# English as an Additional Language (EAL) and educational achievement in England in 2023: An analysis of the National Pupil Database

## Technical report
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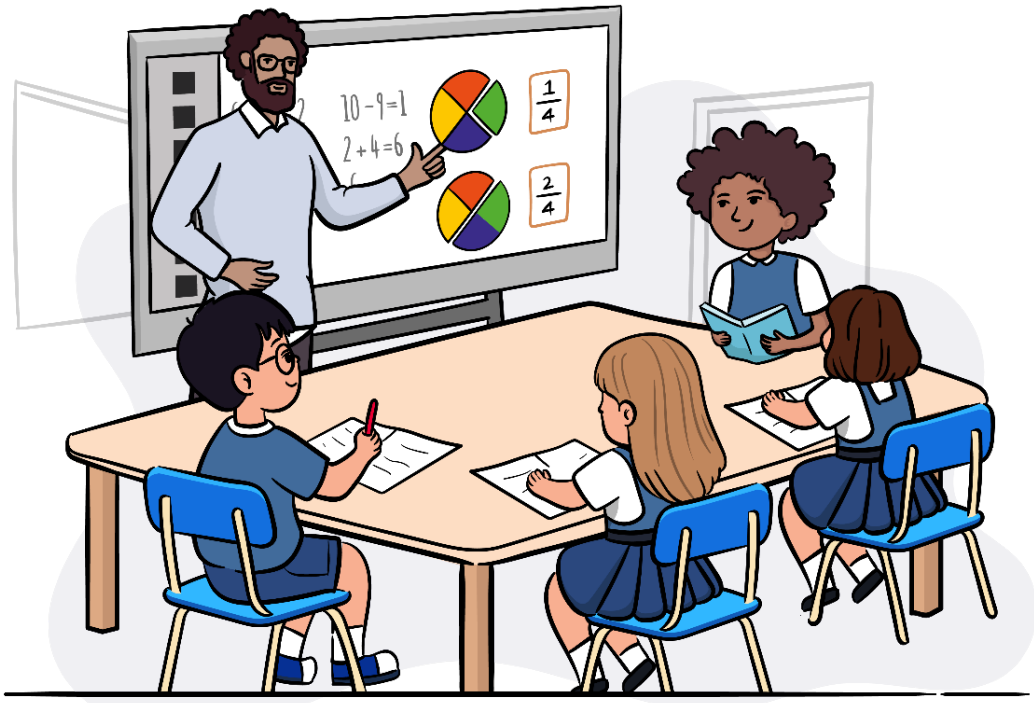

# Table of contents


Table of contents 2

Table of figures 3

Table of tables 4

Research team 7

Acknowledgements 8

Executive summary 9

1. Introduction 19

2. Measures and methods 25

3. Growth in the prevalence of EAL pupils over time 32

4. Distribution of EAL pupils by region, local authority, and school 37

5. EAL status and educational achievement 44

6. EAL status and achievement in context: Interactions with pupil background factors 51

7. EAL status and achievement: School- and regional- level variation 94

8. Implications for policy and practice 116

References 119

Appendix 121

# Table of figures

Figure 1: Percentage of EAL pupils by phase: England, 1997–2024 ..... 33

Figure 2: Proportion of EAL learners in Inner and Outer London, 2011–2024 ..... 38

Figure 3: Proportion EAL learners in each Inner London borough, 2011–2024 ..... 39

Figure 4: Percentage of EAL pupils by local authority in England, January 2023 ..... 40

Figure 5: Interaction between EAL status and FSM eligibility for probability of attaining a GLD, 2023 ..... 59

Figure 6: Interaction between EAL status and IDACI for probability of attaining a GLD, 2023 ..... 59

Figure 7: Interaction between EAL status and gender for probability of attaining a GLD, 2023 ..... 60

Figure 8: Interaction between EAL status and gender for meeting the expected standard or above in key stage 1 reading (a) and maths (b) ..... 69

Figure 9: Interaction between EAL status and FSM eligibility for meeting the expected standard or above in key stage 1 reading (a) and maths (b) ..... 70

Figure 10: Interaction between EAL status and year of entry for probability of meeting expected standard or above in key stage 1 reading (a) and maths (b) ..... 70

Figure 11: Attainment at key stage 2 reading by ethnic group ..... 74

Figure 12: Attainment at key stage 2 maths by ethnic group ..... 76

Figure 13: Percentage achieving expected score or above in reading at age 11 (2023) by EAL status and year of entry to NPD ..... 77

Figure 14: Interaction between EAL status and IDACI in key stage 2 maths ..... 83

Figure 15: Interactions between FSM eligibility and EAL status in key stage 2 reading (a) and maths (b) ..... 83

Figure 16: Interactions between gender and EAL status in key stage 2 reading (a) and maths (b) ..... 84

Figure 17: Interactions between year of entry and EAL status in key stage 2 reading (top) and maths (bottom) ..... 85

Figure 18: Percentage achieving grade 9–4 in GCSE English & maths at age 16 (2023) by EAL status and year of entry to NPD ..... 87

Figure 19: KS4 Attainment 8, interaction between EAL status and year of entry ..... 91

Figure 20: Key stage 4 Attainment 8, interaction between EAL status and gender ..... 91

Figure 21: Interaction between EAL status and FSM eligibility, Attainment 8 scores at key stage 4 ....92

Figure 22: Interaction between EAL status and neighbourhood deprivation (IDACI), Attainment 8 scores at key stage 4 ....92

Figure 23: Interaction between EAL status and SEN provision, Attainment 8 scores at key stage 4 ....93

Figure 24 Interaction between pupil-level EAL status and school-level % EAL (a) and pupil-level FSM eligibility and school-level % FSM eligible (b) at key stage 4 ....110

## Table of tables

Table 1: Number and percentage of pupils with a first language other than English (i.e. EAL) by year in England, 1997–2024 ....32

Table 2: Proportion of EAL learners within each ethnic group in England, 2013 & 2023 .34

Table 3: Proportion of ethnic minority pupils: England 2003, 2013 & 2023....36

Table 4: Number and percentage of EAL pupils recorded by region ....37

Table 5: Number and percentage of EAL pupils by local authority, 2023 (abbreviated to show only the top-20 and lowest-20 LAs) ....41

Table 6: Percentage of maintained, mainstream schools by concentration of EAL pupils, 2023....42

Table 7: Number and location of schools with a majority (>50%) of EAL pupils recorded in 2022/23....43

Table 8: Achievement of EAL and monolingual-English-speaking pupils at the end of the early years foundation stage (EYFS) phase (age 5) in 2013, 2017, and 2023....45

Table 9: Achievement of EAL and monolingual-English-speaking pupils at the end of key stage 1 (age 7) in 2013, 2017 and 2023 ....46

Table 10: Achievement of EAL and monolingual-English-speaking pupils at key stage 2 (age 11) in 2013, 2017 and 2023....47

Table 11: Achievement of EAL and monolingual-English-speaking pupils at key stage 4 (age 16) in 2013, 2017 and 2023....48

Table 12: Short-run changes in key indicators at key stage 2 and key stage 4, 2019–2024: Comparison of averages for monolingual English-speakers and EAL pupils ....49

Table 13: EAL status by other pupil background factors, 2023....52

Table 14: Mean number of ELGs achieved at age 5 by EAL status and pupil background factors, 2023 ....55

Table 15: Odds of attaining a Good Level of Development (GLD), 2023 ..... 56

Table 16: Contextualised variation in the odds of achieving a Good Level of Development within EAL and MLE learners at age 5, 2023 ..... 58

Table 17: Reading attainment at key stage 1 (age 7) by EAL status & pupil background factors, 2023 ..... 62

Table 18: Maths attainment at key stage 1 (age 7) by EAL status and pupil background factors, 2023 ..... 63

Table 19: Contextualised variation in reading attainment for all pupils at key stage 1 (age 7), 2023 ..... 64

Table 20: Contextualised variation in maths attainment for all pupils at key stage 1 (age 7), 2023 ..... 66

Table 21: Contextualised variation in reading attainment, EAL and MLE learners at key stage 1 (age 7), 2023 ..... 67

Table 22: Contextualised variation in maths attainment, EAL and MLE learners at key stage 1 (age 7), 2023 ..... 68

Table 23: Reading attainment at key stage 2 (age 11) by EAL status and pupil background factors, 2023 ..... 73

Table 24: Maths attainment at key stage 2 (age 11) by EAL status and pupil background factors, 2023 ..... 75

Table 25: Contextualised variation in reading attainment for all pupils at key stage 2 (age 11), 2023 ..... 78

Table 26: Contextualised variation in maths attainment for all pupils at key stage 2 (age 11), 2023 ..... 80

Table 27: Contextualised variation in reading attainment, EAL and MLE learners at key stage 2 (age 11), 2023 ..... 81

Table 28: Contextualised variation in maths attainment, EAL and MLE learners at key stage 2 (age 11), 2023 ..... 82

Table 29: Attainment 8 and percent achieving a 9–5 pass in English and maths at key stage 4 (age 16) by EAL status and pupil background, 2023 ..... 86

Table 30: Contextualised variation in Attainment 8 scores for all pupils at key stage 4 (age 16), 2023 ..... 89

Table 31: Contextualised variation in Attainment 8 scores, EAL and MLE learners at key stage 4 (age 16), 2023 ..... 90

Table 32: Intra-class correlations (ICCs) for key stage 2 attainment in reading and maths (empty models) ..... 95

Table 33: Key stage 2 reading attainment multilevel models: Empty through fully contextualised models (Models 0 through 3) ....96

Table 34: Key stage 2 maths attainment multilevel models: Empty model through fully contextualised model (Models 0 through 3) ....97

Table 35: Key stage 2 reading, random effects multilevel models ....99

Table 36: Key stage 2 maths, random effects multilevel models ....100

Table 37: Key stage 2 reading, ranges of EAL status and other pupil effects varying across schools ....101

Table 38: Key stage 2 maths, ranges of EAL status and other pupil effects varying across schools....101

Table 39: Key stage 2 reading, school composition and region models ....102

Table 40: Key stage 2 maths, school composition and region models ....103

Table 41: Intra-class correlations (ICCs) for key stage 4 attainment (empty models)....104

Table 42: Key stage 4 Attainment 8 multilevel models: Empty model through fully contextualised model (Models 0 through 3) ....106

Table 43: Key stage 4 Attainment 8, random effects multilevel models ....108

Table 44: Key stage 4 Attainment 8, ranges of EAL and other pupil effects varying across schools....109

Table 45: Key stage 4 Attainment 8, school composition and region models ....111

Table 46: EYFS (age 5) attainment, regional variation by EAL status ....112

Table 47: Key stage 1 (age 7) reading attainment, regional variation by EAL status....113

Table 48: Key stage 1 (age 7) maths attainment, regional variation by EAL status....113

Table 49: Key stage 2 (age 11) reading attainment, regional variation by EAL status...114

Table 50: Key stage 2 (age 11) maths attainment, regional variation by EAL status....115

Table 51: Key stage 4 (age 16) Attainment 8, regional variation by EAL status ....115

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# Executive summary

## Background to this report

In the context of schools in England, children who speak English as an Additional Language (EAL) are defined as those who have been "exposed to a language at home that is known or believed to be other than English" (DfE, 2020). Over the past decade, a series of five related reports funded by The Bell Foundation and Unbounded Philanthropy have investigated the relationship between EAL status, English-language proficiency, and educational outcomes (Strand, Malmberg & Hall, 2015; Strand & Hessel, 2018; Strand & Lindorff, 2020; Strand & Lindorff, 2021; Lindorff, Strand & Au, 2024; key findings from these previous studies are summarised on pages 19–23 of this report).

This body of work highlights the heterogeneity of the group of pupils with EAL status, and the limitations of relying on the EAL flag in data (and in policy), consistently pointing to the need for a direct measure of English-language proficiency in order to understand and meet the needs of EAL pupils effectively. Notably, the Department for Education (DfE) did introduce such a measure in 2017 – based on one used in schools in Wales since 2009 – and started collecting proficiency-in-English data for all pupils in England. However, this measure remained in place only for the 2017 and 2018 school censuses, after which it was discontinued.

This report is the sixth and latest in this series, based on an analysis of 2023 data from the National Pupil Database (NPD) in England and focusing on the following questions:

- How large are the gaps in attainment between EAL-speaking pupils and their monolingual-English (MLE) -speaking peers at key stages of compulsory education (ages 5, 7, 11, and 16)? How have these changed over time, if at all?
- How is the size of any EAL attainment gap moderated by other pupil demographics (e.g. ethnicity, free school meals [FSM], gender[1])?
- Can these gaps be accounted for by socio-economic factors such as FSM eligibility?
- What (if any) school-level factors (particularly school-level percent FSM-eligible and percent EAL-status as measures of concentrations of poverty and language needs, respectively) are correlated with large achievement gaps?
- Are there particular regions or local authorities (LAs) where the gaps are wider than others? Do the data suggest any reasons for this?

[1] Male or Female, as recorded in the NPD.

## Key findings

**The number and proportion of EAL pupils in England is growing**. In 1997, EAL pupils made up 7.6% of the compulsory school-aged population; by 2013 this had increased to 16.2%, and by 2023 to over 20%.

**Aggregate data on the educational attainment of EAL learners can be misleading**. While attainment gaps associated with EAL status *on average* – without taking other pupil background characteristics into account – are only particularly apparent in the early years of primary schooling, this masks the fact that some risk factors for low attainment are more pronounced within the EAL-speaking group than among MLE-speaking peers.

**Later arrival into the school system has a significant negative impact on educational attainment.** In line with previous research, pupils need up to 6 years on average to attain proficiency in English, allowing them to fully access the curriculum and "catch up" with MLE-speaking peers. For EAL pupils who entered the school system from Year 1 onwards, there was a distinctive risk of lower attainment by the end of primary school (age 11) compared to MLE-speaking pupils (Figure i). For EAL pupils who entered the school system after Year 5, there was a distinctive risk of lower attainment by the end of secondary school (age 16) compared to MLE-speaking peers (Figure ii).

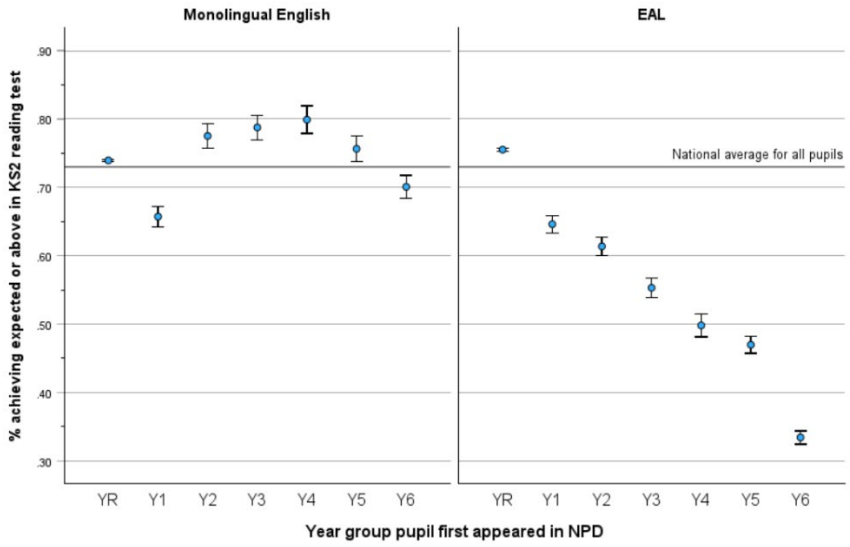



**Figure i: Percentage achieving expected score or above in reading at age 11 (2023) by EAL status and year of entry to NPD**

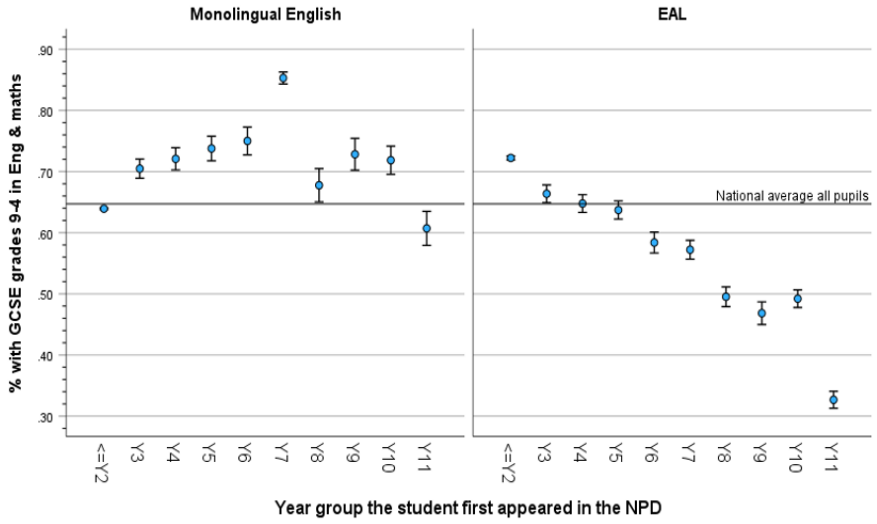



**Figure ii: Percentage achieving grade 9–4 in GCSE English & maths at age 16 (2023) by EAL status and year of entry to NPD**

Taken together, these findings echo previous research in demonstrating that EAL status alone is a poor indicator of English-language proficiency and of language support needs.

## Changes in prevalence and composition of the group of EAL learners over time

The proportion of the compulsory school-aged population in England (ages 5–16) using EAL has grown markedly over time, from 7.6% in 1997, to 16.2% in 2013, to over 20% – or more than 1-in-5 pupils – in 2023.

The gap between the proportion of EAL pupils recorded in primary versus secondary school has also changed. In 1997, 7.8% of primary school children were recorded as using EAL, compared to a similar 7.3% of the secondary school population. By 2013, 18.1% of primary school children were recorded as EAL learners compared to only 13.6% in secondary school; figures have remained fairly stable since then. As noted by Strand, Malmberg, and Hall (2015), this gap may reflect issues with recording practices; for example, some secondary schools may be changing pupils' EAL status from that on their historical primary school records.

The demographic composition of the EAL pupil population has shifted somewhat as well. While Black African and most Asian groups[2] have made up an increasing share of the school-age population in England between 2013 and 2023, the proportion of EAL pupils within these ethnic groups has decreased substantially. This may reflect the settled status of these groups, with a decreasing proportion of pupils being exposed to a

[2] Ethnic groups in the NPD data are defined according to the same categories used in government surveys/censuses in England.

heritage language at home. In contrast, while Chinese pupils have comprised a fairly stable share of the school-age population and the share of White Other pupils has increased substantially, the proportion of EAL learners among both these ethnic groups has remained very high – possibly due to continued inward migration.

We see considerable regional variation in the prevalence of EAL pupils, from 8.3% in the North-East to 44% in Greater London in 2023. In most regions, proportions of EAL pupils increased by around 4–5% between 2013 and 2023, but Inner London is notable as the only area to record a decrease (of about 6%) over this time period.

Looking across Local Authorities (LAs), the highest percentages of pupils speaking EAL are found in urban areas, e.g. London, the West Midlands, and the North-West. There has been some outward spread to LAs surrounding urban areas, indicating that language support needs are more widely distributed than was the case a decade ago.

In 2013, just under half of all schools in England recorded at least 5% of their pupils as EAL learners; by 2023 this was true of over half of all schools. However, the percentage of all schools with over 50% EAL pupils has not changed dramatically; about half of these schools are in Greater London, but there are also large numbers of schools with high concentrations of EAL learners in the West Midlands, the North-West, and Yorkshire & the Humber. This shows EAL learners can be concentrated in small local areas, even where they appear less prevalent across a broader geographic area.

## EAL attainment gaps over time: Results from aggregate data

The following results are all based on publicly available data in which the EAL-speaking group is necessarily taken as a whole, and cannot be broken down according to other demographic characteristics or background factors. While these results can therefore only provide insight into patterns and trends on average and without further contextualisation, these factors are addressed via analysis of individual-pupil-level data in later sections.

### *Early years foundation stage (EYFS; age 5)*

In 2023, EAL pupils were about 7 percentage points less likely than their MLE-speaking peers to attain the expected standard or above in literacy and in mathematics, and to fall within the overall category of “good level of development” (GLD) at age 5. The average number of early learning goals achieved was 14.4 for MLE speakers and 13.2 for EAL speakers. These gaps have narrowed by about 2–3% (for threshold measures comparable over time) since 2013.

## Key stage 1 (age 7)

In 2023, EAL learners were less likely to achieve the expected standard in reading than their MLE peers by about 5 percentage points. EAL attainment gaps in writing and mathematics were negligible at around 2 percentage points. Over the period 2013 to 2023 there has been a significant improvement in the relative performance of EAL learners in this age group.

In the year 1 phonics screening check, completed at age 6, there were negligible gaps between MLE-speaking pupils and EAL learners in the proportion achieving the expected standard, and this has consistently been the case in each of the years analysed here.

## Key stage 2 (age 11)

From 2013 through to 2023, a lower proportion of EAL pupils achieved the expected standard or above in reading compared to their MLE-speaking peers, but the difference is much smaller in 2023 than in previous years. Looking at mean reading scores, the EAL gap would be described as small in 2013 and 2017 but very small in 2023 ($d$=-0.12).[3]

In mathematics, EAL learners are more likely to attain the expected standard or above compared to MLE learners, and they achieve a higher mean test score ($d$=0.22 in 2023). EAL learners also have a small advantage in performance in grammar, punctuation, and spelling (GPS; $d$=0.17 in 2023). The average EAL advantage in both domains has increased over time.

## Key stage 4 (age 16)

The data at key stage 4 show some change over time in EAL achievement gaps. In English, a lower percentage of EAL pupils achieved threshold attainment measures compared to their MLE-speaking peers in 2013 (4.2% fewer achieving GCSE grades of A*–C) and 2017 (3% fewer attaining a GCSE 9–5 pass), but by 2023 there was a small difference *in favour* of the EAL group (1% more attaining a GCSE 9–5 pass). In mathematics there was little substantial gap based on EAL status across years and threshold attainment measures, although the proportion achieving a grade 9–5 pass in maths in 2023 was 5% higher for EAL learners.

EAL pupils had slightly higher mean Attainment 8 scores than their MLE-speaking peers ($d$=0.13 in 2023), and were also more likely than MLE learners to achieve the English Baccalaureate with GCSE 9–4 or 9–5 passes. For both measures, the data indicate an increase in the relative success of EAL learners on average between 2013 and 2023.

[3] For continuous measures, such as test or performance scores, we report Cohen's *d*. This compares the size of any gap between the mean scores of the two language groups (MLE and EAL). The size of Cohen's *d* is conventionally interpreted using the following thresholds: values of +/-0.20 = small; +/-0.50 = medium; and +/-0.80 = large (Cohen, 1988).

## Contextualising the relationship(s) between EAL status and attainment: Analysis of pupil-level data

As noted above, aggregate data cannot provide insight into variations in educational attainment among EAL learners – a group that previous research has established to be both heterogeneous in its demographic composition and varied in terms of pupils' proficiency in English.

However, separate analyses of attainment in the EAL- and MLE-speaking groups using individual-pupil-level data from the NPD provided further insight into risk factors for low attainment (accounting for gender, ethnic group, birth season, FSM eligibility, neighbourhood deprivation – measured via the Income Deprivation Affecting Children Index [IDACI] – and special educational needs [SEN] provision) and their differential impact according to EAL status. Importantly, these analyses also accounted for pupils' year of entry to the NPD as a proxy for their year of entry into the English school system.

While some pupil background factors tended to have fairly consistent impact on educational attainment across both EAL and MLE pupil groups, those with the greatest differential effects were:

- Year of entry:
    - EAL learners who joined in Reception showed no difference in average reading scores at the end of primary school (i.e. at key stage 2) compared to their MLE-speaking peers. EAL learners who joined after Reception scored substantially lower than MLE pupils.
    - EAL pupils who entered after year 5 achieved significantly lower than their MLE-speaking peers by the end of secondary school (i.e. at key stage 4).
    - As many of these later joiners may be newcomers to England, these results represent the effect of having had less time to acquire English language proficiency.
- Being eligible for FSM was less of a pronounced risk among EAL pupils compared to MLE-speaking pupils across age groups.
- Belonging to an ethnic minority group tended to be associated with either a *more* pronounced *under*achievement (in the case of White Other pupils) or a *less* pronounced *over*achievement (in the case of Indian pupils), relative to White British peers, within the EAL group compared to the MLE group. This may reflect, to some extent, the effect of later entry into the school system in England.
- The presence of SEN was more of a pronounced risk among EAL pupils than among their MLE-speaking peers at later key stages (ages 11 and 16).

Differential impacts within each age group are summarised below.

### *EYFS (age 5)*

- The attainment gap associated with FSM eligibility was much smaller for EAL pupils – mainly because for FSM-eligible pupils, EAL status made little difference to attainment.
- The substantially lower odds of attaining a GLD for the White Other, Black Caribbean/Mixed White and Black Caribbean, and Any Other ethnic groups were unique to EAL pupils, as were the higher odds of attaining a GLD in the Indian group. We advise caution in interpreting these results, however, as the White British reference group is small among EAL learners.

### *Key stage 1 (age 7)*

- FSM-related attainment gaps in reading and maths were again smaller for EAL pupils than for their MLE-speaking peers.
- The substantial higher attainment of most Asian groups in both reading and maths, relative to White British peers, was less pronounced in the EAL group than in the MLE group.
- Joining a given school later was associated with lower odds of achieving the expected standard in both reading and maths, particularly for EAL pupils. This may – at least in part – reflect newcomers to England having less time to develop their English-language proficiency.

### *Key stage 2 (age 11)*

- As was the case in younger age groups, FSM-related attainment gaps in reading and maths were again smaller for EAL pupils.
- Having any level of SEN (i.e. with or without an education, health, and care plan) had a stronger negative association for EAL pupils than for MLE learners, as did belonging to most ethnic minority groups. This was particularly the case for the White Other group, within which EAL learners scored 1.4 points *lower* and MLE speakers scored about 1.6 points *higher* than their White British peers.
- First appearing in the NPD – as a proxy for entering into the English education system – in any year later than Reception, was distinctively associated with lower attainment for EAL pupils in reading and to some extent maths.

### *Key stage 4 (age 16)*

- Being a boy, being in an ethnic minority group, or having any level of SEN provision were more negatively associated with attainment for EAL pupils than for their MLE-speaking peers.
- The FSM-related attainment gap was again smaller for EAL pupils than for their MLE-speaking peers.

- As at key stage 2, there was again clear evidence that later entry to the English school system (in this case after year 5) was associated with a negative impact on attainment for EAL learners.

## School- and regional-level variation

We used multilevel models to account for the grouping (or "clustering") of pupils in schools, and to assess whether EAL attainment gaps at key stage 2 and key stage 4 varied by school or region.

EAL status varies in its relationship to reading attainment at key stage 2 and Attainment 8 scores at key stage 4, to the extent that **the attainment gap associated with EAL status can be positive in some schools and negative in others**. This may reflect differences across schools in the proficiency in English of their EAL pupils, but without having a measure of this proficiency in the data this cannot be checked. **By contrast, no school "turns around" the gap associated with FSM eligibility.** School composition (i.e. the percentage of EAL learners and FSM-eligible pupils in a given school) and interactions between school composition and individual background factors (i.e. pupil-level EAL status and school-level percent EAL-status; and pupil-level FSM-eligibility and school-level percent FSM-eligible) did not explain this variation. There were some significant differences by region, though these explained little variation in any key stage 2 or key stage 4 outcome.

Regionally, attainment gaps for EAL learners at age 5 were smallest in London and largest in northern regions. These gaps narrow for later age groups, so regional differences may reflect underlying demographics and proportions of late-arriving pupils rather than structural barriers.

## Policy implications

Late arrival to the English school system is a key risk factor for underachievement among EAL learners. EAL status is one of the factors taken into account in the national funding formula (NFF), but is only funded for three years. Results from this research show that while this may be sufficient for pupils who join the English school system in Reception, it is insufficient to close EAL attainment gaps for those who join later.

Three key recommendations emerge on the basis of these results:

1. Funding should be targeted to support the EAL learners who need it the most (i.e., late joiners). In practice, this would mean up to six years of funding for later joiners, to support them for the full time needed to achieve English-language proficiency.
2. A statutory assessment of proficiency in English should be (re)instated in England – as is already the case in Scotland, Wales and Northern Ireland – would facilitate both the delivery of effective and targeted support for EAL learners, and the ability to better evaluate and address attainment gaps within this group.
3. Given the increasing dispersion of EAL learners geographically, teachers should receive effective training and continuing professional development, enabling them to assess pupils' proficiency in English and provide targeted and effective support.

## Structure of the report

This report consists of eight chapters.

Following the executive summary in the present chapter, Chapter 1 provides an overview of the motivation for the present research and summarises series of related reports on the topic of EAL status and achievement over the last decade. The chapter outlines the aim of this report and the research questions on which it focuses.

Chapter 2 discusses the data used to answer those questions, using individual pupil records from the National Pupil Database (NPD) in England. It gives details of the variables used in our analyses, and the analytic approaches used throughout this report.

Chapter 3 draws on publicly available aggregate data to give an overview of the growth in prevalence and change in composition of the group of EAL pupils in England over time, while Chapter 4 uses the same data to show how these pupils were distributed across regions, local authorities (LAs), and schools.

