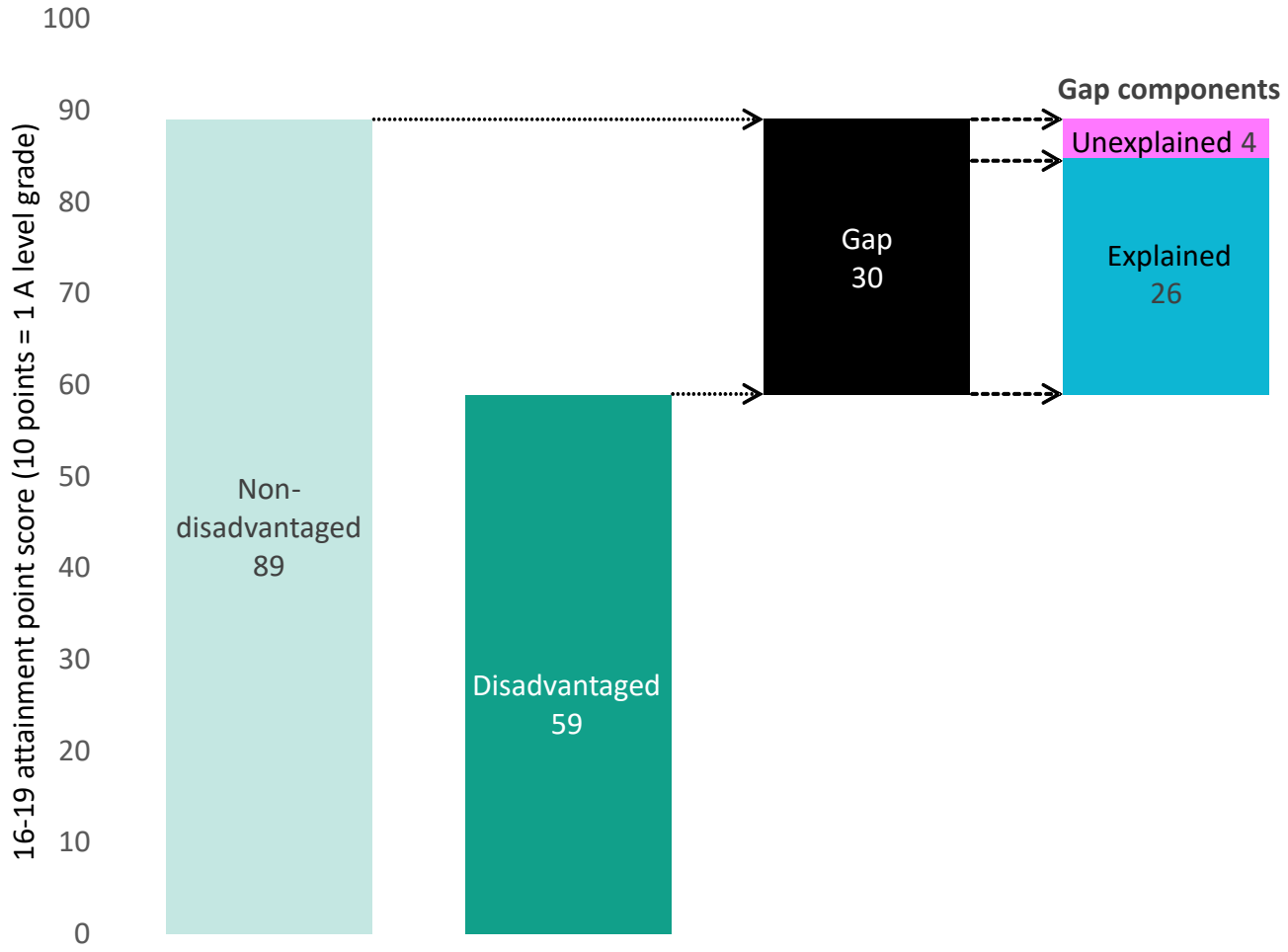
- Largest gaps in academy sixth forms – 25 pts
- Followed by sixth form colleges (24 pts) and LA school sixth forms (21 pts).
- Smaller gaps in free schools (12 pts).
- Not controlling for other factors

