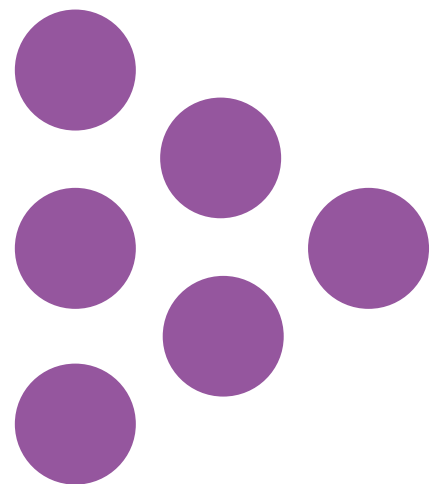

Report

Selective Comprehensives 2024

The social composition of top comprehensive schools

National Foundation for Educational Research (NFER)



Selective Comprehensives 2024: The social composition of top comprehensive schools

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Acknowledgements

NFER was commissioned by the Sutton Trust to update our previous work on Selective Comprehensives 2017 and produce an independent report on our findings. These findings are reported in this document. Alongside this, the Sutton Trust has produced its own summary report drawing out highlights from our report and setting out their recommendations.

Executive Summary

This is the latest in a periodic series commissioned by the Sutton Trust which examines the social composition of top performing comprehensives in England compared to all schools nationally. This provides an update on the last report entitled *Selective Comprehensives 2017*, which used 2015/16 attainment data.

The aim of this research is to assess whether the top performing comprehensives are representative of their local areas in terms of the socio-economic background of their students. We define the ‘top’ comprehensives by considering those schools ranking in the top 500 in terms of academic attainment at the end of Key Stage 4. Where there are differences between a school’s intake and its catchment area, these may be due to a range of different factors which may be related to actions by the school, by parents/families, etc. It is not possible to unequivocally attribute any differences observed to one particular factor, but highlighting the gaps is a first step towards explaining and addressing them.

The key findings are:

- The top performing 500 comprehensives in England, based on Progress 8 scores, which is the Government’s main Key Stage 4 accountability measure, have lower rates of pupils who are eligible for Free School Meals (FSM) on average (17 per cent) in their intakes compared to all schools nationally (22 per cent).
- Around one-eighth of the gap is due to the top 500 schools (Progress 8) being located in catchment areas with lower levels of disadvantage. Despite this, they are still less representative in terms of pupils who are eligible for FSM than their catchment areas might suggest. The picture is similar to 2016, albeit the average gap between the top 500 schools and their catchments has grown marginally, by one percentage point.
- Within the top 500 schools (Progress 8), over a quarter admit a higher proportion of disadvantaged pupils into their intakes than seen in their catchment areas. This illustrates that schools can be both top performing and fully representative of their catchment areas.
- However, 73 per cent of the top 500 (Progress 8) have a negative gap between the school and its catchment area FSM rate which is much higher than for all schools nationally (50 per cent). Furthermore, 10 per cent of the top 500 have an FSM gap which is 10 percentage points or more below their catchments. This suggests they are very under-represented in terms of disadvantaged pupils compared to what may be expected based on their catchment areas.
- Almost all secondary comprehensives in England (90 per cent) are now their own admissions authorities, up from 80 per cent in 2016. However, this proportion is even greater (93 per cent) among the top 500 (Progress 8). Further, schools in the top 500 (Progress 8) who are their own admissions authorities admit fewer pupils who are eligible compared to all such schools nationally (5 percentage points lower than the national average).
- Sponsor-led academies are under-represented among the top 500 schools (Progress 8) compared to nationally, with this school type comprising just 15 per cent of the top 500

group compared to 26 per cent of all schools nationally. For converter academies, the picture is the opposite with this school type comprising 56 per cent of the top 500, eight percentage points more than for all schools nationally. Voluntary aided & Foundation schools in the top 500 (Progress 8) have the largest difference in their average FSM rate compared to all schools of this type nationally.

- Half of all academies in the top 500 (Progress 8) are in small school trusts (four schools or fewer). This compares to 39 per cent of all academies nationally.¹ Schools in smaller trusts also have lower proportions of pupils eligible for FSM, particularly school trusts with only one school, both nationally and among the top 500. For the top 500 schools, school trusts with fewer than 30 schools all tend to be more under-representative of their catchment areas than nationally, while school trusts with 30 or more schools are in line with their catchments.

¹ Free schools are included.

1 Introduction

This report is an update of the Sutton Trust's 2017 report on the social composition of comprehensive schools in England (Cullinane et al., 2017). We broadly take the same methodological approach in this report but use more recent data to update the findings. The updated analysis paints a similar picture to the 2017 report (Cullinane et al., 2017).

This report considers the social composition of all state-maintained mainstream secondary schools in England. Independent schools are outside the scope of this report. In addition, as the focus is to examine the potential selectivity of comprehensive schools, and in particular the 'top 500' comprehensive schools, grammar schools are also excluded from the *main* analysis (but the social composition of grammar schools is examined in Section 4.2). This is because they select their intake based on academic ability.

The aim of this research is to assess whether the top performing comprehensives are representative of their local areas in terms of the socio-economic background of their students. We define the 'top' comprehensives by considering those schools ranking in the top 500 in terms of academic attainment at the end of Key Stage 4. Where there are differences between a school's intake and its catchment area, these may be due to a range of different factors which may be related to actions by the school, by parents/families, etc. It is not possible to unequivocally attribute any differences observed to one particular factor, but highlighting the gaps is a first step towards explaining and addressing them.

Education in England has seen several significant changes in the last few years. This has led to an expansion of the scope of this research, as detailed later in this report.

Firstly, the schools' landscape has changed much since the 2017 report. More schools which were formally under local authority control have become academies and joined a school trust. In 2022/23, 80 per cent of England's secondary school pupils were educated in an academy compared to 66 per cent in 2015/16 (Cullinane et al., 2017). The number and size of school trusts has also grown considerably since 2016 with the government setting out an ambition for all schools to be part of a strong school trust in future. Section 4.4 considers whether a school's representativeness of their catchment area varies according to whether a school is part of a school trust or not and whether there is variation across different sizes of school trust.

Secondly, Progress 8 is now established as the main accountability measure for secondary schools. This value-added attainment measure was introduced for all schools in 2016, alongside Attainment 8. Progress 8 takes into account pupils' starting point when they enter secondary school and uses their Attainment 8 score at Key Stage 4 to give a measure of progress made. Attainment 8 is an average measure of a pupil's performance across their eight best performing subjects taken at GCSE level (and can include other qualifications such as BTECs). A school's scores are calculated as the average Progress 8 and Attainment 8 scores, respectively, achieved by its pupils.

It is also pertinent to this research to note that proportions of pupils eligible for free school meals (FSM) have increased between 2016 and 2022. This is partly due to the Covid-19 pandemic which led to an increase in numbers of families with low levels of income. A second reason is related to

changes in the eligibility criteria used that were introduced to smooth the transition to Universal Credit (Cullinane et al., 2017). Between January 2020 and January 2021, there was an increase of almost 120,000 FSM eligible pupils in the secondary sector, taking the FSM rate from 15.9 per cent to 18.9 per cent (Julius & Ghosh, 2022). These rates have been increasing ever since, rising to 20.9 per cent in 2021/22 and 22.7 per cent in 2022/23 (GOV.UK, 2023).

2 Methodology

This section provides details of the methodological approach used in this report. Further details are provided in Appendix 1. In order to determine the representativeness of the top 500 comprehensive schools in terms of socio-economic background of their pupils, we need to first determine which schools fall into the top performing 500 group (Section 2.1). Next, we define a catchment area for each English state-maintained secondary school (Section 2.2.1). The school intake FSM rate and the school catchment FSM rate for pupils in the intake year can then be calculated and compared (Section 2.2.2).

Schools where Key Stage 4 attainment data was not available were not included in the analysis.² In addition, there was a small number of schools which did not have enough pupils living in the same geographical area to construct catchment areas. These were also excluded from the analysis.

2.1 Identifying the top 500 performing comprehensive schools

We used two main school-level attainment measures to determine our ‘top 500’ comprehensive secondary schools, which are the focus of this report. These are Progress 8 and Attainment 8:

- Progress 8 – this is the main Key Stage 4 school accountability measure used by the government. This is the average of each pupil’s Progress 8 score for all eligible Year 11 pupils at the school. A pupil’s Progress 8 score is calculated by comparing their Attainment 8 score to all other pupils nationally who had a similar Key Stage 2 result at the end of primary school.
- Attainment 8 – a school’s Attainment 8 score is the average of each pupil’s Attainment 8 score for all eligible Year 11 pupils at the school. A pupil’s Attainment 8 score is the sum of up to eight different Key Stage 4 qualifications. This includes mathematics, English, three qualifications from EBacc subjects and three other qualifications.

