

# Research Brief

## Gaps in Grammar

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Since Prime Minister Theresa May indicated that she planned to repeal the 1998 legislation that banned the establishment of new grammar schools, there has been a renewed focus on the advantages and disadvantages of selective education and the role it plays in the English education system. This emphasis on grammars has been specifically framed as a measure to increase social mobility.<sup>1</sup> While this goal is welcome, questions remain on how best to achieve it.

There are currently 163 grammar schools in England, comprising 5.2% of all pupils in secondary schools. Despite the prohibition on new schools, the number of places in grammars has increased from 129,000 in 1997 to 167,000 in 2016. Selective education operates differently in different parts of the country, with ten local authorities that can be categorised as highly selective systems, involving substantial numbers of grammars alongside 'secondary moderns'. Just over one hundred grammar schools are located in such areas, with the rest spread around the country in more piecemeal fashion.

Selection in secondary education has been the subject of much controversy in the UK for some time. As our new review of the literature, published alongside this brief, outlines in further detail, while some arguments have been of a moral character, research has largely focused on whether grammar schooling is beneficial and if so, who benefits.<sup>2</sup> Do grammars benefit the children who attend them, do they improve the quality of an education system overall, and do they facilitate or hold back the social mobility of individuals? The government argues that grammar schools perform better in terms of attainment and access to higher education than comprehensive schools, and thus the education system

### Key findings

- Previous Sutton Trust research has shown that disadvantaged children are much less likely than other pupils to attend grammar schools. However, our new analysis shows that other students from families on below average incomes (those 'Just About Managing'), are also significantly under-represented.
- Ethnic background also affects rates of grammar school entry. Disadvantaged white British children enter grammar school at the lowest rate of any major ethnic group. Disadvantaged Indian pupils are four times more likely to attend a grammar than disadvantaged white British pupils, and disadvantaged Chinese pupils fifteen times more.
- While there have been modest increases in the rate of grammar entry for disadvantaged black children and white non-British over the past five years, the rate of white British entry has not improved.
- High proportions of grammar school pupils come from the independent primary school sector, roughly double the rate you would expect. In fact, a pupil attending a private prep school is ten times more likely to enter a grammar than a pupil on free school meals.
- Attainment in GCSEs is higher in grammars than comprehensives, for both disadvantaged and non-disadvantaged pupils. However, much of this is attributable to high levels of prior attainment of the pupils entering grammars. Highly able pupils achieve just as well in top comprehensives as they do in grammar schools.

as a whole would benefit from new grammar schools having created more 'good school places' in the system.<sup>3</sup> But, the research - including new analysis for this research brief - suggests that the case is not as clear cut as they have presented it.

### Background

Given the controversial nature of selection in secondary education, substantial research into grammars has been conducted in recent years, by the Sutton Trust and others. This research has tended to focus on two main areas: access - what children enter grammar schools and whether the system gives fair opportunities to different groups; and attainment - how do those pupils fare, and what wider effects do selective schools have on other, non-selective, schools?

### Access

A variety of studies, including 2013 research for the Sutton Trust, have shown consistently that grammar schools are not taking their expected share of disadvantaged pupils. Latest government figures show that just 2.5% of grammar school pupils are eligible for Free School Meals (FSM), compared to about 14% in the secondary school population as a whole.<sup>4</sup> This cannot be explained just by the location of grammar schools, with several studies showing an even greater gap when you look at the catchment areas around these schools.<sup>5</sup> Furthermore, it cannot even be fully explained by differences in the prior attainment of disadvantaged children. Sutton Trust research has shown that even just looking at high attaining children (those achieving level