The gap varied considerably across LAs



- Knowsley, North Somerset and Stockton-on-Tees the gap was over 4.5 A level grades.
- In Southwark, Redbridge, Ealing, Sutton, Merton, Newham and Islington disadvantaged students had higher average attainment than non-disadvantaged students nationally.
- Similar trends to KS4

Most of the gap could be explained by other student characteristics

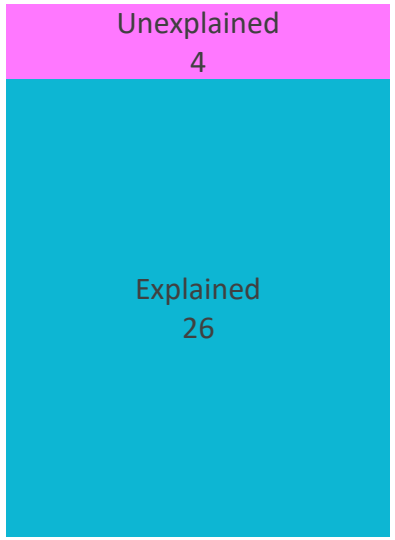


- We can "decompose" the gap to identify how much can be explained by other characteristics.
- e.g. due to the fact that disadvantaged students tend to have lower KS4 results.
- 86% of the gap can be explained by other factors.

Prior attainment and qualification key contributors to the gap

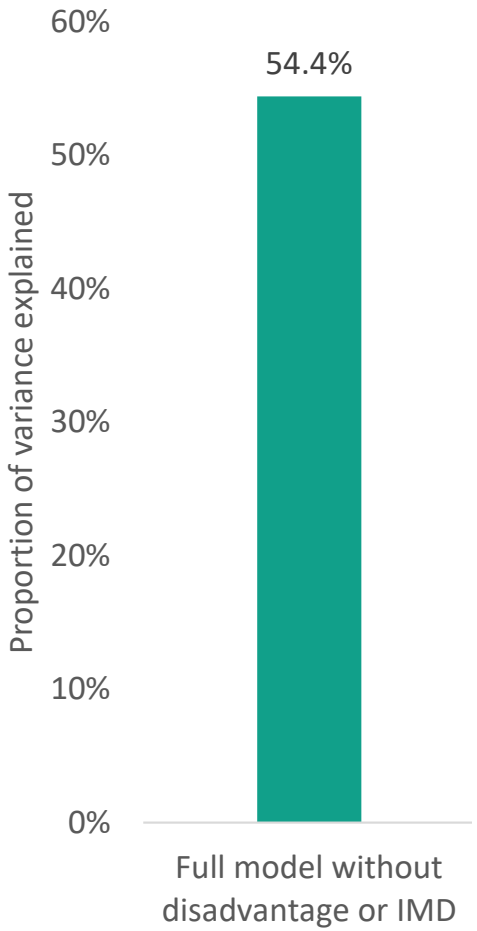
- Large contributions from prior attainment and qualification type
- Some contributions from cohort effect – peers with lower prior attainment have larger impact on disadvantaged students.

The remaining half-grade gap may be due to disadvantage itself



- 14% of the gap cannot be explained by student or institution characteristics.
- Corresponds with disadvantaged students falling behind otherwise similar students by around half an A level grade.
- Could be the continued effect of disadvantage itself, and/or differences in unobserved characteristics e.g. health.

