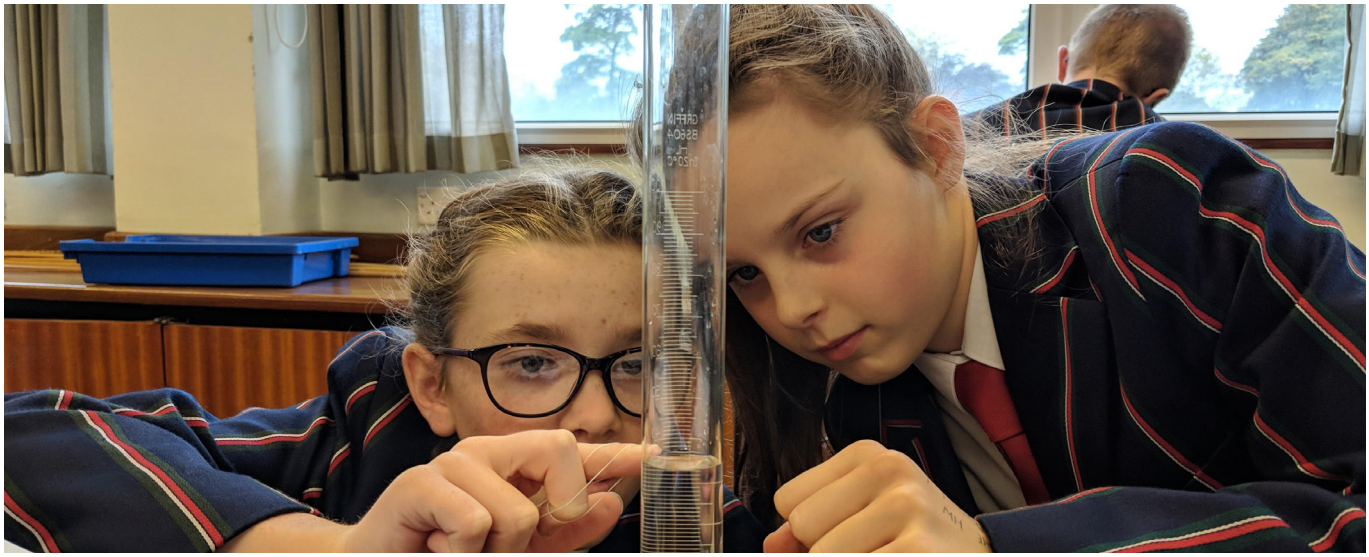
CENTRE FOR EDUCATION POLICY
& EQUALISING OPPORTUNITIES

Briefing note Inequality in access to grammar schools

Prepared by Matt Dickson and Lindsey Macmillan



Key points

- There are 163 grammar schools in England, that select pupils based on their performance on a test at age 11 – the '11 plus'.
- Selective school systems increase inequalities in outcomes that persist into the labour market (Burgess et al., 2020).
- Children from low-and middle-income families are far less likely to attend grammar schools, even when comparing children with the same achievement at age 11.
- Children from poorer families face multiple barriers to accessing grammar schools: fewer educational resources at home, and less time to engage in home learning.
- Richer parents in selective areas are more likely to pay for tutoring and extra lessons, particularly in subjects that are covered in the '11 plus' such as English and maths.
- The likely widening attainment gap as a result of Covid-19 school closures will exacerbate inequalities in access to grammar schools,
- This raises serious questions about a 'business as usual' model for '11 plus' tests in September 2020.

Recommendations

- Consider providing pupil premium-type funding to lower income families immediately to allow for additional tutoring in English and maths.
- Consider adjusting the scores from the '11 plus' to account for these socio-economic penalties, for example, in a similar vein to the adjustment that occurs for the pupil's age within the school year in Kent.

The Issue

Grammar schools are secondary schools that select pupils based on their performance on a test at age 11 – those pupils above a certain threshold attend state-funded grammar schools, while those below the threshold attend state-funded comprehensive or secondary modern schools depending on the area (with the other alternatives being religious or private schools).

Inequalities exist in who attains places at grammar schools by socio-economic status, with more disadvantaged children far less likely to attend a grammar school that their more advantaged peers. This is true even when comparing those with similar levels of academic achievement. Numerous factors contribute to this inequality in access, many of which will be exacerbated during the current COVID-19 pandemic.

This briefing note summarises the empirical evidence on socio-economic inequalities in who goes to grammar schools, the drivers behind these, and some implications, including the likely impact of the current school closures on inequality in access, if the usual selection procedure (the '11 plus' exam) continues to be used this year.

Inequality in access to grammar schools

There are large inequalities in access to places at grammar schools with children from lower socio-economic backgrounds far less likely to attend than those from more affluent families. In 2019, only 3% of grammar school pupils were entitled to free school meals (FSM), compared to the 15% of pupils in non-selective schools across England (Danechi, 2020). Grammar schools are not equally distributed around the country, which means contrasting grammar pupils with national averages may not be a fair comparison: the backgrounds of grammar pupils may also be reflecting other local area characteristics. However, Andrews et al. (2016) found very similar figures when comparing grammar school pupils to the non-grammar pupils in selective areas: 2.5% of grammar pupils are eligible for FSM, compared to 8.9% amongst the other pupils in the area (and 13.2% amongst pupils in all state-funded secondary schools). This is a consistent finding, echoing earlier figures from Cribb et al. (2013) and Atkinson et al. (2006).