We have also considered two further school accountability measures to check the sensitivity of our findings to the measures chosen, which are detailed below.

- Percentage of eligible Year 11 pupils achieving a Level 5 or higher in all of their English Baccalaureate (EBacc) qualifications. The EBacc is a group of GCSEs that includes English language and literature, maths, the sciences, geography or history, and a language (DfE, 2017).
- Percentage of eligible Year 11 pupils achieving a Level 4 or higher in both English and mathematics GCSE.

² Schools did not have attainment data for Key Stage 4 if they do not have a Year 11 cohort. This may be due to recently opening so that they do not have a Key Stage 4 cohort in the analysis year. Some of the excluded schools were middle schools that do not have a Key Stage 4 cohort.

All schools in scope were ranked according to their scores on each of the attainment measures outlined above from the 2021/22 academic year and the top 500 performing schools formed the group of interest for each measure.³

2.2 Measuring the social composition of the top 500 comprehensives

FSM is a proxy measure of the socio-economic background of the pupils attending a school. The social composition of a comprehensive school was measured by calculating the proportion of pupils in its entry cohort (generally Year 7) in the three most recent academic years (2021/22, 2020/21 and 2019/20) who were eligible for FSM.

After identifying the top 500 performing schools for each of our measures, average FSM rates for these schools were calculated. These were calculated by summing the number of FSM pupils across the three most recent intakes in the top 500 schools and dividing this by the number of total pupils in these intakes at the same set of schools.⁴

It is worth noting that for this research, a school's FSM rate was based on the intakes for the last three academic years, whereas the Progress 8 and Attainment 8 outcomes used to rank schools were based on the attainment outcomes of a school's Year 11 pupils in the last academic year (2021/22).

2.2.1 Constructing catchment areas

School catchment areas were determined using the same approach used in the 2017 report (Cullinane et al., 2017). This involved consideration of which Lower Layer Super Output Areas (LSOA) pupils in the three most recent intake years (2021/22, 2020/21, 2019/20) lived. An LSOA was included in a school's catchment area if at least five pupils from that area over the last three intakes attended that school (see Appendix 1 for further details).

These catchment areas, as defined here, do not cover all of the geographical areas where pupils reside. This is because some pupils in a school's intake will come from LSOAs where less than five pupils from that area attended the school across the last three intake years. However, on average, 81 per cent of pupils in the three most recent intakes came from their catchment area, as defined in this study. This is a similar proportion to that found in the 2017 report (80 per cent).

³ See Appendix 1 for further information on the attainment measures and the criteria used to decide tiebreaks (where several schools had the same attainment score).

⁴ The method of calculating average FSM rates for groups of schools is slightly different to the approach used in 2017 analysis. In this report, a weighted average approach is used, where the FSM rate is calculated by dividing the total number of FSM pupils across the three intake years in the group of schools by the total number of pupils in these intakes in the group of schools. Previously, group averages were unweighted; that is, they were a simple average of the school FSM rates for all schools in the group. While the magnitude of FSM rates differs slightly between the two methods, the relative position of the FSM rates for the top 500 with respect to their catchment areas and all comprehensive schools is very similar.

2.2.2 The FSM gap

To gain an understanding of whether a school's intake is representative of their local geographical area in terms of socio-economic disadvantage, we compare the school's FSM rate to that of its catchment area (Burgess et al., 2023).⁵

We calculate an 'FSM gap' measure for each school as a proxy measure for the representativeness of a school's pupil body. The FSM gap is the difference between the proportion of FSM pupils in the school's last three intake years and the proportion of FSM pupils in a school's catchment area in those intakes. Where there is no difference, the school's intake is considered to be representative of the area it serves. Where the difference is positive, the school has a higher proportion of FSM pupils in its intake than is found in its catchment area. Conversely, schools which have a negative FSM gap have fewer FSM pupils in their intake than might have been expected given their catchment area. The more negative the FSM gap, the less representative the school's intake is in terms of socio-economic disadvantage.

⁵ See Appendix 1 for details on how catchment areas are defined. While geographical distance is not a criteria, the majority of comprehensive schools are made up of pupils from their local area. See (Burgess et al., 2023)

3 The social composition of top comprehensive schools

3.1 The Top 500 comprehensive schools

There are 346 schools which are in both the top 500 performing schools based on Progress 8 and Attainment 8 measures. This compares to 270 schools that were in both top 500 groups based on 5 A* to C grades including English and Maths and Progress 8 measures used in the 2017 report. It is perhaps not surprising that there is greater overlap now as Progress 8 is a function of Attainment 8. Also schools with the higher Attainment 8 scores are often, though not always, those where pupils make the most progress (Leckie & Goldstein, 2019).

3.2 Change in the FSM rate

The proportion of pupils who are eligible to FSM in the pupil population is considerably higher in the latest analysis than in the 2017 report. The average FSM rate for all secondary comprehensives in 2022 is 22 per cent compared to 16 per cent in 2016. This partly reflects an underlying increase in need due to the impact of the Covid-19 pandemic but is also related to how the introduction of Universal Credit impacted the number of pupils eligible for FSM (Julius & Ghosh, 2022). There may also be other reasons. It is not possible to estimate the relative impact of these factors on higher FSM rates but increasing levels of need are likely to be among the most important factors.

3.3 The social composition of the top 500 comprehensive schools

Table 1 shows the average FSM rate for the top 500 schools for the four different attainment measures used in this study, alongside the average FSM rate for all secondary schools. This shows that the top 500 schools, based on Progress 8, have the highest proportion of FSM pupils in their intakes compared to the other measures. However, this is nearly five percentage points below the national average for all secondary comprehensives. The average FSM rate in the top 500 schools based on Attainment 8 is nearly nine percentage points lower than all schools nationally.

Table 1: Average FSM rates

	All secondary comprehensive schools (%)	Top 500 performing comprehensives (%) based on:			
		Progress 8	Attainment 8	English Baccalaureate	Level 4+ in English and Maths
Average school FSM rate	22.0	17.1	13.3	14.0	12.9

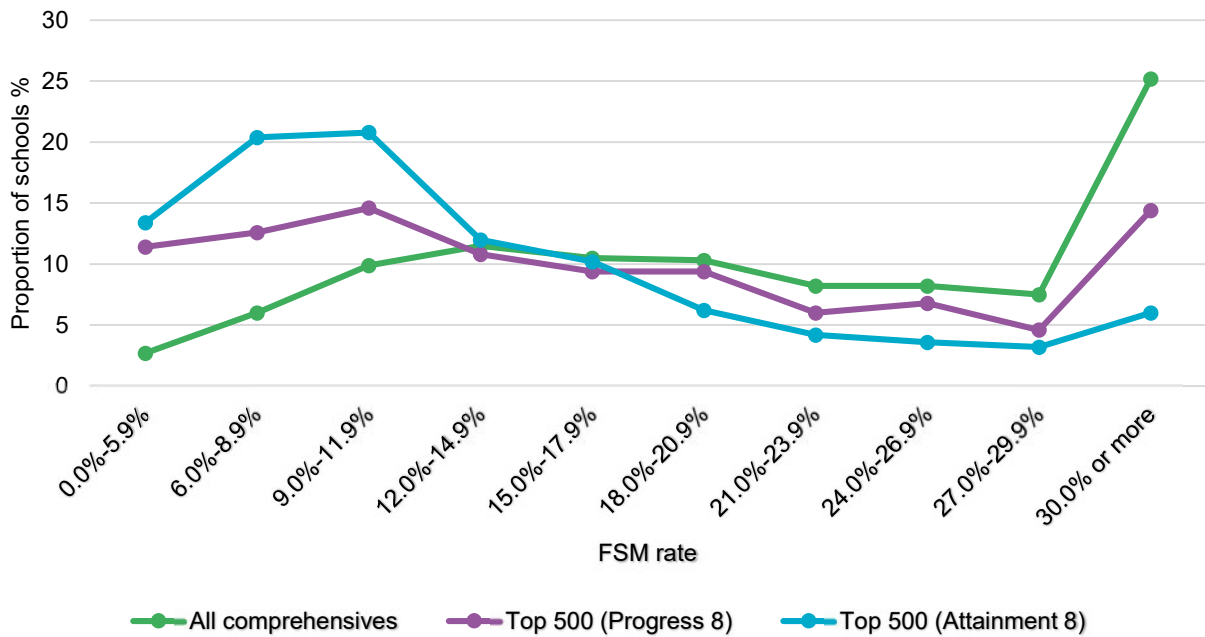
Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

Another way of examining the social composition of the top 500 performing groups is to look at the distribution of FSM rates compared to all secondary comprehensives. The spread of school FSM rates is shown in Figure 1. This shows that 11 per cent of the top 500 performing schools based on

Progress 8 have very low FSM rates (below six per cent of all pupils) in their intakes, four times the proportion for all secondary comprehensives.