FSM measures offer improved targeted of underachieving groups



- Funding at 16-19 relates to 27% most deprived areas (IMD)
- Combining IMD with FSM explains more of the variance of 16-19 attainment

Policy implications

- Disadvantage still contributing to students falling ½ grade behind even when adjusting for prior attainment and characteristics
- …FSM measures could improve identification of under-performance.
  - ➢Student Premium for 16-19 funding, reflecting both area-level and student-level measures for disadvantage
- Although gap at 16-19 also appears to be largely, though not completely, driven by prior attainment
  - ➢Continue focus on closing gap at earlier age.
- Choice of qualification also contributing, as is peer effect.
  - ➢Careers guidance targeted at high attaining disadvantaged students.

The impact of COVID

- Learning loss estimates
- Grade increases since 2019
- Differences by qualification and institution type
- 16-19 A level and applied general disadvantage gaps in 2021
- Current EPI research to fill 16-19 evidence gaps

We do not have clear estimates of learning loss as a result of COVID in 16-19 education

- However, EPI and Renaissance Learning research for the Department for Education does address this issue in earlier educational phases
- For this presentation, have focussed on learning loss estimates after the first national lockdown, as sample sizes allow estimates for pupils at secondary school by characteristics

Source: https://www.gov.uk/government/publications/pupils-progress-in-the-2020-to-2021-academic-year-interim-report

Learning loss estimates during 2020 and 2021 in primary and secondary education - methodology

Like performance tables we compare each pupil's attainment to that of pupils with similar prior attainment. But unlike performance tables we compare with the average progress of pupils *last year* not pupils in the same cohort. So we are saying "what would pupils have achieved in 2020/21 if they had progressed at the same rate as pupils in 2019/20"

We do this by:

- **Step 1**: We construct a model of the relationship between outcomes and prior attainment using historic data
- **Step 2:** We then use the model to calculate an "expected outcome" for each pupil based on their prior attainment and hence expected progress
- **Step 3:** Given that we now have a known prior attainment and an expected outcome, we can calculate an expected progress
- **Step 4:** We can now calculate the estimate of learning loss as the difference between expected progress and actual progress: in terms of scale points this is simply subtracting one number from the other. In our example above, actual progress was 75 points and the expected progress was 100 points. Therefore, the learning loss was 25 scale points. But we can also convert this into months of learning. Since we are considering the progress from one year to the next this is the expected progress over a 12-month period.

Throughout when we say 'learning loss' what we really mean is loss in comparison to a situation where pupils make the same progress as similar pupils did last year. But the true 'counterfactual' may have differed from this.

