



Department  
for Education

# **Outcomes for pupils at the end of KS4 by geography**

**Ad hoc statistics**

**June 2019**

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## Introduction

This publication explores how key stage 4 (KS4) attainment and progress for pupils varies with the geographic location of the school they attend. In particular, this analysis explores how Attainment 8 and Progress 8 scores vary based on Defra's 2011 Rural-Urban Classification of the Output Area in which the school is located,<sup>1</sup> or whether the school the pupil attends is in a coastal area.<sup>2</sup> This analysis examines the performance of all pupils, as well as the performance of disadvantaged and non-disadvantaged pupils, and the difference between these two groups, in different geographies.<sup>3</sup>

This analysis presents descriptive statistics on the performance of pupils in different areas. This analysis does not control for any other factors which could independently influence the performance of pupils in these areas. The differences observed between different geographic locations should not be interpreted as causal.<sup>4</sup>

### **Performance measures used in this publication<sup>5</sup>**

This publication reports Progress 8 scores and Attainment 8 scores for pupils attending schools in different geographic locations.

Progress 8 was introduced in 2016 as the headline indicator of school performance. It aims to capture the progress a pupil makes from the end of primary school to the end of secondary school. It is a type of value-added measure, which means that pupils' results are compared to the actual achievements of other pupils with similar prior attainment.

Attainment 8 measures the achievement of a pupil across eight qualifications including Mathematics (double weighted) and English (double weighted), three further qualifications that count in the English Baccalaureate (Ebacc) measure and three further qualifications that can be GCSE qualifications (including Ebacc subjects) or any other non-GCSE qualifications on the DfE approved list. Each individual grade a pupil achieves is assigned a point score, which is then used to calculate a pupil's Attainment 8 score.

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<sup>1</sup> The 2011 Rural-Urban Classification is an Official Statistic used to distinguish rural and urban areas. Rural areas are those falling outside settlements with a resident population more than 10,000. (<https://www.gov.uk/government/statistics/2011-rural-urban-classification> [accessed 6/6/19])

<sup>2</sup> Schools are defined as 'in a coastal area' if, and only if, they are both located less than 6km from the UK coastline and located in a local authority defined as 'coastal'. For further details, see page 18.

<sup>3</sup> Disadvantaged pupils are those who currently claim free school meals, have claimed free school meals at any time during the last 6 years, and children looked after (in the care of the local authority for a day or more) or who have been adopted from care.

<sup>4</sup> This analysis examines how pupils performed at the end of KS4 in 2017/18 in different geographical locations – these findings should not be interpreted as a measure of school effectiveness in different geographical locations.

<sup>5</sup> For more information on secondary accountability measures, see DfE's guidance (<https://www.gov.uk/government/publications/progress-8-school-performance-measure> [accessed 6/6/19])

# Main findings

## Outcomes for school pupils by Rural-Urban Classification

- Average attainment and progress for disadvantaged, and non-disadvantaged pupils varied according to the Rural-Urban classifications of the schools they attend.
- Overall, attainment and progress for all pupils was highest, on average, for those attending schools in villages, but lowest for those attending schools in minor conurbations.
- Disadvantaged pupils, on average, had the highest attainment and progress in schools situated in major conurbations, while disadvantaged pupils had the lowest attainment and progress in schools in hamlets and isolated dwellings. On average, disadvantaged pupils achieved around six grades higher (5.8 Attainment 8 points) and made more progress, as measured by Progress 8 scores ( $-0.29$  compared to  $-0.65$ ), in schools in major conurbations than those in hamlets and isolated dwellings.<sup>6</sup> However, given the relatively small number of disadvantaged pupils who attended schools in villages and hamlets and isolated dwellings, these results should be interpreted with some caution.
- The difference between disadvantaged and non-disadvantaged pupils was lowest in major conurbations, for both Attainment 8 and Progress 8 scores.
- Even after London was excluded from the analysis, disadvantaged pupils still had higher attainment and progress in major conurbations. However, consistent with the existing literature on the “London effect”, London appears to explain some of the higher performance of disadvantage pupils in major conurbations.
- The lowest progress for non-disadvantaged pupils outside London was in major conurbations.

## Outcomes for pupils in schools in coastal areas

- Average attainment and progress for disadvantaged, and non-disadvantaged pupils varied based on whether the school pupils attended was in a coastal or non-coastal location.
- Overall, attainment and progress for all pupils was higher for pupils attending schools located in non-coastal areas compared to pupils in coastal areas.
- Disadvantaged pupils also had higher performance in non-coastal locations compared to disadvantaged pupils in coastal areas. On average, disadvantaged pupils achieved around three grades higher (3.1 Attainment 8 points) and made

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<sup>6</sup> The reported conversion from Attainment 8 scores to grades across a pupil’s eight KS4 qualifications used in this publication is an approximation because not all qualifications included in Attainment 8 and Progress 8 measures are single award GCSEs. Consequently, the gaps between grades are different for some qualifications (such as for GCSE Combined Science, AS levels and BTECs).

more progress, as measured by Progress 8 scores ( $-0.40$  compared to  $-0.65$ ), in schools in non-coastal areas than those in coastal areas.

- The difference between disadvantaged and non-disadvantaged pupils was lower in non-coastal areas, both for Attainment 8 and Progress 8 scores.

# Outcomes for pupils by Rural-Urban Classification

## Data

This analysis uses data from the National Pupil Database<sup>7</sup> on the performance of pupils at the end of KS4 in 2017/18 and the 2011 Rural Urban Classification of Output Areas.<sup>8</sup>

## Matching pupils to the Rural-Urban Classification of their school

Pupils in the National Pupil Database who were at the end of KS4 in 2017/18 are matched to the Rural-Urban Classification of the Output Area in which their school is located using the National Statistics Postcode Lookup.<sup>9,10</sup>

Each pupil is therefore assigned one of the four urban or six rural classifications in the 2011 Rural-Urban Classification based on the location of their school (1–10):

Urban	1. Major conurbation
	2. Minor conurbation
	3. City & town
	4. City & town in a sparse setting
Rural	5. Town & fringe
	6. Town & fringe in a sparse setting
	7. Villages
	8. Villages in a sparse setting
	9. Hamlets & isolated dwellings
	10. Hamlets & isolated dwellings in a sparse setting

In this analysis, categories with the same settlement form are amalgamated leaving the following six Rural-Urban Classifications (A–F). These categories reflect solely the degree of rurality of the settlement rather than the level of population sparsity:<sup>11</sup>

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<sup>7</sup> The National Pupil Database is a collection of datasets collected by DfE, which includes school censuses and pupil performance tables for public exams.

<sup>8</sup> See: <https://www.gov.uk/government/statistics/2011-rural-urban-classification> [accessed 6/6/19]

<sup>9</sup> Output Areas are an appropriate geographical unit to study in this context because they are the smallest geographic unit with a Rural-Urban Classification – which allows pupils to be more precisely classified by the characteristics of their school’s geographic location.

<sup>10</sup> The National Statistics Postcode Lookup is an ONS product available on the ONS open geography portal.