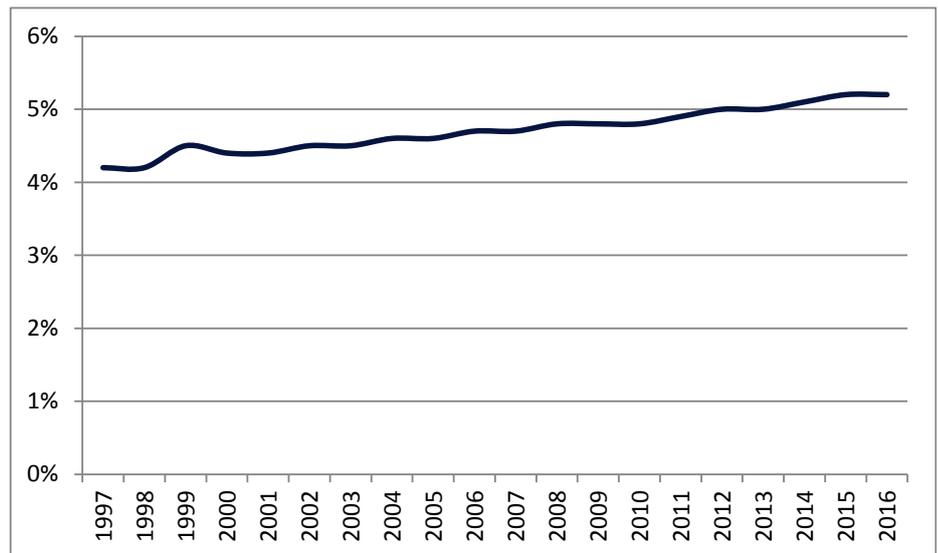
5 at Key Stage 2), FSM pupils are still much less likely to attend grammars than non-disadvantaged children.<sup>6</sup> Nonetheless, since that research, notable examples such as the King Edward VI schools in Birmingham have shown it is possible to admit substantial proportions (up to 20%) of disadvantaged pupils.<sup>7</sup>

On the contrary, pupils from outside the mainstream primary school system (likely to be prep school attendees) are admitted to grammars in large numbers. Compared with a national average of around 6.5% of pupils in such schools, they account for almost double this number (11%) of year 7 pupils at grammar schools (slightly down from 13.5%).<sup>8</sup> In some areas, this figure is estimated to represent up to one third of grammar school pupils.<sup>9</sup> Distance also plays a role in attendance, with grammar school pupils travelling twice the distance of other students to go to school.<sup>10</sup> As the Sutton Trust's recent *Class Differences* report has shown, there are significant gaps between how different ethnicities fare in schools,<sup>11</sup> and grammars are no different. A variety of studies have shown that white British pupils are significantly less likely to attend grammars compared to non-white pupils, with Asian and Chinese pupils particularly highly represented.<sup>12</sup> This is a subject to which this brief will return in detail.

### Attainment

When it comes to attainment, there is some disagreement in the literature as to the 'grammar school effect': do grammars benefit the students who attend? The raw achievement scores in grammars are unquestionably extremely high, with 97% of students achieving five good GCSEs (including English and Maths) compared to 67% in mainstream schools.<sup>13</sup> However, much of this gap is attributable to the prior high attainment of the pupils admitted, along with a variety of other background factors. Nonetheless, there is a tentative consensus in the literature that, taking everything into account, there is likely a small benefit to attending grammar schools. A Sutton Trust report in 2008 estimated this to be between zero and three quarters of a GCSE grade, and the Education Policy Institute (EPI) estimated it to be about a third of a grade.<sup>14</sup> However, these estimates are highly sensitive to the methodology and

**Figure 1: Proportion of state funded secondary school pupils attending grammars, 1997-2016, House of Commons Library**



assumptions made in the research. The Sutton Trust report emphasised that, while the research showed pupils in grammars making substantially more progress than other types of schools, these children were already making greater progress during their primary years, casting doubt on whether the grammar school was having an effect, or whether there is just something different about the pupils who attend them.<sup>15</sup>

A key issue for the question of whether grammars facilitate social mobility is how disadvantaged pupils who do attend fare. The Sutton Trust's report showed FSM eligible pupils to suffer marginally less educational disadvantage when attending grammars (one eighth of a GCSE grade).<sup>16</sup> Similarly the EPI research estimated the effect for FSM pupils at about half a GCSE grade higher than non-FSM.<sup>17</sup> However, this apparent case for the social mobility benefits of grammars is not straightforward. This gap has been shown to be mostly due to the relatively high prior attainment of disadvantaged grammar school pupils and most of the reduction in the attainment gap disappears when this is taken into account.<sup>18</sup> Furthermore, compared to high performing comprehensive schools, there is no benefit to attending a grammar for high attaining pupils. In fact, the EPI report suggests that the sponsored academies policy has had a much greater impact on the attainment of disadvantaged pupils as a whole.<sup>19</sup>