A considerably greater share of the top performing 500 schools under the Attainment 8 measure have low levels of FSM. Over 13 per cent have intakes with less than six per cent of pupils who are eligible for FSM. Further, 55 per cent have an FSM rate of less than 12 per cent. This compares to 39 per cent of schools in the top 500 based on Progress 8, and 19 per cent of all secondary comprehensives.

Figure 1: Spread of FSM rates of top 500 schools



Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

3.4 The social composition of the top 500 school catchment areas

While the top performing secondary schools have lower average rates of FSM eligibility compared to all secondary comprehensives, is this merely a reflection of their locality? To investigate this, average FSM rates for school catchment areas have been calculated – see Table 2. This shows that schools that make up the top 500 groups, regardless of which measure is used, do appear to be situated in less deprived areas on average compared to all schools nationally. The top performing schools based on Progress 8 are closest to the national average FSM rate – about 21 per cent compared to 23 per cent for all secondary comprehensives – suggesting these schools are in slightly more affluent areas. Conversely, for the top 500 based on Attainment 8, the difference is around four percentage points lower than nationally, suggesting these schools tend to be in somewhat more affluent areas.

Table 2: Average FSM rates in school catchment areas

	All secondary comprehensive schools (%)	Top 500 performing comprehensives (%) based on:			
		Progress 8	Attainment 8	English Baccalaureate	Level 4+ in English and Maths
Average school FSM rate	23.2	21.4	19.1	19.5	18.5

Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

Although schools in the top 500 groups are located in less disadvantaged areas than nationally, they also tend to be less representative on average of their catchment areas than might be expected. Table 3 shows the FSM gap for all comprehensives across the four different measures of top 500 schools. A positive FSM gap occurs when a school’s intake has a higher number of FSM pupils than the social composition of the school’s catchment area would suggest. A negative FSM gap shows the opposite. This shows that there is a small FSM gap of just over one per cent for all secondary schools compared to their catchments. However, the FSM gap is greater on average for the top performing 500 schools, regardless of which measure is used, compared to nationally.

Table 3: Average difference between school and catchment FSM rates

	All secondary comprehensive schools (%)	Top 500 performing comprehensives (%) based on:			
		Progress 8	Attainment 8	English Baccalaureate	Level 4+ in English and Maths
Average school FSM rate	-1.1	-4.3	-5.8	-5.5	-5.6

Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

The average FSM differences shown in Table 3 may be disguising large variations among the top 500 schools, so it is important to look at the spread of differences. Table 4 shows the distribution of the FSM gap for schools in the top 500 compared to all comprehensive secondary schools. This table shows two important things. Firstly, over a quarter of the top 500 schools based on Progress 8 admit a higher proportion of disadvantaged pupils into their intakes than is in their catchment areas. For Attainment 8, the comparable figure is 14 per cent. This illustrates that schools can be both top performing and fully representative of their catchment areas. This is important to bear in mind when generalising about the top 500, given that a large minority are fully representative of the communities they serve.

On the other hand, Table 4 also shows that schools in the top 500 (Progress 8) group have a far lower percentage of schools with a positive FSM gap compared with all comprehensive secondary schools – 27 per cent relative to 50 per cent, respectively. With the Attainment 8 measure, this is

lower still at 14 per cent. At the other end of the spectrum, nine per cent of the top 500 schools based on Progress 8 have a negative FSM gap of greater than 10 percentage points, more than double the rate for all secondary comprehensives (four per cent). For the top 500 based on Attainment 8, three times as many schools have an FSM gap of more than 10 percentage points than nationally. Indeed, at all levels of negative FSM gap, we find a higher proportion of top 500 schools on either measure compared to all comprehensive schools.

Table 4: Spread of top 500 comprehensives by FSM gap

FSM gap (percentage points)	All comprehensive secondary schools		Top 500 Progress 8		Top 500 Attainment 8	
	Number of schools	% of schools	Number of schools	% of schools	Number of schools	% of schools
Positive gap	1,492	50%	136	27%	72	14%
0% to -4.9%	970	33%	193	39%	209	42%
-5% to -9.9%	390	13%	124	25%	155	31%
-10% to -14.9%	101	3%	29	6%	44	9%
-15% or more	30	1%	18	4%	20	4%

Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

3.5 Changes in social composition over time

How has this picture changed since 2015/16? We can compare changes over time by looking at the top 500 ranked schools based on their Progress 8 scores in both 2016 and 2022. As shown in Table 5, back in 2016, the social composition of the catchment areas that the top 500 performing schools were recruiting from was much the same as nationally (18 per cent).⁶ However, Table 5 also shows that the top 500 schools in 2016 had lower rates of FSM pupils in their intakes (15 per cent) than their catchments (18 per cent), a gap of 3 percentage points. The picture is similar in 2022, albeit the FSM gap has grown marginally, by one percentage point.

Table 5: Average school and catchment FSM rates in 2015/16

	All comprehensive secondary schools	Top 500 Progress 8
Average school FSM rate	16.3%	14.7%
Average school catchment FSM rate	18.4%	18.2%

Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

⁶ Based on the revised method for calculating average FSM rates – see footnote 10 for more details.

4 Characteristics of top comprehensive schools

4.1 The social composition of the Top 500 schools by different characteristics

In this section, we present findings by looking at the FSM rates in school intakes and FSM gaps for the top 500 schools (Progress 8 and Attainment 8) compared to all secondary schools split by different school-level characteristics, namely:

- School type
- Mixed or single sex schools
- Religious affiliation
- Deprivation quintiles
- Region
- Performance quintiles

4.1.1 School type

One of the defining features of different school types in England is that they have different levels of control over their admissions arrangements. Admission to some schools is controlled by the local authority (LA) whereas academies, free schools, voluntary aided and foundation schools are their own admissions authorities.

Table 6 reveals some interesting patterns in the secondary comprehensives landscape. Firstly, almost all (90 per cent) secondary comprehensives are their own admissions authorities, which is up from 80 per cent in 2016. However, this proportion is even greater – 93 per cent – among the top 500 based on Progress 8 (92% for Attainment 8).

Secondly, nearly three-quarters (73 per cent) of secondary comprehensives are either a sponsor-led or converter academy. This has increased markedly since 2016, when 49 per cent of secondary comprehensives were an academy.⁷ In terms of the representation of different school types in the top 500 groups, there is a notable under-representation of sponsor-led academies and an over-representation of academy converters compared to all secondary comprehensives. While 26 per cent of all schools are sponsor-led academies, this school type comprises 15 per cent of the top 500 based on Progress 8. Among the top 500 based on Attainment 8, only nine per cent are sponsor-led academies. For converter academies, the picture is the opposite with this school type comprising 56 per cent of the top 500 based on Progress 8 (eight percentage points more than nationally) and 63 per cent for Attainment 8 (15 percentage points more than nationally).

Table 6 also shows FSM rates by school type, broken down by whether schools have control of their own admissions or not. This shows that the average FSM rate for all secondary comprehensive schools that are their own admissions authority are almost the same as those

⁷ This includes City Technology Colleges, most of which are academies.

where the LA control admissions. This is also broadly true for the top 500 schools for both measures. However, there are large differences in the average FSM rates compared to nationally, particularly for schools who are their own admissions authorities – 17 per cent (Progress 8) and 13 per cent for (Attainment 8). These are 5 and 9 percentage points lower, respectively, compared to all schools nationally that control their admissions. For the top 500 schools where LAs control admissions, while there is less variation compared to nationally, the differences are still large (2 percentage points lower for top 500 based on Progress 8 and 7 percentage points lower for Attainment 8).