<sup>11</sup> The ten categories in the 2011 Rural-Urban Classification arise from the cross-classification of two categorical variables concerned, respectively, with settlement *form* (based on the degree of rurality of the settlement) and settlement *context* (based on the population sparsity of the settlement). These groups can be reaggregated for analysis. The 2011 Rural-Urban Classification identifies some of England’s biggest cities as major conurbations – London, the West Midlands, West Yorkshire, Tyneside, Merseyside and Greater Manchester – while the only minor conurbations included in the 2011 Rural-Urban Classification are Greater Nottingham and South Yorkshire. (Defra, 2017, <https://www.gov.uk/government/statistics/2011-rural-urban-classification> [accessed 6/6/19])

Urban	1. Major conurbation	<b>A. Major conurbation</b>
	2. Minor conurbation	<b>B. Minor conurbation</b>
	3. City & town	<b>C. City &amp; town</b>
	4. City & town in a sparse setting	
Rural	5. Town & fringe	<b>D. Town &amp; fringe</b>
	6. Town & fringe in a sparse setting	
	7. Villages	<b>E. Villages</b>
	8. Villages in a sparse setting	
	9. Hamlets & isolated dwellings	<b>F. Hamlets &amp; isolated dwellings</b>
	10. Hamlets & isolated dwellings in a sparse setting	

This analysis only uses pupils at the end of key stage 4 attending state funded schools (including academies and city technical colleges). For more information on which schools this does and does not include, see Annex C.

## Calculating outcomes for pupils by Rural-Urban Classification

The National Pupil Database is used to obtain the Attainment 8 and Progress 8 scores of each pupil, and whether or not they are disadvantaged. Based on the Rural-Urban Classification of the school they attend, the following values for disadvantaged pupils, non-disadvantaged pupils, and all pupils are calculated:

- 1) Number of pupils eligible to be included in national statistics
- 2) Average Attainment 8 score
- 3) Number of pupils eligible to be included in Progress 8 calculations
- 4) Average Progress 8 score

Comparisons of the average Attainment 8, and average Progress 8 scores can then be made between the groups.<sup>12</sup>

Finally, this analysis is repeated but excluding pupils who attended schools in London from the calculation.

## Results

Overall, Attainment 8 and Progress 8 scores for all pupils were highest for those who attended schools in villages. However, disadvantaged pupils, on average, had the highest attainment and progress in major conurbations, both absolutely, and relative to their non-disadvantaged peers. Even when London is excluded from the analysis, disadvantaged pupils, on average, had higher attainment and progress in major

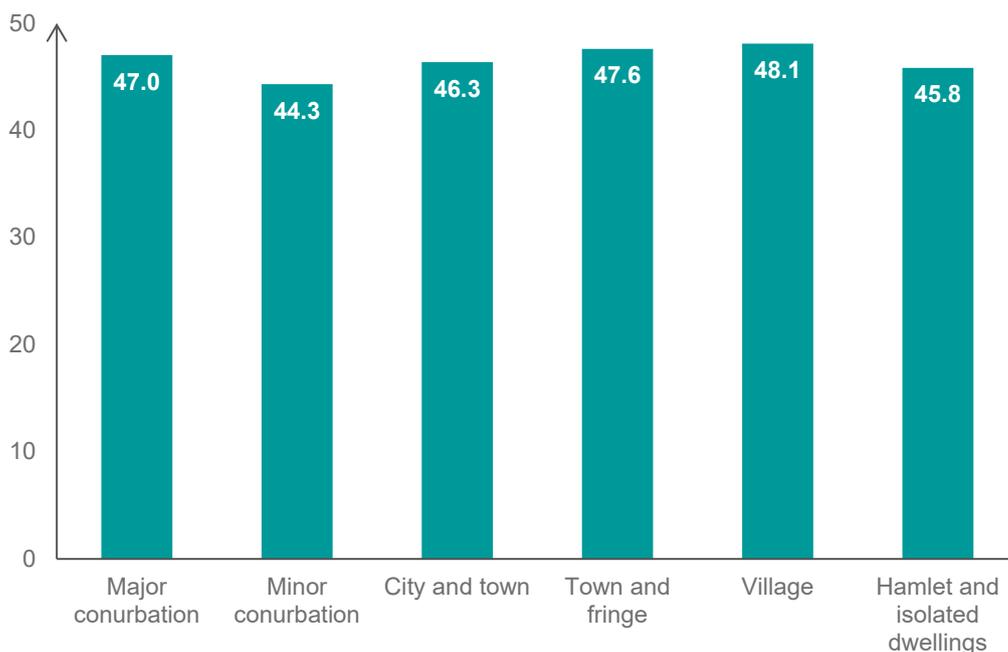
<sup>12</sup> There is a difference between the number of pupils eligible to be included in the national statistics and the number of pupils eligible for inclusion in Progress 8 calculations because not all pupils have key stage 2 results which are required for Progress 8 calculations.

conurbations, although the difference is much smaller. However, these results should not be interpreted as causal.

### Attainment 8 scores for all pupils by Rural-Urban Classification

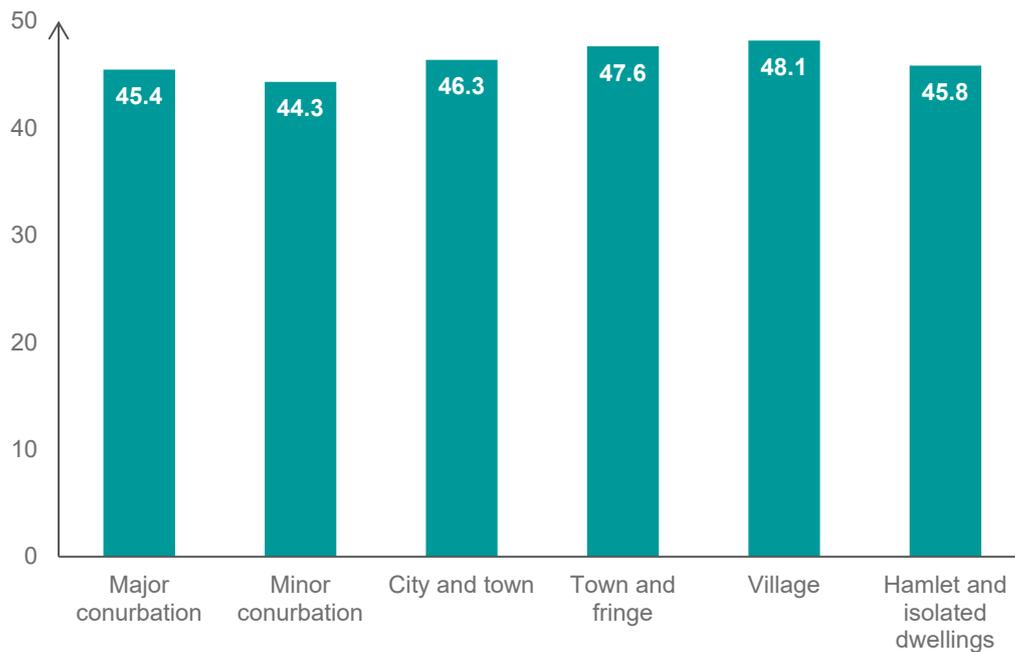
When looking at all pupils, those who attended schools in villages had the highest average Attainment 8 scores at KS4, while pupils in schools in minor conurbations had the lowest average attainment. The difference in the average Attainment 8 scores for pupils in schools in these two locations was 3.8 points – a difference of around four grades across a pupil’s eight KS4 qualifications.

**Figure 1: Attainment 8 scores for all pupils in state-funded schools at the end of KS4 in 2017/18 by the Rural-Urban Classification of their school**



Even when London is excluded from the analysis, the pattern is broadly the same, although less marked. Removing London from the analysis reduces the average Attainment 8 score of all pupils in major conurbations from 47.0 to 45.4 points but the average scores for pupils studying in schools in other Rural-Urban classifications remain unchanged.