Perhaps the most controversial aspect of grammar schools is their effect on the wider school system. Does the system as a whole benefit from more

selection, or do pupils who do not get into grammars suffer as a consequence? New evidence from the OECD suggests that, internationally, more selection is not associated with higher performance by disadvantaged pupils. Furthermore, selection is associated with higher inequality and a greater influence of socioeconomic background on attainment.<sup>20</sup> When it comes to the English grammar system specifically, there is substantial disagreement on the mechanisms of this effect and how grammars influence the non-selective schools around them. The widely-cited Sutton Trust 2008 report concluded that only a handful of schools were 'creamed' substantially, and that in fact grammars drew from an extremely wide catchment area, affecting a large number of schools minimally.<sup>21</sup> The authors could find no overall effect of selection on non-selective schools. Similarly, the 2016 EPI report found that, at a national level, there is no attainment penalty from not having attended a grammar school.<sup>22</sup>

However, in areas with the greatest concentration of selective schools, they found there was a small negative effect of not attending a grammar: a tenth of a GCSE grade per subject taken. Furthermore, this effect is greater for disadvantaged children, with FSM pupils achieving 0.2 grades lower per subject.<sup>23</sup> Prof. David Jesson has also pointed out the greater attainment gap in selective compared to non-selective areas.<sup>24</sup> Work by Education Datalab has also demonstrated that in the four local authorities with highest proportions of grammars, the system has created winners and losers, with those attending

secondary moderns achieving 0.2 of a GCSE grade less than average.<sup>25</sup>

While the research is mixed on this issue, the consensus remains that grammar schools certainly don't have a positive effect on overall attainment, and are likely to have a small negative effect, particularly in more selective areas, and for pupils from poorer backgrounds. As to the long term effects of selection on mobility, longitudinal research has also shown that selective education increases income inequality, with those on low incomes who were brought up in selective areas earning less than their counterparts in comprehensive areas.<sup>26</sup>

## Access

### Disadvantage and 'Just About Managing' families

Much has been made of Theresa May's government's focus on the JAMs, 'just about managing' families, who despite largely being in work, are squeezed by stagnating wages and the high costs of housing and bills.<sup>27</sup> The focus on this group also informs the priorities of the Department for Education, with grammar schools said to be of particular help for the children of those who are just managing. While the focus of research has traditionally been on the disadvantaged, there is little evidence for the effect of grammars on those slightly higher on the socioeconomic distribution, a fact highlighted in the recent DfE consultation.<sup>28</sup> There are several challenges here, firstly definition, and secondly identification. While there is no official definition of exactly who the JAMs are, the Resolution Foundation

has given a plausible answer, focusing on those with low to medium incomes, who receive the vast majority of their income from employment.<sup>29</sup> Identifying such families is even trickier however, particularly as pupil databases don't have such detailed information on family income. However, the Resolution Foundation report suggests, as a proxy, neighbourhood data on the proportion of children in families claiming in-work tax credits as an indicator for the hard-pressed, but in work.<sup>30</sup>

New analysis using this data alongside the IDACI (Income Deprivation Affecting Children) index can help us assess access to grammars across the full socioeconomic spectrum. IDACI measures the proportion of children in an area suffering from income deprivation. While imperfect, such

neighbourhood measures are often used in this type of analysis as they are highly correlated with the socioeconomic status of individuals themselves. When comparing areas containing the highest proportion of JAMs as defined by the Resolution Foundation, we have found that there is a substantial overlap with the IDACI measure. Specifically, of the areas with the highest concentration of JAMs, most were located in areas falling in the lowest two IDACI quintiles (around 70%). This indicates that living in a neighbourhood in the bottom two IDACI quintiles is highly associated with membership of the just managing group, and offers us the opportunity to gain an initial sense of how grammars are currently providing for this group.

Figure 2 shows how a lack of access to grammar schools isn't merely restricted to those at the very bottom of the scale. There is a steep social gradient across the wealth distribution. The pattern in London is slightly different, due to the high number of deprived areas in London (as can be seen in figure 3), and also due to the different ethnic make-up of schools there. But it's clear that outside London those in the bottom two IDACI categories fare substantially worse than those from less deprived areas.<sup>31</sup> It is particularly instructive that those in the second lowest category, likely to be less disadvantaged and have more families in work, fare scarcely better than the bottom category. Figure 3 on the other hand shows the much more equitable distribution of students outside London in non-selective schools across the quintiles.