Chapter 5, still drawing on the public aggregate data, provides headline figures on the attainment of EAL pupils, and specifically on the attainment gaps between these pupils and their monolingual-English (MLE) -speaking peers. This chapter focuses on EAL attainment gaps at ages 5, 7, 11, and 16 (corresponding to the early years foundation stage, key stage 1, key stage 2 and key stage 4, respectively), the extent to which and how these gaps changed over time from 2013 to 2023.

Chapter 6 uses the individual-level NPD data to take a more nuanced look at EAL status and attainment in the context of other pupil background factors. The relationships

between these pupil background factors and attainment are explored for the overall population of pupils at each age of interest (5, 7, 11 and 16 years), but also compared across the EAL- and MLE-speaking groups to see whether risk factors differed according to EAL/MLE-speaking status. In addition to pupil demographic factors, the analyses in this section explored the impact of the year in which a pupil entered the education system in England (proxied by the year of entry into the administrative data).

Chapter 7 revisits the relationships between educational attainment, EAL status, and the range of pupil background factors considered in Chapter 6, this time using multilevel models to account for the grouping of children in schools. This allowed us to assess the extent to which EAL attainment gaps may have varied according to the school a pupil attends. This chapter also describes regional variation.

Chapter 8 reflects on the results and highlights implications for policy and practice in England relevant to supporting EAL learners.

# 1. Introduction

## English as an Additional Language (EAL) in England

In the context of schools in England, children who speak English as an Additional Language (EAL) are those who have been "exposed to a language at home that is known or believed to be other than English" (DfE, 2020).

EAL status is based on a pupil's first language as recorded in the annual school census, in which "first language" is defined – according to the official census guidance for schools and local authorities – as that to which a child was initially exposed during early childhood and to which they continue to be exposed at home or in their community (DfE, 2024). Where it is possible to judge with a high degree of confidence whether a pupil's first language is English or not, but not possible to obtain confirmation or any other response from the parent/carer, schools may record the pupil's first language as "not known but believed to be other than English" or "not known but believed to be English".

A child's formally recorded first language, and therefore their EAL status, may be complicated by the fact that if the child was exposed to more than one language (one of which might be English) during early development, they will be recorded as having a first language "other than English". This makes the group of pupils recorded as EAL-users potentially complex and heterogeneous. It can include pupils who are fluent in English as well as those who have newly arrived from other (non-English-speaking) countries, with very little English proficiency and widely varying needs in terms of English-language support.

## Research on EAL and pupil achievement in England

Somewhat unsurprisingly, because EAL status is not an indicator of proficiency in English, previous research on the relationship between EAL status and educational achievement has reflected the complexity and diversity of the EAL group itself.

This is the sixth in a related series of reports published over the last decade investigating the relationships between EAL and educational achievement, funded by The Bell Foundation and Unbounded Philanthropy. In the following, we summarise findings from the previous reports.

### *Strand, Malmberg & Hall (2015)*

In this report, individual pupil data from 2013, obtained from the National Pupil Database (NPD) in England, were analysed to investigate trends in the number and distribution of EAL pupils, as well as relationships between EAL status and educational achievement at various key stages. Key findings included:

- The EAL population in schools more than doubled, from 7.6% in 1997 to 16.2% in 2013.
- One fourth of schools had less than 1% of pupils recorded as EAL learners, while 1 in 11 schools had populations with over 50% recorded as EAL speakers – meaning that needs were very concentrated in some schools.
- At age 5, 44% of EAL pupils had achieved a good level of development, compared to 54% of their monolingual-English-speaking peers. At age 16, the gap was much narrower, with 58.3% of EAL learners achieving five A*–C GCSEs including English and mathematics, compared to 60.9% of their MLE-speaking peers. Additionally, there was no gap in GCSE best-8 points scores based on EAL status. In other words, by the age of 16, on average, EAL learners caught up with their peers for whom English was the first language.
- There was substantial variation in educational achievement amongst EAL pupils. Certain first languages (especially within the "White Other" and "Black African" ethnic groups), the absence of a prior attainment score from the beginning of a given key stage, and mobility between schools were all risk factors for lower achievement. These factors can be seen as proxies for international arrival from abroad, as well as for proficiency in English.

The main conclusion of the report was based on the observation that the group recorded as "EAL" in the NPD could include pupils who were fully fluent in English as well as new arrivals who spoke little or no English at all. The NPD's EAL-status indicator did not provide any information about pupils' proficiency in English – which was likely to be the major factor influencing educational achievement.

The report therefore recommended that the Department for Education (DfE) introduce a new "proficiency in English" measure, to allow schools to better assess and respond to pupils' needs. In January 2017, the DfE did introduce this measure – based on one used in schools in Wales since 2009 – and started collecting proficiency-in-English data for all pupils in England.[4] However, this measure remained in place only for the 2017 and 2018 school censuses and was discontinued thereafter.

### *Strand & Hessel (2018)*

Although proficiency in English information was collected from schools in England in 2017 and 2018, these data were not made public (beyond a single table, published in DfE [2017]) nor made available for research. In order to explore the proficiency in English measure and its relationship to educational achievement, the authors of this report worked with local authorities (LAs) to collect data from a large, nationally representative sample of pupils. The sample obtained included over 140,000 pupils in 1,569 schools

[4] Proficiency in English was measured on a five-point scale: A = New to English; B = Early Acquisition; C = Developing Competence; D = Competent; and E = Fluent.

across six LAs, with data matched to pupils' national assessment results at ages 5, 7, 11, and 16. Key findings included:

- Proficiency in English varied widely across the group of pupils who spoke EAL.
- Age – rather than gender, ethnic group, or eligibility for free school meals (FSM) – was the most important factor related to pupils' English-language proficiency. Nearly three-quarters of pupils were still acquiring proficiency by the end of Reception (age 5); this figure dropped to just under half still acquiring proficiency by the end of key stage 1 (age 7), just under a quarter by the end of key stage 2 (age 11) and one in six by the end of key stage 4 (age 16).
- Based on the above, language support is especially important in the early years of primary education, but is still crucial for the relatively small proportion of pupils still acquiring proficiency in later years of schooling.
- Proficiency in English was a powerful predictor of educational achievement, explaining 22% of the variation in educational achievement within the EAL group. In comparison, about 3–4% of this variation could be explained by other background factors such as gender, FSM eligibility, and ethnic group.
- Low proficiency in English was associated with lower achievement than corresponding national averages. However, pupils who were classed as "Developing Competence" on the English-language proficiency scale reached close to the national average for educational achievement, and those who were "Competent" or "Fluent" scored significantly higher than their peers for whom English was the first language.

This report recommended reinstatement of the measurement of proficiency in English in the school census in England, following its discontinuation after 2018. It further recommended the inclusion of proficiency-in-English data within the NPD for research purposes. Finally, the report recommended that even if not required to provide such data for the school census, schools should continue to assess their pupils' English-language proficiency, in order to better understand and address their needs.

### *Strand & Lindorff (2020)*

This report used data from Wales to explore how long it took for pupils to reach English-language proficiency – from a starting point of "New to English" on the five-point scale – and for how long these pupils needed to receive specialised language support. The sample for this study consisted of just under 5,500 pupils who spoke EAL. These pupils entered Reception (age 4/5) in Wales between 2009 and 2011, and were followed up through to the end of Year 6 (i.e. the end of primary school, around age 11). The report focused on the time required for at least 50% of pupils in the sample to transition between the various levels of proficiency. Key findings included:

- Of the pupils entering Reception who were classified as “New to English”, over half (59%) were recorded as in “Early Acquisition” by year 2, and over half (51%) as “Developing Competence” by year 4. Only around one-third (31%) were classed as “Competent” or “Fluent” by the end of year 6, however.
- Put another way, the majority of pupils starting primary education as “New to English” will take more than six years to be rated as “Competent” or “Fluent” in English. This finding aligns with research from the USA suggesting that it takes between four and eight years to acquire English-language proficiency.
- Based on a sample of 1,839 pupils tracked through to the end of primary school, “New to English” pupils who joined schools in later years (between year 1 and year 5, or ages 5/6 to 9/10) could be expected to make about the same rate of progress as those who entered in Reception.
- Other issues identified included: consistency in interpretation concerning the distinction between “Competent” and “Fluent” on the proficiency scale; demographic factors associated with making progress in proficiency; and the relationships between proficiency in English and educational achievement at ages 7, 11, 14, and 16.

A major conclusion of this report concerned implications for funding. Whereas the national funding formula in England provides targeted funding for EAL pupils for three years after they join the English school system, the report’s findings suggested that this is not enough time to gain language proficiency – and therefore not enough time for these pupils to fully access the curriculum.

### *Strand & Lindorff (2021)*

This report extended the previous one with an analysis of the same dataset from Wales, this time using multilevel statistical models to delve further into variations in proficiency in English across schools and LAs; the length of time taken to gain proficiency; and the relationships between proficiency in English and educational achievement, and other pupil background characteristics. Key findings included:

- Schools and LAs varied substantially in their assessments of proficiency in English, as well as in the average time taken to progress between the levels. The variation was much greater than that found in other teacher-assessed educational outcomes, such as achievement at key stages 1 and 2. This underscores the importance of robust moderation procedures and clear and consistent definitions and criteria to underpin assessments of English-language proficiency.
- Proficiency in English was strongly related to achievement at key stages 1 and 2 (ages 7 and 11, respectively). Among EAL pupils, those acquiring proficiency (“New to English”, “Early Acquisition”, or “Developing Competence”) scored significantly below MLE-speaking peers on average; while those rated as “Competent” or “Fluent” scored significantly higher than the MLE-speaking group. This result further underscores the need for a measure of proficiency in English, where the EAL indicator alone is not sufficient to capture pupils’ language learning needs.

- On average, EAL pupils in the "White Other" ethnic group took significantly longer to progress through levels of proficiency, and had lower educational achievement at key stages 1 and 2 compared to other ethnic minority groups.
- After accounting for the clustering of pupils in schools, and controlling for pupil background factors, the proportion of pupils who were acquiring proficiency in English (i.e. needing language support) was not associated with levels of achievement for all pupils in a given school, nor with levels of achievement specifically for MLE-speaking pupils. The report noted that this finding might change, however, given a revision of the Welsh funding formula: at the time the data for the report were collected, the funding formula had taken account of the number of pupils acquiring proficiency in English – but by 2020 this was no longer included.
- Attending a school with a high proportion of pupils eligible for FSM was associated with lower educational achievement, over and above the effects of individual deprivation (proxied via FSM eligibility). This effect was not specific to EAL pupils, but remains worth highlighting due to its implications for funding allocation – in particular, that it might be appropriate to allocate more funding to schools with the highest proportions of pupils eligible for FSM.
- EAL pupils with high levels of proficiency (particularly those rated as "Fluent") seemed to be re-coded as monolingual (i.e. non-EAL) in some schools, suggesting that the EAL indicator was being conflated with "needing language support". Given that EAL status is supposed to be defined by a child's exposure to a language other than English during their early development, the status should not change over time. This confusion of EAL status with fluency further underscores the need for a separate measure of Proficiency in English in addition to the EAL indicator, as the two have distinct meanings.

### *Lindorff, Strand & Au (2024)*

This was the interim report for the present project, which was designed to update the findings of the Strand, Malmberg, and Hall (2015) report 10 years later based on data from 2023.

Access to individual pupil data requires a formal application to the DfE England, and the timeline from application to receipt of data can be considerable. As such, the interim report involved an analysis of publicly available aggregate data while awaiting the processing of an application for individual pupil data.

The emphasis in the interim report was on trends over time based on those aggregate data, particularly in the relationships between EAL status and educational achievement at different ages (5, 7, 11, and 16) and across different subject areas (e.g. reading, writing, punctuation and spelling, mathematics), as well as in patterns of stability or change in these results over a decade (2013–2023). We have included an edited version of the main content of the interim report within this final report (see Chapters 3 and 4) to allow the reader to access findings from the project in one comprehensive document.

## The present research

Building on the interim report findings, the present report includes analyses of individual-level National Pupil Database (NPD) data to provide more nuanced insight into the educational achievement of EAL pupils in England, including in relation to other pupil background characteristics such as ethnic group, age group, and FSM eligibility.

We use descriptive statistics and regression analyses, similarly to the Strand, Malmberg and Hall (2015) report, to look at the relationships between EAL and attainment at different key stages of compulsory education including after accounting for other pupil background variables. We place particular emphasis on year of entry to the NPD as proxy for year of entry to the education system in England, as we find that this shows a distinct pattern of lower attainment for EAL pupils who join in later years, while this does not apply to their MLE-speaking peers.

We also use multilevel models to look at how the effect of speaking EAL on attainment at ages 11 and 16 (key stages 2 and 4) varies across schools and regions, as well as the extent to which school composition (percent EAL-status and percent FSM-eligible pupils in a school) can help to explain any such variation.

We consider throughout how these results compare to the findings from the Strand, Malmberg and Hall (2015) report that used the NPD data from 10 years earlier (2013).

Key research questions answered in this report are:

- How is the size of any EAL attainment gap moderated by other pupil demographics (e.g. ethnic group, FSM eligibility, neighbourhood deprivation, gender, special educational needs)?
- Can these gaps be accounted for by socioeconomic factors, such as eligibility for FSM or neighbourhood deprivation?
- Do any school-level factors, such as concentrations of poverty and language needs (measured by percent FSM-eligible and percent EAL-status, respectively), explain further variability in pupil achievement, over and above pupil-level variables?
- Are there particular regions where the gaps are wider than others? Do the data suggest any reasons for this?

# 2. Measures and methods

In this chapter, we provide details about the data used in this report and the analytical approaches used to analyse it.

All of the analysis in this project relied on secondary administrative data, and this research was undertaken in two main phases.

The first phase, as noted in the previous chapter, focused on publicly available data while awaiting the delivery of individual-pupil-level data. An interim report (Lindorff, Strand & Au, 2024) was produced based on the analyses of the public, aggregate (e.g. school, local authority and region) data.

All data used in the interim report came from publicly available sources. The main source was the Department for Education (England) webpage, "Explore education statistics" (https://explore-education-statistics.service.gov.uk), which allows users to browse available data and create custom tables, always reported in aggregate (e.g. by school phase, region, LA, or school). Other sources included the school-level underlying data for the DfE's statistical release, "Schools, pupils and their characteristics", available at https://explore-education-statistics.service.gov.uk/find-statistics/school-pupils-and-their-characteristics/2022-23. Historical information was drawn from previous reports (i.e. not from underlying/primary data), including those by Strand, Malmberg, and Hall (2015) and Strand and Hessel (2018) where available.

The analysis in the interim report was descriptive; its primary emphasis was on the size, distribution, and change over time of the EAL-pupil population in England, and secondly on patterns and gaps in achievement, at various key stages, by EAL status. Where possible using the aggregate data, effect sizes (e.g. Odds Ratios; ORs) were calculated to allow for comparisons over time even when assessments and their scoring had changed.

The second phase of analysis involves using individual pupil data requested and obtained from the Department for Education. Ethical clearance was obtained from the University of Oxford's Central University Research Ethics Committee (reference EDUC_C1A_24_163). All analysis of individual pupil data was undertaken in the Office for National Statistics (ONS) Secure Research Service (SRS), and all statistical outputs had to be cleared by the ONS Statistical Support team to ensure that tables and figures published in this report minimise any risk of disclosure (e.g. suppressing statistics based on counts below 10).

### *Focal school year (2022/23)*

Although at the time of requesting individual-level data for this project, demographic data was available from the January 2024 school census – and thus the 2023/24 academic year – the most recent published assessment results are those from summer 2023 (i.e.

the 2022/23 academic year). To ensure consistency when referring to the "year", this report and the interim report that preceded it use the 2022/23 school year for both the demographic and academic data. Similarly, the previous report by Strand, Malmberg, and Hall (2015) was published in 2015 but used data from 2012/13. The 2022/23 school year used in the present report is therefore exactly 10 years on from that used in 2015.

# Measures

## *Educational attainment*

We use numeric scores/levels as well as threshold measures of attainment for each age group included in the report.

### *Early years foundation stage (EYFS), age 5*

Children are assessed against a set of Early Learning Goals (ELGs; 17 in total) in 7 areas of learning (communication and language; personal, social & emotional development; physical development; literacy; mathematics; understanding the world; and expressive arts and design) at the end of reception. This is called the EYFS Profile (EYFSP), and is intended as a summative assessment of a child's development at age 5 and a support for the transition to year 1 (DfE, 2024).

Teachers judge whether a child has met each ELG or is still "emerging", and a child is deemed to have attained a Good Level of Development (GLD) if they meet ELGs in the "prime" areas of development: communication and language; personal, social and emotional development; and physical development).

We use total ELGs attained as a continuous measure in descriptive analyses as well as attainment of a GLD as a threshold measure.

### *Key stage 1, age 7*

In 2022/23, testing at this key stage was statutory in England, though this has since changed. Pupils were given two papers in reading and two in mathematics (including arithmetic and reasoning). There was also an optional grammar, punctuation and spelling test that we use in some descriptive analysis but do not focus on in this report. Pupils were given raw scores on these tests, which were then converted into scaled scores, and in turn used to inform teacher assessments of how a pupil performed throughout the key stage (DfE, 2023). Teacher assessment consists of judging whether a pupil is working at a pre-key stage standard, working toward the expected standard, working at the expected standard or working at greater depth within the expected standard. These are the outcomes available in the NPD, which can be treated as ordinal, but we focus in our main analyses for this age group on a threshold measure of whether or not a pupil is working at the expected standard or above.

### *Key stage 2, age 11*

At the end of key stage 2 (year 6, age 11), pupils are assessed in English grammar, punctuation and spelling (GPS), reading, and mathematics. Raw scores on these assessments are scaled so that 100 represents meeting the expected standard (DfE, 2025). In our analyses we use the scaled scores (particularly in reading and maths), and sometimes whether or not a pupil is working at the expected standard (derived from the scaled score in a subject area) as a threshold measure to compute percent of pupils meeting the expected standard or above in descriptive tables.

### *Key stage 4, age 16*

Although there have been changes to assessments at the end of secondary school since the Strand, Malmberg and Hall (2015) report, GCSE or equivalent assessments are still administered to this age group. Attainment 8 points scores are a way of representing attainment at this stage, where scores are calculated best on a pupil's best 8 GCSE or equivalent results, including English and maths (DfE, 2025). Scores are computed such that English and maths count doubly (as long as both English literature and language are taken), top three scores are included from English Baccalaureate (EBacc) subjects (sciences, computer science, history, geography, and languages), and then top three scores are included from remaining subjects, EBacc or otherwise, each grade for a subject is assigned a point score, and then averaged to get the Attainment 8 (sum divided by ten).

We use Attainment 8 as our main measure of attainment in analyses for key stage 4, but in some descriptives we also use a threshold measure of whether or not pupils achieved 5 or more passes including English and maths.

## *Pupil background variables*

### *EAL status*

Of course, the most important pupil background variable in our analysis involves an indicator of whether or not a pupil uses EAL. This is derived from the NPD variable "*LanguageGroupMajor_SPR23"*, with categories "English", "Other than English", and "Unclassified". We treat "Unclassified" as missing information and derive our binary EAL indicator from the other categories, where "Other than English" constitutes EAL status and "English" is what we call monolingual English (MLE) throughout this report.

### *Free school meals (FSM)*

Entitlement to FSM is based on low family income, and is a coarse but useful proxy for economic disadvantage that is available in the NPD. There are several different FSM variables; we use mainly one labelled "*EVERFSM_6_P*", which is a flag to indicate if a pupil has ever been recorded as eligible for free school meals at any time in the last 6

years. This is used in Pupil Premium calculations and has been collected since 2015/16. We also use "*FSMEligible"*, which is an indicator of whether a pupil is eligible for FSM on the day of school census data collection – this is a somewhat less stable measure, which is why we generally rely more on the indicator of whether a pupil has been FSM-eligible within the last 6 years.

### *Neighbourhood deprivation*

We use the Income Deprivation Affecting Children Index (IDACI) score in the NPD ("*IDACIScore"),* which is based on a pupil's postcode and normalised to have a mean of 0 and standard deviation of 1. We also sometimes convert this to quintiles for descriptive tables, as this can be useful to show patterns across very low to very high socioeconomic deprivation.

### *Age within year*

"*MonthOfBirth"* is available in the NPD, and we recode this into categories of "Autumn" (September through December), "Spring" (January through April), and "Summer" (May through August) birth seasons for onward analysis.

### *Gender*

In the NPD, the "*Gender"* variable we use in onward analysis is coded as "Male" or "Female", or else missing.

### *Ethnic group*

We use the "*EthnicGroupMinor"* variable in the NPD for our analysis, but we recode slightly to deal with the problem of low counts in some of the original categories; this is partly because very small counts are problematic in some types of analysis, but also because very small counts can risk being disclosive.

We use the "*EthnicGroupMinor"* variable in the NPD for our analysis, but we recode slightly to deal with the problem of low counts in some of the original categories; this is partly because very small counts are problematic in some types of analysis, but also again because very small counts can risk being disclosive. There are 18 categories in the original variable, the same categories used in government surveys:

- White British
- White Irish
- Irish Traveller
- Gypsy/Roma
- Other White background
- Mixed White & Black African
- Mixed White & Black Caribbean
- Mixed White & Asian

- Other mixed background
- Indian
- Pakistani
- Bangladeshi
- Other Asian background
- Black African
- Black Caribbean
- Other Black background
- Chinese
- Any other background
- Refused, not obtained or unclassified

We sometimes use these categories as they are, when counts within categories are sufficiently high. Often, however, we have to collapse categories to facilitate onward analysis or to avoid reporting results based on groups smaller than 10. In many of our descriptive results we combine Traveller groups as they can be very small numbers, and for regression analyses we often use an 8-category ethnic group variable derived from the above:

- White British
- White Other
- Black African and Mixed White and African
- Black Caribbean and Mixed White and Caribbean
- Indian
- Pakistani
- Bangladeshi
- Asian Other/Chinese/Mixed White and Asian
- Any Other

### *Special educational needs (SEN)*

There are a number of different variables with a variety of information about SEN in the NPD. We focus for simplicity and clarity on the level of need, recorded as "*SENProvision*", with categories of "No SEN", "SEN support", and "Education, Health and Care Plan", with the latter representing the highest stage, or level, of need.

### *Year of entry*

This variable is derived from matching records for pupils across years to see in which year they first appear in the NPD, as a proxy for when they arrived in England (and for EAL pupils, when they would have begun to acquire English-language proficiency). This is not a perfect measure, of course, as there are other reasons why a pupil might not be in the NPD, and pupils can also have arrived from countries with English as the official or dominant language. Nonetheless, together with the EAL status measure, this is a useful measure to help us to understand where pupils may be in terms of their language needs, and how this relates to educational attainment.

### *School variables*

At the school level, we have only two compositional variables, both derived from the entire population recorded as being in a given school in the 2023 census. One is the percentage of EAL pupils, and the other is the percentage of pupils eligible for FSM (via the "*EVERFSM_6_P*" measure). We centre these around the mean across all schools, which is a useful technique to allow us to test and interpret interactions between these school composition variables and individual pupils' EAL and FSM statuses.

### *Geographical region*

We use the 9 geographical regions of England to consider regional variation in the prevalence of EAL pupils as well as their patterns of attainment. In descriptive analyses we also consider prevalence across 153 local authorities.

More documentation on NPD data can be found at www.find-npd-data.education.gov.uk/

## Analytical approach

In general, we build up our analyses from basic descriptive statistics to multivariate analyses to look at the relationships between EAL status and educational attainment, ultimately taking into account the range of above-described pupil background and school context, as well as region.

Our analyses in Chapters 3–5 focus only on descriptive statistics using aggregate, publicly available data. In Chapter 6, we use logistic regression (for threshold measures for EYFS and key stage 1) and linear regression (for continuous measures for key stage 2 and key stage 4) to contextualise the relationship between EAL status and attainment. We run each regression for all pupils (to include the effect of EAL status) as well as separately for the EAL and MLE groups to examine how the impact of other pupil background variables may differ.

In Chapter 7, we use multilevel analysis, building models up from simplest to more complex, to consider whether and how EAL gaps in attainment may vary across schools and regions. Our modelling steps generally involve:

**Step 0:** Empty model, with no predictors

**Step 1:** Include EAL status

**Step 2:** Include other pupil background variables

**Step 3:** Include year of entry

**Step 4:** Include random slopes (this means allowing a pupil variable's effect to vary across schools)

**Step 5**: Include school composition variables

**Step 6:** Test interactions between school composition and individual background to see whether this explains any variation in effects across schools

**Step 7:** Include region

We only include schools with a minimum number (10) of pupil records in the NPD for 2023, and schools with at least 3 EAL pupils in the multilevel analyses, in order to avoid biasing estimates, for example, with results based on a single student within a school. This means that the analytic samples in multilevel models for KS2 and KS4 are not directly comparable to those in earlier sections, which included all available pupil records with full information on the relevant pupil background variables and educational achievement measures.

This is a fairly standard approach to multilevel modelling that allows us to consider how much of the variance in attainment (at key stage 2 and key stage 4) each step explains as well as the size and significance of coefficients representing relationships of predictor variables to educational achievement outcomes.

# 3. Growth in the prevalence of EAL pupils over time

## Frequencies and distributions

Table 1 shows the numbers and percentages of EAL pupils in primary schools, secondary schools and overall between 1997 and 2024.

**Table 1: Number and percentage of pupils with a first language other than English (i.e. EAL) by year in England, 1997–2024**

| | Primary | | Secondary | | All pupils | |
|---|---|---|---|---|---|---|
| **Year** | First language other than English (N) | First language other than English (%) | First language other than English (N) | First language other than English (%) | First language other than English (N) | First language other than English (%) |
| 1997 | 276,200 | 7.8 | 222,800 | 7.3 | 499,000 | 7.6 |
| 1998 | 303,635 | 8.5 | 238,532 | 7.8 | 542,167 | 8.2 |
| 1999 | 301,800 | 8.4 | 244,684 | 7.8 | 546,484 | 8.1 |
| 2000 | 311,512 | 8.7 | 255,256 | 8.0 | 566,768 | 8.4 |
| 2001 | 331,512 | 9.3 | 258,893 | 8.0 | 590,405 | 8.7 |
| 2002 | 350,483 | 10.0 | 282,235 | 8.6 | 632,718 | 9.4 |
| 2003 | 362,690 | 10.4 | 291,110 | 8.8 | 653,800 | 9.7 |
| 2004 | 376,600 | 11.0 | 292,890 | 8.8 | 669,490 | 10.0 |
| 2005 | 395,270 | 11.6 | 299,200 | 9.0 | 694,470 | 10.5 |
| 2006 | 419,600 | 12.5 | 314,950 | 9.5 | 734,550 | 11.2 |
| 2007 | 447,650 | 13.5 | 342,140 | 10.5 | 789,790 | 12.2 |
| 2008 | 470,080 | 14.4 | 354,300 | 10.8 | 824,380 | 12.9 |
| 2009 | 491,340 | 15.2 | 362,600 | 11.1 | 853,940 | 13.5 |
| 2010 | 518,020 | 16.0 | 378,210 | 11.6 | 896,230 | 14.1 |
| 2011 | 547,030 | 16.8 | 399,550 | 12.3 | 946,580 | 14.9 |
| 2012 | 577,555 | 17.5 | 417,765 | 12.9 | 995,320 | 15.6 |
| 2013 | 612,160 | 18.1 | 436,150 | 13.6 | 1,048,310 | 16.2 |
| 2014 | 654,405 | 18.7 | 455,205 | 14.3 | 1,109,610 | 16.9 |
| 2015 | 693,815 | 19.4 | 477,286 | 15.0 | 1,171,101 | 17.6 |
| 2016 | 734,355 | 20.1 | 499,061 | 15.7 | 1,233,416 | 18.3 |
| 2017 | 771,083 | 20.6 | 520,083 | 16.2 | 1,291,166 | 18.8 |
| 2018 | 998,829 | 21.2 | 539,895 | 16.6 | 1,538,724 | 19.6 |
| 2019 | 1,002,292 | 21.2 | 561,002 | 16.9 | 1,563,294 | 19.6 |
| 2020 | 1,002,387 | 21.3 | 584,565 | 17.1 | 1,586,952 | 19.8 |
| 2021 | 975,238 | 20.9 | 601,238 | 17.2 | 1,576,476 | 19.5 |
| 2022 | 987,252 | 21.2 | 623,631 | 17.5 | 1,610,883 | 19.8 |
| 2023 | 1,022,969 | 22.0 | 658,504 | 18.1 | 1,681,473 | 20.5 |
| 2024 | 1,050,199 | 22.8 | 684,422 | 18.6 | 1,734,621 | 21.1 |

*Note: Percentages for "All pupils" are a weighted average of primary and secondary percentages (authors' own calculation).*

In January 1997, the earliest date at which consistent national figures could be found, just under 500,000 pupils were recorded as EAL learners – amounting to approximately 7.6% of the English compulsory school population aged 5–16 years. By 2013, this had increased to over 1 million pupils, representing 16.2% of the compulsory school population. In 2023, almost 1.75 million EAL pupils were recorded, representing over 20% of all pupils aged 5-16 in English schools.

While the rate of increase in the proportion of pupils recorded as EAL learners levelled off slightly between 2018 and 2022, further increases can be seen from 2022 to 2024 in Table 1.