**Figure 2: Attainment 8 scores for all pupils in state-funded schools at the end of KS4 in 2017/18 by the Rural-Urban Classification of their school (excluding London)**



### **Progress 8 scores for all pupils by Rural-Urban Classification**

The highest average Progress 8 scores for all pupils were for those who attended schools in villages (0.07), while on average, all pupils made the least progress at KS4 in minor conurbations (-0.10). Except for pupils in major conurbations, pupils who attended schools in the other urban locations (minor conurbations and cities and towns) had lower progress than those pupils studying in rural locations. However, these findings should not be interpreted as causal.

**Figure 3: Progress 8 scores for all pupils in state-funded schools at the end of KS4 in 2017/18 by the Rural-Urban Classification of their school**



When the analysis is restricted to pupils who attended schools outside London, some of these findings change. When London is included, average Progress 8 scores for all pupils in major conurbations are the second highest of all the Rural-Urban classifications. However, once London is removed from the analysis, average Progress 8 scores in major conurbations are lower than the average in all other geographies. This suggests London is driving the higher observed average performance in major conurbations.

**Figure 4: Progress 8 scores for all pupils in state-funded schools at the end of KS4 in 2017/18 by the Rural-Urban Classification of their school (excluding London)**

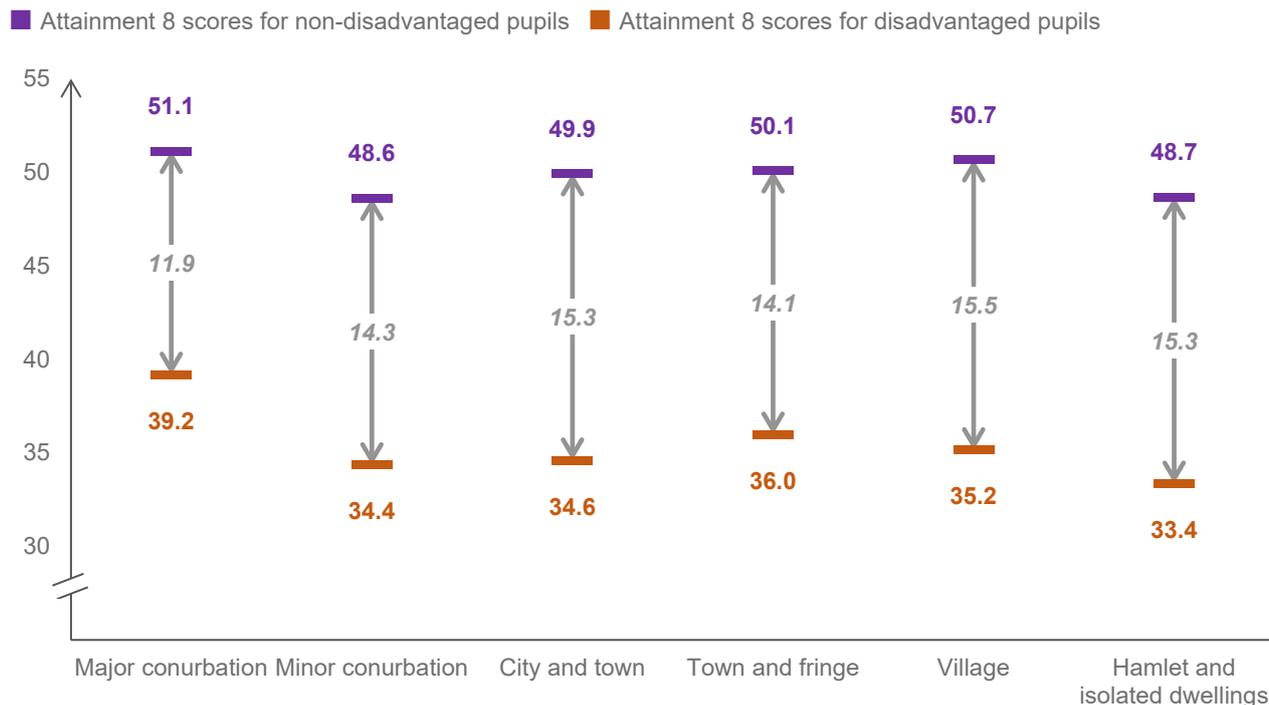


### **Attainment 8 scores for disadvantaged and non-disadvantaged pupils by Rural-Urban Classification**

Disadvantaged pupils tended to have substantially higher attainment in schools in major conurbations but had the lowest average attainment in hamlets and isolated dwellings. Disadvantaged pupils in major conurbations had, on average, Attainment 8 scores 5.8 points higher than those studying in hamlets and isolated dwellings – a difference of approximately six grades across a pupil's eight KS4 qualifications. However, these results should not be interpreted as causal. Finally, given the small numbers of disadvantaged pupils who attended schools in villages and hamlets and isolated dwellings, these findings should be interpreted with caution.

The difference between Attainment 8 scores for disadvantaged pupils and others was also lowest among pupils who attended schools in major conurbations than in other geographies. The largest difference between the attainment of disadvantaged pupils and others was in villages.

**Figure 5: Attainment 8 scores for non-disadvantaged and disadvantaged pupils in state-funded schools at the end of KS4 in 2017/18 by the Rural-Urban Classification of their school**

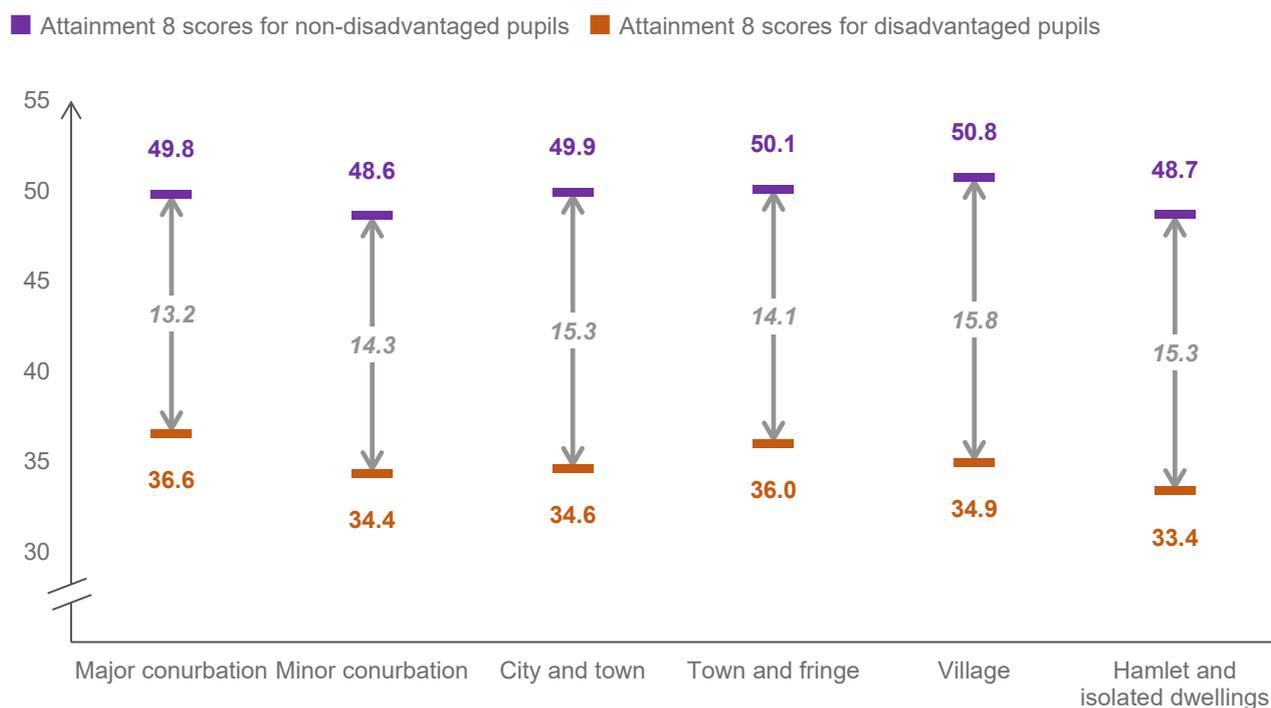


Similarly, when pupils in London schools are excluded from the analysis, the Attainment 8 scores for disadvantaged and non-disadvantaged pupils in schools in different Rural-Urban classifications change – most markedly for those in major conurbations.<sup>13</sup> Disadvantaged pupils still had the highest attainment in major conurbations than in other geographies, but this difference is much smaller than when the analysis includes pupils studying in London.

