



Department
for Education

Education Investment Areas – selection methodology

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Introduction and non-technical summary

HM Government has announced it will further drive school improvement in England by delivering a package of measures in new Education Investment Areas (EIAs). These areas cover the third of local authorities in England where educational outcomes are currently weakest and other local authorities containing existing place-based interventions.

The selection methodology is based on pupil outcomes at local authority level. Specifically, the approach selects areas where outcomes at the end of both key stage 2 (KS2) and key stage 4 (KS4) are lowest in order to target school improvement interventions in the parts of the country where performance at primary and secondary school is furthest behind. For KS2 performance, the selection methodology uses the proportion of pupils reaching the expected standard in all of reading, writing and maths in national curriculum assessments, while average Progress 8 score is the metric used for KS4 performance.

Pupil outcomes in any given local authority can change from year to year. To ensure that EIAs are focussed in areas with sustained low performance over time, the selection approach uses average performance data from the most recent three years of complete data (2017–2019) to select the parts of the country where outcomes have been consistently poorest in recent years.¹

In order to ensure that the department's approach to levelling up is consistent with existing policies to improve outcomes in specific places, any local authority which contains an existing Opportunity Area or one of the four specific areas previously identified as having the highest potential for rapid improvement is also selected as an EIA.²

The final list of the 55 local authorities that have been selected as EIAs is presented in Annex A alongside a map showing their geographical coverage.

The rest of this document outlines the technical details for the selection methodology used for EIAs, including the full calculations used to define areas with low outcomes at KS2 and KS4. All the data used to select EIAs are included in the accompanying statistical data tables to this paper.

¹ See page 4 for more details on the data sources and time periods used for EIA selection

² See page 10 for details on the alignment with EIAs and existing policy interventions

Defining areas with low outcomes at key stage 2 and key stage 4

Outline of approach

To target school improvement interventions at the areas of the country where pupil outcomes are lowest, the selection methodology for EIAs is based on sustained low performance across both school phases, KS2 and KS4.

This approach collates several data sources to generate a composite measure of attainment across the three most recent years of data (2017, 2018 and 2019) for the proportion of pupils achieving the expected standard in reading, writing and maths at KS2, and average Progress 8 scores at KS4.

Each year's data, from each phase, is 'standardised' to ensure that the selection approach weights relative performance across all years equally.³ These standardised scores are then averaged across years to give an overall three-year standardised KS2 and KS4 score for each local authority. Finally, the KS2 and KS4 three-year standardised scores are themselves averaged to arrive at a single composite outcomes measure for each local authority – equally weighting KS2 and KS4, and each year's data.

Because of disruption to exams and assessments from the coronavirus (COVID-19) pandemic, the selection approach uses historic data from 2017 to 2019. However, changes to the structure of local government between 2017 and 2021 mean that the department's published data from 2017 to 2019 does not correspond perfectly with current local authority (LA) boundaries in 2021, which are used to select EIAs. However, local authority *districts* (LADs) which existed from 2017 to 2019 do align with 2021 LA boundaries. Therefore, the overall outcome scores for the KS2 and KS4 measures, mapped to current LAs, are derived from the scores of pupils in schools geographically located in the 2017–2019 LADs of which the 2021 LAs now consist.⁴

The following section outlines each step of this methodology in more detail which corresponds to the methodology diagram in Annex B.

Data sources

This analysis uses the most recent three years of attainment data from 2017 to 2019, to ensure that EIAs target areas of *sustained* underperformance and are not unduly affected by year-on-year volatility in LA-level attainment. Data from 2017 to 2019 is used because

³ See page 7 for details of how the data has been standardised to compute a three-year average.

⁴ See page 6 for a detailed explanation of how boundary changes have been accounted for, and a worked example on the local government reorganisation in Northamptonshire. The Isles of Scilly and City of London are not included in this analysis and are deemed out of scope due to the very low number of pupils in those areas.