In addition to the overall increase in the proportion of the pupil population recorded as EAL learners between 1997 and 2023, it is also apparent that the gap between the proportion of EAL pupils recorded in primary versus secondary school changed (see Figure 1). In 1997, 7.8% of primary school children were recorded as EAL learners, compared to a similar 7.3% of the secondary school population; by 2013, 18.1% of primary school children were recorded as EAL learners, compared to only 13.6% of secondary school pupils. Since 2013, however, this gap remained fairly stable, with only some small fluctuations. As noted by Strand, Malmberg, and Hall (2015), the higher percentages of EAL pupils recorded in primary schools may reflect some issues with recording practices; for example, in some cases, secondary schools may be updating and changing pupils' EAL status from that on their historical primary school records.

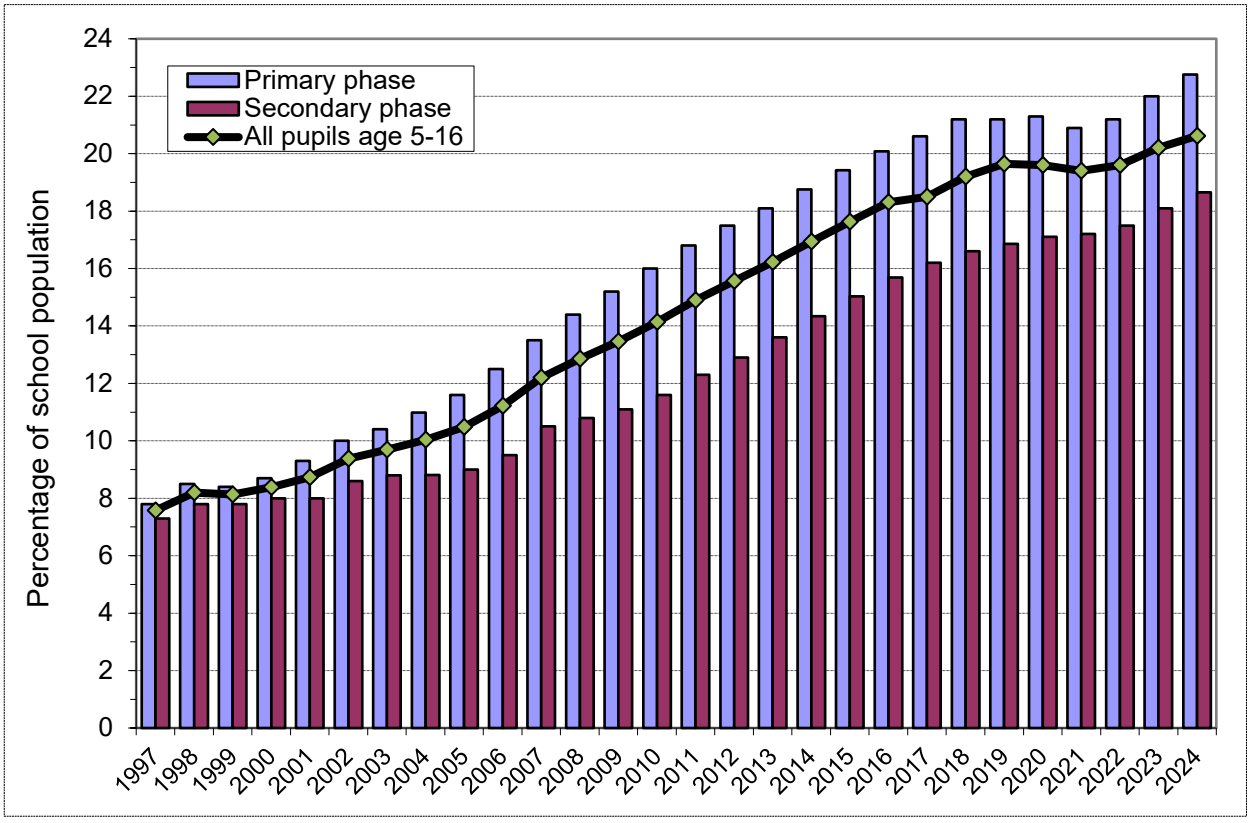



**Figure 1: Percentage of EAL pupils by phase: England, 1997–2024**

## EAL status and ethnic group

As noted in previous research, EAL status is not a reliable indicator of ethnic-minority status. The proportion of pupils from ethnic minorities in the English school-age population is much larger than the proportion recorded as EAL pupils; while 20.5% of all pupils were recorded as EAL learners in 2023, over a third (37.7%) belonged to ethnic minority groups.

Table 2 shows the proportion of pupils within each ethnic group recorded as EAL learners in 2013 and 2023. Some ethnic groups had particularly high proportions. Around three-quarters of pupils from the Chinese (79%), Any Other (78%), White Other (76%) and Bangladeshi (71%) groups were EAL learners, as are around two-thirds of Other Asian (67%), Indian (62%) and Pakistani (62%) pupils. In addition, around half of Traveller Gypsy/Roma (53%) and Black African (47%) pupils used EAL. Among other groups the proportions were substantially lower.

**Table 2: Proportion of EAL learners within each ethnic group in England, 2013 & 2023**

| | 2013 | | 2023 | |
|---|---|---|---|---|
| **Ethnic group** | **Total roll** | **% EAL** | **Total roll** | **% EAL** |
| White British | 4,917,779 | 0.5% | 5,298,642 | 1.1% |
| White Irish | 21,163 | 1.3% | 21,061 | 2.5% |
| Traveller Irish | 4,890 | 2.3% | 6,862 | 1.4% |
| Traveller Gypsy/Roma | 17,716 | 44.4% | 28,217 | 52.7% |
| White other groups | 302,924 | 73.2% | 606,065 | 75.7% |
| Mixed White & African | 39,224 | 22.5% | 78,067 | 20.4% |
| Mixed White & Caribbean | 95,522 | 2.0% | 134,035 | 2.8% |
| Mixed White & Asian | 71,748 | 16.1% | 139,231 | 17.9% |
| Any other mixed | 113,131 | 23.2% | 224,825 | 27.4% |
| Indian | 173,989 | 73.2% | 309,773 | 62.1% |
| Pakistani | 269,359 | 81.9% | 381,764 | 61.9% |
| Bangladeshi | 108,616 | 91.3% | 151,131 | 71.0% |
| Any other Asian | 109,772 | 75.1% | 178,132 | 67.2% |
| Black African | 224,417 | 64.8% | 360,100 | 47.0% |
| Black Caribbean | 89,360 | 3.7% | 79,984 | 3.8% |
| Black other groups | 43,570 | 33.9% | 65,469 | 31.4% |
| Chinese | 25,113 | 78.3% | 58,385 | 79.0% |
| Any other ethnic group | 102,347 | 82.5% | 195,083 | 77.7% |
| Unclassified/Refused | 57,899 | 15.6% | 126,671 | 25.8% |
| **Total** | **6,788,539** | **16.3%** | **8,443,497** | **20.3%** |

*Note: Data include pupils from reception through to year 11. The small proportion of pupils where first language is unclassified are excluded.*

While the total proportion of EAL pupils increased from 16.3% in 2013 to 20.3% in 2023, there were notable decreases within some ethnic groups. In particular, the proportion of EAL pupils among all Asian groups – Indian (73% to 62%), Pakistani (82% to 62%), Bangladeshi (91% to 71%) and Other Asian (75% to 67%) – as well as among the Black African group (65% to 47%). This may reflect the settled status of these groups, with a decreasing proportion of pupils exposed to a heritage language at home. In contrast, the proportion of EAL learners among pupils of Chinese (78% to 79%) and White Other (73% to 76%) ethnicity remained very high, perhaps reflecting continued inward migration of young people among these ethnic groups.

To interpret this data fully, it is important to also know how the proportion of pupils from different ethnic groups changed over time. Table 3 shows the proportion of pupils from each ethnic group making up the total English school population in 2003 (when these ethnic codes were first introduced), 2013 and 2023. Over 20 years, the “White British” share of the school-age population in England decreased by more than 20%, from 83.2% to 62.3%; or, put differently, the ethnic-minority population increased from 16.8% to 37.7% over the same period.

The greatest increases within this 20-year timeframe were in the “Any Other White” (+5.2%; from 2.1% to 7.3%) and “Black African” (+3.2%; from 1.7% to 4.9%) groups; this was also the case for the 10-year increase from 2003 to 2013. As noted above, these two groups both contained large proportions of pupils recorded as EAL learners, and also tended to have larger achievement gaps associated with this status (see Strand et al. 2015).

**Table 3: Proportion of ethnic minority pupils: England 2003, 2013 & 2023**

| Ethnic group | 2003 | 2013 | 2023 | *20-year change* |
|---|---|---|---|---|
| **White British** | **83.2%** | **73.4%** | **62.3%** | ***-20.9%*** |
| **White Other** | **2.6%** | **5.0%** | **8.0%** | ***5.4%*** |
| Irish | 0.4% | 0.3% | 0.2% | *-0.2%* |
| Traveler of Irish heritage | 0.1% | 0.1% | 0.1% | *0.0%* |
| Gypsy/Roma | 0.1% | 0.3% | 0.3% | *0.2%* |
| Any Other White background | 2.1% | 4.3% | 7.3% | *5.2%* |
| **Mixed** | **2.6%** | **4.6%** | **7.1%** | ***4.5%*** |
| White & Black Caribbean | 0.9% | 1.4% | 1.6% | *0.7%* |
| White & Black African | 0.2% | 0.6% | 1.0% | *0.8%* |
| White & Asian | 0.5% | 1.0% | 1.7% | *1.2%* |
| Any Other Mixed background | 0.9% | 1.6% | 2.8% | *1.9%* |
| **Asian** | **6.8%** | **10.2%** | **13.6%** | ***6.8%*** |
| Indian | 2.4% | 2.6% | 4.1% | *1.7%* |
| Pakistani | 2.7% | 3.9% | 4.6% | *1.9%* |
| Bangladeshi | 1.1% | 1.6% | 1.8% | *0.7%* |
| Chinese | 0.4% | 0.4% | 0.8% | *0.4%* |
| Any Other Asian background | 0.6% | 1.6% | 2.3% | *1.7%* |
| **Black** | **3.6%** | **5.3%** | **6.6%** | ***3.0%*** |
| Caribbean | 1.5% | 1.4% | 0.9% | *-0.6%* |
| African | 1.7% | 3.3% | 4.9% | *3.2%* |
| Any Other Black background | 0.4% | 0.6% | 0.8% | *0.4%* |
| **Any Other ethnic group** | **0.8%** | **1.5%** | **2.4%** | ***1.6%*** |
| **Total** | **6,782,400** | **6,712,645** | **8,146,917** | ***20.1%*** |

# 4. Distribution of EAL pupils by region, local authority, and school

## Distribution by region

There was considerable variation in the proportions of EAL pupils across the nine regions of England (see Table 4). The lowest proportion (as of 2023) was in the North-East (8.3%) while the highest was in Greater London (44.0%).

In most regions, the proportion of pupils recorded as using EAL increased by around 4 to 5 percentage points between 2013 and 2023, except Greater London where the figure remained largely static (43.6% and 44.3% respectively). However, this masks average growth of 4.3 percentage points in Outer London and a decrease of almost 6 percentage points in Inner London. Inner London is therefore highly notable as the only area to record a decrease in the proportion of students using EAL over this time period.

**Table 4: Number and percentage of EAL pupils recorded by region**

| | 2013 | | | 2023 | | | |
|---|---|---|---|---|---|---|---|
| Region | Pri. % | Sec. % | Avg[a] EAL % | EAL N | EAL % | Total roll | Change |
| North-East | 6.1 | 4.4 | **5.3** | 33,193 | **8.3** | 398,425 | 3.1 |
| South-West | 5.9 | 4.3 | **5.1** | 72,562 | **9.4** | 773,802 | 4.3 |
| South-East | 11.6 | 9.1 | **10.4** | 210,084 | **15.7** | 1,343,746 | 5.3 |
| East of England | 12.2 | 8.9 | **10.6** | 152,291 | **15.9** | 963,220 | 5.3 |
| East Midlands | 12.0 | 9.3 | **10.7** | 122,848 | **16.9** | 732,319 | 6.2 |
| North-West | 13.2 | 9.2 | **11.2** | 192,681 | **16.8** | 1,150,005 | 5.6 |
| Yorkshire & the Humber | 15.8 | 11.3 | **13.6** | 145,170 | **17.1** | 852,629 | 3.5 |
| West Midlands | 19.9 | 14.9 | **17.4** | 210,450 | **22.1** | 956,029 | 4.6 |
| Outer London | 43.1 | 34.4 | **38.9** | 160,051 | **43.2** | 377,717 | 4.3 |
| Inner London[b] | 54.9 | 48.1 | **51.9** | 255,592 | **46.1** | 474,581 | -5.7 |
| London | 47.5 | 39.1 | **43.6** | 578,833 | **44.3** | 1,311,112 | 0.7 |
| **England** | 18.1 | 13.6 | **15.9** | 1,715,912 | **20.3** | 8,481,287 | 4.4 |

*Notes: Pri.= primary; Sec.= secondary. (a) 2013 data were only available for pupils of compulsory school age and separately for primary and secondary schools. The simple arithmetic average of the two has been taken here to give an overall EAL figure.*

*(b) For consistency between 2013 and 2023, "Inner London has been defined here as the following 15 boroughs: Camden, City of London, Greenwich, Hackney, Hammersmith & Fulham, Haringey, Islington, Kensington & Chelsea, Lambeth, Lewisham, Newham, Southwark, Tower Hamlets, Wandsworth and Westminster. Figures calculated excluding pupils recorded as unclassified.*

## *London analysis*

What lies behind the decrease in EAL pupils In Inner London is not clear. What constitutes “Inner London” has changed since 2013, with Haringey now classified as Inner London, and Newham also designated an Inner London borough in 2021. However, in our analysis we define the same 15 LAs as Inner London when calculating the 2013 and 2023 figures (see footnote to Table 4), so our data are consistent.

Borough-by-borough data for the 15 Inner London LAs is presented in Appendix Table A2. Only Lewisham showed a small (2.8%) increase, and this was from a very low base in 2013, where it recorded the lowest percentage of EAL pupils (30.6%) in Inner London. All other Inner London boroughs showed decreases, with large double-figure declines seen in two of the three boroughs with the highest percentage of EAL pupils in 2013 (Tower Hamlets from 73.2% to 61.4%, and Westminster from 66.7% to 53.9%).

One salient question is whether the decline in Inner London represented a gradual trend, or whether there were any marked discontinuities. Figure 2 presents the year-on-year percentage of EAL pupils, using data from 2011 through to 2024 for Inner and Outer London.

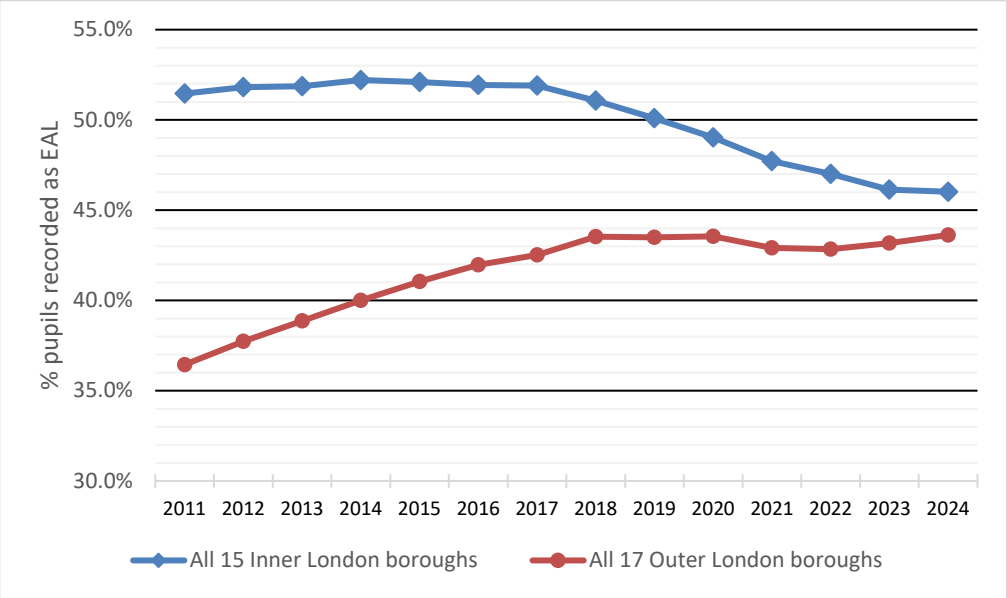



**Figure 2: Proportion of EAL learners in Inner and Outer London, 2011–2024**

It is apparent that the first dip in the percentage of EAL learners in Inner London was in 2018, and the drop was of the same size in each subsequent year through to 2023, though this may have levelled off in 2024. The proportion of EAL learners in Outer London also stopped increasing in 2018, and has been essentially static since this time. This therefore does not seem to reflect any Covid-19-related events, which we would expect to observe in the January 2021 and later figures.

The time trend data for each of the separate 32 London boroughs is given in Appendix Table A3. Figure 3 presents the data for 2011–2024 for each Inner London borough (excluding City of London for low counts risking disclosure). This essentially confirms the observations on Table A2 reported above, that Lewisham's increase was from a low base, and the biggest declines, those in Tower Hamlets and Westminster, were from boroughs that had the highest initial proportions of EAL learners. Nevertheless, it is notable that Newham showed a much smaller decline and, at 67%, was the London borough with the highest percentage of EAL learners – out of all 32 London boroughs – by 2024.

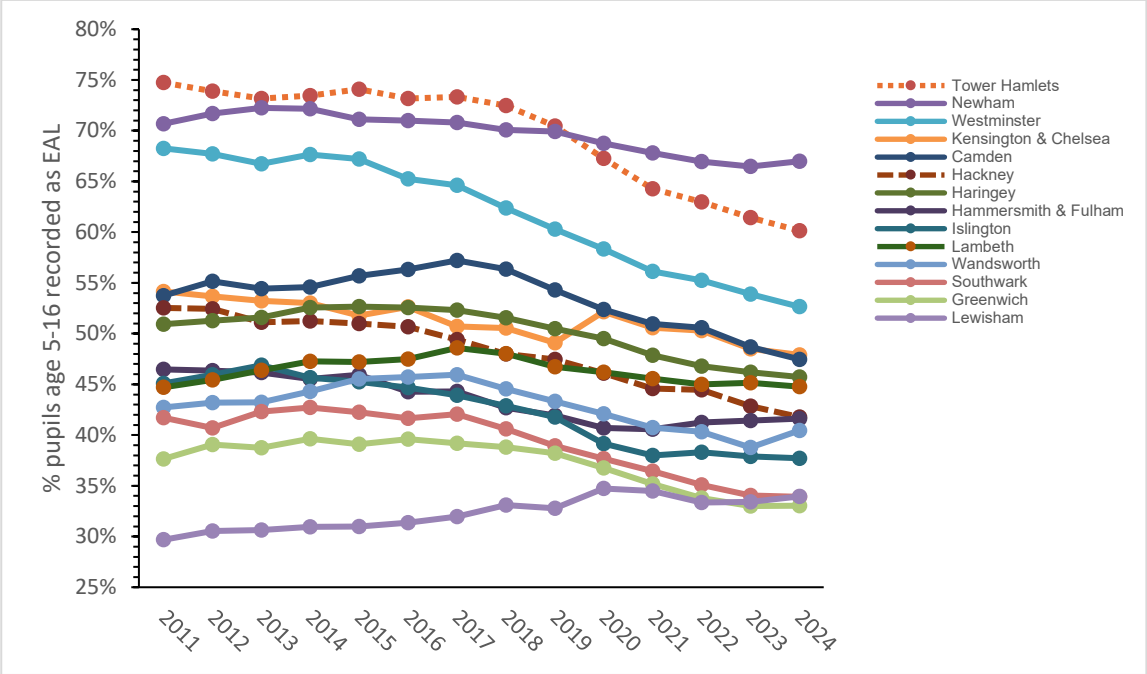



**Figure 3: Proportion EAL learners in each Inner London borough, 2011–2024**

Despite this overall decrease in the proportion of EAL learners in Inner London, it is important to note that as of 2024 Inner London remained the region with the highest proportion of EAL pupils (46%) of all the regions of England, and still accounted for eight of the 10 LAs in England with the highest proportion of EAL learners (more on this in the following section).

## Distribution by local authority

Figure 4 shows the percentage of pupils, banded into five groups, ranging from 0–12.5% up to over-50%, that were recorded as EAL learners in each LA in England as at 2023.[5] The highest percentages can be seen in urban areas, e.g. London, the West Midlands, and the North-West.

[5] This analysis includes all LAs in England (as of 2023) except for the Isles of Scilly, due to its low number of EAL pupils (<10).

Comparing these figures with the corresponding 2013 data (Strand, Malmberg & Hall, 2015, pp. 22–23), there appears to have been some outward spread from these urban areas, i.e. more of the surrounding LAs were in the 25%-and-above categories in 2023 than was previously the case in 2013. This suggests that language support needs may be more widely distributed across schools and LAs than was the case a decade ago.

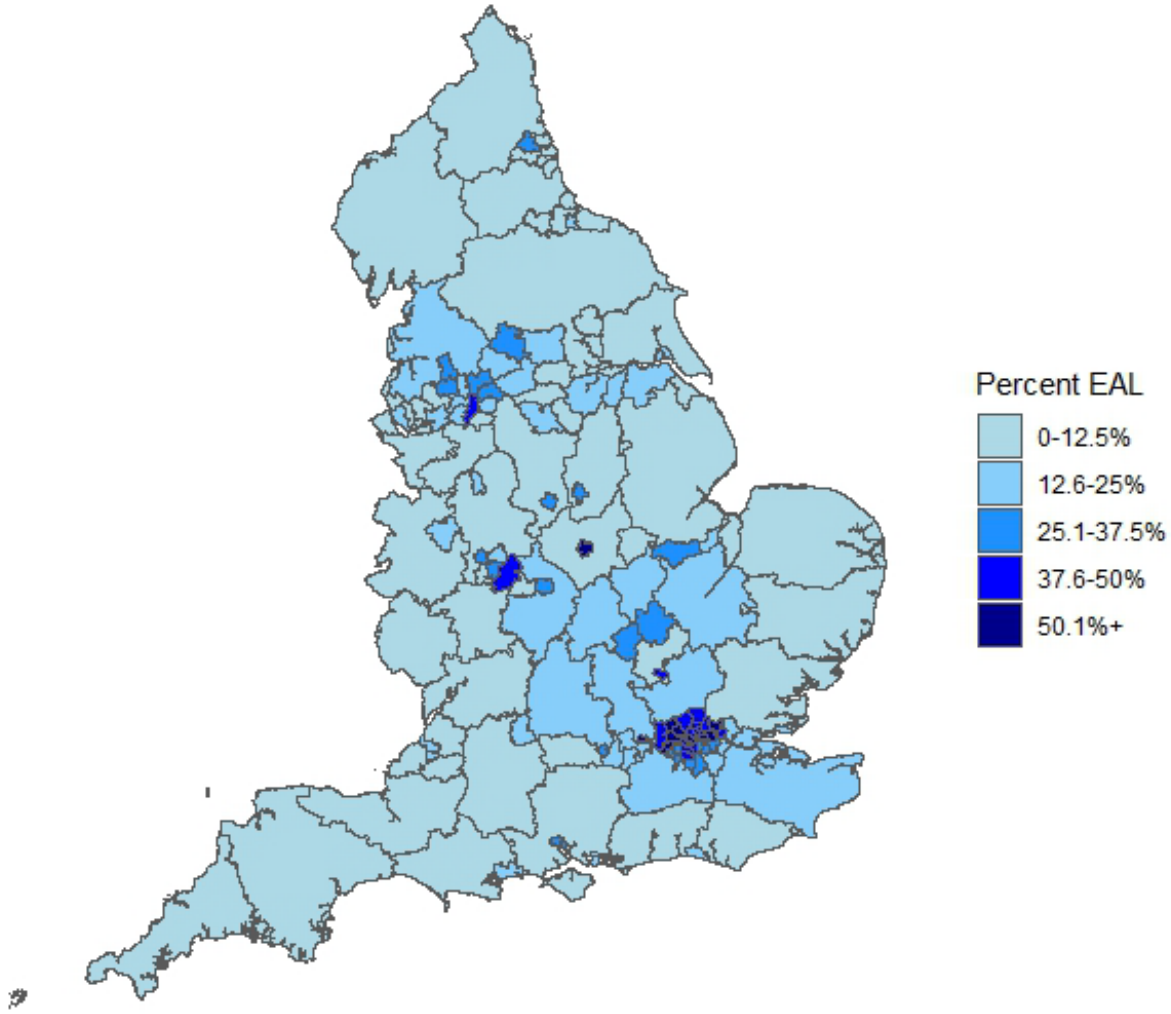



**Figure 4: Percentage of EAL pupils by local authority in England, January 2023**

Table 5 provides another view of the variation across LAs, focusing on the 20 LAs with, respectively, the highest and lowest proportion of EAL pupils. Although there were small changes in the composition of the top-20 group between 2013 and 2023, it remained consistent in that only a few of these LAs are located outside of the Greater London area (specifically Manchester, Leicester, Luton, and Slough in 2023). Similarly, the composition of the group of 20 LAs with the lowest percentages of EAL pupils changed only slightly since 2013.

**Table 5: Number and percentage of EAL pupils by local authority, 2023 (abbreviated to show only the top-20 and lowest-20 LAs)**

| Rank | LA | EAL N | EAL % | Total roll |
|---|---|---|---|---|
| 1 | Newham | 42722 | 66.1% | 64,675 |
| 2 | Harrow | 24822 | 63.2% | 39,279 |
| 3 | Brent | 30623 | 63.0% | 48,583 |
| 4 | Tower Hamlets | 28347 | 61.4% | 46,188 |
| 5 | Ealing | 32792 | 59.6% | 55,012 |
| 6 | Hounslow | 26931 | 58.6% | 45,967 |
| 7 | Redbridge | 33193 | 56.8% | 58,439 |
| 8 | Leicester | 33042 | 54.7% | 60,375 |
| 9 | Westminster | 11582 | 53.5% | 21,648 |
| 10 | Slough | 17584 | 51.6% | 34,056 |
| 11 | Luton | 20047 | 49.2% | 40,733 |
| 12 | Camden | 10512 | 48.3% | 21,775 |
| 13 | Kensington & Chelsea | 6490 | 48.1% | 13,487 |
| 14 | Hillingdon | 25326 | 47.5% | 53,270 |
| 15 | Barnet | 29476 | 47.2% | 62,481 |
| 16 | Enfield | 26492 | 47.1% | 56,270 |
| 17 | Barking & Dagenham | 21149 | 46.5% | 45,468 |
| 18 | Haringey | 17479 | 45.6% | 38,337 |
| 19 | Lambeth | 16395 | 44.8% | 36,601 |
| 20 | Manchester | 40613 | 43.6% | 93,201 |
| | | | | |
| 131 | South Tyneside | 1405 | 6.1% | 23,012 |
| 132 | North Yorkshire | 4793 | 5.8% | 83,133 |
| 133 | Wirral | 2799 | 5.5% | 51,193 |
| 134 | North Tyneside | 1700 | 5.4% | 31,560 |
| 135 | Torbay | 1095 | 5.4% | 31,560 |
| 136 | St. Helens | 1427 | 5.2% | 27,279 |
| 137 | Hartlepool | 794 | 5.2% | 15,141 |
| 138 | Devon | 5115 | 5.0% | 101,363 |
| 139 | Rutland | 295 | 4.8% | 6,105 |
| 140 | East Riding of Yorkshire | 2154 | 4.7% | 46,084 |
| 141 | Shropshire | 1888 | 4.7% | 40,001 |
| 142 | Halton | 812 | 4.3% | 19,052 |
| 143 | Cumbria | 2960 | 4.2% | 70,791 |
| 144 | Dorset | 1963 | 4.1% | 48,420 |
| 145 | Isle of Wight | 670 | 4.0% | 16,831 |
| 146 | County Durham | 2510 | 3.4% | 74,332 |
| 147 | Derbyshire | 3766 | 3.4% | 109,404 |
| 148 | Cornwall | 2183 | 2.9% | 74,578 |
| 149 | Northumberland | 1197 | 2.6% | 45,449 |
| 150 | Redcar and Cleveland | 517 | 2.4% | 21,330 |

*Note: Excludes Isles of Scilly and City of London, which have only 263 and 244 pupils respectively. Full data in Appendix A1.*

## Concentration of EAL learners within schools

Table 6 shows the numbers and percentages of schools with different proportions of EAL learners. The data are presented for primary schools, secondary schools, and all schools. Across both primary and secondary phases, EAL learners made up 5% or less of the school roll in around one-third of all schools; meanwhile, the population is over 50% EAL pupils in nearly 10% of primary schools and just over 8% of secondary schools. This was somewhat different to the distribution of EAL pupils across schools in 2013, at which point over half of all schools had less than 5% of pupils recorded as EAL learners; however, the percentage of all schools with over 50% EAL pupils did not change dramatically (from 8.4% in 2013 to 9.2% in 2023).