Removing London from the analysis also increases the difference between disadvantaged and non-disadvantaged pupils in major conurbations, but it remains the smallest absolute difference for all of the Rural-Urban classifications.

<sup>13</sup> Most schools in London are located in output areas which are classified as ‘major conurbation’. However, a small number of schools in London are located in output areas which are not classified as ‘major conurbation’ which is why some of the Attainment 8 and Progress 8 scores for these other classifications change slightly once London is excluded from the analysis.

**Figure 6: Attainment 8 scores for non-disadvantaged and disadvantaged pupils in state-funded schools at the end of KS4 in 2017/18 by the Rural-Urban Classification of their school (excluding London)**



These findings would suggest that, although the performance of London schools is driving some of the observed higher performance of disadvantaged pupils in schools in major conurbations, even after restricting the analysis to pupils outside London, these pupils still have higher average Attainment 8 scores (both absolutely and relative to non-disadvantaged pupils) than disadvantaged pupils studying elsewhere.

### **Progress 8 scores for disadvantaged and non-disadvantaged pupils by Rural-Urban Classification**

Disadvantaged pupils who attended schools in major conurbations made the most progress at KS4, both *absolutely* and *relative* to non-disadvantaged pupils in the same Rural-Urban classification. This analysis does not explain *why* disadvantaged pupils in these areas perform better than in other areas so these findings should not be interpreted as causal.

Progress 8 scores at KS4 were highest for disadvantaged pupils who attended schools in major conurbations, while pupils in schools in hamlets and isolated dwellings had the lowest average Progress 8 scores at KS4. However, given the relatively small numbers of disadvantaged pupils who attended schools located in villages and hamlets and isolated dwellings, caution is advised when interpreting these results.

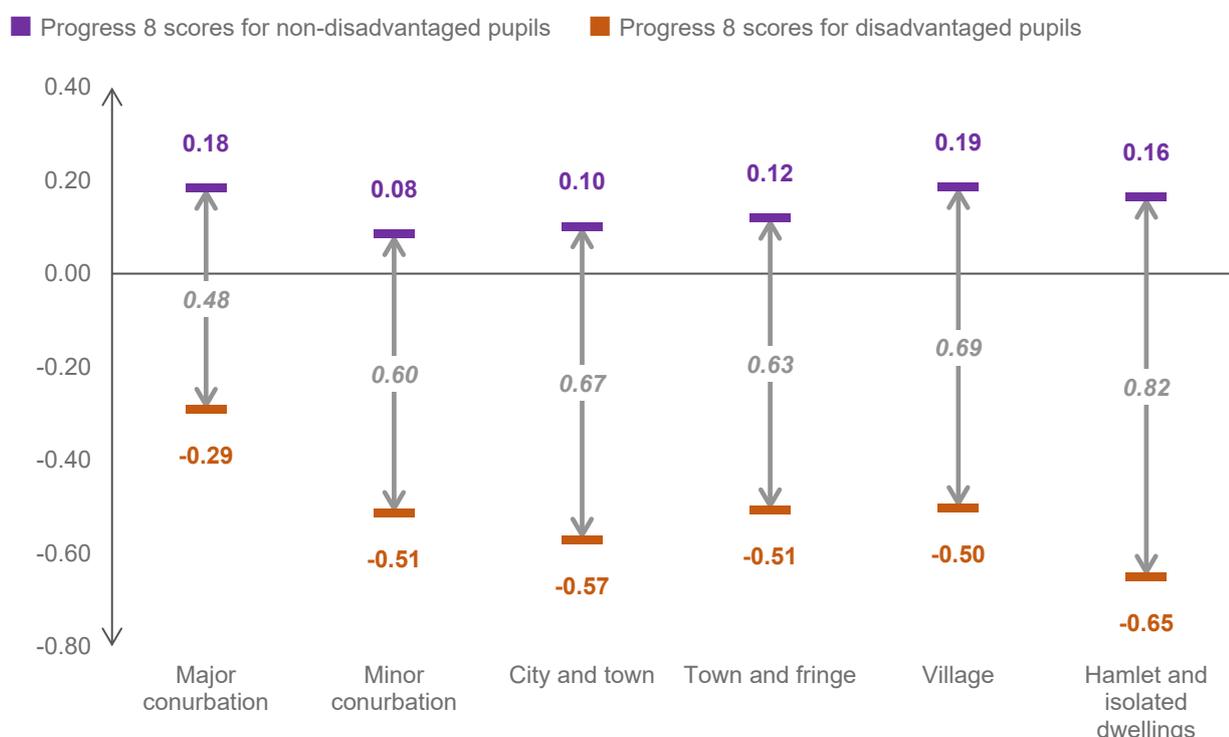
Although the average Progress 8 scores for *all* pupils who attended schools in minor conurbations were substantially lower than for all other areas, disadvantaged pupils in these schools made similar progress to those studying in schools in cities and towns, towns and fringes, and villages, and they made more progress than disadvantaged pupils

in schools in hamlets and isolated dwellings. This suggests that the low progress made, on average, by *all* pupils in minor conurbations is related to the relatively low progress made by non-disadvantaged pupils in these areas, as well as the composition of disadvantaged and non-disadvantaged pupils in these areas. Table 1 shows that minor conurbations have a much higher proportion of disadvantaged pupils compared to all other classifications except major conurbations.

Non-disadvantaged pupils also made relatively little progress in schools located in cities and towns or in towns and fringes.

The difference between the progress made by disadvantaged and non-disadvantaged pupils was also smallest in major conurbations while disadvantaged pupils who attended schools in hamlets and isolated dwellings made the least progress relative to non-disadvantaged pupils.

**Figure 7: Progress 8 scores for non-disadvantaged and disadvantaged pupils in state-funded schools at the end of KS4 in 2017/18 by the Rural-Urban Classification of their school**