KS2 attainment data has not been collected since 2019 due to the coronavirus (COVID-19) pandemic, making this the latest complete year of attainment data for KS2 and KS4.

Selection is based on educational performance of pupils in state-funded schools at both KS2 and KS4, as EIAs are intended to drive improvement in both primary and secondary schools. The outcomes of pupils at both phases in each LA are therefore relevant.

As outlined in detail in the next section, the analysis uses published LAD-level outcomes data, and maps this to 2021 LAD boundaries. The relative performance of each LAD in the published data (and therefore each LA) is based on the outcomes of pupils attending schools which are geographically located within the boundaries of that area.⁵

KS2 outcomes

The proportion of pupils reaching the expected standard in all of reading, writing and maths in national curriculum assessments is the KS2 attainment measure used in this analysis. Data for each year is taken from the following sources:

- [National curriculum assessments: key stage 2, 2019 \(revised\) – Underlying data](#) – Table: ks2_2019_revised_lad_ud
- [Key stage 2 and multi-academy trust performance, 2018 \(revised\) – Key stage 2 underlying data](#) – Table: 2018_KS2_SCHLOC_CHAR_UD_2
- [National curriculum assessments: key stage 2, 2017 \(revised\) – Underlying data: SFR69/2017](#) – Table: SFR69_2017_KS2_SCHLOC_CHAR_UD_2

The proportion of pupils reaching the expected standard in reading, writing and maths is used as it one of the headline school accountability measures at KS2 and captures achievement across three broad subjects at primary school.

KS4 outcomes

Progress 8 is the KS4 measure used in this analysis. Progress 8 aims to capture the progress pupils make 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. Data for each year is taken from the following sources:

- [Key stage 4 performance 2019 \(revised\)](#) – Table: 2019_KS4_Revised_Pupil_Residency_and_school_location_data (KS4 LAD_SL)
- [Key stage 4 and multi-academy trust performance 2018 \(revised\) – Key stage 4 underlying data](#) – Table: 2018_LAD_UD_DISADVANTAGE

⁵ For full details of which pupils are included in this measure, see the methodology for each year of attainment data ([KS4 2019](#), [KS4 2018](#), [KS4 2017](#); [KS2 2019](#), [KS2 2018](#), [KS2 2017](#))

- [Revised GCSE and equivalent results in England: 2016 to 2017 – Underlying local authority district data](#) – Table: 2017_LAD_UD_DISADVANTAGE

Progress 8 describes the performance of pupils at secondary school after accounting for prior attainment at KS2. Because Progress 8 only measures improvement made *after* KS2, it is an appropriate measure to combine with performance *up until* KS2 (in this case, the proportion of children achieving the expected standard in reading, writing and maths), to holistically measure outcomes in an area and ensure performance at primary school and secondary school are equally weighted in the final composite measure.⁶

Accounting for local government changes

Data on outcomes for the years 2017–2019 are not published in terms of 2021 local authority boundaries, and it is not possible to map historic LA-level data to current boundaries given that some LA boundaries have changed since 2019. Instead, this analysis calculates outcomes between 2017 and 2019 for each LA based on the published attainment data for the *underlying* local authority districts (LADs), which existed between 2017 and 2019, and now map geographically to the current LA's boundaries. In the vast majority of cases, the LA and LAD boundaries have not changed, but this step is necessary to ensure *every* current LA receives an overall composite score for KS2 and KS4 outcomes. The box on page 7, below, outlines one example where this transformation has been necessary.

Published LAD outcomes data for each year from 2017 to 2019 is mapped to 2021 LAD boundaries using the lookup in Annex C. This is possible because no LADs have split during that period. Where two or more LADs have been merged, their total Progress 8 score and total number of eligible pupils are summed to create the relevant values for the new LAD. The same summation is done for the number of pupils reaching the expected standard in reading, writing and maths, and the number of pupils eligible.