**Table 6: Percentage of maintained, mainstream schools by concentration of EAL pupils, 2023**

| % EAL pupils in the school | Primary schools | | | Secondary schools | | | All schools | | |
|---|---|---|---|---|---|---|---|---|---|
| | N | % | Cum.% | N | % | Cum.% | N | % | Cum.% |
| **0.1– 1** | 1,788 | **10.7** | 10.7 | 82 | **2.4** | 2.4 | 1,870 | **9.3** | 9.3 |
| **1.1– 5** | 4,545 | **27.1** | 37.8 | 921 | **26.7** | 29.1 | 5,466 | **27.0** | 36.3 |
| **5.1–10** | 2,848 | **17.0** | 54.7 | 711 | **20.7** | 49.8 | 3,559 | **17.6** | 53.9 |
| **10.1–20** | 2,691 | **16.0** | 70.8 | 664 | **19.3** | 69.1 | 3,355 | **16.6** | 70.5 |
| **20.1–30** | 1,502 | **9.0** | 79.7 | 383 | **11.1** | 80.2 | 1,885 | **9.3** | 79.8 |
| **30.1–40** | 1,065 | **6.4** | 86.1 | 245 | **7.1** | 87.3 | 1,310 | **6.5** | 86.3 |
| **40.1–50** | 756 | **4.5** | 90.6 | 159 | **4.6** | 91.9 | 915 | **4.5** | 90.8 |
| **50.1+** | 1,576 | **9.4** | 100.0 | 278 | **8.1** | 100.0 | 1,854 | **9.2** | 100.0 |
| **Total** | **16,771** | **100** | | **3,443** | **100** | | **20,214** | **100** | |

*Note: Data include all maintained, mainstream schools in England with more than 10 pupils on roll.*

Table 7 shows the numbers, percentages, and locations of the 1,854 schools in which a majority (over 50%) of pupils were recorded as EAL learners in 2023. Of these 1,854 schools, 888 are located in the Greater London area, constituting 46.8% of the primary schools and 54.0% percent of the secondary schools. However, there were also fairly large numbers of schools with high concentrations of EAL pupils in the West Midlands (n=244; 12.7% and 15.8% of primary and secondary schools, respectively); the North-West (n=215; 11.9% and 10.1%); and Yorkshire & the Humber (n=174; 9.6% and 7.9%).

This scenario – which is very similar to that noted by Strand, Malmberg, and Hall (2015) based on the corresponding 2013 data – highlights the importance of school-level data, revealing that high concentrations of EAL pupils can be present in small local areas, even where they appear lower across a broader geographic area.

**Table 7: Number and location of schools with a majority (>50%) of EAL pupils recorded in 2022/23**

| | Primary schools | | Secondary schools | | All schools | |
|---|---|---|---|---|---|---|
| Region | N | % | N | % | N | % |
| North-East | 19 | **1.2** | 1 | **0.4** | 20 | **1.1** |
| North-West | 187 | **11.9** | 28 | **10.1** | 215 | **11.6** |
| Yorkshire & the Humber | 152 | **9.6** | 22 | **7.9** | 174 | **9.4** |
| East Midlands | 100 | **6.3** | 15 | **5.4** | 115 | **6.2** |
| West Midlands | 200 | **12.7** | 44 | **15.8** | 244 | **13.2** |
| East of England | 68 | **4.3** | 8 | **2.9** | 76 | **4.1** |
| Greater London | 738 | **46.8** | 150 | **54.0** | 888 | **47.9** |
| South-East | 80 | **5.1** | 10 | **3.6** | 90 | **4.9** |
| South-West | 32 | **2.0** | 0 | **0.0** | 32 | **1.7** |
| **Total** | **1576** | | **278** | | **1854** | |

# 5. EAL status and educational achievement

In this section, we look at the relationship between educational achievement and EAL status across the early years foundation stage (age 5), key stage 1 (age 7), key stage 2 (age 11), and key stage 4 (age 16), using data from the summers of 2013, 2017, and 2023.

We focus purely on a descriptive analysis of the percentages of monolingual English (MLE) speakers and EAL pupils, respectively, who achieved key outcomes at the end of each key stage. We do not at this point attempt to understand what might have driven any achievement gaps that appear, our emphasis in this chapter is an initial understanding of these patterns over the decade from 2013 to 2023. Detailed analyses of key stage 2 reading and mathematics tests, and end of key stage 4 performance in GCSE examinations, are included in later chapters. These include multiple regression analyses to tease out the unique associations between achievement and a range of factors such as gender, relative age, economic disadvantage, gender, ethnicity and SEN alongside EAL status.

## Assessing gaps over time

Because the precise nature of the achievement measures has changed over time, a direct comparison of figures across time points is problematic. We address this by reporting effect size measures, which can be compared over time.

For threshold measures (e.g. meeting the expected standard or above), our interpretations focus on Odds Ratios (ORs), which show the success of EAL pupils *relative to* MLE-speakers, and as such can be compared over time even if the specific measures have changed. There is no universally accepted criterion to determine when an OR is considered educationally significant. However, in our previous work we have applied a rule of thumb that where the odds of success for a focal group are one-third lower or one-third higher than those for the reference group (3:4 or OR<0.75; 4:3 or OR>1.33, respectively), these are regarded as meaningful differences. To make it easy to see trends in the tables, ORs <0.75 are shown in red and ORs >1.33 in blue.

For continuous measures, such as test scores or performance scores, we focused on a statistic called Cohen's *d*. This compares the size of any gap in the mean scores of the two language groups to the typical variation in scores between different pupils, as indicated by the pooled standard deviation. We subtract the MLE mean from the EAL mean, so a negative value of *d* indicates EAL pupils had a lower mean score than MLE speakers, while a positive value of *d* indicates EAL pupils had a higher mean score than MLE speakers. Conventional thresholds to interpret the size of Cohen's *d* are that values of +/-0.20 are small, +/-0.50 are medium and +/-0.80 are large (Cohen, 1988). To make it easy to see trends in the tables that follow, values of *d* <-0.20 are shown in red and values of *d* >0.20 in blue.

## Early years foundation stage (age 5)

The results are presented in Table 8. In 2023, at age 5, EAL pupils were less likely than their MLE-speaking peers to attain the expected standard or above in literacy and in mathematics, and to attain a of "Good Level of Development" (GLD). The gap was around 7 percentage points in each of the three areas, with Odds Ratios ranging from OR=0.65 in mathematics to OR=0.74 for achieving a GLD. In terms of the continuous measure, the average number of Early Learning Goals (ELGs) achieved was 14.4 for MLE speakers and 13.2 for EAL speakers, a difference in effect size of Cohen's *d*= -0.24.

On the positive side, these gaps narrowed from 2013 on. For example, in 2013, the odds of EAL learners attaining a GLD were about two-thirds (OR=0.67) those of MLE-speaking pupils. In 2023, the odds were closer to three-quarters (OR=0.74), indicating relative improvement over time in the performance of EAL learners. The continuous measure tells a similar story with a decreasing gap over time, though still a non-negligible gap in 2023.

**Table 8: Achievement of EAL and monolingual-English-speaking pupils at the end of the early years foundation stage (EYFS) phase (age 5) in 2013, 2017, and 2023**

| Indicator | Pupil grouping | 2013 | 2017 | 2023 |
|---|---|---|---|---|
| Percentage of pupils with a **good level of development** | MLE | 53.6 | 73.0 | 69.3 |
| | EAL | 43.5 | 65.0 | 62.4 |
| | *Odds Ratio* | *0.67* | *0.69* | *0.74* |
| Percentage of pupils at expected level across all early learning goals in **literacy** | MLE | 73.0 | 77.0 | 71.8 |
| | EAL | 63.0 | 70.0 | 64.5 |
| | *Odds Ratio* | *0.63* | *0.70* | *0.71* |
| Percentage of pupils at expected level across all early learning goals in **mathematics** | MLE | 71.0 | 83.0 | 79.3 |
| | EAL | 62.0 | 74.0 | 71.5 |
| | *Odds Ratio* | *0.67* | *0.58* | *0.65* |
| Average points score [(a)] | MLE | *33.3 (7.3)* | *34.9 (7.4)* | *14.4 (5.8)* |
| | EAL | *30.9 (7.7)* | *32.8 (7.8)* | *13.2 (4.8)* |
| | *Cohen's d* | *-0.32* | *-0.29* | *-0.24* |

*Notes: (a) The EYFS was reformed in 2013 and again in 2021, with changes affecting both the educational goals themselves and the ways in which they were assessed – although the focus remained on broadly similar domains. These changes will affect the percentages in the data, but the ORs provide a consistent relative comparison.*

*(b) To achieve a "good level of development" (GLD), pupils must be learning at expected level or above in 12 (out of 17) Early Learning Goals, covering five areas of learning: communication and language; personal, social, and emotional development; physical development; literacy; and mathematics.*

*(c) Data were rounded to whole numbers in 2017.*

*(d) The average point score is reported in 2013 and 2017 (range 0–51) and the average number of ELGs achieved in 2023 (range 0–17). Figures in brackets are the standard deviations.*

## Key stage 1 (age 7)

Table 9 shows that in 2023, a slightly lower proportion of EAL learners achieved the expected standard in reading compared to their MLE-speaking peers, with a difference of about 5 percentage points, corresponding to an OR=0.79. The gaps in writing and mathematics were negligible at around 2 percentage points, OR=0.91 and OR=0.90 respectively.

Over the period 2013 to 2023 there was a significant improvement in the relative performance of EAL learners. In reading, there was improvement from OR=0.69 to OR=0.79, in writing from OR=0.80 to OR=0.91, and in mathematics from OR=0.76 to OR=0.90.

In the year 1 phonics screening check, completed at age 6, there were negligible gaps between MLE-speaking pupils and EAL learners in the proportion achieving the expected standard, and this was consistently the case across all of the years analysed here.

**Table 9: Achievement of EAL and monolingual-English-speaking pupils at the end of key stage 1 (age 7) in 2013, 2017 and 2023**

| Subject | Group | 2013 Expected or above [a] | 2017 Expected or above | 2023 Expected or above |
|---|---|---|---|---|
| Reading | % MLE | 57.3 | 76.8 | 69.9 |
| | % EAL | 48.1 | 72.2 | 64.7 |
| | **Odds ratio** | **0.69** | **0.78** | **0.79** |
| Writing | % MLE | 38.4 | 68.9 | 61.0 |
| | % EAL | 33.3 | 67.1 | 58.7 |
| | **Odds ratio** | **0.80** | **0.92** | **0.91** |
| Mathematics | % MLE | 52.5 | 75.6 | 71.4 |
| | % EAL | 45.7 | 74.5 | 69.2 |
| | **Odds ratio** | **0.76** | **0.94** | **0.90** |
| Phonics (Age 6) [b] | % MLE | 74.8 | 81.7 | 80.0 |
| | % EAL | 74.4 | 81.2 | 78.6 |
| | **Odds ratio** | **0.98** | **0.97** | **0.92** |

*Notes: (a) The key stage 1 descriptors "working towards the expected standard", "working at the expected standard", or "working at greater depth" were not in use in 2013. Therefore, for the 2013 data, we have equated achievement of Level 2A or above (under the prior system) to "expected or above".*

*(b) The phonics screening check is administered in Y1 (age 6) and repeated in Y2 if the pupil did not achieve the expected standard in Y1. Only Y1 results are reported here. As there was no phonics test in 2012/13, the results here are from 2013/14, when the test was first introduced.*

*Because a larger proportion of EAL pupils are recorded as "Disapplied" compared to monolingual English-speakers (2.1% EAL vs 1.3% MLE in 2023), pupils recorded as "Disapplied" are counted in the calculation as not achieving the expected standard.*

## Key stage 2 (age 11)

Table 10 shows results of national assessments at key stage 2 across the subject areas of reading; mathematics; and grammar, punctuation, and spelling (GPS) for EAL learners and MLE speakers. In general, from 2013 through to 2023, a lower proportion of EAL learners achieved the expected standard or above in reading compared to MLE speakers, but the difference is small in 2023 (OR=0.82), and much smaller than in previous years. Looking at the mean reading score, the EAL gap would be described as small in 2013 (*d*=-0.25) and 2017 (*d*=-0.22), but very small in 2023 (*d*=-0.12).

In mathematics, EAL learners were more likely to attain the expected standard or above compared to MLE learners (OR=1.30 in 2023), and they achieved a higher mean test score (*d*=0.22 in 2023). EAL learners also had a small advantage in performance in GPS, being more likely to achieve the expected standard or above (OR=1.30 in 2023) and to have a higher mean test score (*d*=0.17 in 2023). The average EAL advantage in both these domains increased over time.

**Table 10: Achievement of EAL and monolingual-English-speaking pupils at key stage 2 (age 11) in 2013, 2017 and 2023**

| | | Threshold measures | | | Mean test score | | |
|---|---|---|---|---|---|---|---|
| | | **2013** | **2017** | **2023** | **2013** | **2017** | **2023** |
| Subject | Language group | % 4B+ | % expected or above | % expected or above | Mean (SD) | Mean (SD) | Mean (SD) |
| **Reading** | MLE | 76.9 | 73.0 | 74.0 | 28.6 (4.8) | 105 (8.3) | 105.3 (7.9) |
| | EAL | 68.5 | 65.0 | 70.0 | 27.3 (5.4) | 103 (8.5) | 104.4 (8.1) |
| | *Odds ratio/Cohen's d* | ***0.65*** | ***0.69*** | ***0.82*** | ***-0.25*** | ***-0.22*** | ***-0.12*** |
| **Maths** | MLE | 74.2 | 75.0 | 72.0 | 28.9 (5.1) | 104.0 (7.4) | 103.9 (7.6) |
| | EAL | 72.4 | 76.0 | 77.0 | 28.7 (5.7) | 105 (7.6) | 105.5 (7.8) |
| | *Odds ratio/Cohen's d* | ***0.91*** | ***1.06*** | ***1.30*** | ***-0.03*** | ***0.12*** | ***0.22*** |
| **GPS** | MLE | 65.1 | 77.0 | 72.0 | 28.2 (5.6) | 105.7 (7.6) | 104.6 (8.1) |
| | EAL | 66.2 | 78.0 | 75.0 | 28.2 (6.0) | 106.9 (8.0) | 106.0 (8.5) |
| | *Odds ratio/Cohen's d* | ***1.05*** | ***1.06*** | ***1.17*** | ***0.01*** | ***0.16*** | ***0.17*** |

*Notes: GPS = grammar, punctuation, and spelling; SD = standard deviation.*

*Fine-grained points scores are reported for the tests completed in 2013. In 2016, new national tests were introduced, initially standardised to a mean score of 100, and 2017 and 2023 score are reported on this scale.*

*Cohen's d thresholds for small, medium, and large effects = 0.20, 0.50, and 0.80, respectively.*

*Odds ratios are calculated for threshold measures, while Cohen's d is reported for test scores.*

## Key stage 4 (age 16)

At key stage 4 (Table 11), there was some apparent change over time in the achievement gaps between MLE speakers and EAL learners. In English, a slightly lower proportion of EAL students achieved the expected level or above compared to their MLE-speaking peers in 2013 and 2017, but by 2023 there was a small difference *in favour* of the EAL group. For mathematics, there were generally no substantial differences in the proportion of EAL and MLE learners achieving the expected level at each of the three time points, although the proportion achieving a grade 9–5 pass in maths in 2023 was higher for EAL learners (OR=1.22).

Looking at overall outcomes, EAL pupils had a slightly higher mean Attainment 8 score than their MLE-speaking peers (*d*=0.13) in 2023. They were also more likely to achieve the English Baccalaureate (EBacc) with GCSE grade 9–4 or 9–5 passes than their MLE-speaking peers (ORs=1.48 and 1.47 in 2023, respectively). This tended to be associated particularly with their greater success in the language component of the EBacc (see Strand et al., 2015). For both measures, the data indicate an increase in the relative success of EAL learners between 2013 and 2023.

**Table 11: Achievement of EAL and monolingual-English-speaking pupils at key stage 4 (age 16) in 2013, 2017 and 2023**

| | | ***2013*** | ***2017*** | | ***2023*** | |
|---|---|---|---|---|---|---|
| Outcome | Language group | GCSE Grade A*-C | GCSE 9-4 pass | GCSE 9-5 pass | GCSE 9-4 pass | GCSE 9-5 pass |
| **English** | % MLE | 68.8 | 68.0 | 52.0 | 71.0 | 54.0 |
| | % EAL | 64.6 | 66.0 | 49.0 | 72.0 | 55.0 |
| | ***Odds ratio*** | ***0.83*** | ***0.91*** | ***0.89*** | ***1.05*** | ***1.04*** |
| **Maths** | % MLE | 71.2 | 69.0 | 52.0 | 72.0 | 51.0 |
| | % EAL | 71.8 | 68.0 | 49.0 | 73.0 | 56.0 |
| | ***Odds ratio*** | ***1.03*** | ***0.95*** | ***0.89*** | ***1.05*** | ***1.22*** |
| **EBacc** | % MLE | 22.5 | 23.0 | 21.0 | 22.9 | 16.0 |
| | % EAL | 22.4 | 28.0 | 24.0 | 30.6 | 21.9 |
| | ***Odds ratio*** | ***0.99*** | ***1.30*** | ***1.19*** | ***1.48*** | ***1.47*** |
| **Average points score** | % MLE | 347.7 (77 | 45.7 (19.8) | | 45.5 (21.4) | |
| | % EAL | 346.9 (73 | 46.5 (20.4) | | 48.4 (21.8) | |
| | ***Cohen's d*** | ***-0.01*** | ***0.04*** | | ***0.13*** | |

*Notes: EBacc scores have been calculated differently over time: in 2013 it recorded A*–C passes in all constituent subjects; in 2017 it included GCSE grades 9–5 in English and mathematics and 9–4 in the other subjects; in 2023, both grade 9–4 pass and grade 9–5 pass versions were calculated. The subjects constituting an EBacc qualification are: English literature and language; mathematics; combined science or three separate sciences (from among biology, physics, chemistry, and computer science); history or geography; and a foreign language (ancient or modern). See www.gov.uk/government/publications/english-baccalaureate-ebacc/english-baccalaureate-ebacc for more information.*

*In 2013, the average points score is the Best 8 points score, which is the average score for the students' eight highest GCSE or equivalent qualifications. In 2017 and 2023, it is the Attainment 8 score, which is computed from students' grades over eight subjects with English and mathematics double weighted, to give an average based on 10 scores.*

## Short-run changes 2019–2023

Table 12 explores changes in some key measures between 2019 and 2024, allowing a comparison between results from the pre-Covid-19 year (summer 2019) and those from 2022 to 2024 – and indeed, from summer 2020 and 2021 where the relevant data are available. The analysis focusses on the key stage 2 scaled scores in reading and mathematics, and some key outcomes at key stage 4.

At key stage 2, the mean reading score for EAL pupils was very slightly lower than that for MLE speakers in 2019 (*d*=-0.11). This remained broadly similar in subsequent years. In mathematics, the mean score for EAL pupils was slightly higher than that for MLE speakers in 2019 (*d* =0.15), and if anything increased, though slightly, further still in 2023 (*d*=0.21). There is no indication that the Covid-19 pandemic was associated with any substantial long-term impact on achievement gaps particular to the EAL cohort at KS2.

**Table 12: Short-run changes in key indicators at key stage 2 and key stage 4, 2019–2024: Comparison of averages for MLE speakers and EAL pupils**

| Measure | Group | 2018/19 | 2019/20 | 2020/21 | 2021/22 | 2022/23 | 2023/24 |
|---|---|---|---|---|---|---|---|
| KS2 reading scaled score | MLE | 104.6 | - | - | 104.9 | 105.3 | 105.4 |
| | EAL | 103.7 | - | - | 104.5 | 104.4 | 104.7 |
| | Cohen's *d* | **-0.11** | - | - | **-0.05** | **-0.11** | **-0.09** |
| KS2 mathematics scaled score | MLE | 104.8 | - | - | 103.5 | 103.9 | 104.0 |
| | EAL | 105.9 | - | - | 104.9 | 105.5 | 105.6 |
| | Cohen's *d* | **0.15** | - | - | **0.18** | **0.21** | **0.21** |
| GCSE passes (9-4) in English and mathematics | MLE | 65.0 | 71.7 | 72.5 | 68.6 | 64.9 | 64.5 |
| | EAL | 63.6 | 69.9 | 71.7 | 70.4 | 66.7 | 67.5 |
| | Odds Ratio | **0.94** | **0.92** | **0.96** | **1.09** | **1.08** | **1.14** |
| GCSE passes (9-4) in all EBacc subjects | MLE | 24.1 | 28.9 | 28.4 | 25.6 | 22.9 | 23.7 |
| | EAL | 29.2 | 35.1 | 35.4 | 32.8 | 30.6 | 32.1 |
| | Odds Ratio | **1.30** | **1.33** | **1.38** | **1.42** | **1.48** | **1.52** |
| Attainment 8 average score | MLE | 46.6 | 50.2 | 50.8 | 48.5 | 45.9 | 45.4 |
| | EAL | 47.6 | 50.9 | 53.1 | 50.6 | 48.5 | 48.6 |
| | Cohen's *d* | **0.05** | **0.03** | **0.11** | **0.10** | **0.12** | **0.15** |
| Progress 8 score | MLE | -0.11 | - | - | -0.12 | -0.12 | -0.13 |
| | EAL | 0.48 | - | - | 0.55 | 0.51 | 0.51 |
| | Cohen's *d* | **0.42** | - | - | **0.48** | **0.45** | **0.46** |

*Notes: 2023/24 averages are taken from the DfE "Explore statistics" website. Standard deviations (SD) cannot be calculated from that aggregated data, so in calculating Cohen's d, the 2022/23 SDs are used.*

At key stage 4, the data indicate improved performance by EAL learners between 2019 and 2024, with mean scores higher than the average for MLE speakers. For Attainment 8, the 2024 average for MLE-speaking pupils was about one point below their 2019 mean, whereas for EAL learners it was one point higher than their 2019 mean, slightly increasing the gap in favour of EAL learners (from *d*=0.05 to *d*=0.15).

The proportion of EAL learners achieving a GCSE pass (9–4) in English and mathematics overtook the average for MLE speakers (from OR=0.94 to OR=1.14), and the existing gap in favour of EAL pupils achieving the EBacc also increased (from OR=1.30 to OR=1.52).

Progress 8 scores[6] give a measure of the relative progress students make between completing their key stage 2 tests at age 11 and taking GCSEs at age 16. The mean Progress 8 score for EAL pupils was much higher than for MLE speakers (*d*=0.45 in 2023). This has often been noted previously (e.g. see Strand & Demie, 2006; Strand et al., 2015) and indicates that a significant proportion of EAL learners start from a low base of attainment at age 11, but make rapid progress as they acquire proficiency in the language of school instruction.

[6] Progress 8 score is based on the difference between a pupil's actual Attainment 8 score and their "expected" score. The latter is derived from the national average Attainment 8 score for pupils with similar prior attainment.

# 6. EAL status and achievement in context: Influence of and interactions with pupil background factors

Up to this point, we have shown broad patterns of educational attainment across key stages according to EAL status, and the extent to which these have remained stable or changed over time. We know based on previous research, however, that EAL learners are not a homogenous group, and that looking at patterns in their attainment without accounting for other pupil background factors at best presents an incomplete picture of the attainment of pupils speaking EAL, and at worst can be potentially misleading (see e.g. Strand, Malmberg & Hall, 2015).

In this chapter, for a more nuanced account of the educational attainment of EAL learners, we again focus on attainment through the various key stages of compulsory education (ages 5 to 16 years), now using individual-pupil-level data from the National Pupil Database (NPD). This allows us to re-examine relationships between pupil background (including EAL status) and measures of educational attainment descriptively as well as through regression models that can account for multiple pupil background factors at the same time, and to consider interactions between them.

## Heterogeneity of EAL pupils

Previous research has already demonstrated that the EAL pupil population in England is quite diverse (e.g. Strand, Malmberg & Hall, 2015). Table 13 shows the relationship between EAL status and other pupil background factors. Although we have already shown the percentages of pupils within each ethnic group speaking EAL in Table 2 of this report, we can see more detail here about the composition of the EAL-speaking group. For example, higher proportions of EAL pupils tended to live in more deprived neighbourhoods (based on IDACI quintiles). Meanwhile, lower proportions of pupils with EHCPs or SEN support were recorded as EAL learners (15% compared to 20% amongst the total pupil population), though it is not entirely clear whether this was related to inaccurate recording accurately where EAL and SEN needs may have been conflated or misunderstood within school settings. The proportion of EAL pupils does not appear to vary much according to other background factors (gender, birth season, eligibility for free school meals).

## Table 13: EAL status by other pupil background factors, 2023

| | | EAL | | MLE | | All |
|---|---|---|---|---|---|---|
| **Variable** | Value | N | % | N | % | N |
| **Gender** | Female | 839849 | 48.9% | 3290733 | 48.9% | 4130582 |
| | Male | 876058 | 51.1% | 3436806 | 51.1% | 4312864 |
| **Season of birth** | Autumn | 584581 | 34.1% | 2307153 | 34.3% | 2891734 |
| | Spring | 547919 | 31.9% | 2155174 | 32.0% | 2703093 |
| | Summer | 583408 | 34.0% | 2265262 | 33.7% | 2848670 |
| **Ethnic group** | White British | 56433 | 3.3% | 5242209 | 77.9% | 5298642 |
| | White Irish | 537 | 0.0% | 20524 | 0.3% | 21061 |
| | Traveller Irish | 93 | 0.0% | 6769 | 0.1% | 6862 |
| | Traveller Gypsy/Roma | 14873 | 0.9% | 13344 | 0.2% | 28217 |
| | White Other | 458522 | 26.7% | 147543 | 2.2% | 606065 |
| | Mixed White & African | 15928 | 0.9% | 62139 | 0.9% | 78067 |
| | Mixed White & Caribbean | 3786 | 0.2% | 130249 | 1.9% | 134035 |
| | Mixed White & Asian | 24970 | 1.5% | 114261 | 1.7% | 139231 |
| | Mixed Other | 61663 | 3.6% | 163162 | 2.4% | 224825 |
| | Indian | 192459 | 11.2% | 117314 | 1.7% | 309773 |
| | Pakistani | 236232 | 13.8% | 145532 | 2.2% | 381764 |
| | Bangladeshi | 107262 | 6.3% | 43869 | 0.7% | 151131 |
| | Asian Other | 119757 | 7.0% | 58375 | 0.9% | 178132 |
| | Black African | 169415 | 9.9% | 190685 | 2.8% | 360100 |
| | Black Caribbean | 3049 | 0.2% | 76935 | 1.1% | 79984 |
| | Black Other | 20545 | 1.2% | 44924 | 0.7% | 65469 |
| | Chinese | 46141 | 2.7% | 12244 | 0.2% | 58385 |
| | Any Other | 151502 | 8.8% | 43581 | 0.6% | 195083 |
| | Unclassified/Refused | 32741 | 1.9% | 93930 | 1.4% | 126671 |
| **Free school meal** | Entitled | 420294 | 24.5% | 1589887 | 23.6% | 2010181 |
| | Not entitled | 1295614 | 75.5% | 5137702 | 76.4% | 6433316 |
| **Ever free school meal** | Yes | 426872 | 27.6% | 1637191 | 26.7% | 2064063 |
| | No | 1117489 | 72.4% | 4502331 | 73.3% | 5619820 |
| **IDACI deprivation quintile** | Very low | 162797 | 9.5% | 1525599 | 22.7% | 1688396 |
| | Low | 231532 | 13.5% | 1448541 | 21.6% | 1680073 |
| | Average | 375946 | 21.9% | 1312135 | 19.5% | 1688081 |
| | High | 480621 | 28.0% | 1208826 | 18.0% | 1689447 |
| | Very high | 463010 | 27.0% | 1222302 | 18.2% | 1685312 |
| **SEN provision** | EHCP | 55048 | 3.2% | 303804 | 4.5% | 358852 |
| | SEN support | 167436 | 9.8% | 921836 | 13.7% | 1089272 |
| | No SEN | 1493424 | 87.0% | 5501949 | 81.8% | 6995373 |
| **Grand total** | All pupils | 1715908 | 100.0% | 6727589 | 100.0% | 8443497 |

*Notes: EHCP = education, health, and care plan; SEN = special educational needs; IDACI = Income Deprivation Affecting Children Index.*

## Early years foundation stage (EYFS; age 5)

Aggregate data presented in the previous chapter (**Error! Reference source not found.**) showed that, in general, EAL learners had lower attainment of Early Learning Goals (ELGs) and were less likely to achieve a Good Level of Development (GLD) at age 5[7].

Table 14, which contains descriptive statistics based on individual pupil data from spring 2023, shows the number of ELGs attained as well as the percent of pupils attaining a GLD at age 5 for all EYFS pupils in England in spring 2023, as well as for EAL and MLE cohorts separately. The data for the EAL and MLE groups are further broken down according to various other pupil background factors including gender, birth season, ethnic group, free school meal (FSM) eligibility, neighbourhood deprivation (based on IDACI score), and special educational needs (SEN) provision.

Before considering differences in attainment of ELGs or a GLD between EAL and MLE pupils, we first note some general patterns of attainment – or "risk factors" – across those other pupil background factors at age 5, regardless of EAL status:

- **Gender:** Boys tended to achieve fewer ELGs than girls.
- **Age:** Summer-born pupils tended to achieve fewer ELGs than spring-born pupils, who in turn achieved fewer ELGs than autumn-born pupils; i.e. being younger within a given school year is, unsurprisingly, a risk factor for lower attainment.
- **Eligibility for FSM:** Pupils eligible for FSM tended to achieve fewer ELGs than those ineligible for FSM, on average.
- **Neighbourhood deprivation:** Living in a more deprived neighbourhood corresponded to achievement of fewer ELGs, on average.
- **SEN:** Pupils with EHCPs achieved substantially fewer ELGs than their peers with SEN support, who in turn achieved substantially fewer ELGs than pupils with no identified SEN.