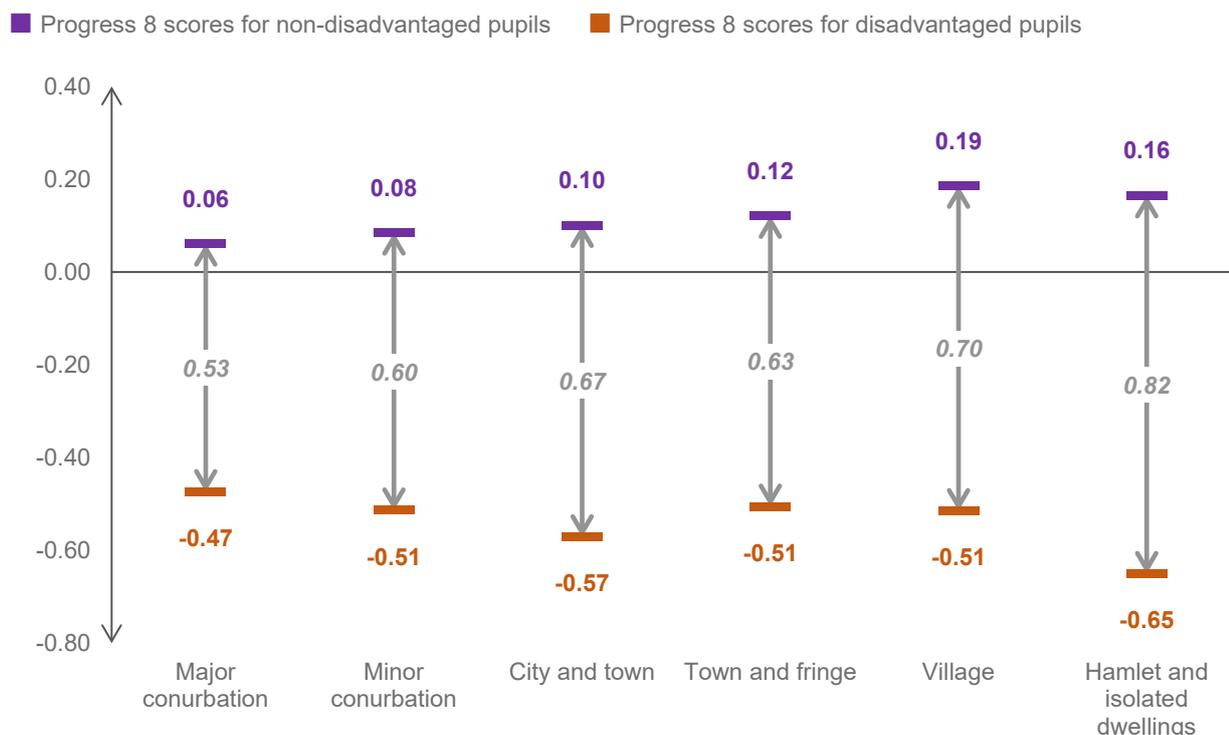


Disadvantaged pupils in schools in major conurbations made substantially more progress than disadvantaged pupils in other geographies when London was included in the analysis. Although much smaller, this difference is still observed when London is removed from the analysis – disadvantaged pupils still made slightly more progress in schools located in major conurbations than anywhere else. Equally, even after London is excluded from analysis, the difference between the Progress 8 scores for disadvantaged pupils and non-disadvantaged was smallest in major conurbations.

When London is included in the analysis, Progress 8 scores for non-disadvantaged pupils are among the highest for those attending schools in major conurbations, but once London is excluded, non-disadvantaged pupils perform worst in these areas.

The much lower average Progress 8 scores in major conurbations for *all* pupils, after excluding London from the analysis, may be reflective of the disadvantaged/non-disadvantaged composition of the pupil population, as well as the relatively poor performance of non-disadvantaged pupils, in schools in major conurbations outside of London.

**Figure 8: Progress 8 scores for non-disadvantaged and disadvantaged pupils in state-funded schools at the end of KS4 in 2017/18 by the Rural-Urban Classification of their school (excluding London)**



When London is excluded from the analysis, the greater progress of disadvantaged pupils in schools in major conurbations, relative to those in schools in other areas, is much less marked. However, while these findings suggest that London is driving *some* of the higher performance in major conurbations, even when London is excluded, disadvantaged pupils in these areas made more progress, and the difference between disadvantaged and non-disadvantaged pupils was smallest, when compared to other geographies.

### Caveats to the analysis

The results above present the average outcomes for pupils at the end of key stage 4 in each Rural-Urban classification, and the average scores for disadvantaged and non-disadvantaged as well as the size of the difference between these groups. However, the differences between each Rural-Urban classification should not be interpreted as causal – this analysis does not control for the wide range of additional factors which may independently be associated with higher or lower performance, but which are also correlated with Rural-Urban classification.

This analysis also includes the performance data for pupils who attended schools which have since closed.

# Outcomes for pupils in schools in coastal areas

## Data

This analysis uses data from the National Pupil Database on the performance of pupils at the end of KS4 in 2017/18 and the *Get Information About Schools* service which includes Northing and Easting coordinates for each school. Finally, a map of the UK coastline from Open Street Map is used to calculate the shortest distance from each school to the coast.<sup>14</sup>

## Matching pupils to schools and determining which schools are in coastal areas

Schools are defined as ‘in a coastal area’ if, and only if, they meet both of the following two criteria:

1. Located less than 6km from the UK coastline, as defined by the shortest distance from the school’s coordinates from the *Get Information About Schools* service to a point on the coastline.<sup>15</sup>
2. Located in a local authority defined as ‘coastal’.<sup>16</sup>

The National Pupil Database is used to identify pupils at the end of key stage 4 in 2017/18 in the school held accountable for their KS4 outcomes. This data is then matched to the list of schools in a coastal area, as described above, to create a pupil-level flag based on whether the pupil was at the end of key stage 4 in 2017/18 in a school ‘in a coastal area’.

This analysis only examines pupils attending state funded schools (including academies and city technical colleges). For more information on which schools this does and does not include, see Annex C.

## Calculating outcomes for pupils in schools in coastal areas

The National Pupil Database is used to obtain the Attainment 8 and Progress 8 scores of each pupil, and whether or not they are disadvantaged. For both pupils who attend coastal schools and pupils who attend non-coastal schools, the following values are calculated for disadvantaged pupils, non-disadvantaged pupils, and all pupils:

- 1) Number of pupils eligible to be included in national statistics
- 2) Average Attainment 8 score
- 3) Number of pupils eligible to be included in Progress 8 calculations

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<sup>14</sup> See: <https://osmdata.openstreetmap.de/data/coastlines.html> [accessed 6/6/19]

<sup>15</sup> This was calculated using the `sp`, `rgdal`, `sf`, `osmdata` and `geosphere` packages in R.

<sup>16</sup> For a full list of these local authorities, see Annex B. This criterion is to limit the measurement errors caused by estuaries or wide rivers.

#### 4) Average Progress 8 score

The average Attainment 8 and Progress 8 scores can then be compared between groups.

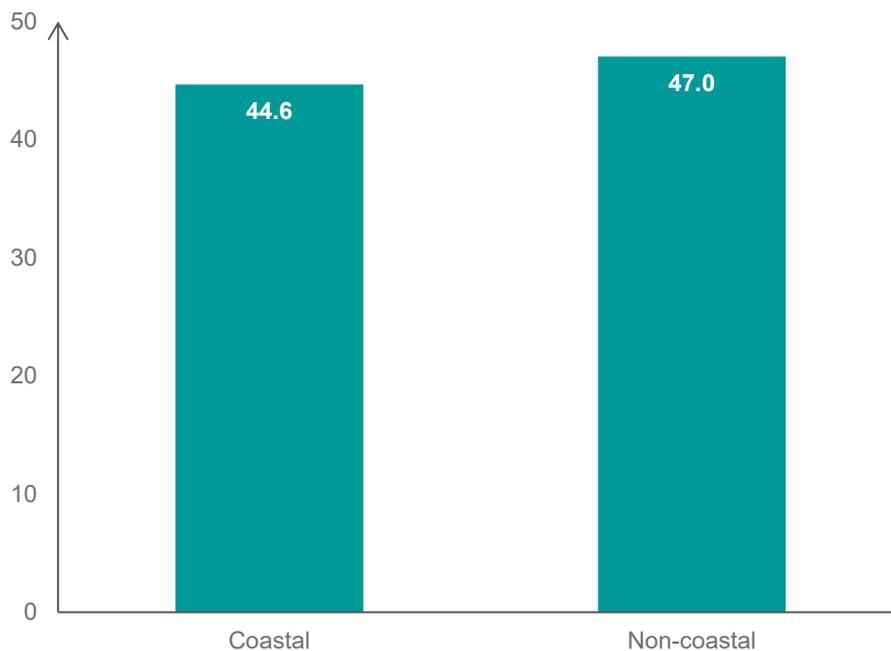
### Results

Overall, average Attainment 8 and Progress 8 scores were higher in schools which are not in coastal areas. Equally, disadvantaged pupils performed better, and the difference between them and non-disadvantaged pupils was narrower in schools which are not located in coastal areas.