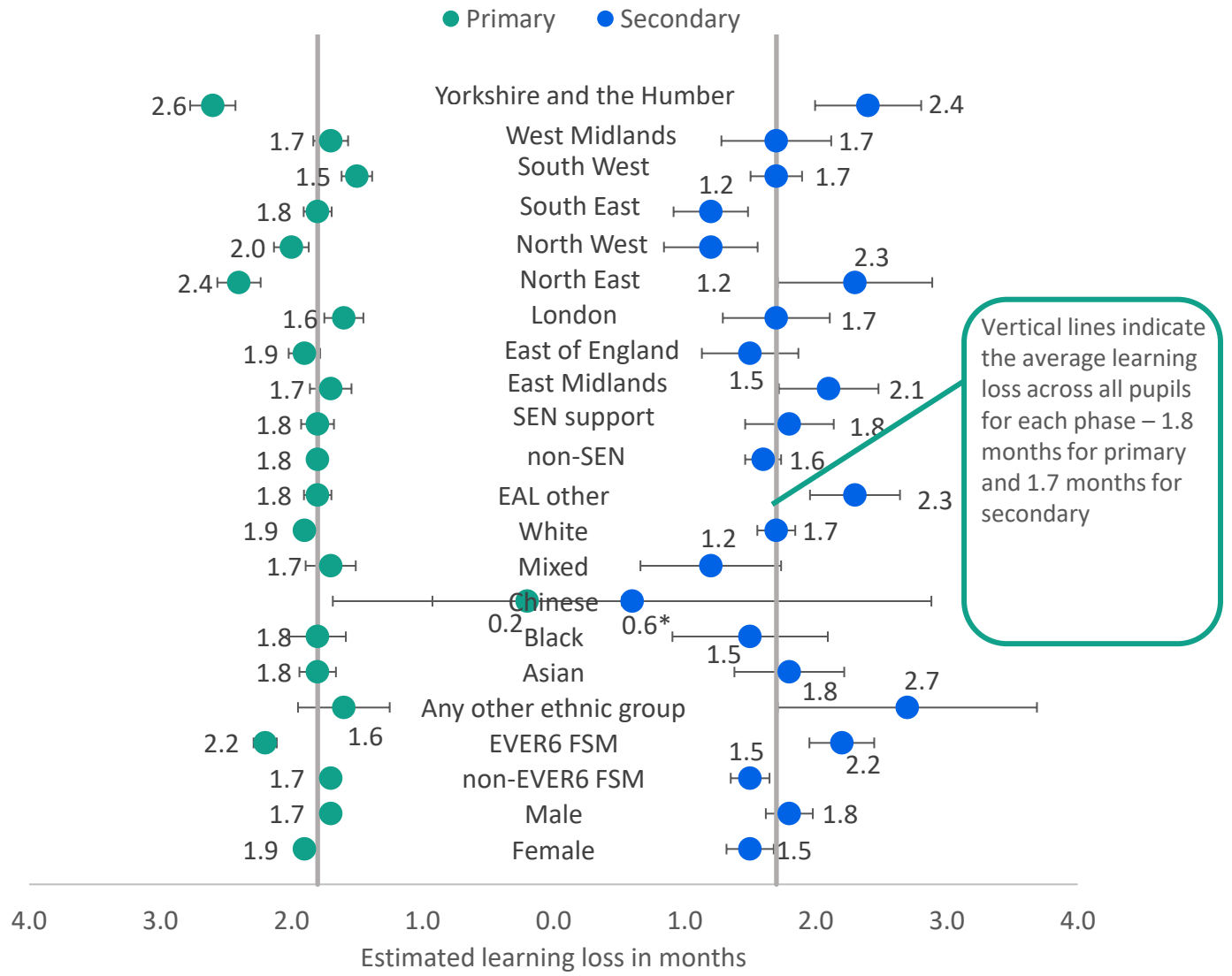
Source: https://www.gov.uk/government/publications/pupils-progress-in-the-2020-to-2021-academic-year-interim-report

How did learning loss vary by pupil characteristics after the first national lockdown?

Mean learning loss, in months, in reading (primary and secondary schools) by characteristics

Reading

- Pupils from disadvantaged backgrounds (eligible for free school meals at any point in the last six years) lost, on average, 2.2 months in both primary and in secondary schools. **This means that disadvantaged pupils have lost about half a month more than non-disadvantaged pupils.** This provides evidence that school closures in relation to the pandemic have led to a widening of the disadvantage gap.
- Differences by ethnic group are generally not statistically significant. **We also find evidence of greater learning losses for pupils with a first language other than English in secondary.** The levels of learning loss are similar to those of pupils from disadvantaged backgrounds.
- There are a number of regional disparities in the level of learning loss. In particular, for both primary and secondary aged pupils, pupils in **the North East and in Yorkshire and the Humber** experienced the greatest learning loss. This may reflect differences in the learning offer across the country with differential rates of attendance and full school opening.



Source: https://www.gov.uk/government/publications/pupils-progress-in-the-2020-to-2021-academic-year-interim-report

A recap of the grading process in 2020 and 2021

2020:

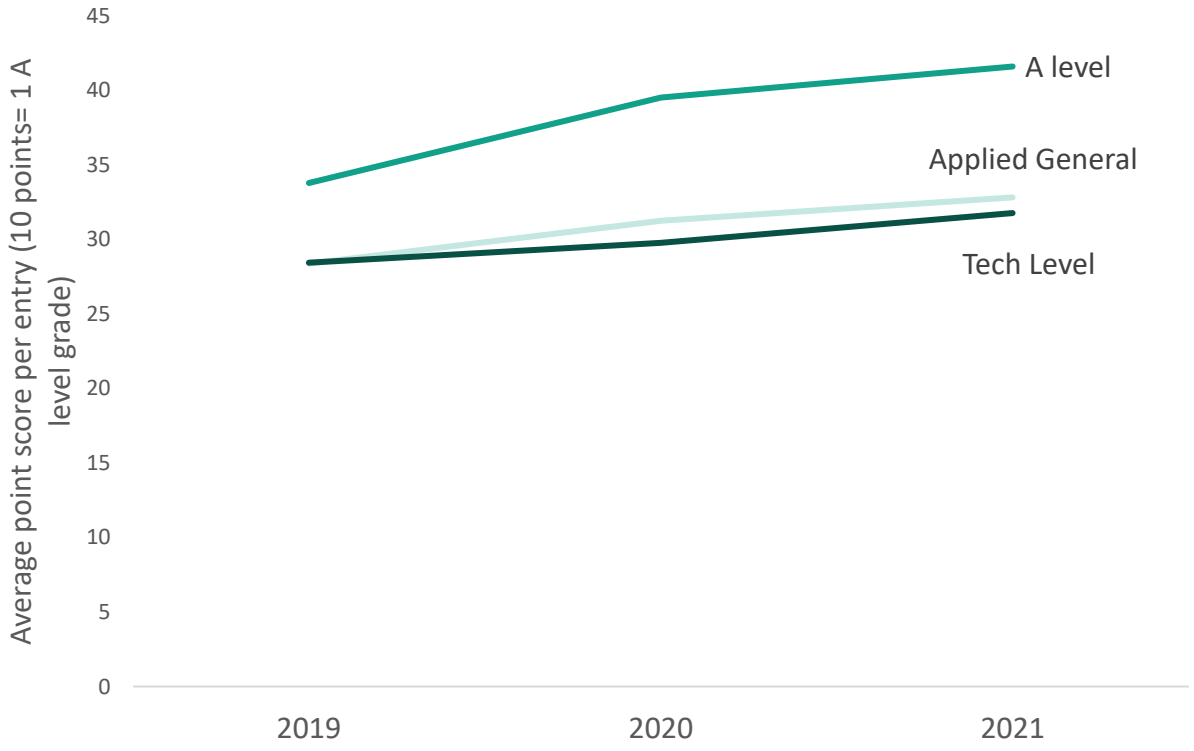
- Learning disrupted from the end of March 2020 – most of the way through students' two-year courses
- Teacher assessed grades set before it was known they could inform final grades
- Algorithm grades calculated for all students
- Final grades were the highest of teacher assessed or algorithm grade

A recap of the grading process in 2020 and 2021

2021:

- Students completing two-year courses had large proportion of their learning disrupted
- Teacher assessments formed students' final grades
- Range of evidence used to inform teacher assessed grades, for example non-compulsory 'mini assessments'
- Students only graded on content they had covered