Although all of these "risks" held true for EAL learners as well as their MLE-speaking counterparts, attainment gaps based on EAL status varied considerably in combination with these risks. Effect sizes on the right-hand side of the table provide a useful basis of comparison for how EAL attainment gaps varied across different demographic subgroups. For example, while MLE-speaking pupils generally reached higher attainment at age 5, this effect was considerably more pronounced among pupils who were not eligible for FSM ($d$=-0.31), and almost negligible among those who *were* eligible for FSM ($d$=-0.07). Similarly, EAL and MLE-speaking pupils had greater differences in attainment in less deprived neighbourhoods (based on IDACI). There was substantial variation in EAL–MLE attainment gaps across different ethnic groups as well, whereas, by contrast, the EAL–MLE attainment gaps for girls ($d$=-0.24) and boys ($d$=-0.26) were quite similar.

[7] Note that in this section we discuss "educational attainment" or "attainment", but this is in a sense shorthand for "attainment and development", as this is more appropriate to the EYFS where the focus is on development across a range of areas rather than achievement or attainment in academic subjects in a traditional sense.

Being younger within the school year corresponded to a slightly increased attainment gap based on EAL status (*d*=-0.22 for autumn-born compared to *d*=-0.25 for spring-born and *d*=-0.27 for summer-born pupils). The patterns across different levels of SEN provision were less intuitive, perhaps. Pupils with EHCPs had the smallest attainment gap based on EAL status (*d*=-0.14), which is not surprising, but pupils with SEN support had a slightly greater EAL attainment gap (*d*=-0.34) compared to their peers with no identified SEN (*d*=-0.29). This may simply reflect the diversity of primary needs among the SEN support group.

## Table 14: Mean number of ELGs achieved at age 5 by EAL status and pupil background factors, 2023

| | | EAL | | | | MLE | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | Value | Mean | N | SD | %GLD[1] | Mean | N | SD | %GLD[1] | **d** |
| **Gender** | Female | **14.2** | 60,509 | 5.0 | 69.4% | **15.2** | 232,853 | 4.0 | 76.2% | -0.24 |
| | Male | **12.3** | 63,151 | 6.2 | 55.6% | **13.7** | 244,161 | 5.4 | 62.5% | -0.26 |
| **Season of birth** | Autumn | **14.2** | 42,368 | 5.1 | 71.8% | **15.2** | 164,798 | 4.2 | 77.7% | -0.22 |
| | Spring | **13.3** | 39,206 | 5.7 | 63.0% | **14.5** | 151,770 | 4.8 | 69.8% | -0.25 |
| | Summer | **12.1** | 42,086 | 6.2 | 52.3% | **13.6** | 160,446 | 5.3 | 59.9% | -0.27 |
| **Ethnic group** | White British | **14.1** | 5,861 | 5.1 | 68.1% | **14.5** | 369,447 | 4.7 | 69.4% | -0.08 |
| | White Irish | **13.3** | 48 | 6.1 | 58.3% | **14.6** | 1,451 | 4.8 | 71.8% | -0.28 |
| | Traveller (Gypsy/Roma & Irish) | **9.9** | 1,008 | 6.2 | 33.1% | **11.0** | 1,754 | 5.9 | 33.8% | -0.20 |
| | White Other | **13.3** | 34,124 | 5.5 | 62.0% | **14.7** | 11,027 | 4.6 | 72.5% | -0.26 |
| | White & African | **13.2** | 1,134 | 5.8 | 62.1% | **14.3** | 4,695 | 5.0 | 69.1% | -0.22 |
| | White & Carribbean | **13.2** | 338 | 5.6 | 60.4% | **14.0** | 9,731 | 5.1 | 64.3% | -0.14 |
| | White & Asian | **14.1** | 2,128 | 5.1 | 68.2% | **14.9** | 9,079 | 4.6 | 74.7% | -0.16 |
| | Mixed Other | **13.4** | 5,183 | 5.6 | 63.7% | **14.5** | 13,110 | 4.9 | 70.6% | -0.21 |
| | Indian | **13.8** | 14,974 | 5.5 | 68.3% | **15.0** | 7,926 | 4.5 | 78.9% | -0.25 |
| | Pakistani | **12.8** | 15,593 | 6.0 | 60.4% | **13.6** | 10,057 | 5.6 | 65.9% | -0.14 |
| | Bangladeshi | **13.0** | 6,880 | 6.1 | 63.2% | **13.7** | 3,100 | 5.7 | 68.8% | -0.12 |
| | Asian Other | **13.0** | 8,340 | 5.9 | 61.4% | **14.1** | 3,917 | 5.4 | 71.3% | -0.19 |
| | Black African | **12.8** | 10,805 | 6.1 | 61.1% | **13.4** | 12,333 | 5.9 | 65.5% | -0.09 |
| | Black Carribbean | **13.2** | 200 | 5.6 | 61.5% | **13.5** | 4,676 | 5.5 | 61.6% | -0.05 |
| | Black Other | **12.3** | 1,382 | 6.2 | 55.7% | **13.3** | 3,017 | 5.8 | 62.1% | -0.16 |
| | Chinese | **14.8** | 2,556 | 4.5 | 75.5% | **15.2** | 640 | 4.2 | 80.9% | -0.10 |
| | Any Other | **12.5** | 10,705 | 6.0 | 56.6% | **14.0** | 3,018 | 5.3 | 68.3% | -0.25 |
| | Not Obtained | **12.3** | 1,330 | 6.2 | 55.0% | **14.1** | 5,496 | 5.1 | 65.4% | -0.32 |
| | Refused | **13.0** | 1,071 | 5.7 | 57.5% | **14.2** | 2,540 | 5.0 | 67.4% | -0.23 |
| **Ever free school meals** | Yes | **12.1** | 20,587 | 6.2 | 53.2% | **12.5** | 88,825 | 5.9 | 51.1% | -0.07 |
| | No | **13.4** | 103,067 | 5.6 | 64.2% | **14.9** | 388,179 | 4.4 | 73.3% | -0.31 |
| **IDACI deprivation quintile** | Very low | **14.1** | 12,427 | 5.0 | 66.8% | **15.4** | 108,090 | 3.9 | 76.5% | -0.32 |
| | Low | **13.6** | 17,575 | 5.4 | 64.9% | **14.9** | 102,110 | 4.3 | 72.9% | -0.28 |
| | Average | **13.4** | 27,009 | 5.6 | 63.9% | **14.5** | 92,051 | 4.7 | 69.2% | -0.21 |
| | High | **13.0** | 34,203 | 5.9 | 61.5% | **13.9** | 86,401 | 5.2 | 65.2% | -0.17 |
| | Very high | **12.6** | 32,270 | 6.1 | 58.9% | **13.2** | 87,600 | 5.7 | 59.9% | -0.10 |
| **SEN provision** | EHCP | **1.8** | 3,034 | 3.9 | 3.0% | **2.4** | 12,610 | 4.5 | 3.9% | -0.14 |
| | SEN support | **6.7** | 11,871 | 6.5 | 19.6% | **8.9** | 42,882 | 6.5 | 25.6% | -0.34 |
| | No SEN | **14.2** | 108,755 | 4.8 | 68.7% | **15.4** | 421,522 | 3.6 | 75.6% | -0.29 |
| **Grand total** | All pupils | **13.2** | 123,660 | 5.7 | 62.4% | **14.4** | 477,014 | 4.8 | 69.2% | -0.25 |

*Notes: SEN=Special Educational Needs; EHCP = Education, Health and Care Plan; IDACI = Income Deprivation Affecting Children Index; ; ELG=Early Learning Goal; %GLD sourced from FSP_GLD, which indicates achieving a GLD at age 5; d= Cohen's d effect size*

## *Contextualised variation (EYFS)*

The above results provide some indication of the simple relationship between each pupil background factor and a pupil's achievement of ELGs or attainment of a good level of development at age 5. This does not, however, allow us to understand the effects of these pupil background factors on attainment independent of one another, nor how they might be *differentially* related to educational achievement or development in combination. This section uses logistic regression models with an outcome of whether or not a pupil attained a GLD, to take all background factors into account while controlling for the others, and to consider interactions between other background factors and EAL status. We run one model for all pupils including EAL status alongside other background factors, and then separate models for EAL and MLE pupils including all other background factors *except* EAL. The model run on all pupils allows us to see the "EAL effect" controlling for other background factors as well as to test interactions between EAL status and those other factors. The models run separately for EAL and MLE-speaking pupils allow us to assess the extent to which risk factors differed across these groups.

**Table 15: Odds of attaining a Good Level of Development (GLD), 2023**

| Variable | Values | Odds ratio |
|---|---|---|
| | Intercept | 7.79 |
| EAL status (vs MLE) | EAL | 0.70 |
| Gender (vs Girl) | Boy | 0.59 |
| Birth season (vs Autumn) | Spring | 0.62 |
| | Summer | 0.38 |
| Ethnicity (vs White British) | White Other | 0.96 |
| | Black African/MWBA | 1.16 |
| | Black Caribbean/MWBC | 0.94 |
| | Indian | 1.23 |
| | Pakistani | 0.98 |
| | Bangladeshi | 1.24 |
| | Asian Other/Chinese/MWAS | 1.17 |
| | Any Other | 0.90 |
| FSM Ever 6 (vs not eligible) | Eligible | 0.47 |
| IDACI | IDACI (1SD) | 0.88 |
| SEN Provision (vs None) | SEN Support | 0.13 |
| | EHCP | 0.01 |
| Model fit: Nagelkerke $R^2$ | | 0.26 |

Table 15 shows that the independent effect of EAL status (OR=0.70) on the odds of attaining a GLD after accounting for gender, ethnic group, birth season, FSM eligibility, neighbourhood deprivation and SEN provision, was still substantial. This is in keeping

both with the aggregate patterns from the previous chapter and the descriptive results shown in Table 14. It was, however, less substantial than the effect of being a boy (OR=0.59), for example, or the effects of birth season (summer OR=0.38; spring OR=0.62), FSM eligibility (OR=0.47) or SEN provision (SEN support OR=0.13; EHCP OR=0.01).

Table 16 shows the results from separate regression models run for EAL and MLE-speaking pupils. The largest differential impacts of pupil background across these groups concern:

- **FSM eligibility**, with FSM-eligible MLE-speaking pupils (OR=0.44) having substantially lower odds of attaining a GLD relative to their FSM-ineligible MLE-speaking peers than FSM-eligible EAL pupils (OR=0.67) relative to *their* FSM-ineligible peers.
- **Ethnic group**, for which White Other (OR=0.73), Black Caribbean or Mixed White and Black Caribbean (OR=0.75) and Any Other (OR=0.65) groups only had substantially lower odds of attaining a GLD relative to White British pupils in the EAL group, while Indian pupils (OR=1.47) only had substantially higher odds of attaining a GLD within the MLE-speaking group. For some groups, e.g. Black African and Mixed White and Black African, Bangladeshi and Asian Other/Chinese/Mixed White and Asian, the effect appeared to be in different directions (though not substantially so) across the EAL and MLE-speaking groups. We would advise caution in interpreting these results, however, as what the White British group constitutes within the group of EAL pupils is not entirely clear.

Other pupil background factors tended to have a fairly consistent impact across the EAL and MLE-speaking groups.

**Table 16: Contextualised variation in the odds of achieving a Good Level of Development within EAL and MLE learners at age 5, 2023**

| Variable | Values | EAL | MLE |
|---|---|---|---|
| | Intercept | 6.11 | 8.05 |
| Gender (vs Girl) | Boy | 0.63 | 0.58 |
| Birth season (vs Autumn) | Spring | 0.64 | 0.62 |
| | Summer | 0.40 | 0.37 |
| Ethnicity (vs White British) | White Other | 0.73 | 1.09 |
| | Black African/MWBA | 0.95 | 1.06 |
| | Black Caribbean/MWBC | 0.75 | 0.96 |
| | Indian | 0.94 | 1.47 |
| | Pakistani | 0.78 | 0.92 |
| | Bangladeshi | 0.96 | 1.16 |
| | Asian Other/Chinese/MWAS | 0.89 | 1.23 |
| | Any Other | 0.65 | 0.93 |
| FSM Ever 6 (vs not eligible) | Eligible | 0.67 | 0.44 |
| IDACI | IDACI (1SD) | 0.93 | 0.87 |
| SEN Provision (vs None) | SEN Support | 0.12 | 0.13 |
| | EHCP | 0.01 | 0.01 |
| Model fit: Nagelkerke $R^2$ | | 0.22 | 0.27 |

*Notes: FSM = eligible for free school meals within last 6 years; SEN = special educational needs; IDACI = Income Deprivation Affecting Children Index; MWBC = Mixed White and Black Caribbean; MWBA = Mixed White and Black African; MWAS = Mixed White and Asian. Numbers reported are ORs.*

Having clarified the independent effects of EAL status and other pupil background factors, it is also useful to consider how these might interact, something the separate EAL and MLE models hinted at but did not test directly. We tested interactions in a logistic regression model that extended the one shown in Table 15, considering each of the other pupil background factors in turn. We found fairly small but significant interactions between EAL status and FSM eligibility, ethnic group and neighbourhood deprivation (IDACI), but not with SEN, birth season, or gender, which is broadly in keeping with the above findings comparing separate models according to EAL status.

Figure 5 shows the interaction between EAL status and FSM eligibility, confirming again that the FSM-related attainment gap was larger for MLE-speakers. This appears to be because EAL pupils were at considerably more of an educational disadvantage among the group not eligible for FSM, whereas among FSM-eligible pupils the difference in attainment of a GLD hardly differed between MLE and EAL pupils. This interaction might also to some extent reflect a White British working-class effect, where (as apparent in Figure 5), FSM-eligible MLE pupils – most of whom are in the White British group – are least likely to attain a GLD.

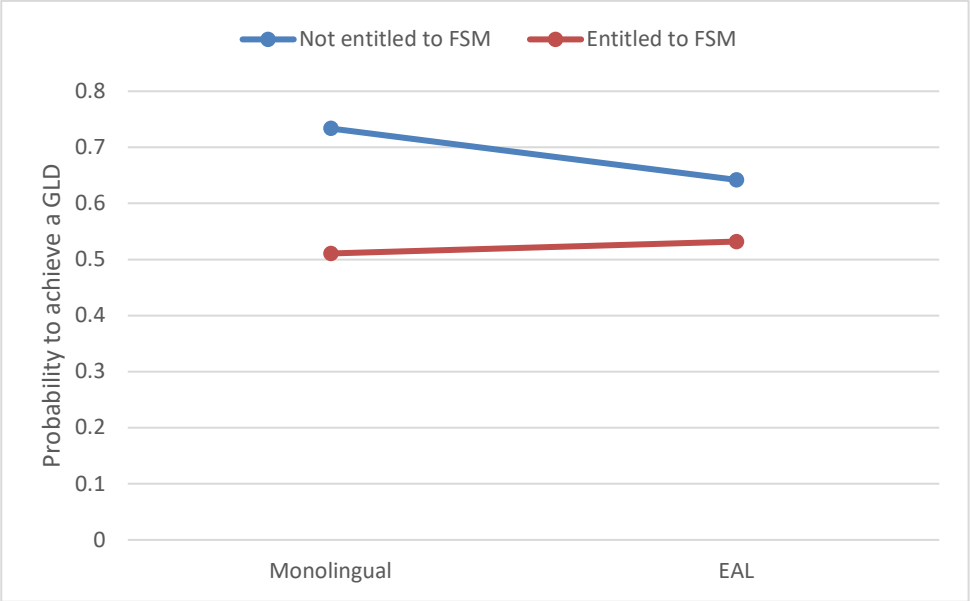



**Figure 5: Interaction between EAL status and FSM eligibility for probability of attaining a GLD, 2023**

Somewhat similarly, there was an interaction between neighbourhood deprivation (via IDACI score) and EAL status (see Figure 6). Differences in attainment were more pronounced for MLE speakers than for EAL pupils, but this was still a fairly small effect overall. For example, an MLE-speaking pupil's probability of attaining a GLD was about 5% less for a 1-SD higher level of neighbourhood deprivation, whereas for an EAL pupil that difference was around 3%.

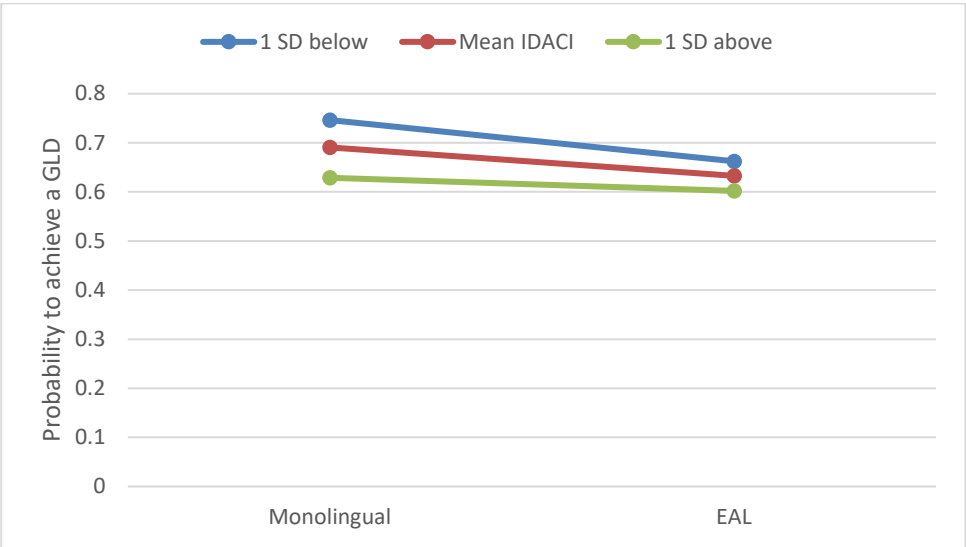



**Figure 6: Interaction between EAL status and IDACI for probability of attaining a GLD, 2023**

Although there was a statistically significant interaction between some ethnic groups and EAL, comparison to a White British group within the group of EAL pupils complicates

interpretations, so we do not focus on breaking this interaction down in detail. Comparisons between separate models for EAL and MLE pupils in Tables 15 and 16 clarify differences in patterns of attainment by ethnic group more interpretably.

There were no significant interactions between EAL status and SEN, nor between EAL status and birth season. There was a statistically significant interaction with gender, but in practical terms this translated to a very minimal effect (see Figure 7). In other words, while EAL pupils were less likely than MLE speakers to attain a GLD by age 5 in general, this gap remained the same regardless of SEN provision, birth season and gender.

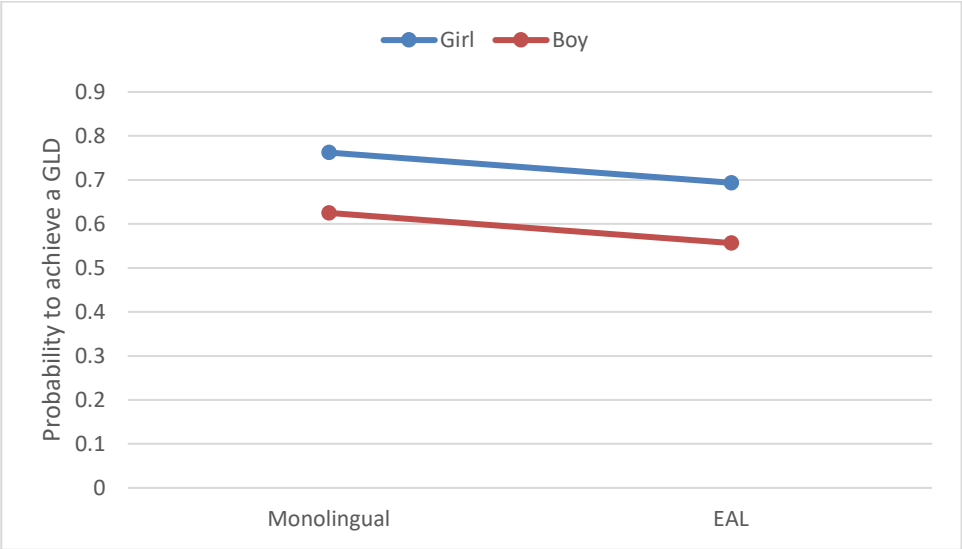



**Figure 7: Interaction between EAL status and gender for probability of attaining a GLD, 2023**

## Key stage 1 (age 7)

Aggregate data in the previous chapter (Table 9) showed that in general, EAL learners at key stage 1 had slightly lower attainment in reading and negligible differences in their attainment compared to MLE-speaking pupils otherwise.

Tables 17 and 18, which contain descriptive statistics based on individual pupil data from spring 2023, shows the mean reading and mathematics (teacher assessment; TA) attainment and percent meeting expected standards or above for all key stage 1 pupils in England in spring 2023 as well as for EAL and MLE cohorts separately. The data for the EAL and MLE groups are further broken down according to various other pupil background factors including gender, birth season, ethnic group, free school meal (FSM) eligibility, neighbourhood deprivation (based on IDACI score), and special educational needs (SEN) provision.

Before considering differences in attainment between EAL and MLE pupils, we first note some general patterns of attainment – or "risk factors" – that applied across those other pupil background factors at age 7, regardless of EAL status. Broadly speaking, these were similar to those indicated in the EYFS data:

- **Gender:** Boys tended to achieve slightly lower than girls in reading.
- **Age:** Being younger within the school year was associated with lower KS1 attainment in reading.
- **Eligibility for FSM:** Pupils eligible for FSM tended to have lower KS1 attainment in reading than pupils not eligible for FSM.
- **Neighbourhood deprivation:** Living in a more deprived neighbourhood corresponded to slightly lower key stage 1 reading attainment.
- **SEN:** Pupils with EHCPs had lower reading attainment at KS1 than those with SEN support, who in turn had lower reading attainment than pupils with no identified SEN.

As in the EYFS analysis, attainment gaps based on EAL status varied considerably in combination with some of these risks. Again, at age 7, the EAL status attainment gap in reading was substantial for pupils who were not eligible for FSM ($d$=-0.22), and almost negligible among those eligible for FSM ($d$=0.06). Similarly, EAL and MLE-speaking pupils had greater differences in attainment in less deprived neighbourhoods in key stage 1 reading, just as was the case at age 5. There was again substantial variation in EAL–MLE attainment gaps across different ethnic groups as well, whereas by contrast, the EAL–MLE attainment gap did not differ between boys and girls (both $d$=-0.14). There was hardly any difference in the EAL attainment gap according to age within the school year. Pupils with EHCPs or SEN support (OR=-0.05 for both) had negligible differences in key stage 1 reading attainment between EAL and MLE-speaking pupils, while there was a more pronounced attainment gap among their peers with no identified SEN ($d$=-0.21).

We introduce a new metric, year of entry into the NPD, that was not possible in the EYFS, where all pupils started school within the same year. For KS1, our measure of year of entry uses mobility indicators from the NPD to identify whether a pupil joined the school in year 1 or year 2; otherwise we assume they joined in reception. We use this as a proxy measure for arrival in the country for EAL pupils, as we do not have a more direct indicator for this. Where we lack a measure of proficiency in English, year of entry is a proxy that, while imperfect, can help us disentangle the effects of EAL status depending on pupils' likelihood of being proficient in English. As Table 17 makes immediately clear, pupils who joined the school system in year 2 had a more substantial reading attainment gap ($d$=-0.33) than those who joined in year 1 ($d$=-0.15), while there was a negligible difference by EAL status in the attainment of pupils who joined in reception ($d$=-0.06).

We see smaller differences in general between EAL and MLE-speaking pupils' attainment in KS1 maths (Table 18). Any differences were very small effect sizes (i.e. $d$<0.2), with a very small number of exceptions for particular ethnic groups – a Traveller group (combining Irish Traveller and Gypsy/Roma groups because of small counts), White Other, and Any Other – and even these effect sizes were small.

## Table 17: Reading attainment at key stage 1 (age 7) by EAL status & pupil background factors, 2023

| | | EAL | | | | MLE | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | Value | Mean | N | SD | % READEXP | Mean | N | SD | % READEXP | **Cohen's *d*** |
| **Gender** | Female | **1.8** | 67472 | 0.8 | 68.7% | **1.9** | 245509 | 0.8 | 73.3% | -0.14 |
| | Male | **1.6** | 70491 | 0.9 | 61.0% | **1.7** | 256613 | 0.9 | 66.5% | -0.14 |
| **Season of birth** | Autumn | **1.8** | 45795 | 0.9 | 71.6% | **2.0** | 170817 | 0.8 | 76.6% | -0.15 |
| | Spring | **1.7** | 44324 | 0.9 | 65.1% | **1.8** | 162250 | 0.8 | 70.0% | -0.14 |
| | Summer | **1.5** | 47844 | 0.9 | 57.9% | **1.7** | 169055 | 0.9 | 62.8% | -0.13 |
| **Ethnic group** | White British | **1.8** | 5505 | 0.8 | 69.8% | **1.8** | 396431 | 0.9 | 69.4% | 0.00 |
| | White Irish | **1.7** | 42 | 1.0 | 66.7% | **1.9** | 1399 | 0.9 | 69.0% | -0.16 |
| | Traveller | **0.8** | 1142 | 0.8 | 22.5% | **1.0** | 1948 | 0.9 | 29.0% | -0.25 |
| | White Other | **1.6** | 37684 | 0.9 | 62.1% | **1.9** | 10355 | 0.8 | 75.4% | -0.35 |
| | White & African | **1.7** | 1261 | 0.9 | 65.4% | **1.8** | 4850 | 0.8 | 71.4% | -0.12 |
| | White & Carribbean | **1.6** | 343 | 0.9 | 64.1% | **1.7** | 10132 | 0.9 | 63.6% | -0.04 |
| | White & Asian | **1.8** | 2330 | 0.9 | 71.2% | **2.0** | 9026 | 0.8 | 77.2% | -0.17 |
| | Mixed Other | **1.8** | 5156 | 0.9 | 67.1% | **1.9** | 12783 | 0.9 | 73.4% | -0.15 |
| | Indian | **1.8** | 16409 | 0.9 | 71.7% | **2.1** | 7952 | 0.8 | 81.7% | -0.24 |
| | Pakistani | **1.7** | 18292 | 0.8 | 64.2% | **1.8** | 9515 | 0.8 | 70.1% | -0.13 |
| | Bangladeshi | **1.8** | 8124 | 0.9 | 69.0% | **1.9** | 2932 | 0.8 | 74.9% | -0.15 |
| | Asian Other | **1.7** | 9484 | 0.9 | 65.6% | **1.9** | 3821 | 0.8 | 76.1% | -0.27 |
| | Black African | **1.7** | 12577 | 0.9 | 66.6% | **1.8** | 13065 | 0.9 | 73.2% | -0.15 |
| | Black Carribbean | **1.5** | 187 | 0.9 | 54.0% | **1.7** | 4929 | 0.9 | 64.2% | -0.22 |
| | Black Other | **1.6** | 1610 | 0.9 | 62.7% | **1.7** | 3323 | 0.9 | 68.8% | -0.15 |
| | Chinese | **2.0** | 3641 | 0.8 | 76.0% | **2.3** | 738 | 0.8 | 86.9% | -0.34 |
| | Any Other | **1.5** | 11790 | 0.9 | 56.7% | **1.8** | 2776 | 0.8 | 71.8% | -0.34 |
| | Not Obtained | **1.4** | 1231 | 0.9 | 52.8% | **1.7** | 3316 | 0.9 | 63.3% | -0.26 |
| | Refused | **1.7** | 1155 | 0.9 | 62.5% | **1.9** | 2831 | 0.9 | 72.6% | -0.24 |
| **Free school** | Entitled | **1.5** | 32624 | 0.9 | 56.1% | **1.4** | 124482 | 0.9 | 53.3% | 0.06 |
| | Not entitled | **1.7** | 105339 | 0.9 | 67.4% | **1.9** | 377640 | 0.8 | 75.3% | -0.22 |
| **Ever free school** | Yes | **1.5** | 33583 | 0.9 | 56.1% | **1.4** | 126696 | 0.9 | 53.3% | 0.06 |
| | No | **1.7** | 104380 | 0.9 | 67.5% | **1.9** | 375426 | 0.8 | 75.4% | -0.22 |
| **IDACI deprivation quintile** | Very low | **1.8** | 13687 | 0.9 | 70.7% | **2.0** | 112346 | 0.8 | 77.4% | -0.17 |
| | Low | **1.8** | 19202 | 0.9 | 67.9% | **1.9** | 108973 | 0.8 | 73.4% | -0.15 |
| | Average | **1.7** | 30251 | 0.9 | 66.4% | **1.8** | 98869 | 0.8 | 69.7% | -0.09 |
| | High | **1.7** | 38541 | 0.9 | 63.6% | **1.7** | 89717 | 0.9 | 65.3% | -0.05 |
| | Very high | **1.6** | 36119 | 0.9 | 60.8% | **1.6** | 91455 | 0.9 | 60.9% | -0.01 |
| **SEN provision** | EHCP | **0.4** | 4834 | 0.7 | 11.2% | **0.5** | 17729 | 0.8 | 13.0% | -0.05 |
| | SEN support | **1.0** | 15671 | 0.8 | 30.3% | **1.1** | 69421 | 0.9 | 32.5% | -0.05 |
| | No SEN | **1.8** | 117458 | 0.8 | 71.6% | **2.0** | 414972 | 0.7 | 78.5% | -0.21 |
| **Year joined school** | Reception | **1.8** | 105267 | 0.8 | 69.8% | **1.8** | 444737 | 0.8 | 71.2% | -0.06 |
| | Y1 | **1.5** | 16875 | 0.9 | 52.6% | **1.6** | 27249 | 0.9 | 60.3% | -0.15 |
| | Y2 | **1.3** | 15821 | 1.0 | 44.0% | **1.6** | 30136 | 0.9 | 58.8% | -0.33 |
| **Grand total** | All pupils | **1.7** | 137963 | 0.9 | 64.8% | **1.8** | 502122 | 0.9 | 69.8% | -0.14 |