#### **Attainment 8 and Progress 8 scores for all pupils in schools in coastal and non-coastal locations**

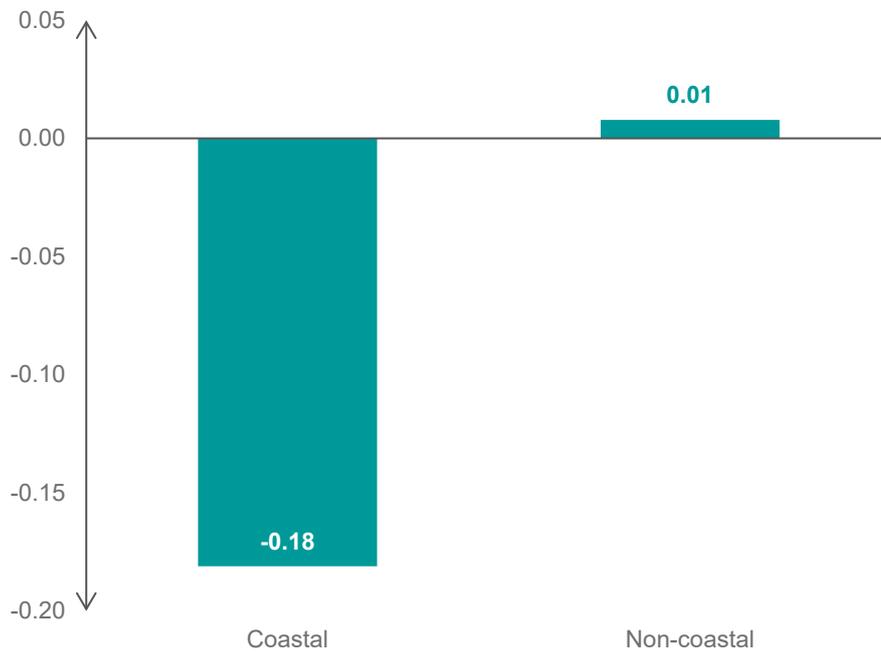
Attainment 8 scores for all pupils were, on average, 2.4 points lower in schools located in coastal areas. This is equivalent to achieving around two and a half grades lower across eight qualifications at the end of KS4, although this should not be interpreted as a causal relationship.

**Figure 9: Average Attainment 8 scores for all pupils at the end of KS4 in 2017/18 for those in state-funded schools in coastal and non-coastal locations**



Pupils typically made more progress in schools in non-coastal areas compared to coastal areas as measured by Progress 8 scores (0.01 compared to -0.18).

**Figure 10: Progress 8 scores for all pupils at the end of KS4 in 2017/18 for those in state-funded schools in coastal and non-coastal locations**



## Attainment 8 and Progress 8 scores for disadvantaged and non-disadvantaged pupils in schools in coastal and non-coastal locations

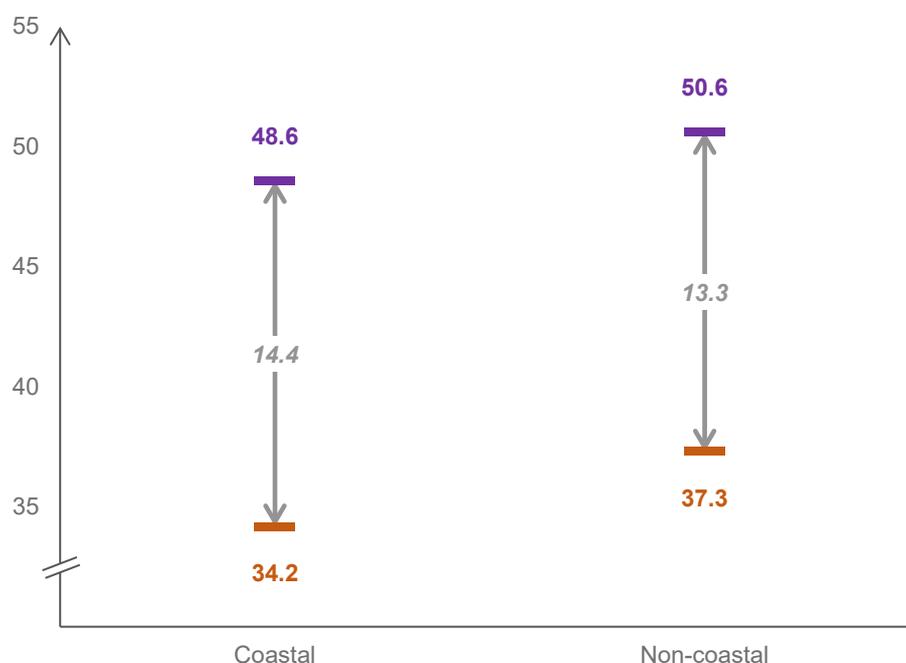
Disadvantaged pupils who attended schools in non-coastal areas also had relatively higher attainment – on average, they achieved 3.1 more Attainment 8 points at the end of KS4, equivalent to around three grades higher across their eight KS4 qualifications than disadvantaged pupils attending schools in coastal areas.

Disadvantaged pupils also had higher attainment *relative* to non-disadvantaged pupils in non-coastal areas – the difference between Attainment 8 scores for disadvantaged pupils and non-disadvantaged pupils was 8% larger in coastal areas than non-coastal areas.

A number of confounding factors may explain these differences so these findings should not be interpreted as causal.

**Figure 11: Attainment 8 scores for non-disadvantaged and disadvantaged pupils at the end of KS4 in 2017/18 for those in state-funded schools in coastal and non-coastal locations**

■ Attainment 8 scores for non-disadvantaged pupils ■ Attainment 8 scores for disadvantaged pupils

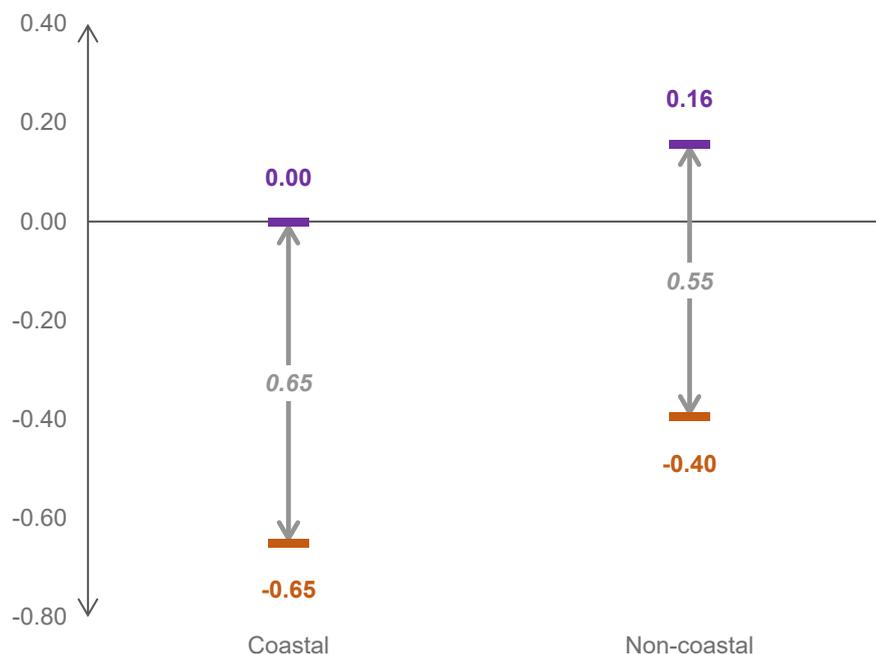


For those attending schools in non-coastal areas, disadvantaged pupils also had higher absolute Progress 8 scores than in coastal schools (-0.40 compared to -0.65).