Figure 2: Proportion of Year 7 pupils in grammars by deprivation quintile

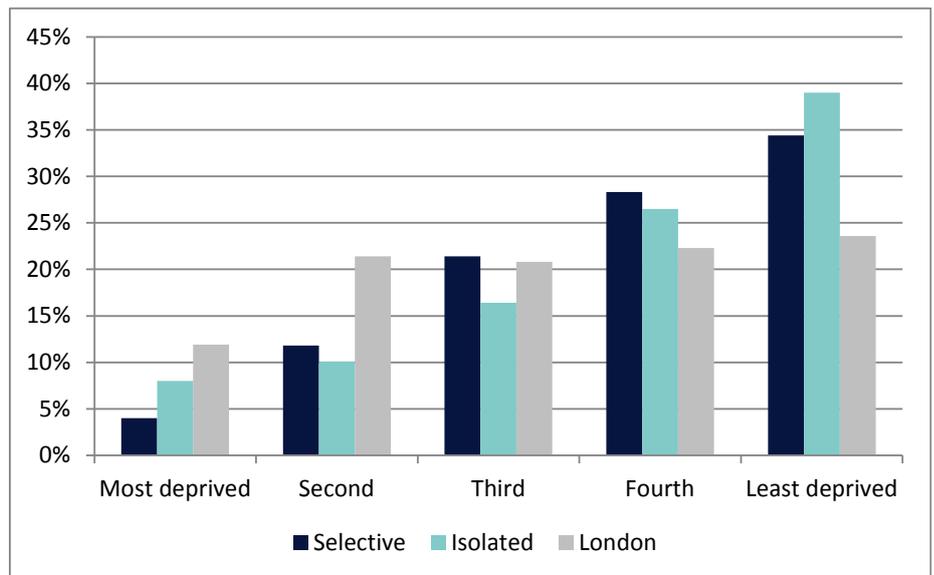
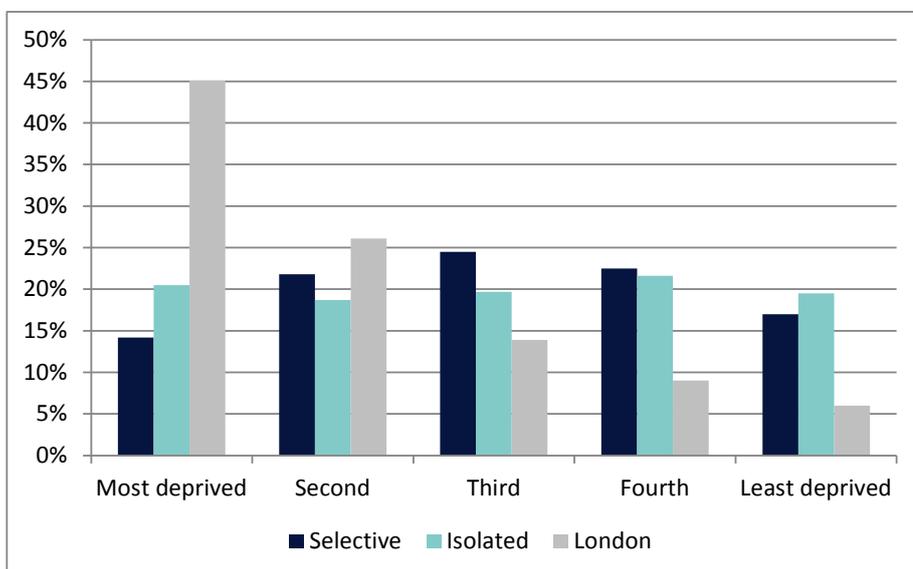


Figure 3: Proportion of Year 7 pupils in non-selective schools by deprivation quintile



The IDACI rating of a neighbourhood is an imperfect proxy for the income of any individual child or family. However, our research shows that, even for pupils not themselves disadvantaged, living in an area of slightly below average income deprivation means you are much less likely to attend grammar school than richer neighbourhoods. This relationship also continues to hold even accounting for prior attainment levels. Importantly, this means that controlling for prior attainment, even non-disadvantaged pupils living in these below average neighbourhoods are barely more likely to attend grammars than those living in the poorest. This is a strong indication that the 'just managing' families are not being catered for by the current grammar school system.