*Notes: SEN=Special Educational Needs; IDACI=Income Deprivation Affecting Children Index; Year joined school sourced from Mobile; %READEXP sourced from KS1READEXP, which represents the % achieving expected or above in KS1 Reading; Traveller of Irish heritage and Gypsy/Roma were combined to ensure n ≥ 10; Mean, SD, N from KS1READ*

## Table 18: Maths attainment at key stage 1 (age 7) by EAL status and pupil background factors, 2023

| | | EAL | | | | MLE | | | | Cohen's |
|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | Value | Mean | N | SD | % MATEXP | Mean | N | SD | % MATEXP | *d* |
| **Gender** | Female | **1.8** | 67473 | 0.8 | 69.8% | **1.8** | 245501 | 0.7 | 70.9% | -0.03 |
| | Male | **1.8** | 70496 | 0.9 | 68.7% | **1.8** | 256613 | 0.8 | 71.8% | -0.07 |
| **Season of birth** | Autumn | **1.9** | 45796 | 0.8 | 76.3% | **2.0** | 170819 | 0.8 | 78.6% | -0.06 |
| | Spring | **1.8** | 44328 | 0.8 | 69.6% | **1.8** | 162241 | 0.8 | 71.6% | -0.05 |
| | Summer | **1.6** | 47845 | 0.8 | 62.1% | **1.7** | 169054 | 0.8 | 63.8% | -0.04 |
| **Ethnic group** | White British | **1.9** | 5504 | 0.8 | 74.0% | **1.8** | 396422 | 0.8 | 71.2% | 0.07 |
| | White Irish | **1.7** | 42 | 0.9 | 69.0% | **1.8** | 1399 | 0.8 | 70.9% | -0.15 |
| | Traveller | **0.9** | 1142 | 0.8 | 26.1% | **1.1** | 1949 | 0.8 | 34.1% | -0.25 |
| | White Other | **1.7** | 37685 | 0.8 | 68.9% | **1.9** | 10355 | 0.8 | 77.7% | -0.23 |
| | White & African | **1.7** | 1261 | 0.8 | 68.4% | **1.8** | 4850 | 0.8 | 71.8% | -0.06 |
| | White & Carribbean | **1.7** | 343 | 0.8 | 66.8% | **1.7** | 10131 | 0.8 | 63.2% | 0.00 |
| | White & Asian | **1.9** | 2330 | 0.8 | 73.8% | **2.0** | 9027 | 0.8 | 78.1% | -0.11 |
| | Mixed Other | **1.8** | 5156 | 0.8 | 70.8% | **1.9** | 12783 | 0.8 | 73.1% | -0.08 |
| | Indian | **1.9** | 16411 | 0.8 | 76.1% | **2.1** | 7952 | 0.8 | 82.6% | -0.17 |
| | Pakistani | **1.7** | 18292 | 0.8 | 65.9% | **1.8** | 9515 | 0.8 | 70.0% | -0.09 |
| | Bangladeshi | **1.8** | 8124 | 0.8 | 70.7% | **1.9** | 2932 | 0.8 | 76.1% | -0.11 |
| | Asian Other | **1.8** | 9485 | 0.9 | 70.3% | **1.9** | 3821 | 0.8 | 77.6% | -0.18 |
| | Black African | **1.7** | 12577 | 0.8 | 67.1% | **1.8** | 13066 | 0.8 | 71.6% | -0.11 |
| | Black Carribbean | **1.5** | 187 | 0.9 | 57.2% | **1.6** | 4928 | 0.8 | 61.3% | -0.10 |
| | Black Other | **1.6** | 1610 | 0.8 | 63.7% | **1.7** | 3323 | 0.8 | 66.9% | -0.10 |
| | Chinese | **2.3** | 3642 | 0.7 | 89.0% | **2.3** | 738 | 0.7 | 90.7% | -0.09 |
| | Any Other | **1.6** | 11792 | 0.9 | 63.1% | **1.8** | 2776 | 0.8 | 72.4% | -0.22 |
| | Not Obtained | **1.6** | 1231 | 0.9 | 60.6% | **1.7** | 3316 | 0.9 | 64.7% | -0.12 |
| | Refused | **1.7** | 1155 | 0.9 | 66.1% | **1.8** | 2831 | 0.8 | 71.2% | -0.11 |
| **Free school meal** | Entitled | **1.6** | 32627 | 0.8 | 60.2% | **1.5** | 124479 | 0.8 | 54.8% | 0.12 |
| | Not entitled | **1.8** | 105342 | 0.8 | 72.0% | **1.9** | 377635 | 0.8 | 76.8% | -0.12 |
| **Ever free school** | Yes | **1.6** | 33586 | 0.8 | 60.2% | **1.5** | 126694 | 0.8 | 54.8% | 0.12 |
| | No | **1.8** | 104383 | 0.8 | 72.1% | **1.9** | 375420 | 0.8 | 76.9% | -0.12 |
| **IDACI deprivation quintile** | Very low | **1.9** | 13688 | 0.8 | 76.4% | **2.0** | 112345 | 0.7 | 78.9% | -0.05 |
| | Low | **1.8** | 19204 | 0.8 | 72.7% | **1.9** | 108972 | 0.8 | 74.8% | -0.04 |
| | Average | **1.8** | 30252 | 0.8 | 70.5% | **1.8** | 98868 | 0.8 | 71.2% | 0.00 |
| | High | **1.7** | 38542 | 0.8 | 68.0% | **1.7** | 89713 | 0.8 | 66.8% | 0.03 |
| | Very high | **1.7** | 36120 | 0.8 | 65.0% | **1.6** | 91454 | 0.8 | 62.7% | 0.05 |
| **SEN provision** | EHCP | **0.5** | 4834 | 0.8 | 14.2% | **0.5** | 17729 | 0.8 | 14.9% | -0.03 |
| | SEN support | **1.2** | 15670 | 0.9 | 36.5% | **1.2** | 69420 | 0.8 | 36.8% | -0.03 |
| | No SEN | **1.9** | 117465 | 0.7 | 75.9% | **2.0** | 414965 | 0.7 | 79.5% | -0.10 |
| **Year joined school** | Reception | **1.8** | 105266 | 0.8 | 72.9% | **1.8** | 444734 | 0.8 | 72.8% | 0.00 |
| | Y1 | **1.6** | 16875 | 0.9 | 61.2% | **1.6** | 27248 | 0.9 | 61.0% | 0.01 |
| | Y2 | **1.4** | 15828 | 0.9 | 53.4% | **1.6** | 30132 | 0.9 | 59.4% | -0.14 |
| **Grand total** | All pupils | **1.8** | 137969 | 0.8 | 69.2% | **1.8** | 502114 | 0.8 | 71.4% | -0.05 |

*Notes: SEN=Special Educational Needs; IDACI=Income Deprivation Affecting Children Index; Year joined school sourced from Mobile; %MATHEXP sourced from KS1MATHEXP, which represents the % achieving expected or above in KS1 maths; Traveller of Irish heritage and Gypsy/Roma were combined to ensure n ≥ 10; Mean, SD, N*

## *Contextualised variation (key stage 1)*

Table 19 displays results from a logistic regression model run for all pupils with an outcome of whether or not they were "meeting the expected standard" or above in key stage 1 reading at age 7, accounting for EAL status along with all other background variables discussed above.

**Table 19: Contextualised variation in reading attainment for all pupils at key stage 1 (age 7), 2023**

| Variable | Values | OR |
|---|---|---|
| | Intercept | 6.44 |
| EAL status (vs. MLE) | EAL | 0.67 |
| Gender (vs Girl) | Boy | 0.91 |
| Birth season (vs Autumn) | Spring | 0.72 |
| | Summer | 0.52 |
| Ethnicity (vs White British) | White Other | 1.04 |
| | Black African/MWBA | 1.71 |
| | Black Caribbean/MWBC | 1.00 |
| | Indian | 1.55 |
| | Pakistani | 1.23 |
| | Bangladeshi | 1.77 |
| | Asian Other/Chinese/MWAS | 1.53 |
| | Any Other | 1.07 |
| FSM Ever 6 (vs not eligible) | Eligible | 0.54 |
| IDACI | IDACI (1SD) | 0.88 |
| SEN Provision (vs None) | SEN support | 0.16 |
| | EHCP | 0.04 |
| YearEnter (vs R) | Y1 | 0.60 |
| | Y2 | 0.45 |
| Model fit: Nagelkerke $R^2$ | | 0.26 |

*Notes: FSM = free school meals; SEN = special educational needs; IDACI = Income Deprivation Affecting Children Index; MWBC = Mixed White and Black Caribbean; MWBA = Mixed White and Black African; MWAS = Mixed White and Asian.*

Results show that EAL pupils (OR=0.67) tended to underperform substantially relative to their MLE-speaking peers after accounting for other pupil background factors. This effect was somewhat less pronounced that those of being summer-born (OR=0.52), FSM-eligible (OR=0.54), having SEN provision (OR=0.16 for SEN support and OR=0.04 for EHCP), or arriving in year 1 (OR=0.60) or year 2 (OR=0.45). Several ethnic groups appeared to have higher key stage 1 reading attainment than their White British peers, including Black African and Mixed White and Black African (OR=1.71), Indian (OR=1.55),

Bangladeshi (OR=1.77) and Asian Other/Chinese/Mixed White and Asian (OR=1.53) pupils. Effects of gender and neighbourhood deprivation were not substantial.

Table 20 shows an identical logistic regression model run for an outcome of whether or not pupils met the expected standard or above in key stage 1 maths. Effects were extremely similar to those in key stage 1 reading for being spring- or summer-born or FSM-eligible, arriving after Reception, or having SEN provision, and the same ethnic groups tended to over-achieve in maths as in reading relative to White British peers. However, for key stage 1 maths, boys (OR=1.41) tended to outperform girls after accounting for all other pupil background factors.

**Table 20: Contextualised variation in maths attainment for all pupils at key stage 1 (age 7), 2023**

| Variable | Values | OR |
|---|---|---|
| | Intercept | 6.02 |
| EAL status (vs. MLE) | EAL | 0.81 |
| Gender (vs Girl) | Boy | 1.41 |
| Birth season (vs Autumn) | Spring | 0.69 |
| | Summer | 0.48 |
| Ethnicity (vs White British) | White Other | 1.10 |
| | Black African/MWBA | 1.36 |
| | Black Caribbean/MWBC | 0.84 |
| | Indian | 1.48 |
| | Pakistani | 1.02 |
| | Bangladeshi | 1.52 |
| | Asian Other/Chinese/MWAS | 1.58 |
| | Any Other | 0.99 |
| FSM Ever 6 (vs not eligible) | Eligible | 0.52 |
| IDACI | IDACI (1SD) | 0.89 |
| SEN Provision (vs None) | SEN Support | 0.16 |
| | EHCP | 0.04 |
| YearEnter (vs R) | Y1 | 0.64 |
| | Y2 | 0.47 |
| Model fit: Nagelkerke $R^2$ | | 0.25 |

*Notes: FSM = free school meals; SEN = special educational needs; IDACI = Income Deprivation Affecting Children Index; MWBC = Mixed White and Black Caribbean; MWBA = Mixed White and Black African; MWAS = Mixed White and Asian. Numbers reported are ORs.*

For key stage 1 reading, separate regressions for EAL and MLE groups (Table 21) show that while most of the impact of background variables remained similar across these groups, there were some notable differences for particular ethnic groups and for year of entry. As was the case for EYFS, being eligible for FSM tended to be associated with a greater educational disadvantage for MLE-speaking pupils (OR=0.49) than for EAL pupils (OR=0.68). The White Other group, which seemed to have no substantial association with attainment overall, in fact showed substantial underperformance (OR=0.75) relative to White British pupils – but only among EAL learners. Joining in a later year (OR=0.39 for year 1; OR=0.24 for year 2) had a much more pronounced effect among EAL pupils than among their MLE-speaking peers (OR=0.77 for year 1; OR=0.62 for year 2).

**Table 21: Contextualised variation in reading attainment, EAL and MLE learners at key stage 1 (age 7), 2023**

| Variable | Values | EAL | MLE |
|---|---|---|---|
| | Intercept | 6.17 | 6.41 |
| Gender (vs Girl) | Boy | 0.87 | 0.92 |
| Birth season (vs Autumn) | Spring | 0.74 | 0.71 |
| | Summer | 0.55 | 0.51 |
| Ethnicity (vs White British) | White Other | 0.75 | 1.26 |
| | Black African/MWBA | 1.39 | 1.51 |
| | Black Caribbean/MWBC | 0.94 | 1.00 |
| | Indian | 1.26 | 1.65 |
| | Pakistani | 0.92 | 1.12 |
| | Bangladeshi | 1.29 | 1.62 |
| | Asian Other/Chinese/MWAS | 1.23 | 1.52 |
| | Any Other | 0.78 | 1.10 |
| FSM Ever 6 (vs not eligible) | Eligible | 0.68 | 0.49 |
| IDACI | IDACI (1SD) | 0.87 | 0.89 |
| SEN Provision (vs None) | SEN Support | 0.15 | 0.15 |
| | EHCP | 0.04 | 0.04 |
| YearEnter (vs R) | Y1 | 0.39 | 0.77 |
| | Y2 | 0.24 | 0.62 |
| Model fit: Nagelkerke $R^2$ | | 0.25 | 0.26 |

*Notes: FSM = free school meals; SEN = special educational needs; IDACI = Income Deprivation Affecting Children Index; MWBC = Mixed White and Black Caribbean; MWBA = Mixed White and Black African; MWAS = Mixed White and Asian. Numbers reported are ORs.*

Patterns of differences between the EAL and MLE groups were largely similar for key stage 1 maths compared to key stage 1 reading (see Table 22). Additionally, the effect of gender seemed to be larger for the MLE-speaking group, though boys outperformed girls to some extent both among MLE-speaking (OR=1.46) and EAL (OR=1.25) pupils. Patterns of attainment by ethnic group were slightly different to those for reading as well, with only the Asian Other/Chinese/Mixed White and Asian group out-performing their White British peers (OR=1.33) within the EAL group.

**Table 22: Contextualised variation in maths attainment, EAL and MLE learners at key stage 1 (age 7), 2023**

| Variable | Values | EAL | MLE |
|---|---|---|---|
| | Intercept | 6.60 | 6.00 |
| Gender (vs Girl) | Boy | 1.25 | 1.46 |
| Birth season (vs Autumn) | Spring | 0.71 | 0.68 |
| | Summer | 0.51 | 0.47 |
| Ethnicity (vs White British) | White Other | 0.82 | 1.32 |
| | Black African/MWBA | 1.08 | 1.28 |
| | Black Caribbean/MWBC | 0.82 | 0.84 |
| | Indian | 1.20 | 1.59 |
| | Pakistani | 0.78 | 0.99 |
| | Bangladeshi | 1.10 | 1.58 |
| | Asian Other/Chinese/MWAS | 1.33 | 1.49 |
| | Any Other | 0.76 | 1.00 |
| FSM Ever 6 (vs not eligible) | Eligible | 0.66 | 0.48 |
| IDACI | IDACI (1SD) | 0.87 | 0.90 |
| SEN Provision (vs None) | SEN Support | 0.16 | 0.16 |
| | EHCP | 0.04 | 0.04 |
| YearEnter (vs R) | Y1 | 0.49 | 0.74 |
| | Y2 | 0.31 | 0.59 |
| Model fit: Nagelkerke R2 | | 0.23 | 0.26 |

*Notes: FSM = free school meals; SEN = special educational needs; IDACI = Income Deprivation Affecting Children Index; MWBC = Mixed White and Black Caribbean; MWBA = Mixed White and Black African; MWAS = Mixed White and Asian. Numbers reported are ORs.*

Just as we tested interactions between EAL and other pupil background factors in the previous section to see whether they differentially affected pupils' probability of attaining a GLD by age 5, we did the same for the probabilities of meeting the expected standards or above in reading and in maths in key stage 1.

There was no substantial interaction between EAL status and neighbourhood deprivation; higher neighbourhood deprivation was associated with a lower probability of meeting the expected standard in key stage 1 reading, but this gap was consistent across the MLE and EAL groups. Similarly, there was no substantial interaction between EAL status and birth season, nor between EAL status and SEN provision, where higher levels of need were associated with lower probabilities of achieving the expected standard in reading, but these gaps did not vary substantially according to EAL status.

There was a small but significant interaction between EAL status and gender in key stage 1 reading (see Figure 8a). In practical terms, however, this was a very small effect. Essentially, girls were about 1% more likely than boys to meet the expected standard or above in the MLE group, compared to about 2% more likely than boys in the EAL group.

Although the gender gap for key stage 1 maths was larger overall, the interaction between gender and EAL still constituted a very small effect (see Figure 8b).

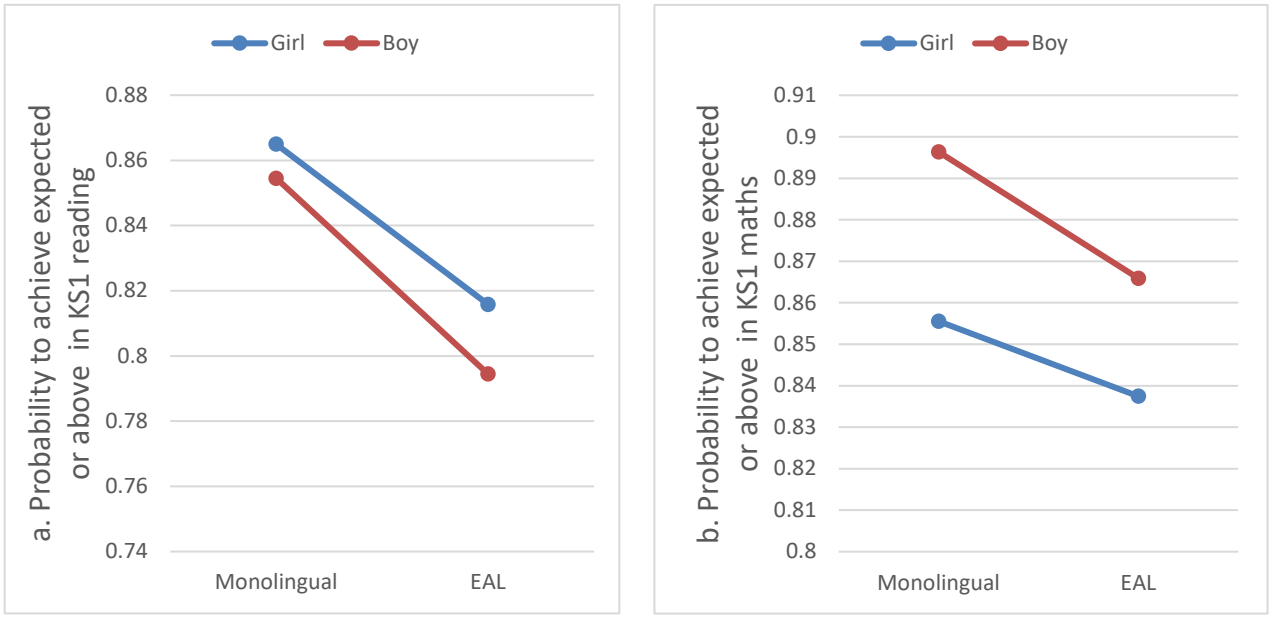



**Figure 8: Interaction between EAL status and gender for meeting the expected standard or above in key stage 1 reading (a) and maths (b)**

A similarly small but significant interaction was evident between EAL status and FSM eligibility (see Figure 9a) for meeting the expected standard or above in key stage 1 reading. EAL pupils had a slightly less pronounced FSM-related achievement gap (about 7%) compared to that of their MLE-speaking peers (about 10%), but regardless of FSM eligibility, MLE speakers had a higher probability of achieving the expected standard or above in key stage 1 reading. The corresponding interaction effect for key stage 1 maths was somewhat similar if slightly more pronounced (see Figure 9b).

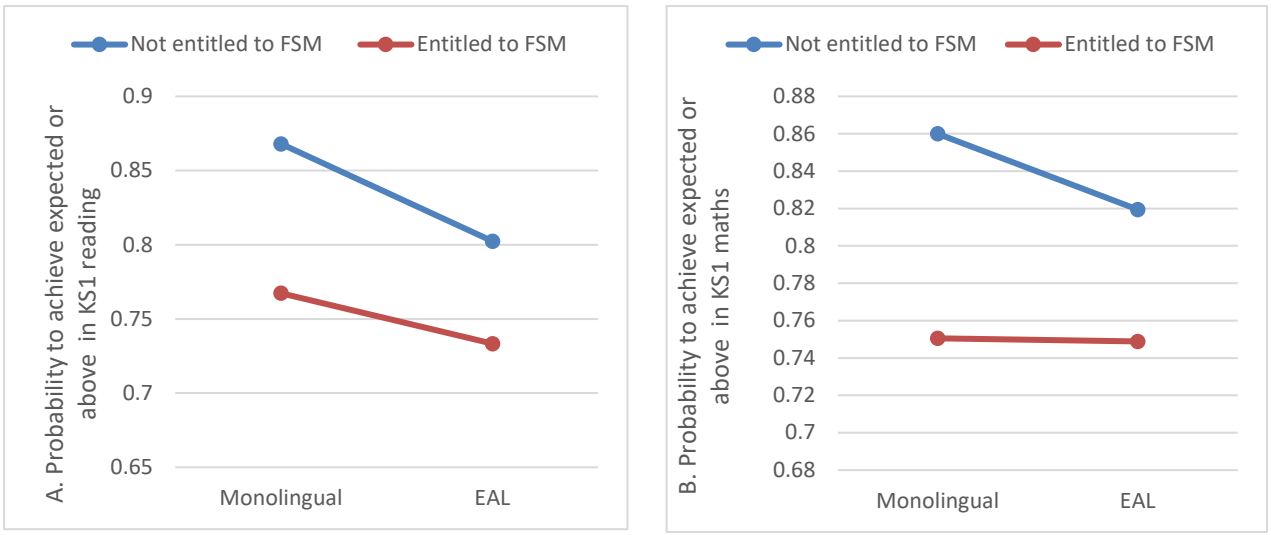



**Figure 9: Interaction between EAL status and FSM eligibility for meeting the expected standard or above in key stage 1 reading (a) and maths (b)**

There was a more substantial interaction between EAL status and the year in which a pupil entered the education system, proxied by the year in which they first appeared in their school in the NPD key stage 1 dataset. As Figure 10a shows, later entry was associated with a lower chance of meeting the expected standard in key stage 1 reading within the EAL group, where this was not the case for MLE-speaking pupils. In practical terms, this means that EAL pupils joining in year 2 were 29% less likely to meet the expected standard than their EAL peers who arrived in Reception, and 12% less likely to meet the expected standard than their EAL peers who joined in year 1. The effect was similar in key stage 1 maths (see Figure 10b), just slightly less pronounced.

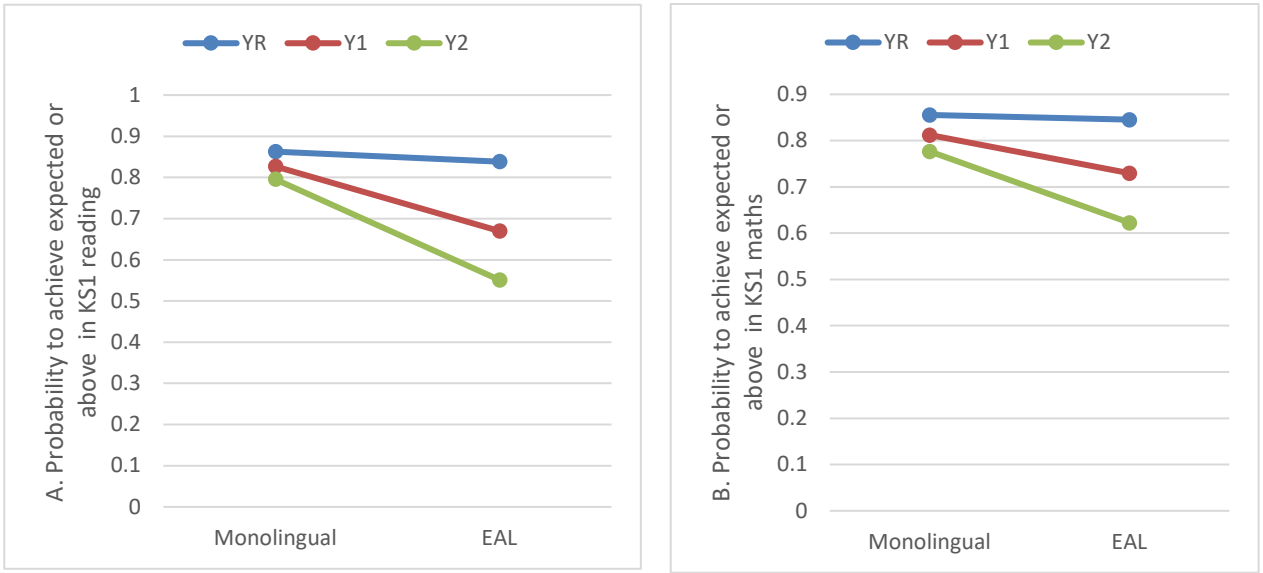



**Figure 10: Interaction between EAL status and year of entry for probability of meeting expected standard or above in key stage 1 reading (a) and maths (b)**

As noted at age 5 above, there were some significant interactions between ethnic group and EAL status, and these were complex as might be expected given the interplay of first language spoken and other factors potentially underlying these interactions, but again we do not break this interaction down here as the comparison within the group of EAL pupils to a small group of White British pupils complicates interpretation. Differences between ethnic group patterns of achievement by EAL status are more interpretable when considered separately for MLE and EAL pupils (Tables 21 and 22).

## Key stage 2 (age 11)

Aggregate data in the previous chapter showed that in general, at age 11, EAL learners had lower attainment in reading but higher in maths compared to MLE-speaking pupils, though both differences were fairly small.

Table 23, which contains descriptive statistics based on individual pupil data from spring 2023, shows the mean reading scores and percent meeting expected standards or above for all key stage 2 pupils in England in spring 2023 as well as for EAL and MLE pupils separately. The data for the EAL and MLE groups are further broken down according to the same additional background variables covered above for EYFS and key stage 1.

Risk factors at age 11 were similar to those at ages 5 and 7 to some extent:

- **Gender:** Boys tended to achieve slightly lower than girls in reading.
- **Age:** Being younger within the school year (e.g. summer-born) was associated with slightly lower key stage 2 reading scores.
- **Eligibility for FSM:** Pupils eligible for FSM tended to have lower key stage 2 reading scores than pupils not eligible for FSM.
- **Neighbourhood deprivation:** Living in a more deprived neighbourhood corresponded to slightly lower key stage 2 reading scores.
- **SEN:** Pupils with EHCPs had lower reading scores at key stage 2 than their peers with SEN support, who in turn had lower reading scores than pupils with no identified SEN.

As in the previous age groups, attainment gaps based on EAL status varied in combination with some of these risks. Again, at age 11, the EAL status attainment gap was larger for pupils who had not been eligible for FSM ($d$=-0.19), and negligible among those who had been eligible for FSM ($d$=0.01). EAL and MLE-speaking pupils again had slightly greater differences in attainment in less deprived neighbourhoods (based on IDACI) in key stage 2 reading.

There was again substantial variation in EAL–MLE attainment gaps across different ethnic groups as well, but little EAL–MLE attainment gap difference between boys and girls ($d$=-0.11 and -0.14, respectively). There was hardly any difference in the EAL attainment gap according to age within the school year, which seems intuitive at this

stage. Pupils with EHCPs or SEN support (*d*=-0.23 and -0.24, respectively) had similar – and slightly smaller – attainment gaps based on EAL status compared to their peers with no identified SEN (*d*=-0.27). EAL pupils who changed schools were at a substantially greater disadvantage compared to MLE speakers who changed schools (*d*=-0.39), whereas the EAL attainment gap was minimal (*d*=-0.05) for pupils who did not change schools.