Disadvantaged pupils also made more progress relative to non-disadvantaged pupils in schools in non-coastal areas, as measured by the difference in Progress 8 scores between the two groups (0.55 Progress 8 points compared to 0.65).

**Figure 12: Progress 8 scores for non-disadvantaged and disadvantaged pupils at the end of KS4 in 2017/18 for those in state-funded schools in coastal and non-coastal locations**

■ Progress 8 scores for non-disadvantaged pupils ■ Progress 8 scores for disadvantaged pupils



For completeness, this analysis was replicated, but with London excluded. The same relationships emerge, although they are less stark. This suggests London explains some, but not all, of the observed differences. The results of this additional analysis can be found in the tables in Annex A.

### **Caveats to the analysis**

The results above present the average outcomes for pupils in coastal and non-coastal schools, and the average scores for disadvantaged and non-disadvantaged as well as the size of the difference between these groups. However, the differences between coastal and non-coastal schools should not be interpreted as causal – this analysis does not control for the wide range of additional factors which may independently be associated with higher or lower performance, but which are also correlated with attending a coastal or non-coastal school.

This analysis also includes the performance data for pupils who attended schools which have since closed.

## Annex A – Full tables of results

### Pupil numbers and outcomes by the Rural-Urban Classification of their school (including London)

Table 1: Number of pupils eligible for inclusion in national stats for all pupils, non-disadvantaged pupils and disadvantaged pupils in state-funded schools at the end of KS4 in 2017/18 by the Rural-Urban Classification of their school<sup>17</sup>

Rural-Urban Classification	Pupil volumes eligible for inclusion in national stats			Proportion of pupils disadvantaged
	All pupils	Non-disadvantaged pupils	Disadvantaged pupils	
Major conurbation	188,935	123,616	65,319	34.6%
Minor conurbation	18,820	13,116	5,704	30.3%
City and town	249,562	191,206	58,356	23.4%
Town and fringe	49,026	40,362	8,664	17.7%
Village	8,017	6,677	1,340	16.7%
Hamlet and isolated dwellings	6,846	5,570	1,276	18.6%

Table 2: Attainment 8 scores for all pupils, non-disadvantaged pupils and disadvantaged pupils in state-funded schools at the end of KS4 in 2017/18 by the Rural-Urban Classification of their school

Rural-Urban Classification	Attainment 8 scores			Difference in Attainment 8 scores for non-disadvantaged and disadvantaged pupils
	All pupils	Non-disadvantaged pupils	Disadvantaged pupils	
Major conurbation	47.0	51.1	39.2	11.9
Minor conurbation	44.3	48.6	34.4	14.3
City and town	46.3	49.9	34.6	15.3
Town and fringe	47.6	50.1	36.0	14.1
Village	48.1	50.7	35.2	15.5
Hamlet and isolated dwellings	45.8	48.7	33.4	15.3

<sup>17</sup> Total pupil volumes in this publication may not match the published performance tables because these data are based on final 2017/18 KS4 attainment data.

**Table 3: Number of pupils eligible for inclusion in Progress 8 for all pupils, non-disadvantaged pupils and disadvantaged pupils in state-funded schools at the end of KS4 in 2017/18 by the Rural-Urban Classification of their school**

Rural-Urban Classification	Pupil volumes (eligible for Progress 8 scores)			Proportion of pupils disadvantaged
	All pupils	Non-disadvantaged pupils	Disadvantaged pupils	
Major conurbation	176,659	114,590	62,069	35.1%
Minor conurbation	18,108	12,623	5,485	30.3%
City and town	238,468	181,810	56,658	23.8%
Town and fringe	47,380	38,921	8,459	17.9%
Village	7,703	6,412	1,291	16.8%
Hamlet and isolated dwellings	6,514	5,279	1,235	19.0%

**Table 4: Progress 8 scores for all pupils, non-disadvantaged pupils and disadvantaged pupils in state-funded schools at the end of KS4 in 2017/18 by the Rural-Urban Classification of their school**

Rural-Urban Classification of school	Progress 8 scores			Difference in Progress 8 scores for non-disadvantaged and disadvantaged pupils
	All pupils	Non-disadvantaged pupils	Disadvantaged pupils	
Major conurbation	0.02	0.18	-0.29	0.48
Minor conurbation	-0.10	0.08	-0.51	0.60
City and town	-0.06	0.10	-0.57	0.67
Town and fringe	0.01	0.12	-0.51	0.63
Village	0.07	0.19	-0.50	0.69
Hamlet and isolated dwellings	0.01	0.16	-0.65	0.82

## Pupil numbers and outcomes by the Rural-Urban Classification of their school (excluding London)

**Table 5: Number of pupils eligible for inclusion in national stats for all pupils, non-disadvantaged pupils and disadvantaged pupils in state-funded schools at the end of KS4 in 2017/18 by the Rural-Urban Classification of their school (excluding London)**

Rural-Urban Classification	Pupil volumes eligible for inclusion in national stats			Proportion of pupils disadvantaged
	All pupils	Non-disadvantaged pupils	Disadvantaged pupils	
Major conurbation	113,336	75,899	37,437	33.0%
Minor conurbation	18,820	13,116	5,704	30.3%
City and town	249,463	191,157	58,306	23.4%
Town and fringe	48,914	40,284	8,630	17.6%
Village	7,810	6,522	1,288	16.5%
Hamlet and isolated dwellings	6,846	5,570	1,276	18.6%

**Table 6: Attainment 8 scores for all pupils, non-disadvantaged pupils and disadvantaged pupils in state-funded schools at the end of KS4 in 2017/18 by the Rural-Urban Classification of their school (excluding London)**

Rural-Urban Classification	Attainment 8 scores			Difference in Attainment 8 scores for non-disadvantaged and disadvantaged pupils
	All pupils	Non-disadvantaged pupils	Disadvantaged pupils	
Major conurbation	45.4	49.8	36.6	13.2
Minor conurbation	44.3	48.6	34.4	14.3
City and town	46.3	49.9	34.6	15.3
Town and fringe	47.6	50.1	36.0	14.1
Village	48.1	50.8	34.9	15.8
Hamlet and isolated dwellings	45.8	48.7	33.4	15.3

**Table 7: Number of pupils eligible for inclusion in Progress 8 for all pupils, non-disadvantaged pupils and disadvantaged pupils in state-funded schools at the end of KS4 in 2017/18 by the Rural-Urban Classification of their school (excluding London)**

Rural-Urban Classification	Pupil volumes (eligible for Progress 8 scores)			Proportion of pupils disadvantaged
	All pupils	Non-disadvantaged pupils	Disadvantaged pupils	
Major conurbation	107,784	72,068	35,716	33.1%
Minor conurbation	18,108	12,623	5,485	30.3%
City and town	238,388	181,773	56,615	23.7%
Town and fringe	47,277	38,852	8,425	17.8%
Village	7,498	6,259	1,239	16.5%
Hamlet and isolated dwellings	6,514	5,279	1,235	19.0%

**Table 8: Progress 8 scores for all pupils, non-disadvantaged pupils and disadvantaged pupils in state-funded schools at the end of KS4 in 2017/18 by the Rural-Urban Classification of their school (excluding London)**