Table 6: FSM rates for top 500 schools by school type and admissions authority

School type	All comprehensive secondary schools		Top 500 Progress 8		Top 500 Attainment 8	
	% of schools	FSM rate (%)	% of schools	FSM rate (%)	% of schools	FSM rate (%)
Own admissions authorities						
Academy converter	48%	17.7	56%	13.7	63%	11.4
Academy sponsor led ⁺	26%	31.0	15%	27.9	9%	23.8
Free schools	5%	24.0	9%	22.8	7%	19.4
Voluntary aided & Foundation schools	12%	22.5	12%	16.9	13%	13.9
Total	90%	22.1	93%	16.9	92%	13.2
LA controlled admissions						
Community & Voluntary controlled schools	10%	21.4	7%	19.1	8%	14.3
Total	10%	21.4	7%	19.1	8%	14.3
Grand total	100%	22.0	100%	17.1	100%	13.3

Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

Notes: Some school groups in the table have been combined due to low counts.

Some totals might not sum due to rounding

+ Includes City technology colleges.

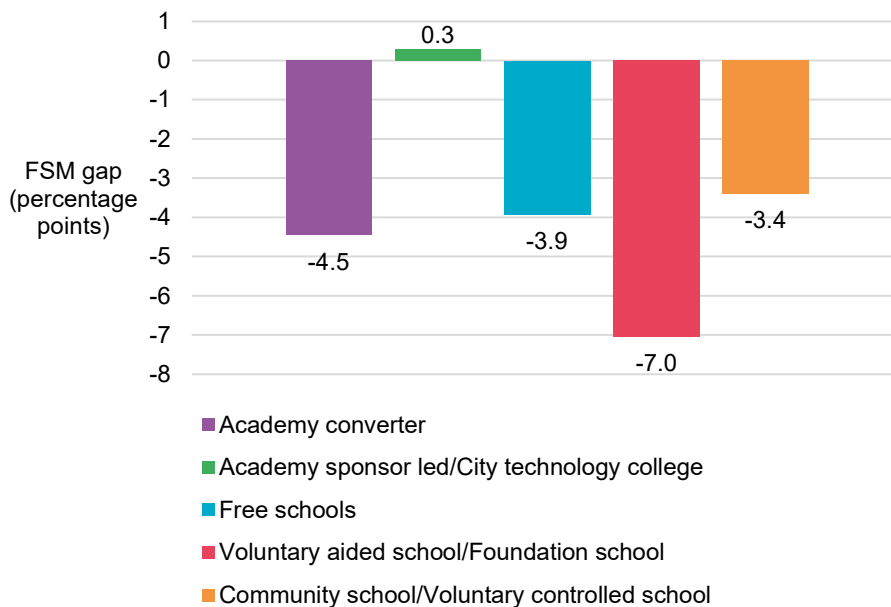
Table 6 also reveals large variations by different school type. The average FSM rate in all converter academies nationally is 18 per cent whereas it is 31 per cent for all sponsor-led academies, a difference of 13 percentage points. Voluntary aided and foundation schools (mainly faith schools) nationally are closest to the national average.

Looking at the top 500 groups (both Progress 8 and Attainment 8), there is similar variation and FSM gaps between school types, albeit the average FSM rates were much lower than nationally. Converter academies had the lowest rates of FSM pupils in the top 500 groups on both measures (14 per cent on Progress 8 and 11 per cent on Attainment 8). Conversely, sponsor-led academies

in the top 500 groups recruited most FSM pupils to their rolls. Indeed, they recruited more than the average FSM rate for all schools nationally.

It is important to understand how average FSM rates for different school types compare to their catchments to assess how much of the variation may be due to locality. Figure 2 shows the FSM gap (the gap between the FSM rate of the school and its catchment area) for the top 500 schools (Progress 8). On this measure, voluntary-aided and foundation schools are the least representative of their catchments of all the school types. Almost all voluntary-aided schools have religious character which is explored further in Section 4.1.3 below. Interestingly, converter academies are much less representative of their catchment areas than sponsor-led academies. While free schools have higher levels of FSM compared to converter academies, their average FSM gaps are similar.

Figure 2 FSM gap for top 500 schools (Progress 8) by school type



Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

Note: School groups with less than 2 per cent of the overall pupil population have been merged with other groups.

4.1.2 Mixed or single sex schools

Table 7 shows a breakdown of secondary comprehensives by whether schools are mixed or single sex. Only a fairly small proportion of all schools – eight per cent – are single sex, yet interestingly they make up nearly a quarter of schools in the top 500 (both measures).

Table 7: FSM rates for top 500 schools by sex selection

School type	All comprehensive secondary schools		Top 500 Progress 8		Top 500 Attainment 8	
	% of schools	FSM rate (%)	% of schools	FSM rate (%)	% of schools	FSM rate (%)
Mixed	92%	22.2	77%	16.8	77%	12.7
Single sex	8%	19.6	23%	18.1	23%	15.9

Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

Table 7 also shows the average FSM rates for mixed and single sex schools. We see that single sex schools nationally have a slightly lower average FSM rate (20 per cent) compared to all mixed secondary comprehensive schools in the country (22 per cent). Interestingly, this pattern is reversed among the top 500 group, with mixed schools having marginally lower rates of pupils eligible for FSM compared to single sex schools. The difference in FSM rates between mixed schools in the top 500 and those nationally is much larger than for single sex schools.

While single sex schools have lower FSM rates on average compared to all schools nationally, it is also the case that they have a large average FSM gap (see Table 8). This suggests that single sex schools nationally tend to be located in less privileged areas. Further it also suggests they are less representative on average of their catchments, taking fewer FSM students relative to catchment area than mixed schools. This under-representation feature is also seen for single sex schools in the top 500 for both measures, albeit it is slightly more pronounced.

Table 8: FSM gap for top 500 schools by sex selection

School type	All comprehensive secondary schools (%)	Top 500 Progress 8 (%)	Top 500 Attainment 8 (%)
Mixed	-0.8	-3.9	-5.5
Single sex	-4.3	-5.3	-5.9

Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

4.1.3 Religious affiliation

Around a fifth of all secondary comprehensives nationally (19 per cent) have a religious affiliation. These schools have traditionally been associated with stronger academic performance and as shown in Table 9 below, they are substantially over-represented in the top 500 based on both measures, with 29 per cent of the top 500 based on Progress 8 having a religious affiliation (34 per cent for Attainment 8).

Table 9: FSM rates for top 500 schools by religious affiliation

School type	All comprehensive secondary schools		Top 500 Progress 8		Top 500 Attainment 8	
	% of schools	FSM rate (%)	% of schools	FSM rate (%)	% of schools	FSM rate (%)
Non-religious	81%	22.4	71%	17.9	66%	13.7
Religious	19%	20.6	29%	14.7	34%	12.5

Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

Before examining FSM rates for schools with a religious affiliation, it is important to be aware that they often recruit from a larger geographical catchment area compared to non-religious schools due to the nature of their admissions criteria where often adherence to a religion could be included (Fair Admissions Campaign, 2015). This may in some cases mean that religious schools appear less representative than schools recruiting from more restricted geographic catchment areas.

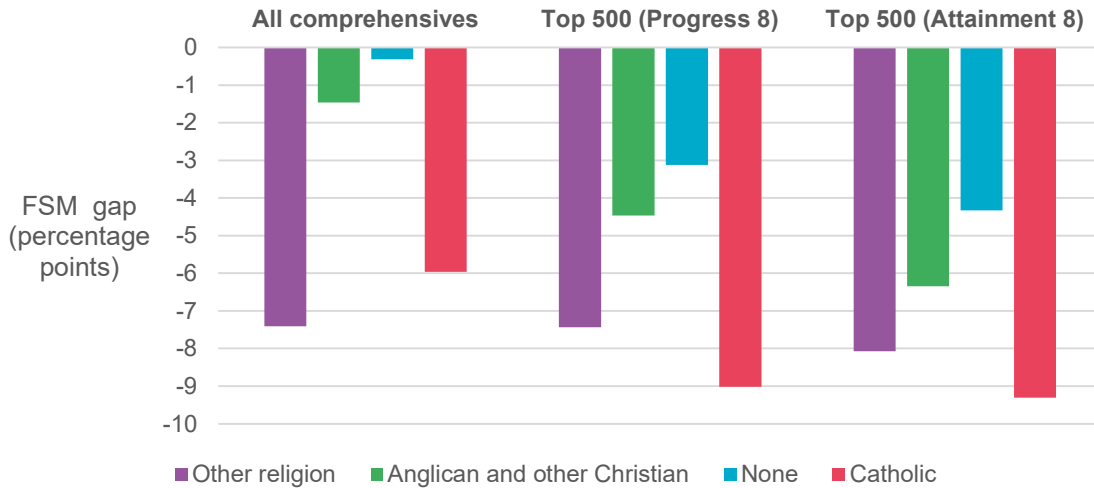
Table 10: FSM gap for top 500 schools by religious affiliation