This data for 2021 LADs is then aggregated to 2021 LAs.⁷ Where an LA comprises multiple LADs, the same process of summation of total attainment and eligible pupils is applied as for LAD merges. From this data, overall headline KS2 and KS4 outcome metrics can then be calculated at 2021 LA-level. Average Progress 8 in an LA is calculated by dividing total Progress 8 by the number of eligible pupils for the measure. The proportion of pupils reaching the expected standard in reading, writing and maths in an LA is calculated by dividing the total number of pupils meeting the expected standard by the total number of eligible pupils for the measure.

To create a final dataset for analysis, this calculation is repeated for every 2021 LA which contains at least two state-funded schools.⁸ As the programmes in EIAs will apply to

⁶ For more information on primary and secondary school performance measures, see [DfE's guidance](#)

⁷ Using ONS (2021) – [Lower Tier Local Authority to Upper Tier Local Authority \(April 2021\) Lookup](#)

⁸ Data on number of state-funded schools as at 1st September 2021, source: [Get Information About Schools](#)

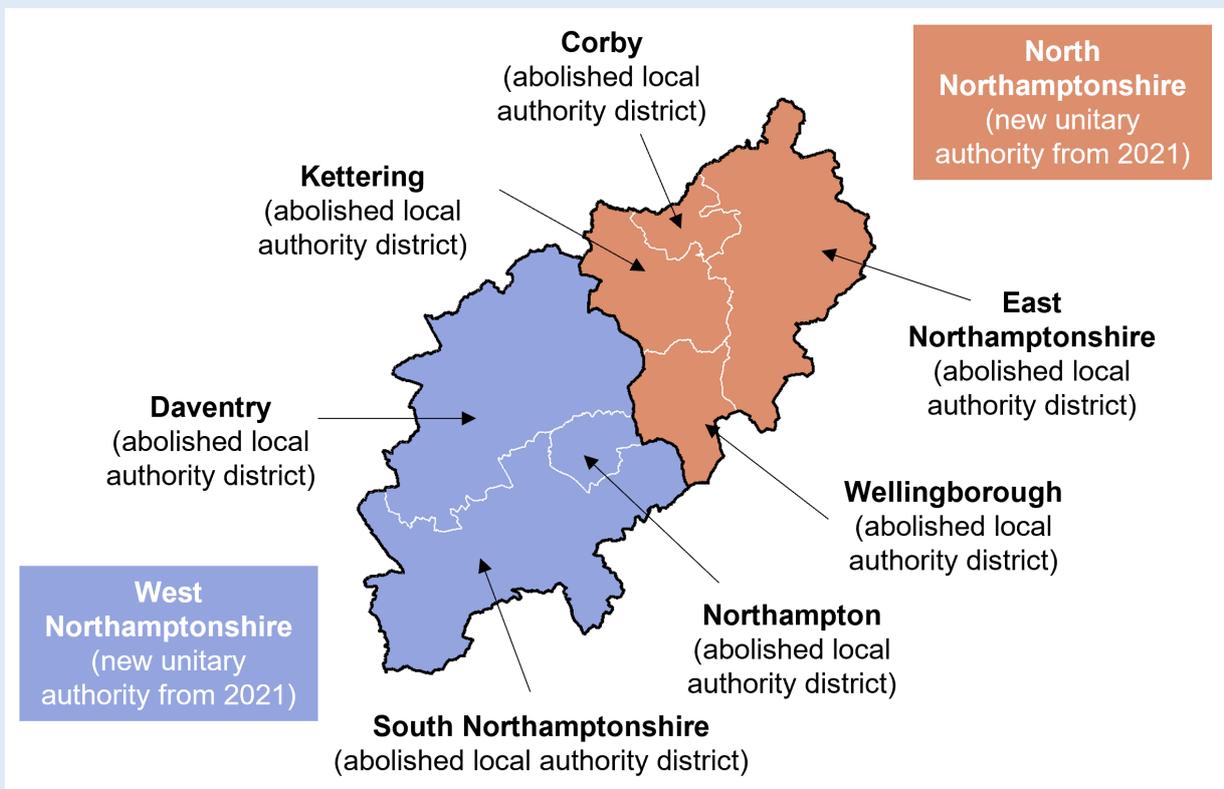
schools with teacher supply challenges and, subject to consultation, schools with successive requires improvement Ofsted judgments; it is important to focus on LAs with high levels of need and a sufficient number of pupils and schools in scope.