### Grammar Schools and Ethnicity

As previous research has shown, white British pupils are less likely to attend grammar schools than non-white pupils. However, as the Sutton Trust *Class Differences* report recently explored, it is also extremely important to examine how ethnicity interacts with disadvantage. That report found disadvantaged white British pupils to perform worse than disadvantaged pupils from almost all other ethnic groups at GCSE, with one of the highest attainment gaps, suggesting a particularly high level of inequality between white British children.<sup>32</sup>

Figure 4: Proportion of FSM eligible pupils attending grammar schools by ethnicity, 2012-2016<sup>33</sup>

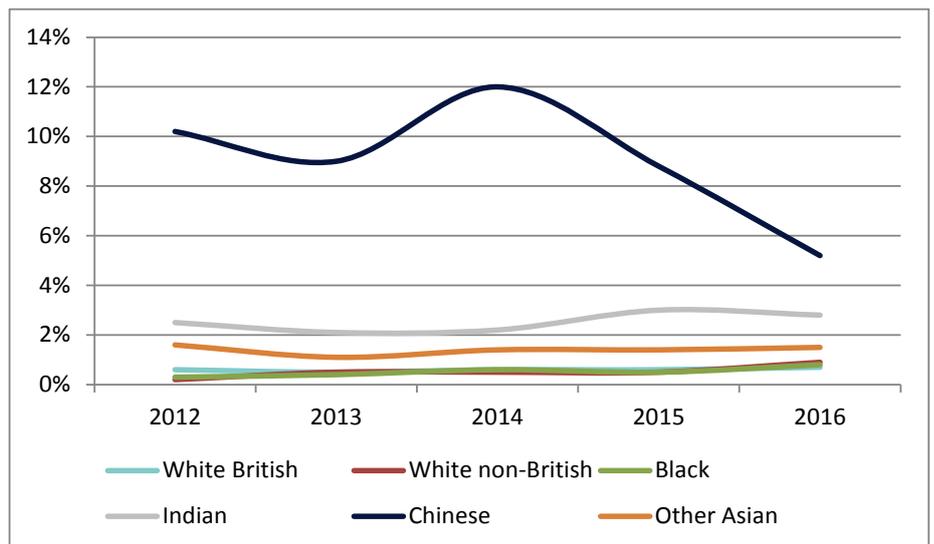


Figure 5: Overall proportion of pupils attending grammar schools by ethnicity, 2012-2016

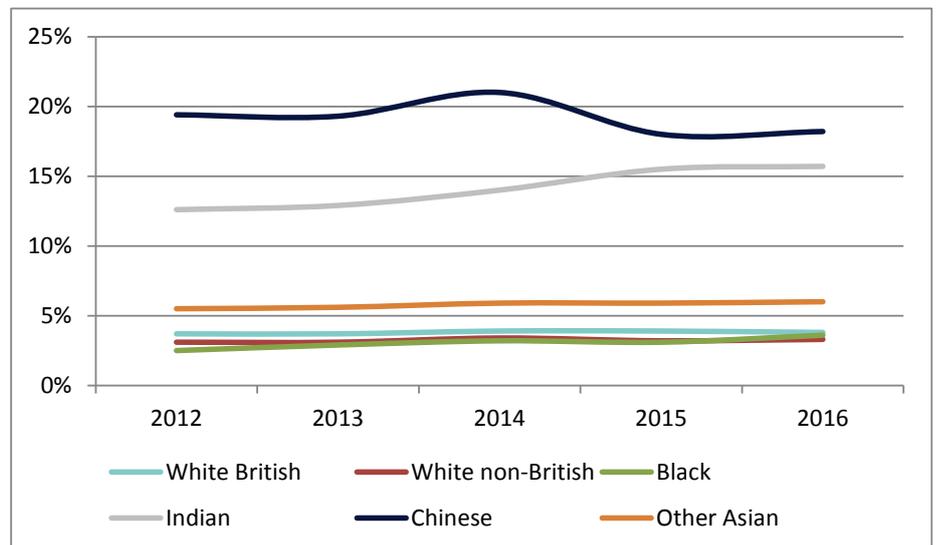
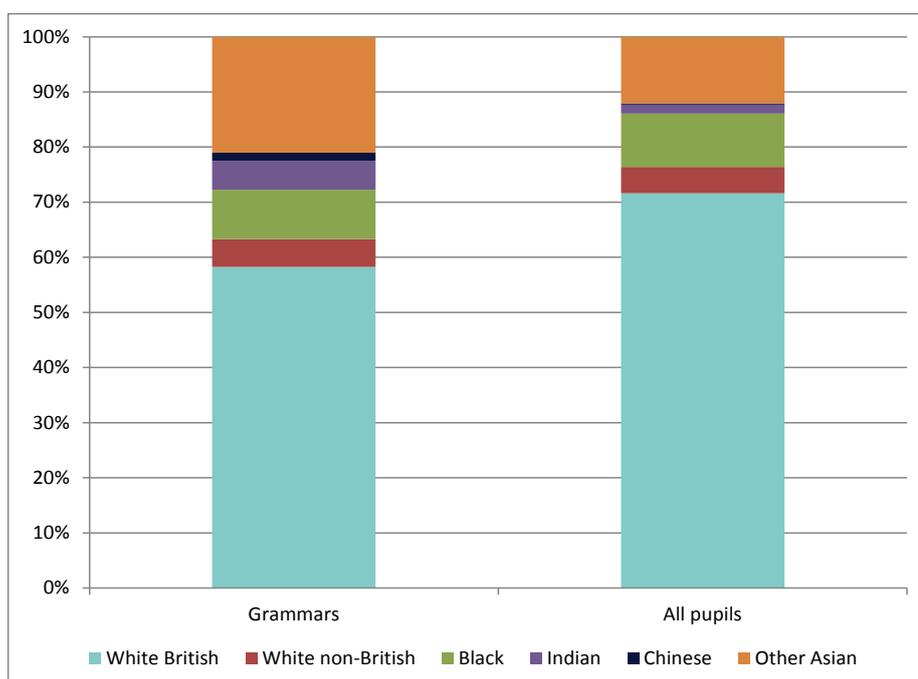