School type	All comprehensive secondary schools (%)	Top 500 Progress 8 (%)	Top 500 Attainment 8 (%)
Non-religious	-0.3	-3.1	-4.3
Religious	-4.3	-7.4	-8.3

Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

All secondary comprehensive schools with a religious affiliation have marginally lower rates of FSM (2 percentage points) compared to schools with none, although they seem to be located in slightly more disadvantaged areas. Furthermore, as shown in Table 10, they tend to be less representative than their catchments compared to non-religious schools nationally. However, the picture is slightly different schools with a religious affiliation in the top 500 (both measures). The catchment areas these schools are based in have broadly the same average FSM rates as nationally, but they differ substantially in terms of being representative of these areas. The average FSM gap for these schools in the top 500 based on Progress 8 are 7 percentage points below their catchment FSM average, more than double that of schools in the top 500 which have no religious affiliation.

Figure 3 FSM gap by religious character



Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

Among all schools with a religious character, as shown in Figure 3, non-Christian religious schools nationally have the largest average FSM gap (-7 percentage points). However, among the top 500 groups, Catholic schools exhibited the largest average FSM gap compared to their catchment area, which is also wider than the FSM gap for all Catholic schools nationally.⁸ Other Christian schools, of which the vast majority are Anglican (Church of England), have only half the FSM gap of Catholic schools in the top 500 (Progress 8). However, as with Catholic schools in the top 500, other Christian schools in the top 500 are significantly less representative of their catchments than nationally.

4.1.4 Deprivation quintiles

While thus far we have used FSM eligibility as a measure of the social make-up of a school, this does not capture the full range of the socio-economic spectrum. The Income Deprivation Affecting Children Index (IDACI) is another way of estimating the socio-economic make up of an area, based on levels of income deprivation. The IDACI score measures the proportion of children living in low-income households in a specific area. This measure therefore enables us to have a more detailed look at levels of deprivation compared to the yes/no FSM eligibility measure.

Each school is given a rating based on the IDACI scores of their pupil intake, and the distribution is divided into five quintiles indicating their overall levels of deprivation. Schools with pupils living in the most affluent areas are in quintile 1 while those from the most deprived areas are in quintile 5.

All other things being equal, we might expect around 20 per cent of schools to fall in each quintile as they broadly do for all schools nationally. However, Table 11 indicates that 30 per cent of schools in the top 500 based on Progress 8 are actually in the least deprived quintile while only 14 per cent are in the most deprived quintile. The corresponding figures for top 500 schools based on

⁸ Some religions/religious denominations were combined due to small numbers of schools.

Attainment 8 is 42 per cent for the most affluent quintile and eight per cent for the most deprived quintile. Therefore, even using this broader measure, much larger proportions of top performing schools are concentrated at the very top of the socio-economic spectrum.

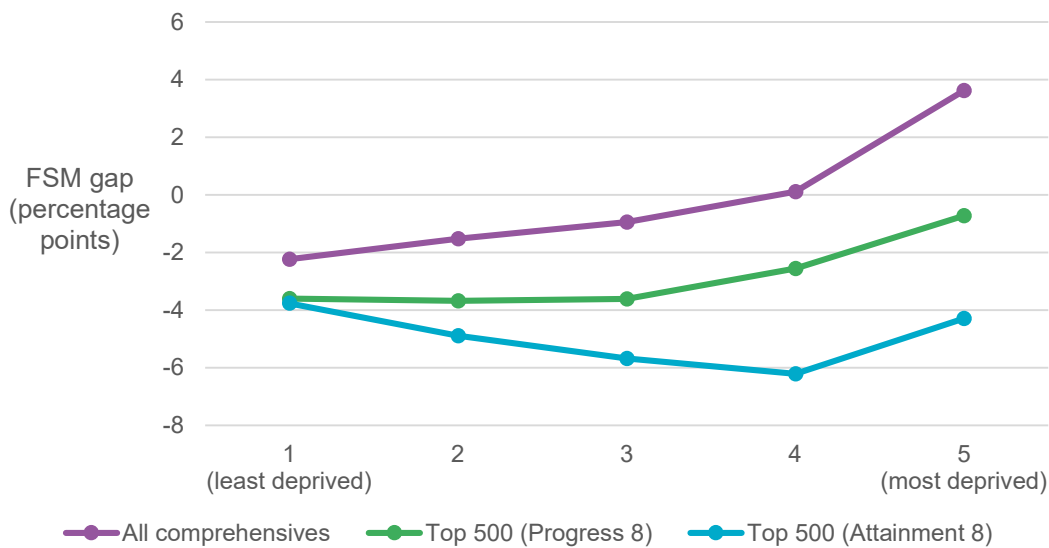
Table 11: FSM rates for top 500 schools by deprivation quintile

School type	All comprehensive secondary schools		Top 500 Progress 8		Top 500 Attainment 8	
	% of schools	FSM rate (%)	% of schools	FSM rate (%)	% of schools	FSM rate (%)
Quintile 1 (least deprived)	19%	10.2	30%	8.0	42%	8.1
Quintile 2	19%	15.4	18%	13.1	20%	11.8
Quintile 3	20%	20.2	20%	18.1	16%	16.1
Quintile 4	21%	26.4	18%	24.3	14%	21.0
Quintile 5 (most deprived)	21%	38.5	14%	35.0	8%	31.6

Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

The FSM gap for all comprehensive schools split by deprivation quintile shows a small negative gap for schools in the three least deprived quintiles. This gap disappears to zero in the fourth least deprived quintile while in the most deprived quintile, there is a large positive gap suggesting that these schools are over-recruiting pupils who are eligible for FSM from their catchments. As seen in Figure 4, this pattern is not reflected in the top 500 groups where in all quintiles across all attainment groups, the schools on average have a lower proportion of FSM than might be predicted based on their catchment areas.

Figure 4: FSM gap for top 500 schools, by deprivation quintile



Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

4.1.5 Region

As shown in Table 12, with the exception of the North East, secondary comprehensives are relatively equally distributed across regions of England. However, London is by far the most represented region in the top 500 under both Progress 8 (35 per cent) and Attainment 8 (34 per cent), which is over double the share nationally (15 per cent). This finding is in line with recent evidence showing that Key Stage 4 attainment in London is outstripping that of the rest of the country (Thomson, 2023). By comparison, the North East, North West, South West and West Midlands are all under-represented in the top 500 based on Progress 8.

Among all secondary comprehensives, the North East has overtaken London as the region with the highest proportion of FSM pupils in their schools’ intakes since 2016. The North East, the West Midlands and North West now have an equal or higher proportion of FSM pupils as London. Whereas the FSM rate across all comprehensives in the North East was 19 per cent in 2016, this has now risen to 29 per cent in 2022. Similarly the West Midlands has increased from 18 per cent in 2016 to 26 per cent in 2022, while the North West has seen FSM rates rise from 19 per cent to 25 per cent over the same time period.