Example: Northamptonshire local government reform

From 1 April 2021, Northamptonshire County Council (an upper tier local authority) was split into two unitary authorities, North Northamptonshire and West Northamptonshire. Consequently, all data previously published by the department at local authority level from 2017 to 2019 is reported for the previous LA of Northamptonshire, rather than the two new LAs, North Northamptonshire and West Northamptonshire.

However, the now-abolished LADs that existed within Northamptonshire from the period 2017 to 2019 correspond to the new LA boundaries exactly. The North Northamptonshire unitary authority covers the abolished LADs of Corby, East Northamptonshire, Kettering and Wellingborough while the West Northamptonshire unitary authority covers the abolished LADs of Daventry, Northampton and South Northamptonshire. This is shown in the map in below.

Consequently, data from 2017 to 2019 at LAD level can be aggregated to generate scores for the performance of schools within the existing LA boundaries of North Northamptonshire and West Northamptonshire.



Calculating three-year average scores for each local authority

After LAD level data from 2017 to 2019 is mapped to 2021 LA level, the next step in the selection methodology is to take averages across the three years of data.

However, it is not appropriate to simply take the average of Progress 8 scores over the three years of data, as it is designed as a relative 'within-year' measurement. As a result, combining the raw Progress 8 measure across three years would be of limited use and would not have a clear interpretation. Further, the distribution of scores at LA-level for both the KS2 and KS4 are not identical over the three years. To address this, the selection methodology focusses on the relative performance of each LA on each metric, compared to other LAs *in the same year*. Applying statistical standardisation allows year-on-year comparisons to be made about relative performance of LAs. Those which consistently perform worse than other LAs across KS2 and KS4 are selected as EIAs.

Standardising scores

Every LA is assigned a standardised score for each year, and for both KS2 and KS4 measures, by subtracting the mean score of all LAs in that year from its own score that year. This figure is then divided by the standard deviation of scores across all LAs in that year.

Formally, for both metrics, at KS2 and KS4, the following transformation is applied to generate a standardised score, $z_{i,t}$, for each local authority, i , for each year t :

$$z_{i,t} = \frac{x_{i,t} - \mu_t}{\sigma_t}$$

where:

- $x_{i,t}$ represents the score for local authority i in year t on a given metric,
- μ_t represents the mean score of all LAs on the metric in year t , and
- σ_t represents the standard deviation of the metric across LAs in year t .

This provides a measure of relative performance for each LA that can be compared across years, while allowing for differences in the scale of variation between LAs in each year. Overall, statistical standardisation ensures that relative performance in each year is weighted equally in the final calculation.

Calculating a three-year average

For both the KS2 and KS4 metrics, standardised scores for each LA are then averaged, by taking the mean across three years, to generate two further metrics for each local authority:

- Standardised KS2 three-year average score
- Standardised KS4 three-year average score

These scores show the KS2 and KS4 performance of each LA over the three years relative to other LAs.

Composite measure of KS2 and KS4 performance

Finally, the two standardised three-year average scores (for KS2 and KS4) are combined into a single measure of relative performance.

This composite measure is simply the mean of these two standardised scores, ensuring that the overall selection criteria weights performance at the KS2 and KS4 equally.

