

# Report for the Northern Powerhouse Partnership on Adjusted Progress 8

## Introduction and background

**Progress 8 is the Department for Education's (DfE) headline measure of the average academic progress pupils make in each school over secondary schooling. The measure adjusts pupil's GCSE results for their end of primary schooling Key Stage 2 (KS2) test results in order to measure the progress which they have made compared to other pupils nationally with a similar starting point at the end of primary school. The DfE and Ofsted both rely heavily on Progress 8 to hold schools to account. The DfE argue that Progress 8 is a fair measure as it accounts for school intake attainment differences in pupils' KS2 test scores. However, Progress 8 ignores school intake differences in other pupil background characteristics, although these also predict why some schools score more highly at GCSE than others. Both the academic literature and practitioner commentaries have argued that such adjustments should be taken in consideration when holding schools to account.**

**This report published by the Northern Powerhouse and researchers at the University of Bristol presents findings based on analyses of the 2018 data from all 3,615 state schools in England. Researchers created a new Adjusted Progress 8 measure which adjusts scores to take into account pupil age, gender, ethnicity, English as an additional language (EAL), special needs, free school meals (FSM) and residential deprivation. The new measure statistically adjusts for existing national average differences in attainment by each of these pupil characteristics.**

## Key findings

### Existing differences between pupil groups

- As stated above, the adjusted measure takes into consideration differences in progress across a number of different pupil groups, as outlined below.
- August born pupils make 0.18 grades more progress per subject than their September born peers. This is a substantial difference. More generally, younger pupils within the academic year make more progress than older pupils.
- Girls make 0.44 grades more progress per subject than boys. Girls already score higher than boys at the end of primary schooling, so this figure shows a widening of the gender attainment gap in the course of secondary schooling.
- Chinese pupils (0.3% of all pupils) score, on average, 1.06 grades higher per subject than expected given their prior attainment, Indian pupils (2.6%) 0.74 grades higher, Bangladeshi pupils (1.8%) 0.47 grades higher, and Black African pupils (3.1%) 0.35 grades higher. In contrast, White British pupils (73.1%), on average, score 0.11 grades lower than expected. Black Caribbean pupils (1.3%) do worse still, scoring 0.27 grades lower than expected, Gypsy/Roma pupils (0.1%) and Travellers of Irish Heritage (0.02%) show the lowest progress, scoring 0.74 and 1.07 grades lower.
- Pupils speaking English as an additional language (14% of all pupils) make 0.58 grades more progress per subject than pupils who speak English as their first language.
- Pupils with SEN support (12.8% of all pupils), especially those with statements or education, health and care (EHC) plans (2.1%), make considerably less progress than pupils with no special educational needs. These two pupil groups already score lower at the end of primary schooling and so these attainment gaps widen during secondary schooling.
- Pupils eligible for FSM (25.5% of all pupils) make 0.52 grades less progress per subject than pupils who were not eligible for FSM during the previous 6 years.
- Pupils residing in disadvantaged neighbourhoods also make less progress than those in more prosperous neighbourhoods. For example, pupils living in the most affluent 10 per cent of neighbourhoods score, on average, 0.28 grades higher per subject than predicted by their prior attainment, while pupils living in the poorest 10 per cent of neighbourhoods score 0.31 grades lower per subject than predicted. This social gradient is already present at the end of primary schooling and so widens over secondary schooling.

### Progress 8 and Adjusted Progress 8: comparison of bandings

- Under the Progress 8 measure, schools are placed in one of 5 bands: well above average, above average, average, below average and well below average.
- Moving from Progress 8 to Adjusted Progress 8 would cause 1,184 schools (37% of all schools) to change bandings.
- The number of schools assigned to the 'well below average' banding and judged to be performing below the Government's floor standard would drop from 449 schools (14.2% of all schools) to 244 schools (7.7% of all schools),



a decrease of 205 schools. Conversely, the number of schools assigned to the 'well above average' banding would decrease from 415 schools (13.1% of all schools) to 284 schools (9.0% of all schools), a decrease of 131 schools.

- When the Adjusted measure is used, both pupil and school progress scores vary less and fewer schools appear in the most extreme bandings than when the Progress 8 measure is used.