Table 12: FSM rates for top 500 schools by region

School type	All comprehensive secondary schools		Top 500 Progress 8		Top 500 Attainment 8	
	% of schools	FSM rate (%)	% of schools	FSM rate (%)	% of schools	FSM rate (%)
East Midlands	9%	20.4	8%	13.5	6%	9.6
East of England	12%	17.1	12%	10.5	13%	8.7
London	15%	24.8	35%	21.2	34%	19.2
North East	5%	28.8	1%	18.8	4%	15.6
North West	14%	25.2	7%	19.8	11%	10.8
South East	14%	17.1	12%	9.4	14%	8.7
South West	10%	18.5	6%	16.5	5%	11.9
West Midlands	12%	25.7	9%	22.4	6%	13.9
Yorkshire and the Humber	10%	24.2	10%	17.9	8%	12.6

Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

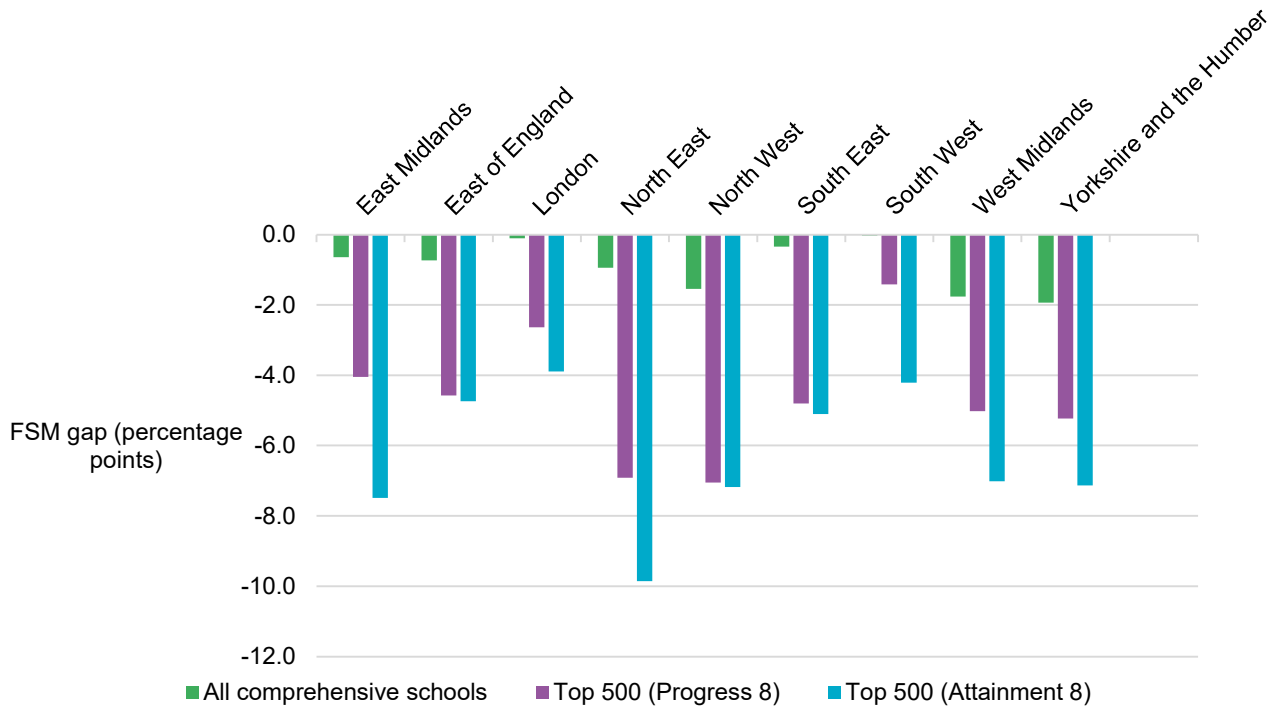
As shown in Figure 5, across all comprehensive schools, the average gap between the school and catchment area FSM rates appears broadly similar across the regions, with FSM gaps ranging from -2 percentage points in Yorkshire and the Humber to a zero gap in the South West.⁹

However, the top 500 groups show considerably more variation in terms of their average FSM gaps. The North East and North West both had an FSM gap of -7 percentage points, suggesting

⁹ The FSM gaps across all schools in an area are unlikely to equal zero as the catchment areas defined here do not cover all the pupils in a particular school.

that the social composition of schools in the top 500 based on Progress 8 were less representative of their catchments than might be anticipated. Conversely the South West (-1 percentage point) and London (-2 percentage points) had the smallest average gaps between their schools and school catchment area FSM rates. For the top 500 schools based on Attainment 8, FSM gaps by region on the whole were even more pronounced, with the North East having the highest negative FSM gap (10 percentage points).

Figure 5: FSM gap for top 500 schools by region



Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

4.1.6 Performance quintiles

To look at the range of FSM rates and FSM gaps across the range of schools in terms of attainment, we split all comprehensive secondary schools into performance quintiles based on their Progress 8 measure in 2022.

Table 13: FSM rates and FSM gaps for all comprehensive secondary schools by performance quintile

School type	All schools including Grammars* (%)	FSM rate (%)	FSM gap (percentage points)
Quintile 1 (lowest attaining)	21.2	30.7	3.6
Quintile 2	21.9	23.6	-0.2
Quintile 3	20.6	20.5	-1.7
Quintile 4	19.2	18.4	-3.0
Quintile 5 (highest attaining)	17.0	17.1	-4.2

Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

Note: * The quintiles do not equal 20 per cent as grammar schools were included when determining the quintiles and due to ties (instances where schools have the same Progress 8 score).

The higher the performance quintile, the lower the average FSM rate and the less representative schools are of their catchments. The lowest attaining schools have an average FSM rate of 31 per cent, which is well above the national average (Table 13). This compares to 17 per cent for schools in the highest attaining quintile of schools, which is well below the average FSM rate nationally. Schools in the lowest attainment quintile also have a positive FSM gap (4 percentage points), which indicates they have a higher proportion of FSM pupils in their intakes than suggested by their catchments areas. Conversely, the highest attaining schools have the largest negative FSM gap (-4 percentage points).

4.2 Grammar schools

The focus of this report is on the top performing comprehensive schools but as part of the analysis we looked at the FSM rates and FSM gaps in grammar schools. As documented in the Sutton Trust’s work elsewhere (Skipp et al., 2013), grammar schools are not representative of the socio-economic composition of all pupils in England. While around 5 per cent of pupils are educated at grammar schools (The Sutton Trust, 2019b), their alumni are over-represented at Russell Group universities and in the professional elite (Kirby, 2016). However, there is evidence that this over-representation is reducing (The Sutton Trust, 2019a).

Grammar schools have a much lower proportion of FSM pupils in their intake with only six per cent of pupils being eligible for FSM compared to 22 per cent in comprehensive schools (see Table 14). The FSM rate in grammar schools catchments is around 15 per cent, which is much lower than all comprehensives nationally (23 per cent). This suggests that grammar schools recruit pupils from significantly more affluent areas compared to nationally (Andrews et al., 2016).¹⁰ However, they

¹⁰ It is worth highlighting here that grammar schools generally select pupils from a much larger geographical area than comprehensive schools which may account for some portion of this difference. See (Andrews et al., 2016)

also recruit much lower proportions of FSM pupils into their intakes (-9 percentage points) compared to their catchments.

Table 14: FSM rates and FSM gaps for secondary comprehensives and grammar schools

School type	% of schools	FSM rate (%)	FSM gap (percentage points)
Comprehensive schools	94.8	22.0	-1.1
Grammar schools	5.1	5.7	-9.2

Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables

4.3 Changes over time

To gain a better understanding of changes over time, we explored how the average rates of pupils eligible for FSM for the top 500 comprehensives in 2016 had changed by 2022.

We started by identifying which schools had attainment and characteristics data in both 2016 and 2022. Where data was not available in one of the time periods, the school was excluded from the analysis. Schools that became sponsor-led academies between 2016 and 2022 were also excluded. Average FSM rates and FSM gaps were calculated for schools which were in the top 500 in 2016 based on Progress 8 and Attainment 8, and also for all schools nationally (where they had data in 2022). Corresponding figures for these schools were calculated for 2022.

Before reviewing the results, it is worth noting that both the specific geographical areas (i.e. LSOAs) making up a school’s catchment area and the FSM profile of the areas from which a school draws their intake could have changed significantly over the time period. For example, where a school’s FSM gap reduces over time (i.e. the school becomes more representative of its catchment area) this could be driven by a range of reasons such as changes to the socio-economic profile of the catchment area, changes to which LSOAs make up the catchment area and the school admitting higher rates of pupils eligible for FSM.

Table 15 shows the FSM gap for all schools has changed very little between 2016 and 2022. For the schools in the top 500 group in 2016 under both the Progress 8 and Attainment 8 measures, the gap has widened between the two time periods. This suggests that these schools are less representative of their catchment areas than they were. We repeated this analysis using the top 500 schools as defined using 2022 attainment outcomes and the picture was much the same. From Table 15, it is clear that not only have FSM gaps for the top 500 schools been increasing (becoming more negative), but at the same time the gap between these high performing schools and all comprehensives nationally has also widened.

Table 15: Changes in FSM gaps over time

		All figures in percentage points					
		All comprehensive secondary schools*		Top 500 (Progress 8)		Top 500 (Attainment 8)	
		FSM gap 2016	FSM gap 2022	FSM gap 2016	FSM gap 2022	FSM gap 2016	FSM gap 2022
		-1.3	-1.3	-2.6	-3.6	-4.4	-5.7
Difference			0.05		0.99		1.29

Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

Note: * Schools that became sponsor-led academies over the time period were excluded. Schools were also excluded if data was not available for one of the two time points.