Alignment with existing policy interventions

In order to ensure that the department's approach to levelling up is consistent with existing policies to improve outcomes in specific places, any LA which contains an existing Opportunity Area (OA) or is an area previously identified for additional school improvement support is also automatically included as an EIA.⁹

Opportunity Areas

The [Opportunity Areas \(OA\) programme](#) was announced in October 2016. This is a place-based initiative focused on improving educational attainment and social mobility. Originally targeted on six areas, it was expanded to include six more areas in January 2017.

More detail on Opportunity Areas, including the [selection methodology and their original delivery plans](#), can be found on GOV.UK.

Areas identified for additional school improvement support

In May 2021, the government [announced new locally targeted initiatives](#) investing £10 million to support four areas of the country: Plymouth, Ashfield & Mansfield, South Sefton & North Liverpool, and North Durham, City & Sedgefield.

The investment will provide intensive support in four areas of the country to increase the proportion of pupils in Good or Outstanding schools.

Defining areas currently targeted with existing policy interventions

Education Investment Areas are targeted at local authority level, but neither Opportunity Areas nor the areas previously identified in May 2021 for additional school improvement support correspond perfectly to upper-tier local authority boundaries. Six of the Opportunity Areas are local authority districts that sit within larger upper-tier local authorities, while the areas previously identified for additional school improvement support cover a range of geographical areas that do not always align with upper-tier local authority boundaries.

For both Opportunity Areas and the areas previously identified for additional school improvement support, any 2021 local authority which contains one of these place-based interventions is flagged, and automatically included as an EIA. Annex D contains a list of these upper-tier local authorities.

⁹ Opportunity North East (ONE) is due to end in August 2022 as planned, and ONE areas are not automatically included as EIAs. Investment in the region will continue where it is most needed – six of the twelve North East local authorities are Education Investment Areas (County Durham, Darlington, Hartlepool, Middlesbrough, South Tyneside, and Sunderland).

Final selection approach

The final list of EIAs reflects a combination of third of LAs with the lowest outcomes and any other LAs containing an Opportunity Area or areas previously identified for additional school improvement support.

Formally, this means areas selected as EIAs are the local authorities which are either:

- (i) in the bottom 50 ranked local authorities on the standardised KS2 and KS4 composite measure (see page 4, above);
- or**
- (ii) contain an Opportunity Area or areas previously identified for additional school improvement support (see Annex D).¹⁰

The full list of local authorities selected as Education Investment Areas is presented in Annex A.

¹⁰ Note: 9 out of the 12 LAs containing OAs and 3 out of the 5 LAs containing areas previously identified for additional school improvement support are in the bottom 50 ranked LAs by standardised KS2 and KS4 composite attainment. Therefore, only 3 LAs containing OAs (Cambridgeshire, East Sussex and North Yorkshire) and 2 LAs containing areas previously identified for additional school improvement support (County Durham and Nottinghamshire) are selected *only* by virtue of containing those existing place-based programmes.

Annex A – Local authorities selected as EIAs

The following local authorities have been selected as EIAs. EIAs which contain existing place-based initiatives are highlighted with the following colours and symbols:

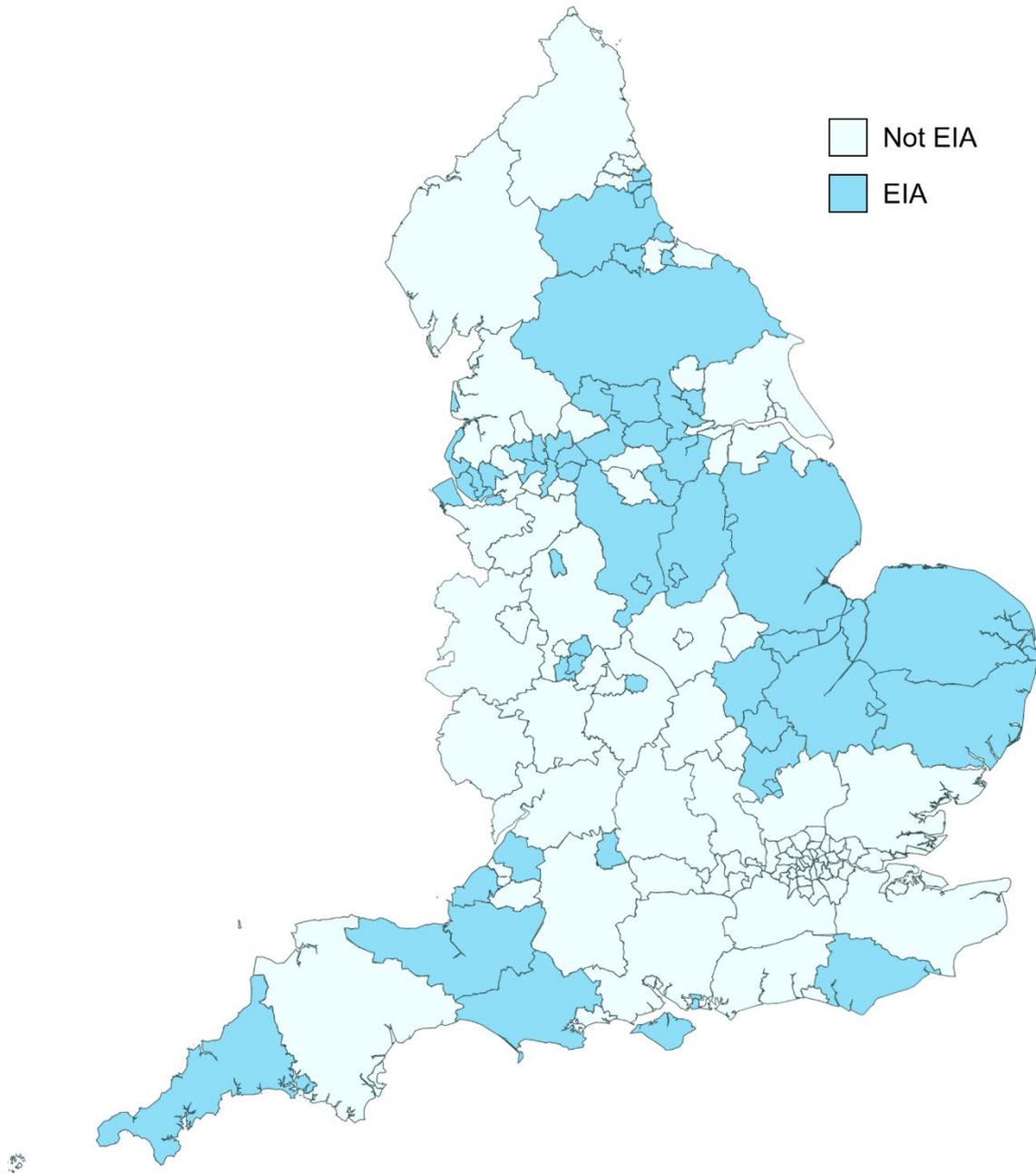
- **Green*** – LAs containing Opportunity Areas
- **Blue†** – LAs containing areas previously identified for additional school improvement support in Plymouth, Ashfield & Mansfield, South Sefton & North Liverpool, and North Durham, City & Sedgefield

Bedford	Isle of Wight	Rochdale
Blackpool*	Kirklees	Rotherham
Bolton	Knowsley	Salford
Bradford*	Leeds	Sandwell
Bury	Lincolnshire	Sefton†
Cambridgeshire*	Liverpool†	Somerset*
Central Bedfordshire	Luton	South Gloucestershire
Cornwall	Manchester	South Tyneside
County Durham†	Middlesbrough	St. Helens
Coventry	Norfolk*	Stoke-on-Trent*
Darlington	North Northamptonshire	Suffolk*
Derby*	North Somerset	Sunderland
Derbyshire	North Yorkshire*	Swindon
Doncaster*	Nottingham	Tameside
Dorset	Nottinghamshire†	Wakefield
Dudley	Oldham*	Walsall
East Sussex*	Peterborough	Wirral
Halton	Plymouth†	
Hartlepool	Portsmouth	

Full data on all of the calculated measures at local authority level are presented in the accompanying data tables for EIAs and local authorities not selected to be EIAs.