Figure 6: Estimated proportion of selected ethnicities within FSM pupils, grammars, and all mainstream secondary schools, Source: Parliamentary answers, DFE figures



Similarly, new Sutton Trust analysis of recent Department for Education data shows that when it comes to entry into grammar schools, white British disadvantaged children have the lowest rate of entry to grammars among a range of ethnic groups. Disadvantaged Indian, Chinese and other Asian children attend grammars at much higher rates than white British pupils. On average over the last five years, disadvantaged Asian pupils have been three times more likely, Indian pupils have been four times more likely, and Chinese pupils fifteen times more likely to attend grammars than their disadvantaged white British counterparts.

Figure 4 shows that while there have been modest but definite improvements in the proportions from disadvantaged Black (0.3% in 2012 to 0.8% in 2016) and white non-British children (0.2 in 2012 to 0.9% in 2016), the proportion of white British attending grammars has

remained constant at around 0.7%.

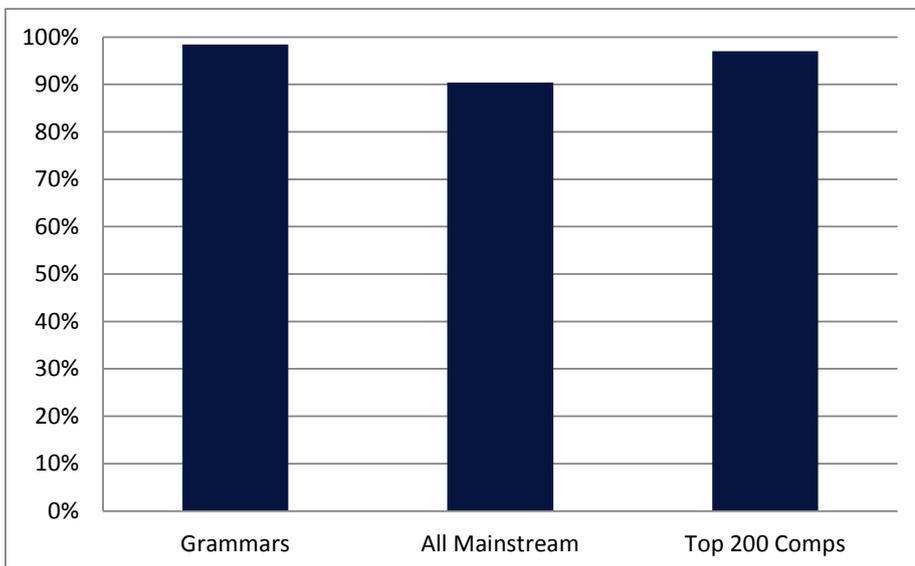
For comparison, Figure 5 shows the comparable figures for all grammar school attendees, both disadvantaged and non-disadvantaged.