4.4 School trusts

The number of academies has grown considerably over the last 12 years. In 2010/11, there were only 324 secondary academies compared to 2,766 in 2022/23. Academies can be sponsor-led academies, academy converters or free schools. Often schools judged Good or Outstanding by Ofsted became converter academies while underperforming schools became sponsored academies (DfE, 2022). Since the last report, there has been a lot of movement with LA schools becoming an academy and joining a multi-academy trust. Indeed, the percentage of secondary schools in school trusts has grown by 33 percentage points between 2015 and 2021 (DfE, 2022).

In this section, we examine FSM rates and FSM gaps across school trusts of different sizes. We also consider the restricted sample of schools that transferred to a school trust between 2016 and 2022 and explore how their intake and levels of social composition change over the period.

Table 16 shows that half of all academies in the top 500 based on Progress 8 are in small school trusts (four schools or fewer). This compares to 39 per cent of all academies nationally.¹¹ Schools in smaller trusts also have lower proportions of pupils eligible for FSM, particularly school trusts with only one school, both nationally and among the top 500. However, there are large differences in average FSM rates between academies in all sizes of trust in the top 500 compared to nationally, particularly for academies in school trusts of 5 to 9 academies and 10 to 19 academies.

¹¹ Free schools are included.

Table 16: FSM rates for different sized school trusts

Number of schools in a trust	All comprehensive secondary schools in school trusts		Top 500 Progress 8		Top 500 Attainment 8	
	% of schools	FSM rate (%)	% of schools	FSM rate (%)	% of schools	FSM rate (%)
1 school	23%	17.5	28%	13.3	32%	12.2
2 - 4 schools	16%	21.6	22%	17.0	21%	13.6
5 - 9 schools	22%	22.1	15%	14.6	17%	10.8
10 - 19 schools	18%	23.2	14%	17.2	15%	12.1
20 - 29 schools	7%	24.7	5%	19.0	4%	11.1
30 or more schools	13%	28.4	16%	25.8	12%	21.7

Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

Note: n = 2,327 for all comprehensive secondary schools in school trusts; n = 399 for top 500 (Progress 8); n = 392 for top 500 (Attainment 8).

Table 17 provides a breakdown of FSM gaps by size of trust. This shows that among all schools nationally, smaller school trusts tend to be marginally under-representative of their catchment areas. Conversely, school trusts with 30 or more schools tend to over-recruit pupils who are eligible for FSM into their intakes. For the top 500 schools (Progress 8), school trusts with fewer than 30 schools all tend to be more under-representative of their catchment areas than nationally, while school trusts with 30 or more schools are in line with their catchments.

Table 17: FSM gaps for different sized school trusts

Number of schools in a trust	All figures in percentage points		
	All comprehensive secondary schools in school trusts	Top 500 Progress 8	Top 500 Attainment 8
	FSM gap	FSM gap	FSM gap
1 school	-2.2	-4.9	-5.8
2 - 4 schools	-1.5	-4.4	-5.3
5 - 9 schools	-1.2	-4.2	-4.9
10 - 19 schools	0.2	-4.2	-5.2
20 - 29 schools	-0.5	-2.1	-6.1
30 or more schools	1.4	0.1	-3.6

Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables.

n = 2,327 for all comprehensive secondary schools in school trusts; n = 399 for top 500 (Progress 8); n = 392 for top 500 (Attainment 8).

As shown in Table 18, schools that joined a school trust as a sponsor-led academy between 2016 and 2022 appear to admit a higher proportion of FSM pupils than is present in their catchment area, as shown by their positive FSM gap, which increased over the period from two to three percentage points. The FSM gap for those schools that joined a MAT as a converter academy is negative suggesting these schools are slightly less representative of their catchment areas, although the magnitude of the FSM gap does not change significantly over the period. This further supports the findings above (see School Types) which showed that converter academies are less representative of their catchment areas than sponsor-led academies. What this data adds, however, is the understanding that converter academies were already less representative of their catchment areas before becoming academies and it is not necessarily that they have become more so since academisation. LA schools which became sponsor-led academies by contrast were already more representative of their catchment areas than converters and have become even more so.

Table 18: FSM rate and FSM gaps for schools joining school trusts between 2015/16 and 2021/22

Type of school	Number of schools	2015/16		2021/22	
		FSM rate (%)	FSM gap (% points)	FSM rate (%)	FSM gap (% points)
Academy converter	535	13.6	-2.2	19.2	-2.4
Academy sponsor-led	342	23.9	2.3	31.6	3.4

Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables

References

- Andrews, J., Hutchinson, J., & Johnes, R. (2016). *Grammar schools and social mobility*. https://epi.org.uk/wp-content/uploads/2018/01/Grammar-schools-and-social-mobility_.pdf
- Burgess, S., Cantillon, E., Cavallo, M., Greaves, E., & Zhang, M. (2023). *School admissions in england: The rules schools choose on which pupils to admit*. <https://bristol.ac.uk/media-library/sites/economics/documents/admissioncriteria.pdf>
- Cullinane, C., Hillary, J., Andrade, J., & McNamara, S. (2017). *Selective Comprehensives 2017*. <https://www.suttontrust.com/our-research/selective-comprehensives-2017-state-school-attainment/>
- DfE. (2017). Secondary accountability measures: Guide for maintained secondary schools, academies and free schools. <https://core.ac.uk/download/pdf/96720628.pdf>
- DfE. (2022). *The case for a fully trust-led system*. https://assets.publishing.service.gov.uk/media/62865295d3bf7f1f433ae170/The_case_for_a_fully_trust-led_system.pdf
- Fair Admissions Campaign. (2015). *Overview of issues to do with religious selection in school admissions*. <https://fairadmissions.org.uk/wp-content/uploads/2015/09/Overview-of-issues-to-do-with-religious-selection-in-school-admissions.pdf>
- GOV.UK. (2023, June 8). *Schools, pupils and their characteristics, academic year 2022/23*. <https://explore-education-statistics.service.gov.uk/find-statistics/school-pupils-and-their-characteristics#dataBlock-8566fd16-cf74-4bf5-9ac9-ce8027b373da-tables>
- Julius, J., & Ghosh, A. (2022). *Investigating the changing landscape of pupil disadvantage*. <http://www.nfer.ac.uk/publications/investigating-the-changing-landscape-of-pupil-disadvantage/>
- Kirby, P. (2016). *Leading people 2016: The educational backgrounds of the UK professional elite*. https://www.suttontrust.com/wp-content/uploads/2019/12/Leading-People_Feb16-1.pdf
- Leckie, G., & Goldstein, H. (2019). The importance of adjusting for pupil background in school value-added models: A study of Progress 8 and school accountability in England. *British Educational Research Journal*, 45(3), 518–537. <https://doi.org/10.1002/berj.3511>
- Skipp, A., Vignoles, A., Jesson, D., Sadro, F., Cribb, J., & Sibieta, L. (2013). *Poor grammar: Entry into grammar schools disadvantaged pupils in England*. <https://www.suttontrust.com/our-research/poor-grammar-entry-grammar-schools-disadvantaged-pupils-england/>
- The Sutton Trust. (2019a). *Elitist Britain 2019: The educational backgrounds of Britain’s leading people*. <https://www.suttontrust.com/wp-content/uploads/2020/01/Elitist-Britain-2019-Summary-Report.pdf>
- The Sutton Trust. (2019b). *Grammar schools Sutton Trust fact sheet*. <https://www.suttontrust.com/wp-content/uploads/2019/12/GRAMMAR-SCHOOLS-FACT-SHEET.pdf>
- Thomson, D. (2023, September 1). The widening gap in attainment at Key Stage 4 between London and the rest of the country. *FFT Education Datalab*.

<https://ffteducationdatalab.org.uk/2023/09/the-widening-gap-in-attainment-at-key-stage-4-between-london-and-the-rest-of-the-country/>

Appendix 1: Methodology – further details

The main methodology is described in Section 2 of the report. Further details are provided here around the data, scope and definitions of variables, measures and constructs.

Data

Pupil-level data was used from the National Pupil Database (Spring Census) for academic years 2013/14, 2014/15, 2015/16, 2019/20, 2020/21 and 2021/22 to construct the school catchment areas for 2016 and 2022.