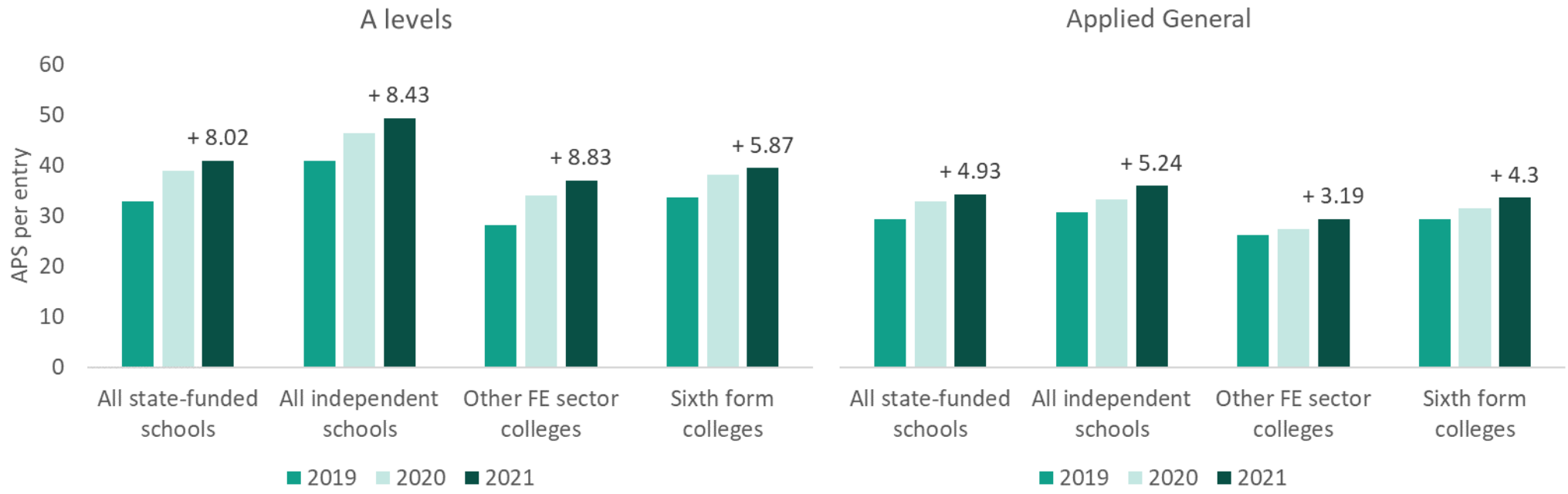
16-19 grade increases since 2019



- There have been substantial increases in the grades awarded since 2019 across all level 3 qualification types
- Largest increase for A level students
- Disadvantaged students not equally represented across qualification types
- Average point scores mask differences arising from some students entering more qualifications than others
- Students enter a far broader suite of qualifications than this subset of level 3 qualifications reported in performance tables

Source: https://explore-education-statistics.service.gov.uk/find-statistics/a-level-and-other-16-to-18-results/2020-21