While grammar schools have been shown to take very low numbers of disadvantaged pupils, these figures show this is particularly acute for white British FSM children. Figure 6 shows that, of the population of FSM eligible pupils in grammars, white British disadvantaged children enter at rates substantially below their proportion of the school population as a whole, with other Asian pupils forming a particularly substantial proportion of the grammar school FSM-eligible population. As the *Class Differences* report pointed out, there are several possible explanations for these disparities, including low academic attainment for certain ethnic groups, higher rates of tutoring among ethnic minority groups, along with differing levels of parental aspiration.<sup>34</sup>

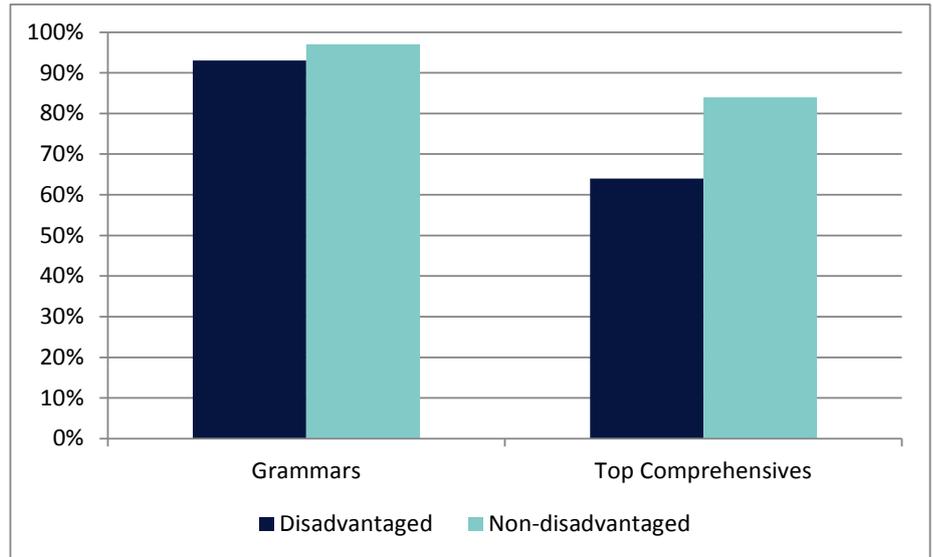
While 71% of FSM eligible pupils are white British, only 58% of FSM-eligible pupils entering grammar schools are. Other Asian pupils make up 21% of all FSM pupils in grammars, nine percentage points higher than their rate in the wider school system. While Chinese FSM children have high rates of entry as indicated above, they exist in much lower numbers. This may also explain the higher variation from year to year in Figure 4.

## Attainment

**Figure 8: % of high attainers achieving 5A\*CEM, 2014/15. Source: Sutton Trust analysis of Education Datalab figures and DfE performance Tables**



**Figure 7: % achieving 5A\*CEM in Grammar Schools and 200 Top Comprehensives, 2014/15. Source: Education Datalab**



Much of the attraction of policymakers and parents to grammar schools is the high attainment of pupils who attend them. There is no doubt that pupils who attend grammars achieve higher across a range of measures than their counterparts in mainstream comprehensives, as do specific sub-groups of pupils, including disadvantaged pupils and high attainers. As Figure 7 shows, the attainment gap between disadvantaged and non-disadvantaged is lower in grammar schools than top comprehensive schools. The rate of students gaining 5 A\*-C grades at GCSE, including English and Maths (5A\*CEM) is 20 percentage points lower for disadvantaged students in top comprehensive schools, but only four percentage points lower in grammar schools.<sup>35</sup>

Previous Sutton Trust research has identified 300 English Baccalaureate 'early adopter' schools.<sup>36</sup> While our research showed pupils benefitting from the curriculum change in these schools, grammars continue to perform better in terms of the proportion of high attainers achieving the EBacc. 72% of high attaining grammar school pupils achieve the EBacc, while 43% of similar students in the EBacc early adopters do. Nonetheless, the gap is narrowing compared to comprehensives as a whole, pointing towards an area for improvement in non-selective schools.

However, as the literature on the subject has demonstrated, such raw attainment figures are not as impressive as they seem, as such comparisons do not match like with like. As we have seen in previous sections, the make-up of pupils entering grammars is vastly different to those in comprehensives, most obviously when it comes to the attainment level of students on entry. While 83% of pupils in grammars were high attainers in primary school (Level 5 or above), only 47% of the pupils in the above group of top comprehensives were high attainers. This bias is particularly true for disadvantaged pupils. As pupils on free school meals are less likely to enter grammar schools at all levels of prior attainment, only those at the very top actually get in, thus skewing their GCSE statistics.