Other data from a range of publicly available sources including Key Stage 4 attainments and Get Information About Schools (GIAS) were matched to the NPD data.

Scope

All mainstream comprehensive secondary schools in England were in scope for this analysis. Independent schools, special schools, alternative provision establishments, FE colleges and Studio Schools were removed from the data. Grammar schools were also excluded for the main analysis.

Definitions

Catchment area

The analysis in this report defines school catchment areas using the same approach as used in the 2017 report (Cullinane et al., 2017). The catchment area for each school consists of a group of Lower Layer Super Output Areas (LSOA). An LSOA belongs to a school's catchment if more than five pupils living in the LSOA were in the school's intake (usually Year 7) in analysis year (2021/22 or 2015/16) and the preceding two years. Where there is only one or two years of data, the threshold for number of pupils for inclusion in the catchment area is reduced (three or more pupils if there is only one year of data or four or more pupils if there is only two years of data).

FSM eligibility

We use FSM eligibility at the time of the Spring Census as the measure for FSM in line with analysis from the 2017 report.

School FSM rate

The school FSM rate is the proportion of pupils eligible for FSM in the intake year (usually Year 7) for the analysis year and the preceding two years¹².

¹² Where the school did not have a Year 7 cohort the youngest cohort of pupils was used to calculate this rate.

Catchment FSM rate

The catchment FSM rate is the proportion of pupils eligible for FSM in the intake year (usually Year 7) who live in the school's catchment area (as defined above) for the analysis year and the preceding two years. Note that the same pupil could be counted in more than one school's catchment area FSM rate.

FSM gap

The FSM gap for each school is the difference between the school FSM rate and the catchment FSM rate. A positive FSM gap would show that the school had more FSM pupils (in its intake cohort in the analysis year) than would be predicted from the school's catchment area – i.e. the school has a higher proportion of FSM pupils than the school's catchment area. Where the FSM gap is zero the school is representative of its catchment area. A negative FSM gap implies that the school has a lower proportion of FSM pupils than its catchment area.

Top 500 groups

To determine the top 500 groups under each of the attainment measures, schools were ranked according to their score for each measure. Where there were ties for Progress 8, the school's Attainment 8 score was used to determine the ranking. Where there were ties between Attainment 8, percentage of pupils achieving at least a Level 5 in all of their EBacc qualifications and percentage of pupils achieving at least a Level 4 in English and mathematics, the school's Progress 8 score was used to determine the ranking.

Deprivation quintiles

The deprivation quintiles were determined using the mean IDACI score for each pupil in each school's intake (usually Year 7) in the analysis year and preceding two years. The quintiles were determined using STATA's 'xtile' command.

Performance quintiles

The performance quintiles were determined using schools' Progress 8 measure and STATA's 'xtile' command.

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Appendix 2: Table of FSM rates and FSM gaps by different measure

	All comprehensive secondary schools			Top 500 (Progress 8)			Top 500 (Attainment 8)			Top 500 (EBacc)			Top 500 (Eng Maths)		
	% of schools	School FSM rate	FSM gap	% of schools	School FSM rate	FSM gap	% of schools	School FSM rate	FSM gap	% of schools	School FSM rate	FSM gap	% of schools	School FSM rate	FSM gap
School type															
Academy converter	47.6	17.7	-2.6	56.2	13.7	-4.5	62.6	11.4	-5.7	58.6	11.4	-5.5	62.8	11.1	-5.4
Academy sponsor led*	25.8	31.0	3.0	15.2	27.9	0.3	9.4	23.8	-2.5	11.0	23.8	-2.3	8.0	23.0	-2.0
Free schools	4.8	24.0	-1.7	8.8	22.8	-3.9	6.8	19.4	-4.5	10.0	20.9	-4.6	8.0	20.5	-4.3
Voluntary aided & Foundation schools	11.6	22.5	-2.1	12.4	16.9	-7.0	13.4	13.9	-7.9	12.4	14.4	-7.5	14.4	13.0	-8.1
Community & Voluntary controlled schools	10.2	21.4	-1.0	7.4	19.1	-3.4	7.8	14.3	-4.1	8.0	15.9	-4.0	6.8	14.1	-3.4
Sex selection															
Mixed	92.0	22.2	-0.8	76.6	16.8	-3.9	76.8	12.7	-5.5	75.2	13.2	-5.2	78.2	12.4	-5.4
Single-sex	8.0	19.6	-4.3	23.4	18.1	-5.3	23.2	15.9	-5.9	24.8	16.9	-5.7	21.8	15.1	-5.8
Religious affiliation															
Non-religious	80.9	22.4	-0.3	70.6	17.9	-3.1	65.6	13.7	-4.3	67.8	14.3	-4.3	65.8	13.0	-4.1
Religious	19.1	20.6	-4.3	29.4	14.7	-7.4	34.4	12.5	-8.3	32.2	13.2	-8.1	34.2	12.6	-8.2
Catholic	52.5	20.0	-6.0	51.7	13.3	-9.0	52.9	12.7	-9.3	52.8	12.7	-9.2	51.5	12.3	-9.1
Other Christian	40.9	21.9	-1.5	30.6	16.6	-4.5	33.7	12.1	-6.3	30.4	13.1	-5.6	33.9	12.4	-6.9
Other religion	6.5	15.6	-7.4	17.7	15.5	-7.4	13.4	13.4	-8.1	16.8	15.8	-7.8	14.6	14.9	-7.2

	All comprehensive secondary schools			Top 500 (Progress 8)			Top 500 (Attainment 8)			Top 500 (EBacc)			Top 500 (Eng Maths)		
	% of schools	School FSM rate	FSM gap	% of schools	School FSM rate	FSM gap	% of schools	School FSM rate	FSM gap	% of schools	School FSM rate	FSM gap	% of schools	School FSM rate	FSM gap
Deprivation quintile															
Quintile 1 (least deprived)	19.2	10.2	-2.2	30.4	8.0	-3.6	42.0	8.1	-3.8	40.0	8.2	-3.6	45.6	8.1	-3.6
Quintile 2	18.9	15.4	-1.5	18.0	13.1	-3.7	20.0	11.8	-4.9	19.0	12.4	-4.2	20.4	11.9	-4.8
Quintile 3	20.1	20.2	-0.9	20.0	18.1	-3.6	16.0	16.1	-5.7	17.0	16.4	-5.6	16.2	16.1	-5.8
Quintile 4	20.7	26.4	0.1	17.6	24.3	-2.6	13.8	21.0	-6.2	14.4	21.6	-5.7	10.4	20.9	-5.8
Quintile 5 (most deprived)	21.0	38.5	3.6	14.0	35.0	-0.7	8.2	31.6	-4.3	9.6	33.2	-3.2	7.4	33.0	-3.5
Region															
East Midlands	8.8	20.4	-0.6	8.0	13.5	-4.0	6.0	9.6	-7.5	7.0	10.8	-5.9	6.4	9.5	-5.5
East of England	11.6	17.1	-0.7	12.0	10.5	-4.6	13.0	8.7	-4.7	13.8	9.2	-4.4	14.4	8.7	-4.8
London	15.2	24.8	-0.1	34.6	21.2	-2.6	33.6	19.2	-3.9	35.6	19.6	-3.7	28.6	18.3	-4.3
North East	4.9	28.8	-0.9	1.2	18.8	-6.9	4.0	15.6	-9.9	3.8	15.9	-9.7	3.6	15.6	-8.8
North West	14.0	25.2	-1.5	6.8	19.8	-7.0	11.0	10.8	-7.2	9.2	11.8	-7.7	11.2	12.1	-7.6
South East	14.3	17.1	-0.3	12.2	9.4	-4.8	14.4	8.7	-5.1	13.6	8.8	-4.8	14.6	8.6	-4.8
South West	9.5	18.5	0.0	5.8	16.5	-1.4	4.6	11.9	-4.2	4.4	12.1	-3.6	6.6	12.1	-3.6
West Midlands	11.9	25.7	-1.8	9.4	22.4	-5.0	5.8	13.9	-7.0	6.0	15.7	-8.3	7.8	14.6	-6.8
Yorkshire and the Humber	10.0	24.2	-1.9	10.0	17.9	-5.2	7.6	12.6	-7.1	6.6	12.3	-7.7	6.8	12.4	-6.6
* includes City technology colleges															

Source: NFER analysis of data from the National Pupil Database matched with data from Get Information about Schools and school performance tables

Evidence for excellence in education

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