### Progress 8 and Adjusted Progress 8 by school characteristics

- According to Progress 8, pupils in London schools (455 schools; 14% of all schools) make, on average, the most progress, scoring 0.26 grades higher per subject than pupils nationally with the same prior attainment. However, under Adjusted Progress 8 this 'London effect' halves to just 0.13 grades per subject. Further analysis suggests that while London schools are somewhat disadvantaged by teaching relatively poor intakes (they have relatively high rates of FSM pupils and pupils in deprived neighbourhoods), they are to a much greater extent advantaged by teaching particular ethnic groups who nationally tend to make high progress as well as high numbers of EAL pupils.
- The North East (154 schools: 5%) is the region which shows the lowest average pupil progress according to Progress 8, with a score of -0.19. Under Adjusted Progress 8, this score increases to -0.01. This is because schools in the North East are doubly disadvantaged by teaching not just relatively poor intakes, but by also disproportionately teaching White British pupils, both of which factors are associated with low rates of progress.
- Average pupil progress for many school types remains approximately the same when the adjusted Progress 8 measure is applied. However, for some school types, average pupil progress changes markedly. In particular, among converter academies (1,430 schools; 45% of all schools), average pupil progress drops from 0.11 to 0.06, while among sponsored academies (640; 20%), average pupil progress increases from -0.19 to -0.05. Here the driving factor for the reduction in the apparent difference in performance is that converter academies teach a much lower percentage of poor pupils (20% eligible for FSM) than sponsored academies (39% eligible for FSM).
- The very low average pupil progress seen in both university technical colleges (44 schools: 1.4%) and studio schools (28 schools: 0.9%) is substantially reduced once the types of pupils who tend to attend these schools is taken into account. Specifically, studio schools are disadvantaged by teaching a high percentage of SEN pupils (24%), while university technical colleges are disadvantaged by teaching a high percentage of boys (73%).
- According to Progress 8, pupils in grammar schools score, on average, 0.56 grades higher per subject than pupils nationally with the same prior attainment. However, under Adjusted Progress 8, the benefit of attending a grammar school is reduced by over a quarter: average pupil progress drops from 0.56 to 0.41. Grammar schools are especially advantaged by the low percentage of poor (6.4%) and SEN pupils (5.9%) they teach, but they are also advantaged by having a disproportionately large number of high progress ethnic groups.
- Adjusting for pupil background leads secondary modern schools to appear less rather than more effective; average pupil progress drops from -0.07 to -0.11. This may be because while secondary modern schools teach a much higher percentage of poor pupils than grammar schools

(22.9% vs. 6.4%), they still teach lower percentages of poor pupils than schools nationally (26.5%).

- Progress 8 suggests pupils in single-sex schools, especially all-girls schools, make more progress than pupils in mixed-sex schools. However, average pupil progress in all-girls schools drops from 0.58 to 0.23 when we move from Progress 8 to Adjusted Progress 8. Part of the reason for this is that Progress 8 compares girls in all-girls schools to girls and boys nationally, whereas Adjusted Progress 8 only compares girls in all-girls schools to girls nationally. In contrast, the average pupil progress in all-boys schools increases from 0.21 to 0.30 and so the performance of all-boys schools now appears more impressive than that of all-girls schools.
- Progress 8 shows pupils in religious schools typically make more progress than those in schools with no religious character. Especially high progress is seen in the small number of Muslim (11 schools), Jewish (12 schools), Sikh (3 schools), Hindu (1 school) and Greek Orthodox (1 school) schools. However, results for these schools change markedly when measured under Adjusted Progress 8. In terms of Muslim schools, average pupil progress halves from 1.20 under Progress 8 to 0.59. A possible reason for this drop is that these schools teach very high percentages of Indian (42.1%) and Pakistani (39.8%) pupils, as well as those don't speak English as a first language (80.4%). These characteristics are associated with high levels of progress.
- The average pupil progress for Jewish schools, on the other hand, changes relatively little. Here an analysis of the underlying data shows that accounting for ethnicity actually raises average pupil progress slightly as Jewish pupils fall under the White British ethnic group which nationally underperforms. However, Jewish schools also teach relatively prosperous intakes and so the net effect is that their average pupil progress is nonetheless lowered when one also additionally accounts for FSM and deprivation.

### Conclusions and recommendations

- Based on the findings of this research, it can be argued that Progress 8 places too much emphasis to schools, rather than Government or society, as being primarily responsible for the national underperformance of certain groups. Adjusted versions of Progress 8 have the potential to rebalance the responsibility.
- The many well-known statistical issues with all attempts to measure school performance, not to mention more general concerns with perverse incentives and gaming behaviours introduced by high-stakes testing, suggest the DfE and Ofsted should place far less emphasis on Progress 8 when holding schools to account.
- Given the importance of pupil background in driving schools' scores, the Government should revise their current school league tables to include an adjusted Progress 8 measure side-by-side with Progress 8 to present a more informative picture of school performance.
- The DfE should provide users with greater insight as to why schools achieve the scores they do, accompanied with more detailed explanation as to the limitations of using such scores for school accountability, especially emphasising the statistical uncertainty associated with all school rankings.

The full document can be downloaded from:

<http://npp.maginfrastructure.com/media/1221/report-for-the-northern-powerhouse-partnership-on-adjusted-progress-8.pdf>