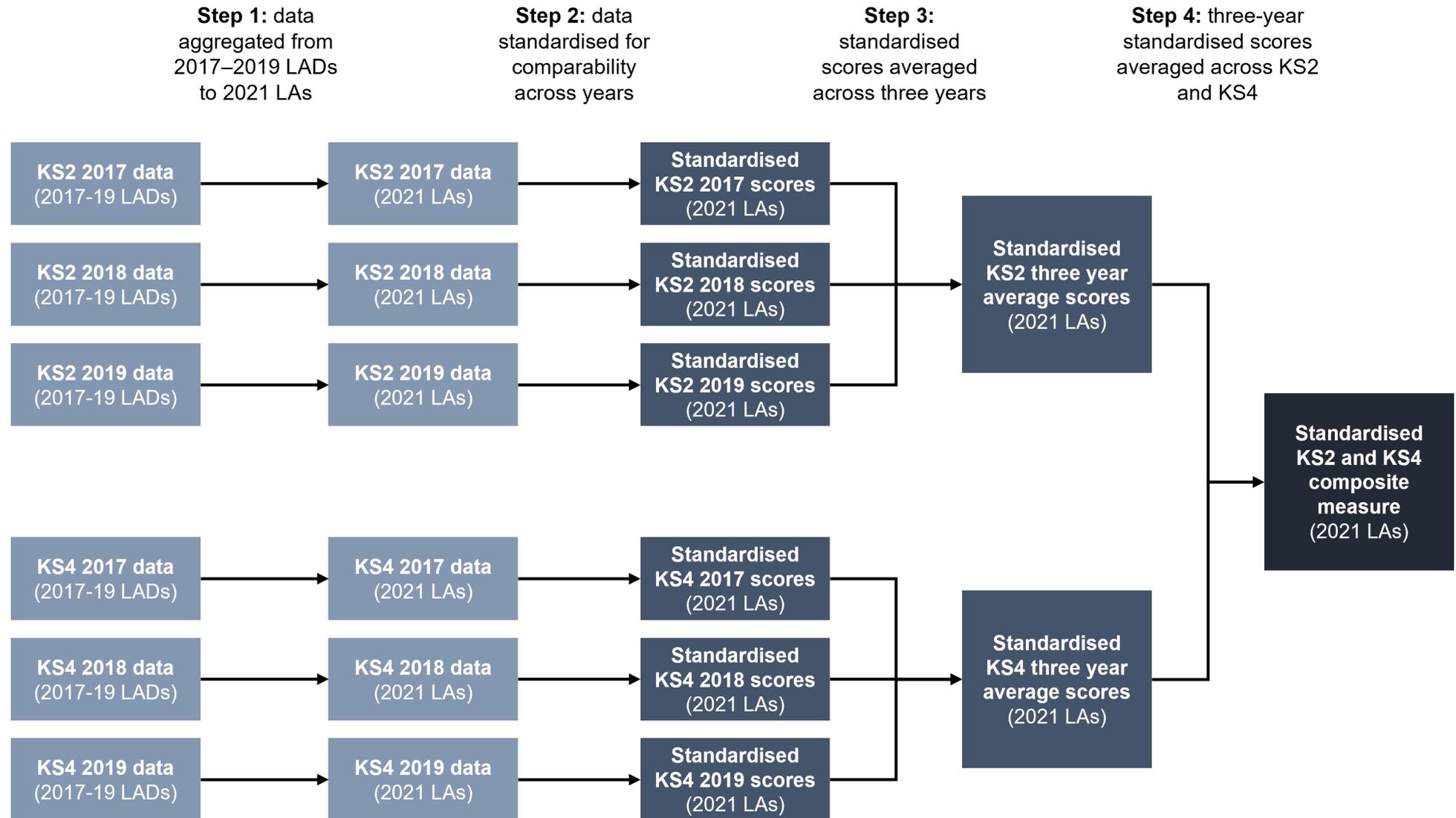
Map of Education Investment Areas

The map below shows all Local Authorities in England, with those selected as Education Investment Areas highlighted.