Rural-Urban Classification of school	Progress 8 scores			Difference in Progress 8 scores for non-disadvantaged and disadvantaged pupils
	All pupils	Non-disadvantaged pupils	Disadvantaged pupils	
Major conurbation	-0.12	0.06	-0.47	0.53
Minor conurbation	-0.10	0.08	-0.51	0.60
City and town	-0.06	0.10	-0.57	0.67
Town and fringe	0.01	0.12	-0.51	0.63
Village	0.07	0.19	-0.51	0.70
Hamlet and isolated dwellings	0.01	0.16	-0.65	0.82

## Pupil numbers and outcomes for schools in coastal and non-coastal locations (including London)

**Table 9: Number of pupils eligible for inclusion in national stats for all pupils, non-disadvantaged pupils and disadvantaged at the end of KS4 in 2017/18 in state-funded schools in coastal and non-coastal areas**

Location of school	Pupil volumes eligible for inclusion in national stats <sup>18</sup>			Proportion of pupils disadvantaged
	All pupils	Non-disadvantaged pupils	Disadvantaged pupils	
Coastal area	81,562	59,325	22,237	27.3%
Non-coastal area	439,639	321,222	118,417	26.9%

**Table 10: Attainment 8 scores for all pupils, non-disadvantaged pupils and disadvantaged pupils at the end of KS4 in 2017/18 in state-funded schools in coastal and non-coastal areas**

Location of school	Attainment 8 scores			Difference in Attainment 8 scores for non-disadvantaged and disadvantaged pupils
	All pupils	Non-disadvantaged pupils	Disadvantaged pupils	
Coastal area	44.6	48.6	34.2	14.4
Non-coastal area	47.0	50.6	37.3	13.3

<sup>18</sup> There were five pupils who are eligible for the national statistics, but the school that they attended did not appear in the *Get Information About Schools* service to determine whether they were in a coastal or non-coastal school.

**Table 11: Number of pupils eligible for inclusion in Progress 8 for all pupils, non-disadvantaged pupils and disadvantaged pupils at the end of KS4 in 2017/18 in state-funded schools in coastal and non-coastal areas**

Location of school	Pupil volumes (eligible for Progress 8 scores)			Proportion of pupils disadvantaged
	All pupils	Non-disadvantaged pupils	Disadvantaged pupils	
Coastal area	78,854	57,164	21,690	27.5%
Non-coastal area	415,973	302,471	113,502	27.3%

**Table 12: Progress 8 scores for all pupils, non-disadvantaged pupils and disadvantaged pupils at the end of KS4 in 2017/18 in state-funded schools in coastal and non-coastal areas**

Location of school	Progress 8 scores			Difference in Progress 8 scores for non-disadvantaged and disadvantaged pupils
	All pupils	Non-disadvantaged pupils	Disadvantaged pupils	
Coastal area	-0.18	0.00	-0.65	0.65
Non-coastal area	0.01	0.16	-0.40	0.55

## Pupil numbers and outcomes for schools in coastal and non-coastal locations (excluding London)

**Table 13: Number of pupils eligible for inclusion in national stats for all pupils, non-disadvantaged pupils and disadvantaged at the end of KS4 in 2017/18 in state-funded schools in coastal and non-coastal areas (excluding London)**

Location of school	Pupil volumes eligible for inclusion in national stats <sup>19</sup>			Proportion of pupils disadvantaged
	All pupils	Non-disadvantaged pupils	Disadvantaged pupils	
Coastal area	81,562	59,325	22,237	27.3%
Non-coastal area	363,627	273,223	90,404	24.9%

**Table 14: Attainment 8 scores for all pupils, non-disadvantaged pupils and disadvantaged pupils at the end of KS4 in 2017/18 in state-funded schools in coastal and non-coastal areas (excluding London)**

Location of school	Attainment 8 scores			Difference in Attainment 8 scores for non-disadvantaged and disadvantaged pupils
	All pupils	Non-disadvantaged pupils	Disadvantaged pupils	
Coastal area	44.6	48.6	34.2	14.4
Non-coastal area	46.5	50.1	35.6	14.5

<sup>19</sup> There were five pupils who are eligible for the national statistics, but the school that they attended did not appear in the *Get Information About Schools* service to determine whether they were in a coastal or non-coastal school.

**Table 15: Number of pupils eligible for inclusion in Progress 8 for all pupils, non-disadvantaged pupils and disadvantaged pupils at the end of KS4 in 2017/18 in state-funded schools in coastal and non-coastal areas (excluding London)**

Location of school	Pupil volumes (eligible for Progress 8 scores)			Proportion of pupils disadvantaged
	All pupils	Non-disadvantaged pupils	Disadvantaged pupils	
Coastal area	78,854	57,164	21,690	27.5%
Non-coastal area	346,715	259,690	87,025	25.1%

**Table 16: Progress 8 scores for all pupils, non-disadvantaged pupils and disadvantaged pupils at the end of KS4 in 2017/18 in state-funded schools in coastal and non-coastal areas (excluding London)**

Location of school	Progress 8 scores			Difference in Progress 8 scores for non-disadvantaged and disadvantaged pupils
	All pupils	Non-disadvantaged pupils	Disadvantaged pupils	
Coastal area	-0.18	0.00	-0.65	0.65
Non-coastal area	-0.04	0.12	-0.50	0.62

## Annex B – Coastal local authorities

Only schools within the following local authorities are defined as ‘coastal’ for the purpose of this analysis.<sup>20</sup>

Blackpool	Isle of Wight	Poole
Bournemouth	Isles of Scilly	Portsmouth
Brighton and Hove	Kent	Redcar and Cleveland
Cornwall	Lancashire	Sefton
County Durham	Lincolnshire	Somerset
Cumbria	Liverpool	South Tyneside
Devon	Norfolk	Southend-on-Sea
Dorset	North East Lincolnshire	Stockton-on-Tees
East Riding of Yorkshire	North Somerset	Suffolk
East Sussex	North Tyneside	Sunderland
Essex	North Yorkshire	Torbay
Hampshire	Northumberland	West Sussex
Hartlepool	Plymouth	Wirral

Other local authorities have been defined as ‘non-coastal’ either because they are clearly in-land or because they only border the coastline at an estuary, rather than the sea. In a few cases, whether a local authority is defined as coastal was a matter of judgement on the part of the author.<sup>21</sup> There are multiple ways to define coastal schools, the definition used here includes some necessary arbitrariness but was chosen to maximise transparency.

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<sup>20</sup> There are two exceptions to this rule: both Bowden House School (URN 100986) and Bradstow School (URN 101095) had addresses registered in, respectively, Tower Hamlets and Wandsworth (not coastal LAs) but are clearly located, respectively, in Seaford and Kent (coastal LAs). Consequently, the children in these schools have been designated as attending a school in a coastal area for the purpose of this analysis.

<sup>21</sup> The results of the analysis were not sensitive to small changes in these classifications.

## **Annex C – School types included in this analysis**

The analysis in this publication looks at pupils at the end of KS4 in 2017/18 in state funded schools (including academies and city technical colleges). Here is a full list of the types of schools this does and does not include:

### **Schools included in this analysis:**

- Sponsored academy
- Academy converter – mainstream
- Academy converter - special school
- Sponsored special academy
- City technology college
- Community school
- Community special school
- Free school - mainstream
- Further Education Sector Institution
- Foundation school
- Foundation special school
- Free school - special
- Studio school
- UTC (university technical college)
- Voluntary aided school
- Voluntary controlled school

### **Schools not included in this analysis:**

- Academy 16-19 sponsor led
- Academy 16-19 converter
- Independent school
- Independent special school
- College funded by Ministry of Defence
- Non-maintained special school



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