Research from Education Datalab and the Education Endowment Foundation has shown that if you look at comprehensives and grammars with similar proportions of high attainers on entry, there is very little difference

in GCSE outcomes.<sup>37</sup> Similarly, looking specifically at the performance of high attainers gives a slightly more nuanced picture. Figure 8 shows 98.4% of high attainers in grammars achieving 5A\*CEM. Across all mainstream non-selective schools 90.4% of high attainers achieve the same, but in our group of top comprehensives, the results are almost the same as grammars, at 97%.

From this analysis, it is clear that the highly able perform just as well in good comprehensives as they do in grammars. From a social mobility perspective, investing in the large numbers of highly able students in comprehensives across their whole time in secondary schools is likely to bear more fruit.

## Conclusion

While raw exam scores exaggerate the primacy of grammars in the English school system, the balance of evidence nonetheless indicates that they do have a small positive effect on the pupils who attend them, including disadvantaged pupils. However, two chief drawbacks remain: very few disadvantaged pupils, or even children from 'just about managing' families, actually get in to grammars; and there is evidence showing that in areas with higher numbers of grammar schools, the performance of those in non-selective schools is harmed. The twin aims of the government consultation are to increase the number of 'good school places' in the school system, and increase the rates of university access for disadvantaged pupils. It is far from clear that a narrow

focus on increasing grammar school places is the best strategy to achieve those goals. A more broad-based strategy of increasing the number of comprehensives at the top end of the scale, along with a programme of better advice on university and career options for the highly able in comprehensives, would achieve the same goals, without the downsides of dividing children by ability at a young age. Making sure that existing grammars offer more equitable access to the disadvantaged, alongside establishing a highly able fund to support high attaining students in non-selective schools to get more comprehensives up to the level of the best schools should form the pillars of any social mobility strategy.

## Recommendations

### **1. Provide a minimum ten hours test preparation for all pupils to provide a level playing field.**

So long as those who can afford private tutors are paying to ensure their children do well in grammar school tests, it is vital that there is a level playing field for all applicants. There should be a minimum of ten hours test preparation support provided on a free or subsidised basis to all potential grammar school applicants to help level the playing field.

### **2. Schools should prioritise pupils eligible for the Pupil Premium in admissions**

The school admissions code currently allows academies to give preference to pupils eligible for the Pupil Premium. Where they have a free school meals intake significantly below average, grammar schools could therefore give preference to students from low or middle income households who reach a minimum threshold in the admission test.

### **3. Improve outreach work to families from disadvantaged backgrounds, particularly looking at ethnic groups with much lower propensities to attend grammars.**

Grammar schools should improve their outreach work, providing support and encouragement to children from low and middle income households who have the ability to benefit from their education. This should include providing assurances on access to transport and other costs, and access to test preparation sessions. Grammar schools should actively encourage parents of Pupil Premium pupils whose pupils are likely to pass the 11+ to apply. Grammar schools should do more to work with local media to dispel the view that some parents may hold of them as elitist and encourage successful students from low or middle income backgrounds to act as ambassadors within their communities.

### **4. The government should establish a highly able fund to support the prospects of high attainers in comprehensive schools.**

This would do much to improve social mobility, maximising the attainment of the majority of highly able students, widening entry to top universities, and improving their economic prospects in the long term.

### **5. All pupils should have fair access to sit EBacc subjects, particularly those eligible for the pupil premium.**

As previous Sutton Trust research shows, it is particularly important that disadvantaged pupils in all schools should have access to 'EBacc' subjects, alongside their peers. This includes addressing the significant gap in entry rates to triple science for disadvantaged pupils. Schools should be required to demonstrate parity of entry to EBacc subjects between their pupil premium and non-pupil premium students with similar prior attainment.

### **6. The Government should focus on improving fair access to existing grammar schools before any expansion in the number of grammar schools.**

Most grammar schools do not currently cater fairly for pupils from disadvantaged backgrounds. Before any expansion of grammars, schools should be able to demonstrate they can reduce their social selectivity and cater for the disadvantaged pupils in their area, offering attainment gains to those pupils without negatively affecting overall attainment in neighbouring schools.