Annex B – Composite attainment score methodology diagram

The following figure shows the steps in the methodology to generate a three-year average composite KS2 and KS4 attainment score.



Annex C – Local authority district boundary changes

The following table outlines the local government boundary changes that have been accounted for in the analysis

<i>Year</i>	<i>Old LAD</i>	<i>New LAD</i>	<i>Source</i>
2019	Bournemouth	Bournemouth, Christchurch and Poole	Bournemouth, Dorset and Poole Order 2018
2019	Poole	Bournemouth, Christchurch and Poole	Bournemouth, Dorset and Poole Order 2018
2019	Christchurch	Bournemouth, Christchurch and Poole	Bournemouth, Dorset and Poole Order 2018
2019	East Dorset	Dorset	Bournemouth, Dorset and Poole Order 2018
2019	North Dorset	Dorset	Bournemouth, Dorset and Poole Order 2018
2019	Purbeck	Dorset	Bournemouth, Dorset and Poole Order 2018
2019	West Dorset	Dorset	Bournemouth, Dorset and Poole Order 2018
2019	Weymouth and Portland	Dorset	Bournemouth, Dorset and Poole Order 2018
2019	Taunton Deane	Somerset West and Taunton	Somerset West and Taunton Order 2018
2019	West Somerset	Somerset West and Taunton	Somerset West and Taunton Order 2018
2019	Suffolk Coastal	East Suffolk	East Suffolk Order 2018
2019	Waveney	East Suffolk	East Suffolk Order 2018
2019	Forest Heath	West Suffolk	West Suffolk Order 2018
2019	St Edmundsbury	West Suffolk	West Suffolk Order 2018
2020	Aylesbury Vale	Buckinghamshire	Buckinghamshire Order 2019
2020	Chiltern	Buckinghamshire	Buckinghamshire Order 2019
2020	South Bucks	Buckinghamshire	Buckinghamshire Order 2019
2020	Wycombe	Buckinghamshire	Buckinghamshire Order 2019
2021	Corby	North Northamptonshire	Northamptonshire Order 2020
2021	East Northamptonshire	North Northamptonshire	Northamptonshire Order 2020
2021	Kettering	North Northamptonshire	Northamptonshire Order 2020
2021	Wellingborough	North Northamptonshire	Northamptonshire Order 2020
2021	Daventry	West Northamptonshire	Northamptonshire Order 2020
2021	Northampton	West Northamptonshire	Northamptonshire Order 2020
2021	South Northamptonshire	West Northamptonshire	Northamptonshire Order 2020

Annex D – Local authorities containing previous place-based policies

The following tables show the local authorities that are automatically selected as EIAs because of existing place-based support within the local authority boundaries.

Local authorities containing areas previously identified for additional school improvement support

<i>Area receiving support</i>	<i>Corresponding LAs</i>
Ashfield and Mansfield	Nottinghamshire
North Durham, City and Sedgefield	County Durham
Plymouth	Plymouth
South Sefton and North Liverpool	Liverpool; Sefton

Local authorities containing Opportunity Areas

<i>Opportunity Area</i>	<i>Corresponding LAs</i>
Blackpool	Blackpool
Bradford	Bradford
Derby	Derby
Doncaster	Doncaster
Fenland and East Cambridgeshire	Cambridgeshire
Hastings	East Sussex
Ipswich	Suffolk
North Yorkshire Coast	North Yorkshire
Norwich	Norfolk
Oldham	Oldham
Stoke-on-Trent	Stoke-on-Trent
West Somerset	Somerset



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