## Table 23: Reading attainment at key stage 2 (age 11) by EAL status and pupil background factors, 2023

| | | EAL | | | | MLE | | | | Cohen's d |
|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | Value | Mean | N | SD | %READEXP | Mean | N | SD | %READEXP | |
| **Gender** | Female | **103.8** | 71724 | 9.8 | 72.0% | **105.1** | 253586 | 9.1 | 76.8% | -0.14 |
| | Male | **102.0** | 75354 | 11.0 | 67.0% | **103.2** | 263826 | 10.5 | 71.1% | -0.11 |
| **Season of birth** | Autumn | **103.9** | 48880 | 10.3 | 73.1% | **105.2** | 174567 | 9.7 | 77.7% | -0.13 |
| | Spring | **102.8** | 47561 | 10.5 | 69.6% | **104.1** | 169494 | 9.9 | 73.9% | -0.13 |
| | Summer | **102.0** | 50637 | 10.5 | 66.3% | **103.1** | 173353 | 10.0 | 70.1% | -0.11 |
| **Ethnic group** | White British | **105.0** | 4279 | 9.4 | 77.8% | **104.1** | 420561 | 9.8 | 73.5% | 0.10 |
| | White Irish | **105.3** | 38 | 11.8 | 76.3% | **106.1** | 1457 | 10.2 | 79.7% | -0.08 |
| | Traveller | **91.4** | 1164 | 11.2 | 23.1% | **95.2** | 1682 | 11.8 | 38.1% | -0.32 |
| | Whtie Other | **102.4** | 38549 | 10.5 | 67.5% | **106.4** | 9279 | 9.6 | 81.9% | -0.38 |
| | White & African | **103.2** | 1344 | 10.2 | 72.3% | **104.3** | 4723 | 9.9 | 74.9% | -0.11 |
| | White & Carribbean | **103.0** | 313 | 10.2 | 69.6% | **102.6** | 10432 | 9.9 | 68.9% | 0.04 |
| | White & Asian | **105.0** | 2093 | 9.8 | 76.3% | **106.4** | 8378 | 9.3 | 81.2% | -0.15 |
| | Mixed Other | **103.5** | 4802 | 10.6 | 71.2% | **105.1** | 11539 | 10.0 | 77.6% | -0.15 |
| | Indian | **105.2** | 16641 | 9.6 | 77.5% | **106.8** | 7046 | 9.5 | 83.8% | -0.16 |
| | Pakistani | **102.3** | 22060 | 9.9 | 67.9% | **103.5** | 7838 | 10.6 | 74.4% | -0.12 |
| | Bangladeshi | **104.0** | 9520 | 10.2 | 75.7% | **104.8** | 1904 | 11.4 | 78.3% | -0.08 |
| | Asian Other | **103.3** | 10041 | 10.5 | 71.6% | **105.7** | 3385 | 10.2 | 81.1% | -0.22 |
| | Black African | **102.8** | 15031 | 10.0 | 70.4% | **104.4** | 12440 | 9.9 | 77.4% | -0.16 |
| | Black Carribbean | **101.2** | 281 | 11.0 | 64.9% | **101.9** | 5926 | 9.6 | 66.6% | -0.08 |
| | Black Other | **101.6** | 1911 | 10.3 | 65.2% | **103.0** | 3376 | 10.5 | 72.3% | -0.14 |
| | Chinese | **104.7** | 4945 | 10.8 | 73.7% | **109.2** | 765 | 8.9 | 89.3% | -0.42 |
| | Any Other | **100.5** | 12358 | 11.6 | 61.4% | **104.8** | 2434 | 10.2 | 77.9% | -0.38 |
| | Not yet obtained | **99.5** | 925 | 11.9 | 55.2% | **102.4** | 2157 | 11.1 | 68.1% | -0.26 |
| | Refused | **102.8** | 783 | 10.2 | 68.7% | **104.7** | 2092 | 10.4 | 75.7% | -0.19 |
| **Free school meal** | Entitled | **100.3** | 40842 | 11.2 | 60.4% | **100.3** | 140566 | 10.7 | 59.3% | 0.00 |
| | Not entitled | **103.9** | 106236 | 10.0 | 73.2% | **105.6** | 376848 | 9.2 | 79.4% | -0.18 |
| **Ever free school meal** | Yes | **100.4** | 44540 | 11.1 | 61.1% | **100.4** | 152665 | 10.7 | 59.8% | 0.01 |
| | No | **103.9** | 102538 | 10.0 | 73.3% | **105.7** | 364749 | 9.1 | 79.8% | -0.19 |
| **IDACI deprivation quintile** | Very low | **104.9** | 14735 | 10.5 | 75.9% | **106.5** | 118339 | 9.0 | 82.2% | -0.17 |
| | Low | **104.0** | 20008 | 10.3 | 73.3% | **105.1** | 112318 | 9.4 | 77.5% | -0.12 |
| | Average | **103.1** | 31826 | 10.4 | 70.7% | **103.9** | 100766 | 9.9 | 73.0% | -0.08 |
| | High | **102.5** | 41459 | 10.4 | 68.5% | **102.7** | 92198 | 10.3 | 69.1% | -0.02 |
| | Very high | **101.8** | 38837 | 10.5 | 65.7% | **101.6** | 92942 | 10.4 | 64.8% | 0.02 |
| **SEN provision** | EHCP | **80.4** | 4875 | 15.0 | 13.4% | **84.0** | 25987 | 15.4 | 19.1% | -0.23 |
| | SEN support | **96.1** | 16539 | 10.2 | 37.8% | **98.4** | 87103 | 9.8 | 46.3% | -0.24 |
| | No SEN | **104.6** | 125664 | 8.8 | 76.0% | **106.7** | 404324 | 7.1 | 83.6% | -0.27 |
| **Change of school** | Yes | **97.4** | 20857 | 12.7 | 48.0% | **101.9** | 31831 | 10.9 | 65.4% | -0.39 |
| | No | **103.8** | 126221 | 9.7 | 73.3% | **104.3** | 485583 | 9.8 | 74.5% | -0.05 |
| **Grand total** | All pupils | **102.9** | 147100 | 10.5 | 70.0% | **104.1** | 517414 | 9.9 | 74.0% | -0.12 |

*Notes: SEN=special educational needs; IDACI=Income Deprivation Affecting Children Index; Change of school from KS2_NEWMOBILE; %READEXP from KS2_READEXP, represents the % reaching expected standard in KS2 reading; Traveller of Irish heritage and Gypsy/Roma were combined so n ≥ 10.*

Figure 11 visualises differences in key stage 2 reading achievement by ethnic group to give a sense of the size and variation of these differences, in terms of distances from the overall population mean in key stage 2 reading. We omit the White Irish group here due to small counts.

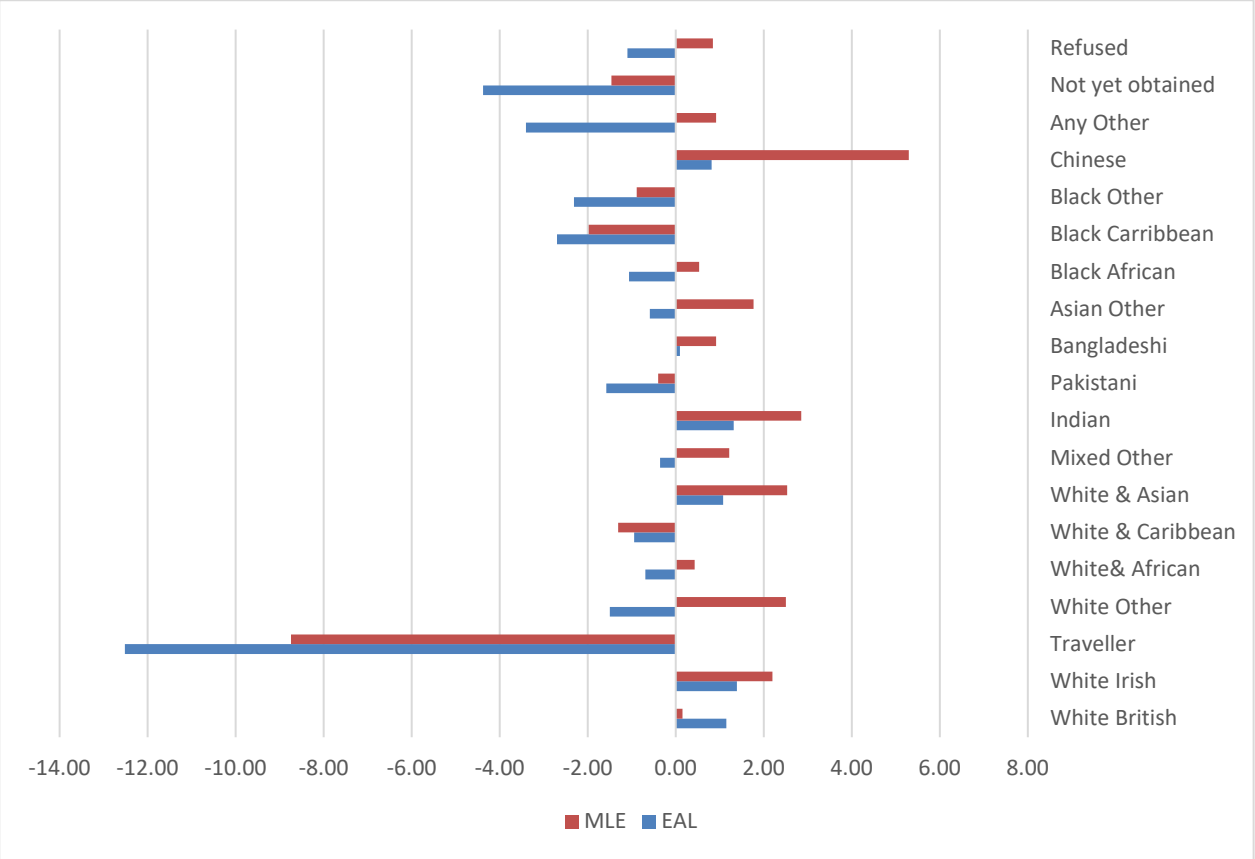



**Figure 11: Attainment at key stage 2 reading by ethnic group**

Patterns were somewhat different for key stage 2 maths (Table 24). The attainment gap based on EAL status was still similar for girls (*d*=0.17) and boys (*d*=0.14), but in the other direction, i.e. in favour of EAL pupils. In general, boys outperformed girls very, very slightly and EAL pupils tended to outperform their MLE-speaking peers. There was little difference in the EAL status attainment gap by birth season, although being younger within the school year was still a risk factor for lower attainment. Pupils eligible for FSM still underperformed relative to their FSM-ineligible peers, but the EAL attainment gap for key stage 2 maths was wider for FSM-eligible pupils (*d*=0.25) than their FSM-ineligible peers (*d*=0.12), in contrast to what we saw for the previous key stages and subject areas, neighbourhood deprivation had little to no effect on the EAL attainment gap in key stage 2 maths, and differences due to changing schools or SEN provision were also minimal.

## Table 24: Maths attainment at key stage 2 (age 11) by EAL status and pupil background factors, 2023

| | | EAL | | | | MLE | | | | Cohen's d |
|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | Value | Mean | N | SD | %MATEXP | Mean | N | SD | %MATEXP | |
| **Gender** | Female | **104.1** | 71691 | 9.3 | 76.8% | **102.6** | 253235 | 8.7 | 71.4% | 0.17 |
| | Male | **104.5** | 75349 | 10.5 | 77.3% | **103.0** | 263421 | 10.0 | 72.7% | 0.14 |
| **Season of birth** | Autumn | **105.2** | 48858 | 9.8 | 80.2% | **103.8** | 174332 | 9.2 | 75.7% | 0.15 |
| | Spring | **104.2** | 47556 | 10.0 | 76.8% | **102.8** | 169241 | 9.4 | 71.8% | 0.15 |
| | Summer | **103.4** | 50626 | 10.0 | 74.3% | **101.9** | 173085 | 9.5 | 68.5% | 0.16 |
| **Ethnic group** | White British | **105.0** | 4275 | 8.8 | 80.5% | **102.6** | 419912 | 9.2 | 71.3% | 0.26 |
| | White Irish | **105.5** | 38 | 10.0 | 81.6% | **104.0** | 1459 | 9.6 | 76.6% | 0.16 |
| | Traveller | **91.1** | 1160 | 10.8 | 25.0% | **93.8** | 1657 | 10.8 | 33.2% | -0.24 |
| | Whtie Other | **103.6** | 38556 | 9.6 | 75.2% | **105.1** | 9271 | 9.0 | 80.7% | -0.16 |
| | White & African | **103.2** | 1343 | 9.9 | 74.6% | **102.7** | 4718 | 9.4 | 72.3% | 0.06 |
| | White & Carribbean | **102.5** | 313 | 9.3 | 70.9% | **100.7** | 10409 | 9.5 | 62.6% | 0.19 |
| | White & Asian | **105.6** | 2093 | 9.2 | 81.3% | **105.4** | 8370 | 9.1 | 80.8% | 0.02 |
| | Mixed Other | **104.5** | 4793 | 10.0 | 76.8% | **103.8** | 11524 | 9.7 | 75.6% | 0.07 |
| | Indian | **107.5** | 16635 | 9.2 | 86.1% | **108.0** | 7045 | 9.3 | 88.4% | -0.05 |
| | Pakistani | **103.4** | 22039 | 9.7 | 75.2% | **103.7** | 7834 | 10.6 | 77.1% | -0.03 |
| | Bangladeshi | **105.0** | 9513 | 10.0 | 80.6% | **105.4** | 1902 | 11.4 | 82.5% | -0.04 |
| | Asian Other | **105.8** | 10045 | 10.2 | 80.9% | **106.2** | 3385 | 10.1 | 84.0% | -0.04 |
| | Black African | **102.9** | 15020 | 9.6 | 74.4% | **104.1** | 12430 | 9.7 | 78.8% | -0.12 |
| | Black Carribbean | **100.7** | 279 | 10.2 | 65.6% | **100.3** | 5922 | 9.5 | 62.6% | 0.05 |
| | Black Other | **102.0** | 1911 | 9.7 | 68.9% | **101.8** | 3373 | 10.3 | 69.9% | 0.02 |
| | Chinese | **110.5** | 4961 | 8.0 | 94.2% | **111.1** | 764 | 8.1 | 94.4% | -0.07 |
| | Any Other | **102.5** | 12355 | 10.8 | 70.7% | **104.5** | 2436 | 10.1 | 79.0% | -0.19 |
| | Not yet obtained | **102.0** | 928 | 10.4 | 68.5% | **101.1** | 2155 | 10.7 | 63.7% | 0.08 |
| | Refused | **104.1** | 783 | 9.8 | 76.1% | **103.3** | 2092 | 10.1 | 72.9% | 0.08 |
| **Free school meal** | Entitled | **101.4** | 40843 | 10.7 | 67.2% | **98.9** | 140177 | 10.2 | 55.7% | 0.24 |
| | Not entitled | **105.4** | 106197 | 9.4 | 80.9% | **104.3** | 376481 | 8.6 | 78.2% | 0.13 |
| **Ever free school meal** | Yes | **101.6** | 44538 | 10.6 | 67.9% | **99.0** | 152253 | 10.2 | 56.2% | 0.25 |
| | No | **105.5** | 102502 | 9.4 | 81.0% | **104.4** | 364405 | 8.6 | 78.6% | 0.12 |
| **IDACI deprivation quintile** | Very low | **107.0** | 14759 | 9.4 | 84.4% | **105.0** | 118267 | 8.5 | 80.3% | 0.23 |
| | Low | **105.7** | 20014 | 9.6 | 81.1% | **103.7** | 112161 | 8.9 | 75.3% | 0.22 |
| | Average | **104.6** | 31815 | 9.9 | 78.1% | **102.6** | 100601 | 9.4 | 70.8% | 0.21 |
| | High | **103.7** | 41432 | 10.0 | 75.7% | **101.6** | 92040 | 9.8 | 67.4% | 0.22 |
| | Very high | **102.9** | 38807 | 10.1 | 72.9% | **100.5** | 92738 | 10.0 | 63.4% | 0.23 |
| **SEN provision** | EHCP | **81.8** | 4871 | 15.8 | 17.6% | **83.5** | 25872 | 14.4 | 16.2% | -0.12 |
| | SEN support | **97.1** | 16526 | 10.2 | 44.8% | **97.0** | 86835 | 9.1 | 41.9% | 0.00 |
| | No SEN | **106.1** | 125643 | 7.9 | 83.7% | **105.3** | 403951 | 6.7 | 82.3% | 0.12 |
| **Change of school** | Yes | **101.3** | 20905 | 11.8 | 63.8% | **100.3** | 31697 | 10.5 | 60.3% | 0.09 |
| | No | **104.8** | 126135 | 9.5 | 79.3% | **103.0** | 484961 | 9.3 | 72.8% | 0.19 |
| **Grand total** | All pupils | **104.3** | 147040 | 10.0 | 77.0% | **102.8** | 516658 | 9.4 | 72.0% | 0.15 |

*Notes: SEN=special educational needs; IDACI=Income Deprivation Affecting Children Index; Change of school from KS2_NEWMOBILE; %MATEXP from KS2_MATEXP, represents the % reaching expected standard in KS2 maths; Traveller of Irish heritage and Gypsy/Roma were combined so n ≥ 10.*

Figure 12 visualises the considerable variation in attainment in maths at age 11 among ethnic groups, based on EAL and MLE-speaking average differences from the overall population mean. A comparison back to the similar figure for key stage 2 reading attainment in Figure 11 makes clear that even where the same groups may have had higher achievement, the differences between EAL and MLE pupils' achievement were typically smaller in key stage 2 maths than in key stage 2 reading.

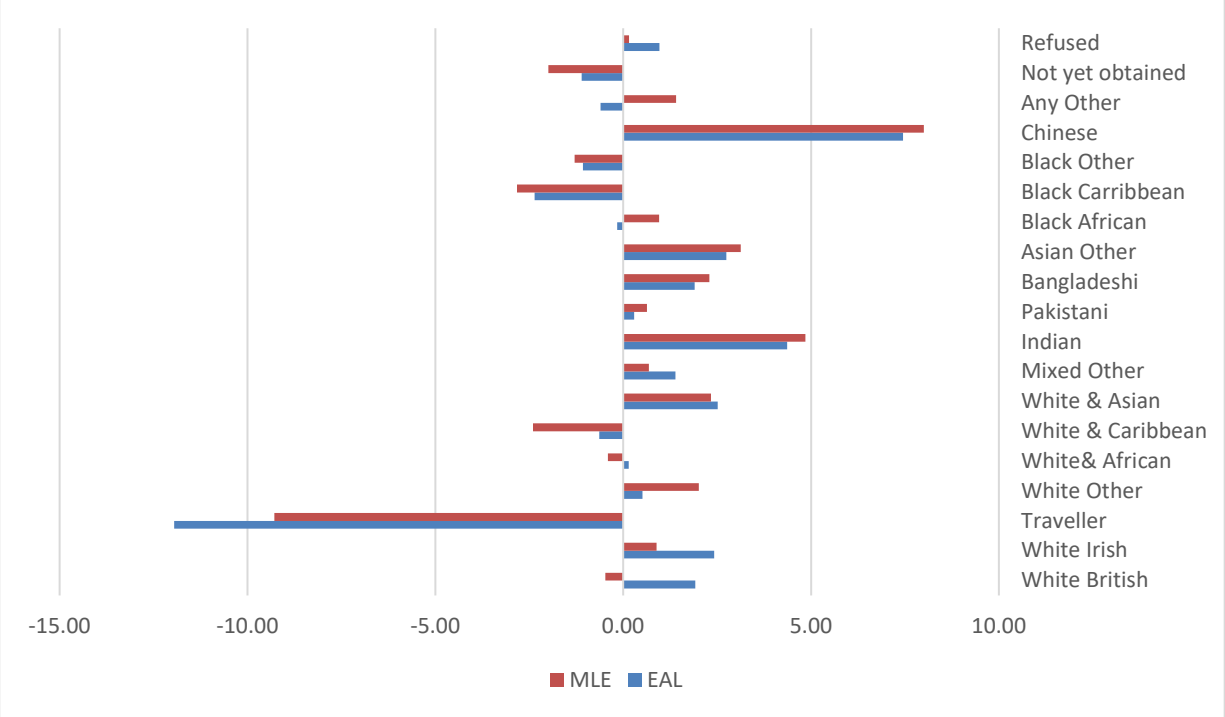



**Figure 12: Attainment at key stage 2 maths by ethnic group**

Aside from the above-discussed pupil background factors, which by this point have been established to apply to both EAL and MLE-speaking pupils, we have noted in the above key stage 1 analysis that year of entry had an effect particular to the EAL group. At key stage 2, we can look at this effect again, this time considering any year of entry from Reception through to year 6, identifying this for a given pupil based on when they first appeared in the NPD when we matched records across years. What we find is that:

- For pupils who had been in the NPD since Reception, there was no difference between the average reading scores of EAL pupils and MLE speakers at age 11. However, the mean scores for EAL pupils who entered after that point were substantially below the national average for all pupils.
- Entering the NPD from year 1 onwards was a distinctive risk for lower attainment for EAL pupils. For these pupils, the more recently they entered the NPD, the lower the average score. There was no such trend among MLE speakers (see Figure 13).
- A negative association with achievement at the end of year 6 was apparent for EAL pupils who entered the NPD up to five years beforehand, in year 1. Notably, where pupils had received three years of EAL funding, this had not been sufficient to "close the gap".

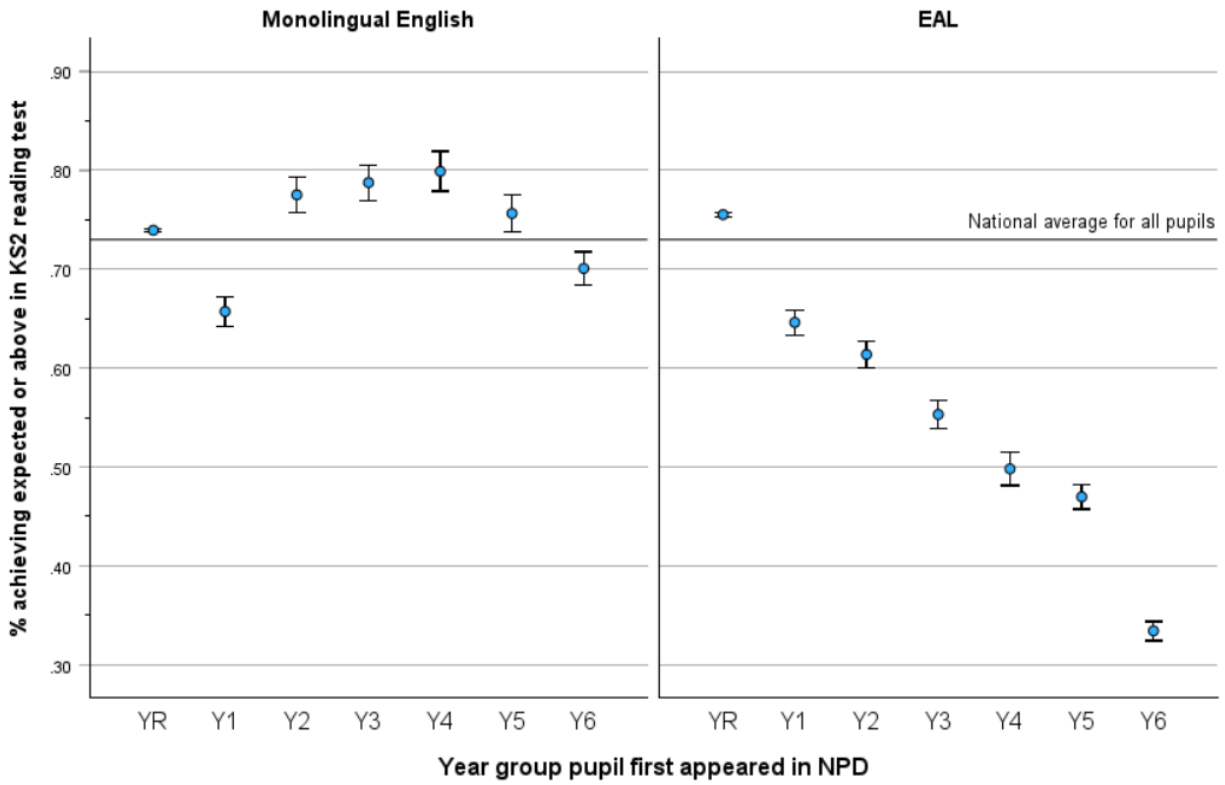



**Figure 13: Percentage achieving expected score or above in reading at age 11 (2023) by EAL status and year of entry to NPD**

## *Contextualised variation (key stage 2)*

Whereas for EYFS and key stage 1 we used logistic regression to look at threshold outcomes (e.g. achieving a GLD; meeting the expected standard), key stage 2 maths and reading scores – continuous outcomes -- allow us to use multiple linear regression models. Nonetheless, the variables included in these models are almost identical to those in the previous sections, with the exception of "year entered", which at age 11 includes the possibility of entry into the NPD (as a proxy for entry into the English education system) in any of the years between Reception and year 6 (inclusive).

**Table 25: Contextualised variation in reading attainment for all pupils at key stage 2 (age 11), 2023**

| Variable | Values | Coeff. |
|---|---|---|
| | Intercept | 108.94 |
| EAL status (vs MLE) | EAL | -1.35 |
| Gender (vs Girl) | Boy | -0.41 |
| Birth season (vs Autumn) | Spring | -0.76 |
| | Summer | -1.44 |
| Ethnicity (vs White British) | White Other | 0.43 |
| | Black African/MWBA | 1.84 |
| | Black Caribbean/MWBC | 0.11 |
| | Indian | 1.90 |
| | Pakistani | -0.02 |
| | Bangladeshi | 1.91 |
| | Asian Other/Chinese/MWAS | 2.03 |
| | Any Other | 0.28 |
| FSM Ever 6 (vs not eligible) | Eligible | -2.68 |
| IDACI | IDACI (1SD) | -0.86 |
| SEN Provision (vs None) | SEN support | -7.55 |
| | EHCP | -22.18 |
| YearEnter (vs R) | Y1 | -1.51 |
| | Y2 | -0.94 |
| | Y3 | -1.01 |
| | Y4 | -1.11 |
| | Y5 | -1.36 |
| | Y6 | -1.79 |
| Variance explained ($R^2$) | | 35.1% |

*Notes: FSM = free school meals; SEN = special educational needs; IDACI = Income Deprivation Affecting Children Index; MWBC = Mixed White and Black Caribbean; MWBA = Mixed White and Black African; MWAS = Mixed White and Asian; Numbers reported are unstandardised coefficients.*

In key stage 2 reading (Table 25), regression results largely confirmed what the descriptive results and findings from aggregate data already showed. That is, EAL status was associated with a slightly (-1.35 points) lower score, after accounting for all other pupil background factors. Other coefficients in the models reflected what we might expect given the stability of most risk factors across key stages at least to some extent. No ethnic group appeared to have performed substantially lower in reading relative to the White British majority after controlling for other pupil background variables, but some did have comparatively higher reading scores (Black African/Mixed White and Black African; Indian; Bangladeshi; and Asian Other/Chinese/Mixed White and Asian). Year of entry did not appear to have a linear relationship to key stage 2 reading scores, or not entirely so. That is, year 1 entry was an anomaly (b=-1.51), where otherwise later entry corresponded intuitively with a greater educational disadvantage reflected in the reading score. However, this was in keeping with the descriptive results for year of entry presented earlier in this section, and can be made sense of by disentangling the MLE-speaking and EAL groups via separate models and via interactions, both of which follow.

In key stage 2 maths (Table 26), as we might expect based on the descriptive results and those based on aggregate data, multiple regression results showed a small positive coefficient reflecting that EAL pupils did slightly better in key stage 2 maths than their MLE-speaking peers. The same ethnic groups out-performed their White British peers, as for key stage 2 reading, but more pronouncedly so. The Black Caribbean and Mixed White and Caribbean group scored slightly lower on average than the White British majority after accounting for all other pupil background variables. The effect of year of entry was less intuitive and smaller in key stage 2 maths than in reading, with larger negative coefficients for entry in years 1 and 6 (b=-1.68 and -1.08, respectively). Other risk factors associated with lower attainment were much as we might expect based on previous analyses of maths outcomes (e.g. being a boy had a positive effect on key stage 2 maths score; FSM eligibility and higher neighbourhood deprivation had negative effects).

**Table 26: Contextualised variation in maths attainment for all pupils at key stage 2 (age 11), 2023**

| Variable | Values | Coeff. |
|---|---|---|
| | Intercept | 105.56 |
| EAL status (vs MLE) | EAL | 0.27 |
| Gender (vs Girl) | Boy | 1.80 |
| Birth season (vs Autumn) | Spring | -0.70 |
| | Summer | -1.20 |
| Ethnicity (vs White British) | White Other | 0.88 |
| | Black African/MWBA | 1.61 |
| | Black Caribbean/MWBC | -0.36 |
| | Indian | 3.65 |
| | Pakistani | 0.84 |
| | Bangladeshi | 2.70 |
| | Asian Other/Chinese/MWAS | 3.64 |
| | Any Other | 0.63 |
| FSM Ever 6 (vs not eligible) | Eligible | -2.80 |
| IDACI | IDACI (1SD) | -0.71 |
| SEN Provision (vs None) | SEN support | -7.88 |
| | EHCP | -21.87 |
| YearEnter (vs R) | Y1 | -1.68 |
| | Y2 | -0.74 |
| | Y3 | -0.70 |
| | Y4 | -0.73 |
| | Y5 | -0.77 |
| | Y6 | -1.08 |
| Variance explained ($R^2$) | | 37.3% |

*Notes: FSM = free school meals; SEN = special educational needs; IDACI = Income Deprivation Affecting Children Index; MWBC = Mixed White and Black Caribbean; MWBA = Mixed White and Black African; MWAS = Mixed White and Asian; Numbers reported are unstandardised coefficients.*

Table 27 provides the results of separate regressions for EAL and MLE-speaking groups for key stage 2 reading. Many of the coefficients were similar across the two groups. Where we see pronounced differences, these are primarily for the effects of year of entry (where the negative effects of later entry were substantially larger for EAL pupils) and for some ethnic groups, where the effects were opposite in sign for EAL and MLE-speaking groups (e.g. White Other, with b=-1.40 for the EAL group and b=1.58 for the MLE-speaking group). Effects of SEN provision and of being a boy were exacerbated (more negative) for the EAL group.