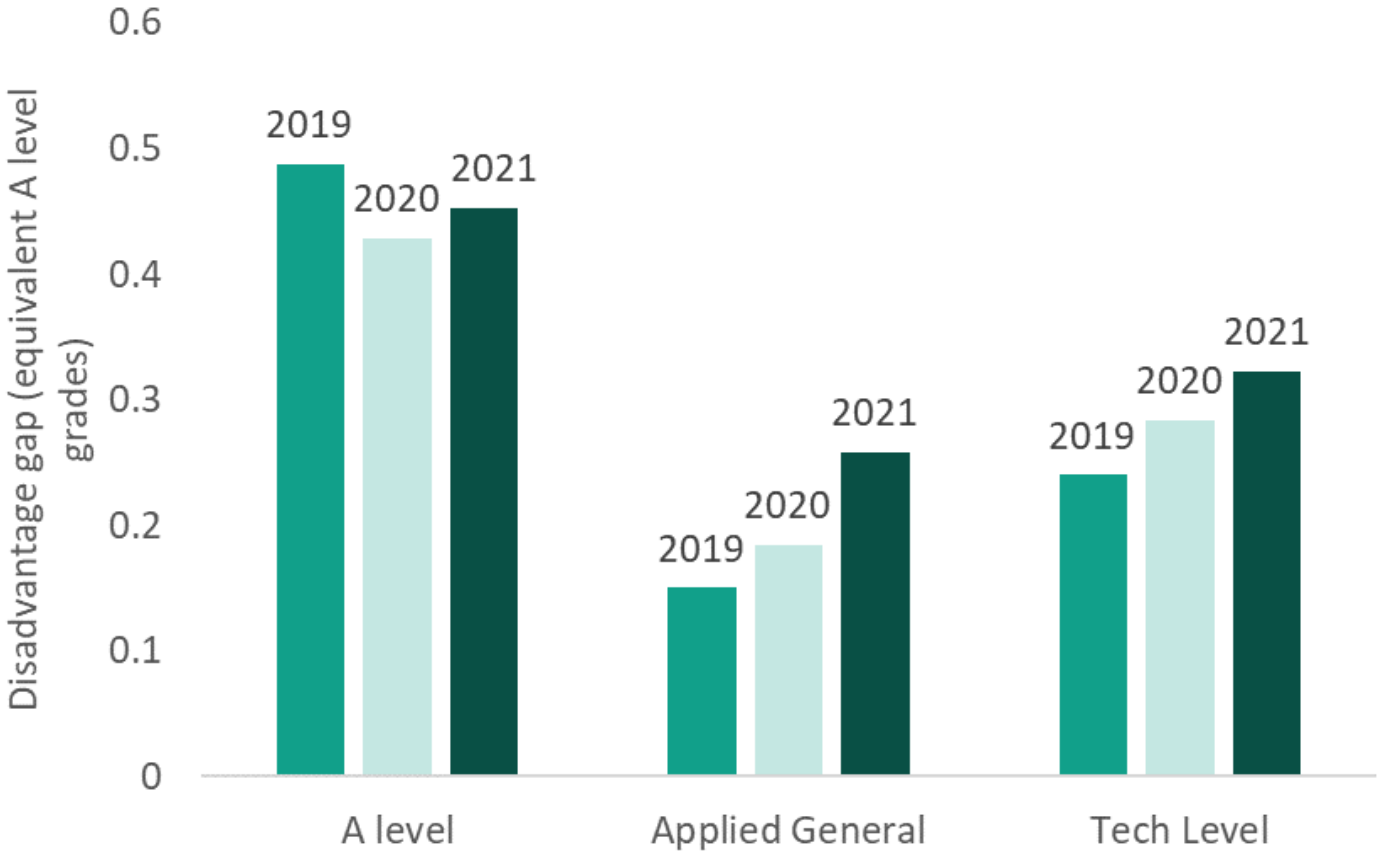
Grade increases since 2019



Grade increases since 2019 have been substantially greater for A levels compared to Applied General and other vocational qualifications with notable variation by institution type

Source: https://explore-education-statistics.service.gov.uk/find-statistics/a-level-and-other-16-to-18-results/2020-21