Using the binary FSM-eligibility measure (a common metric of disadvantage) to delineate groups of families and compute the access inequality between them may be masking important differences in grammar access at a more granular level. Burgess et al. (2018) move beyond characterising inequality in this way, instead looking at access across the full socio-economic spectrum. They construct an index that in addition to FSM eligibility also includes the index of multiple deprivation (IMD) scores, A Classification of Residential Neighbourhoods (ACORN) categories (based on the socio-economic characteristics, financial holdings and property details of the 15 nearest households), and the proportion of the nearest 150 households working in professional or managerial occupations, with education at Level 3 (post-compulsory) or above and who own their own home. Using this finer grained measure, they show that in selective areas only 6% of those from families at the 10th percentile of the socio-economic index attend a grammar school. This increases slowly such that, at the 40th percentile, 17% of pupils attend a grammar. By contrast, 51% of children at the 90th percentile attend a grammar school and 79% of those in the top 1% most affluent families attend a grammar school. In total, half of the grammar school places are taken by the bestoff quarter of families.

Part of this social gradient is driven by the large differences in attainment at age 11 between children from different family backgrounds. Achievement gaps between children from the most and least disadvantaged families open early in childhood and widen through primary school. Washbrook and Waldfogel (2011) show that children from low- and middle- income families are five months behind children from high income families in terms of vocabulary skills by the time that they enter primary school. Using longitudinal cohort data, Doyle et al. (2009) and Feinstein (2003) show

the gaps in cognitive test scores are observed even earlier, by the age of 3. Crawford et al. (2017) show this gap increases through school from Key Stage 1 at age 7 to Key Stage 2 at age 11, at which point pupils from the most disadvantaged families are (on average) over 20 percentiles behind pupils from the most advantaged families. It is not therefore a level playing field at the time that pupils sit the '11 plus' examination: children from disadvantaged families have a greater challenge to overcome to get to the same threshold on the '11 plus' as children from advantaged families.

However, Burgess et al. (2018) find that even comparing children with the same achievement, there remain large differences in the probability of accessing a grammar school place in selective areas, depending on family socio-economic status. Their research shows that comparing two pupils who are both at the 70th percentile of attainment in Key Stage 2 tests at age 11 (combining externally assessed English, maths and science scores), the pupil from the most affluent fifth of families has a 50% chance of getting into the grammar school, whereas a similarly attaining pupil from the most deprived fifth of families has only a 15% chance. At the 80th percentile of attainment, the gap is even greater with children from the best-off families having a 70% chance of attending a grammar, compared to only 25% for children from the worst-off families. Even scoring at the top 10% of attainment gives the child from the poorest fifth of families only a 50-50 chance of getting into the grammar school, whereas the child from the richest fifth of families will be admitted 6 times in 7.

In summary, access to grammar school places is strongly related to family background and this remains the case even when comparing children with the same achievement on national tests at age 11. Whatever advantages grammar school attendance conveys, it is very much concentrated on pupils from affluent backgrounds.

Barriers for disadvantaged pupils

Children from disadvantaged families face multiple barriers to accessing grammar schools. There are a number of reasons why children from disadvantaged backgrounds have lower achievement than their more advantaged peers - disadvantaged families face more constraints in terms of both their resources and their time. Washbrook and Waldfogel (2011) find that half the vocabulary gap at school entry can be explained by measurable aspects of the child's environment, with the home learning environment being the most significant factor in explaining the development gap. The remainder is explained by factors associated with income, and parental education. Similarly, Macmillan and Tominey (2019) show that increasing maternal education led to an increase in incomes and educational resources available in the home during their offspring's early childhood, which is associated with higher cognitive skills at age 5 and 7. Del Bono et al. (2016) find that mothers with university degrees spend a higher proportion of time engaging with the child's learning at home, compared to mothers with no qualifications, which is linked to increased child literacy and socio-emotional outcomes between ages 3-7 years.

These existing barriers in terms of achievement gaps are further emphasised by the investment that the most advantaged parents make in their children's education in the form of extra-curricular tutoring. Work by Jerrim and Sims (2019) shows that more advantaged parents are more likely to invest in extra English and maths lessons, and arrange tutoring or coaching. This is particularly pronounced in selective areas, and in subjects that are core to the 11 plus examination (but not in science, which is not an '11 plus' subject), supporting the view of grammar school head teachers that children from more affluent, middle class families are coached to pass the entrance exam (Cribb et al., 2013).

Finally, the evidence suggests that all of these barriers will be more pronounced for the current cohort of year 5s who are due to sit the '11 plus' examination in September 2020. The current school shutdown due to coronavirus is very likely to widen the achievement gap between the most and least disadvantaged pupils (see Sims, 2020, and Outhwaite, 2020).

New evidence from the Sutton Trust finds that children in households earning more than £60k are twice as likely to currently be receiving tutoring during school closure as those children in households earning under £30k. (Cullinane and Montacute, 2020).

Summary and Implications

In summary, access to grammar schools is strongly graded by family background. Children from the poorest families are substantially less likely to attain a place even when they have high academic achievement at age 11. There are numerous barriers that hinder access to grammar schools for less well-off families, including the effects of greater time and income constraints impacting on the home learning environment, and restricting ability to pay for additional tutoring. These differences are likely to be considerably exacerbated as a result of the COVID-19 pandemic. If the '11 plus' exam in September 2020 is to remain the method of selection for places in grammar schools, policymakers should urgently consider:

- Providing pupil premium-type funding to lower income families immediately to allow for additional tutoring in English and maths.
- Adjusting the scores from the '11 plus' to account for these socio-economic penalties, for example, in a similar vein to the adjustment that occurs for the pupil's age within the school year in Kent.

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Prepared by: Matt Dickson and Lindsey Macmillan

Contact for further information:
Centre for Education Policy & Equalising Opportunities (CEPEO)

www.ucl.ac.uk/ioe/cepeo
email: cepeo@ucl.ac.uk
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