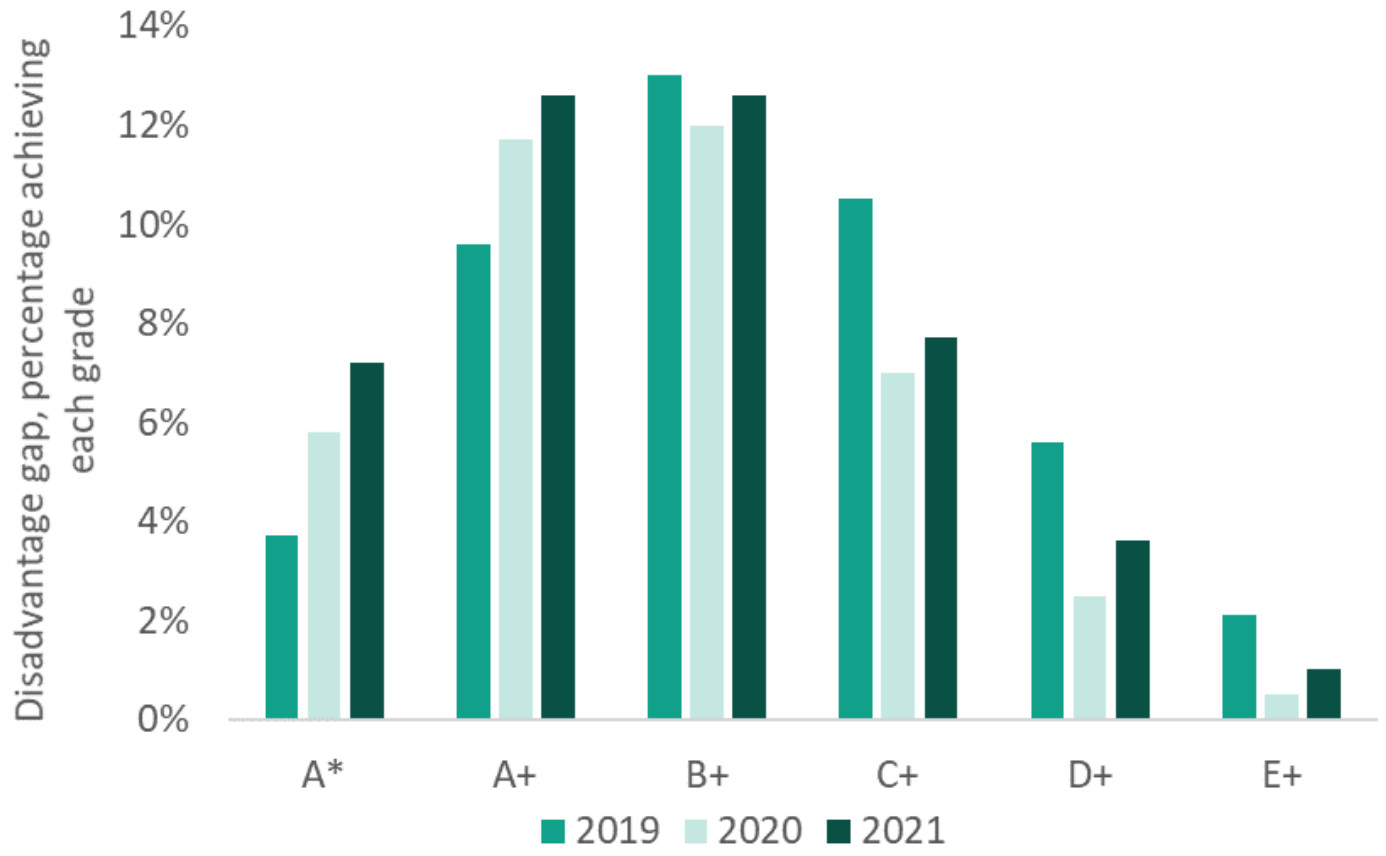
Disadvantage gap per entry increasing for vocational qualifications, but not for A levels



- But disadvantaged students are underrepresented amongst A level entrants
- This does not show the full picture – EPI research will consider total gap at student level, not just within qualification types

Source: https://explore-education-statistics.service.gov.uk/find-statistics/a-level-and-other-16-to-18-results/2020-21

However the A level disadvantage gap is widening for those achieving the top grades



- Average grade increases mean more may be able to access higher education in 2021
- But widening disadvantage gap for those achieving top grades in particular will have impacted on HE entries for more competitive courses/institutions

Source: https://explore-education-statistics.service.gov.uk/find-statistics/a-level-and-other-16-to-18-results/2020-21

What does this mean for future cohorts?

- Future cohorts will have been affected by covid disruption and learning loss too
- 2022 cohort will have had teacher assessed/algorithm graded GCSEs in 2020 and disruption through the beginning of their 16-19 study
- Differential learning loss to continue to effect results
- Grade boundaries in 2022 to be set based on the average of 2021 and 2019 grades, possibly preserving some of differences we see between qualification types in the short term

Education recovery policy

- 16-19 tuition fund
- Students able to continue for another year

Recommendations:

- New 16-19 student premium
- Target subsidies towards younger apprentices

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Follow up

- More in our full report - https://epi.org.uk/publications-and-research/disadvantage-gap-16-19-education/
- Our current research will update gap measure to include 2020 data
  - First year of teacher assessments
  - But before significant learning loss
  - Consider differential approaches on vocational and academic qualifications