**Table 27: Contextualised variation in reading attainment, EAL and MLE learners at key stage 2 (age 11), 2023**

| Variable | Values | EAL | MLE |
|---|---|---|---|
| | Intercept | 108.77 | 108.04 |
| Gender (vs Girl) | Boy | -0.56 | -0.36 |
| Birth season (vs Autumn) | Spring | -0.72 | -0.77 |
| | Summer | -1.30 | -1.47 |
| Ethnicity (vs White British) | White Other | -1.40 | 1.58 |
| | Black African/MWBA | 0.58 | 0.85 |
| | Black Caribbean/MWBC | -0.05 | 0.01 |
| | Indian | 0.68 | 0.97 |
| | Pakistani | -1.53 | -0.44 |
| | Bangladeshi | 0.39 | 1.09 |
| | Asian Other/Chinese/MWAS | 0.96 | 1.56 |
| | Any Other | -1.45 | 0.44 |
| FSM Ever 6 (vs not eligible) | Eligible | -2.15 | -2.78 |
| IDACI | IDACI (1SD) | -1.00 | -0.83 |
| SEN Provision (vs None) | SEN support | -8.66 | -7.32 |
| | EHCP | -24.95 | -21.65 |
| YearEnter (vs R) | Y1 | -1.89 | -1.28 |
| | Y2 | -1.54 | 0.13 |
| | Y3 | -1.58 | 0.07 |
| | Y4 | -1.65 | -0.08 |
| | Y5 | -1.80 | -0.35 |
| | Y6 | -2.23 | -0.65 |
| Variance explained ($R^2$) | | 37.0% | 35.2% |

*Notes: FSM = free school meals; SEN = special educational needs; IDACI = Income Deprivation Affecting Children Index; MWBC = Mixed White and Black Caribbean; MWBA = Mixed White and Black African; MWAS = Mixed White and Asian; Numbers reported are unstandardised coefficients.*

For key stage 2 maths (Table 28), separate regressions for EAL and MLE-speaking pupils reflected similar patterns to those noted for key stage 2 reading above, except that the year of entry effects were not as pronounced, and boys in the EAL group had a slightly smaller advantage (b=1.58) compared to girls than those in the MLE-speaking group (b=1.87).

**Table 28: Contextualised variation in maths attainment, EAL and MLE learners at key stage 2 (age 11), 2023**

| Variable | Values | EAL | MLE |
|---|---|---|---|
| | Intercept | 107.55 | 105.48 |
| Gender (vs Girl) | Boy | 1.58 | 1.87 |
| Birth season (vs Autumn) | Spring | -0.71 | -0.70 |
| | Summer | -1.17 | -1.21 |
| Ethnicity (vs White British) | White Other | -0.61 | 1.73 |
| | Black African/MWBA | 0.23 | 1.42 |
| | Black Caribbean/MWBC | -0.85 | -0.41 |
| | Indian | 2.34 | 3.58 |
| | Pakistani | -0.57 | 1.15 |
| | Bangladeshi | 1.33 | 3.02 |
| | Asian Other/Chinese/MWAS | 3.20 | 2.57 |
| | Any Other | -0.58 | 0.59 |
| FSM Ever 6 (vs not eligible) | Eligible | -2.24 | -2.96 |
| IDACI | IDACI (1SD) | -1.00 | -0.64 |
| SEN Provision (vs None) | SEN support | -8.96 | -7.64 |
| | EHCP | -24.90 | -21.29 |
| YearEnter (vs R) | Y1 | -1.96 | -1.49 |
| | Y2 | -1.15 | -0.02 |
| | Y3 | -1.05 | -0.07 |
| | Y4 | -1.08 | -0.12 |
| | Y5 | -1.04 | -0.27 |
| | Y6 | -1.33 | -0.58 |
| Variance explained ($R^2$) | | 35.3% | 38.0% |

*Notes: FSM = free school meals; SEN = special educational needs; IDACI = Income Deprivation Affecting Children Index; MWBC = Mixed White and Black Caribbean; MWBA = Mixed White and Black African; MWAS = Mixed White and Asian; Numbers reported are unstandardised coefficients.*

As we did for earlier age groups, we examine interactions, building on the key stage 2 regression models for reading and maths scores run on the population of all pupils, to allow us to see how other factors combine with EAL to affect pupil outcomes.

For key stage 2 reading and maths, we do not find any substantial interactions between EAL status and SEN. For maths, we find a small interaction with IDACI (see Figure 14), but this does not appear to apply to reading.

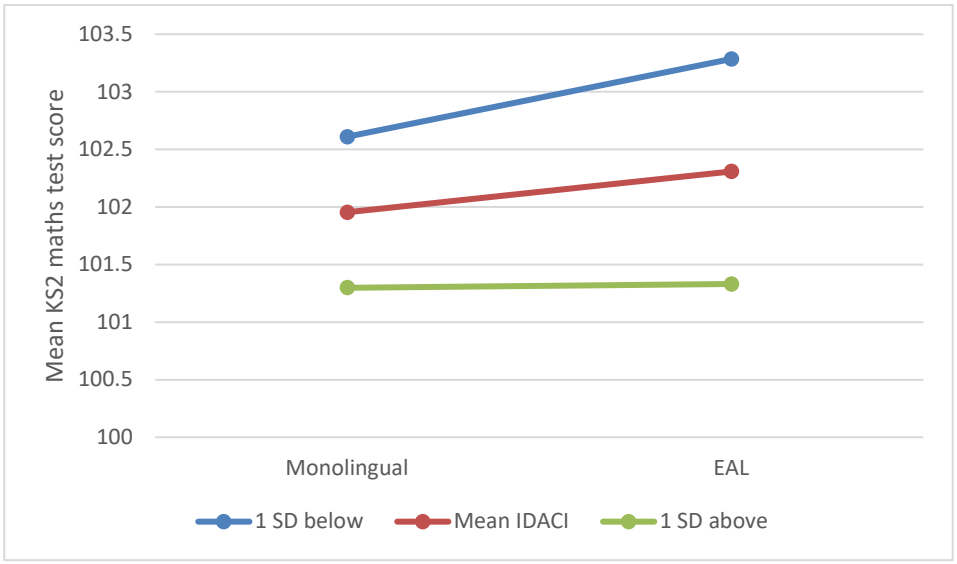



**Figure 14: Interaction between EAL status and IDACI in key stage 2 maths**

At key stage 2, in both reading and maths, there were significant interactions between FSM eligibility and EAL status, but as shown in Figure 15 (a and b), these effects were both small in practical terms (considering there is a standard deviation of 10 points for key stage 2 test scores) and slightly different in nature across subjects.

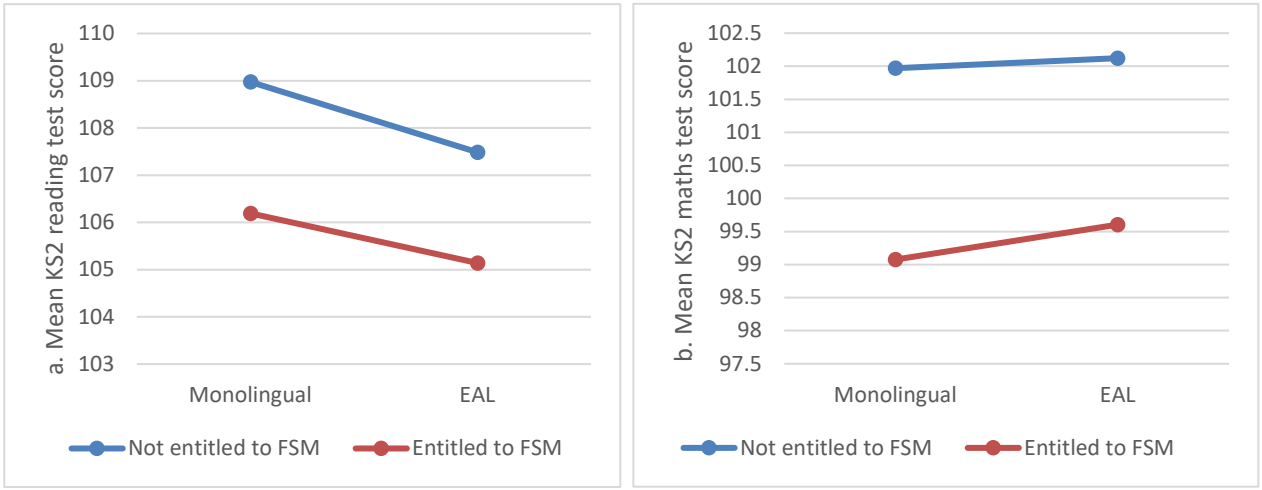



**Figure 15: Interactions between FSM eligibility and EAL status in key stage 2 reading (a) and maths (b)**

Likewise, there were significant interactions between gender and EAL status for both key stage 2 maths and reading achievement, but these look quite different to one another (see Figure 16), which is unsurprising given the main effects for gender were in opposite directions across these subjects on average.

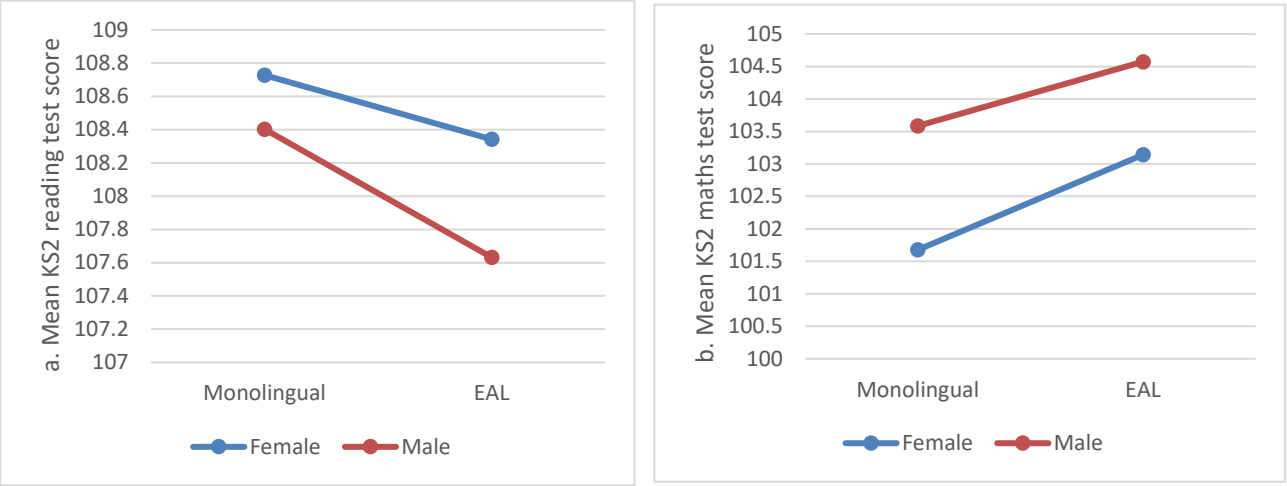
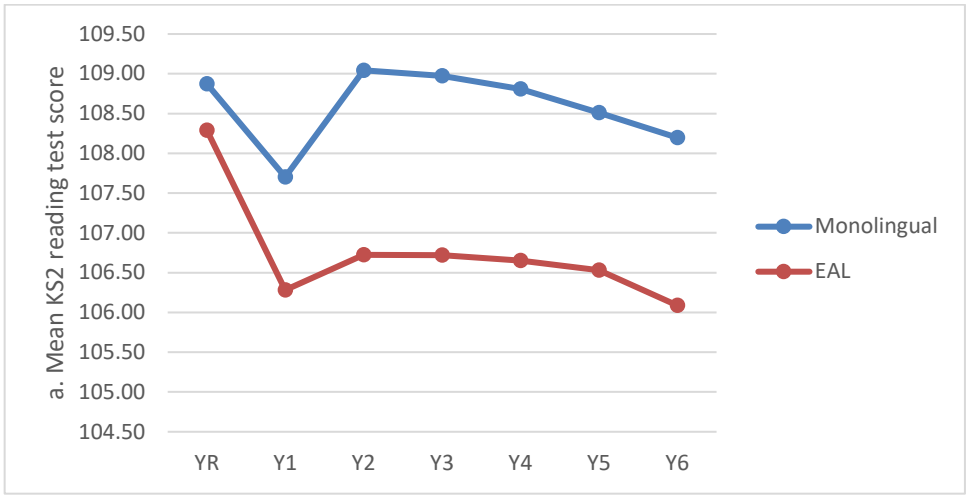



**Figure 16: Interactions between gender and EAL status in key stage 2 reading (a) and maths (b)**

As we saw for earlier age groups, there were some small but significant interactions between ethnic group and EAL status for both key stage 2 maths and reading outcomes; however, as noted at ages 5 and 11 above, we do not focus on the details of these interactions where group differences are presented more interpretably in the separate EAL and MLE results (Tables 27 and 28).

Interactions between year of entry and EAL status (Figure 17) showed somewhat less of a difference between MLE-speaking and EAL groups than we might have expected, given the regression coefficients in separate EAL and MLE regressions for key stage 2 reading and maths. Nonetheless, extremes – e.g. entry in year 6 versus in Reception – clearly show the relative educational disadvantage of later entry into the NPD (as a proxy for entry into the English school system).



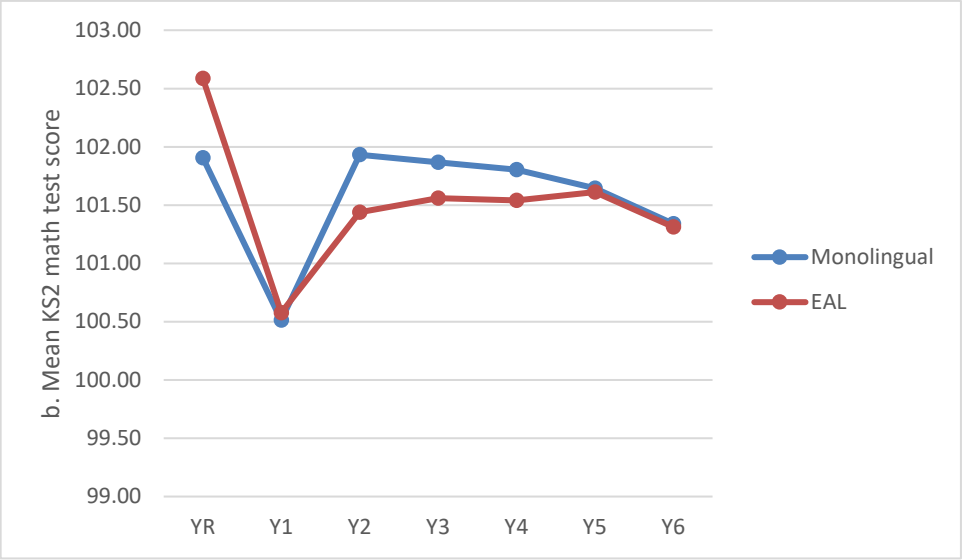



**Figure 17: Interactions between year of entry and EAL status in key stage 2 reading (top) and maths (bottom)**

It is worth noting that while we cannot compare these regression results for key stage 2 directly to those in the earlier Strand, Malmberg and Hall (2015) report because of changes to assessment measures, our findings are not fundamentally out of line with those results, and simultaneously provide additional nuance and up-to-date understandings of the effects of year of entry and differences across subject areas (maths and reading) in the 2023 data.

## Key stage 4 (age 16)

The aggregate data in the previous chapter showed that in 2023, EAL learners generally tended to outperform their MLE-speaking peers at age 16.

Table 29 displays descriptive statistics for Attainment 8 score and percent of pupils achieving a 9–5 pass at age 16, broken down by the same set of pupil background factors as for previous age groups. Except for some particular ethnic groups (notably White Other and Asian groups) and SEN (specifically only with EHCP provision), EAL pupils at this stage tended to outperform their MLE-speaking peers, on average. Other risk factors for lower attainment were as we would expect based on those observed in earlier age groups and previous research; FSM eligibility and higher neighbourhood deprivation corresponded to lower attainment, as did being a boy, being born later within the school year, changing schools, and having SEN (the higher the level of provision, the lower the attainment on average).

## Table 29: Attainment 8 and percent achieving a 9–5 pass in English and maths at key stage 4 (age 16) by EAL status and pupil background, 2023

| | | EAL | | | | MLE | | | | Cohen's d |
|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | Value | Mean | N | SD | %PASS | Mean | N | SD | %PASS | |
| **Gender** | Female | **51.2** | 52899 | 20.9 | 51.6% | **47.9** | 243047 | 20.9 | 46.4% | 0.16 |
| | Male | **45.7** | 55840 | 22.3 | 46.0% | **43.3** | 255918 | 21.6 | 42.1% | 0.11 |
| **Season of birth** | Autumn | **49.5** | 36171 | 21.9 | 50.8% | **46.7** | 167023 | 21.6 | 46.4% | 0.13 |
| | Spring | **48.0** | 35063 | 22.0 | 48.3% | **45.5** | 159035 | 21.4 | 44.3% | 0.11 |
| | Summer | **47.6** | 37505 | 21.6 | 47.1% | **44.4** | 172916 | 21.1 | 42.0% | 0.15 |
| **Ethnic group** | White British | **51.4** | 2273 | 20.3 | 53.7% | **44.6** | 393032 | 21.2 | 42.4% | 0.33 |
| | White Irish | **50.7** | 38 | 23.5 | 55.3% | **50.4** | 1624 | 22.8 | 54.2% | 0.01 |
| | Traveller | **17.6** | 943 | 18.2 | 6.7% | **23.7** | 730 | 18.9 | 10.8% | -0.32 |
| | White Other | **46.5** | 28418 | 21.4 | 43.7% | **53.1** | 9729 | 21.4 | 58.2% | -0.30 |
| | White & African | **48.0** | 1029 | 20.2 | 44.1% | **45.5** | 4077 | 21.2 | 43.8% | 0.12 |
| | White & Carribbean | **45.7** | 220 | 20.6 | 39.1% | **38.4** | 9196 | 20.3 | 29.8% | 0.36 |
| | White & Asian | **49.3** | 1304 | 21.5 | 49.5% | **51.8** | 7502 | 22.2 | 56.9% | -0.12 |
| | Mixed Other | **48.6** | 3420 | 22.3 | 48.4% | **48.5** | 10198 | 22.2 | 49.2% | 0.00 |
| | Indian | **57.7** | 10935 | 20.9 | 67.0% | **61.4** | 8589 | 19.5 | 74.4% | -0.18 |
| | Pakistani | **46.0** | 15940 | 20.4 | 43.7% | **48.2** | 11221 | 20.3 | 49.0% | -0.11 |
| | Bangladeshi | **51.1** | 7876 | 20.4 | 55.1% | **53.6** | 3129 | 20.5 | 61.4% | -0.12 |
| | Asian Other | **52.1** | 7841 | 22.8 | 58.6% | **57.8** | 4283 | 20.5 | 68.6% | -0.26 |
| | Black African | **46.3** | 12303 | 19.9 | 45.5% | **50.5** | 13911 | 19.6 | 53.8% | -0.21 |
| | Black Carribbean | **39.9** | 192 | 18.3 | 30.7% | **39.3** | 6681 | 19.4 | 30.6% | 0.03 |
| | Black Other | **43.4** | 1510 | 20.2 | 36.4% | **44.0** | 3368 | 21.1 | 40.5% | -0.03 |
| | Chinese | **64.0** | 2464 | 19.2 | 74.7% | **69.8** | 901 | 16.4 | 88.1% | -0.31 |
| | Any Other | **44.9** | 9748 | 23.1 | 43.0% | **52.2** | 3225 | 21.4 | 57.7% | -0.32 |
| | Not Obtained | **42.0** | 1213 | 22.7 | 37.1% | **41.5** | 3593 | 21.8 | 37.8% | 0.03 |
| | Refused | **47.2** | 1072 | 22.1 | 44.5% | **48.0** | 3985 | 21.9 | 48.2% | -0.04 |
| **Free school meal** | Entitled | **41.6** | 28813 | 21.6 | 36.6% | **32.4** | 110166 | 20.4 | 21.2% | 0.44 |
| | Not entitled | **50.8** | 79926 | 21.4 | 53.1% | **49.3** | 388808 | 20.2 | 50.7% | 0.08 |
| **Ever free school meals** | Yes | **42.0** | 32442 | 21.5 | 37.2% | **32.7** | 124022 | 20.4 | 21.7% | 0.44 |
| | No | **51.1** | 76297 | 21.4 | 53.6% | **49.8** | 374952 | 20.0 | 51.6% | 0.06 |
| **IDACI deprivation quintile** | Very low | **56.4** | 8914 | 22.2 | 63.1% | **53.3** | 114147 | 20.0 | 59.4% | 0.16 |
| | Low | **52.1** | 13325 | 22.2 | 55.8% | **48.7** | 107421 | 20.4 | 50.1% | 0.17 |
| | Average | **49.5** | 23353 | 21.8 | 51.0% | **44.9** | 96554 | 20.9 | 42.7% | 0.22 |
| | High | **47.1** | 31356 | 21.3 | 46.4% | **41.3** | 90326 | 21.1 | 35.8% | 0.27 |
| | Very high | **45.0** | 31714 | 21.2 | 42.3% | **36.8** | 89743 | 20.8 | 28.0% | 0.39 |
| **SEN provision** | EHCP | **12.8** | 3140 | 18.7 | 6.8% | **13.8** | 25050 | 18.0 | 6.7% | -0.06 |
| | SEN support | **33.6** | 8553 | 19.9 | 20.8% | **32.1** | 67088 | 20.0 | 19.9% | 0.08 |
| | No SEN | **50.8** | 97046 | 20.5 | 52.5% | **49.7** | 406836 | 19.1 | 50.5% | 0.06 |
| **Change of school** | Yes | **33.6** | 10032 | 23.5 | 25.9% | **30.2** | 15875 | 21.1 | 21.3% | 0.15 |
| | No | **49.9** | 98707 | 21.1 | 51.0% | **46.0** | 483099 | 21.2 | 44.9% | 0.18 |
| **Grand total** | All pupils | **48.4** | 108739 | 21.8 | 49.0% | **45.5** | 498974 | 21.4 | 44.0% | 0.13 |

*Notes: SEN=Special Educational Needs; IDACI=Income Deprivation Affecting Children Index; Change of school from KS4_NEWMOBILE; %PASS from KS4_L2BASICS_95, represents % achieving 9-5 pass in English and maths; Traveller of Irish heritage and Gypsy/Roma combined to ensure n ≥ 10.*

As we did for key stage 2 attainment in reading and maths in a previous section, we also consider the relationship between year of entry and attainment at key stage 4 as a risk factor likely to be particular to the EAL group. Descriptive results suggest that:

- **Among the group who had been in the NPD from year 2 or earlier, EAL pupils generally achieved slightly better than MLE pupils.** This was not true for any pupils who entered the NPD from year 3 onwards – in these cases the EAL group had lower outcomes than the comparable MLE group (see Figure 18).
- **Year of entry to the NPD was – as noted for key stage 2 above – a distinctive risk for EAL pupils.** For these pupils, the more recently the pupil entered the NPD, the lower their average score. There was no such trend among MLE speakers, who generally achieved a mean score above the national average.[8]
- **A negative association with achievement at the end of year 11 was apparent for EAL pupils who entered the NPD up to five years beforehand, in year 6; i.e. as noted for key stage 2, receiving three years of funding had not closed the gap for these pupils.**

Given these results, we carry on with year of entry as a key predictor in regression models in the next section.

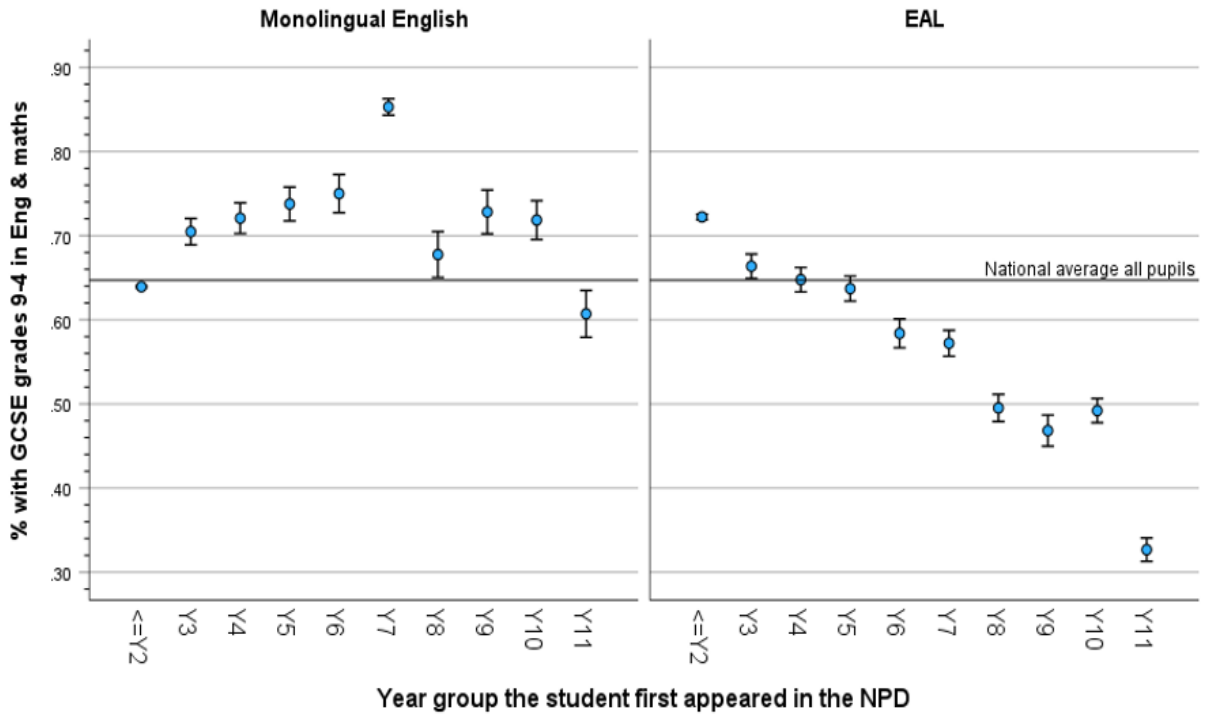



**Figure 18: Percentage achieving grade 9–4 in GCSE English & maths at age 16 (2023) by EAL status and year of entry to NPD**

*[8] This may reflect the fact that compared to those present since year 2 or before, the MLE speakers entering between years 3 and 11 were less likely to be entitled to FSM (16% vs 25%), and more likely to be from an ethnic minority group (54% vs 20%).*

## *Contextualised variation (key stage 4)*

The results from a regression model with Attainment 8 as the outcome (Table 30) broadly confirm the descriptive account of risk factors for lower attainment discussed above, and mostly the impact of pupil background factors other than EAL is as we might expect based on earlier age groups, with little effect of EAL on Attainment 8 score once other pupil variables are accounted for. However, in the regression model run for all pupils, the effects of year of entry and of belonging to particular ethnic groups were complicated by the fact that these effects were, as we can see from the following regression models run separately for EAL and MLE-speaking groups (Table 31), quite distinct.

The effect of being a boy, for example, was more pronounced among EAL pupils than among their MLE-speaking counterparts (b=-4.09 vs b=-2.82). The same was true for SEN provision, which had a more pronounced negative impact on EAL pupils than on MLE speakers regardless of the level of SEN provision. For some ethnic groups (White Other, Pakistani, Any Other), the effect of being in those groups was negative for EAL speakers but positive for their MLE-speaking peers; for others (Black African; Mixed White and Black African; Indian; Bangladeshi; and Other Asian) their higher attainment in comparison to White British pupils was less pronounced among the EAL group. The distinctive effect of year of entry within the EAL group was also clear in the results from regressions run separately according to EAL status, with later entry consistently corresponding to lower attainment once all other pupil background variables had been accounted for.

**Table 30: Contextualised variation in Attainment 8 scores for all pupils at key stage 4 (age 16), 2023**

| Variable | Values | Coeff. |
|---|---|---|
| | Intercept | 52.52 |
| EAL status (vs MLE) | EAL | -0.34 |
| Gender (vs Girl) | Boy | -3.06 |
| Birth season (vs Autumn) | Spring | -0.93 |
| | Summer | -1.66 |
| Ethnicity (vs White British) | White Other | 4.74 |
| | Black African/MWBA | 7.98 |
| | Black Caribbean/MWBC | -0.31 |
| | Indian | 12.48 |
| | Pakistani | 4.87 |
| | Bangladeshi | 10.75 |
| | Asian Other/Chinese/MWAS | 10.44 |
| | Any Other | 4.53 |
| FSM Ever 6 (vs not eligible) | Eligible | -10.05 |
| IDACI | IDACI (1SD) | -3.77 |
| SEN Provision (vs None) | SEN Support | -14.62 |
| | EHCP | -31.95 |
| YearEnter | Y3 | 0.05 |
| | Y4 | -0.09 |
| | Y5 | -0.20 |
| | Y6 | -0.43 |
| | Y7 | 0.32 |
| | Y8 | -0.91 |
| | Y9 | -0.79 |
| | Y10 | -0.91 |
| | Y11 | -1.96 |
| Variance explained ($R^2$) | | 30.6% |

*Notes: FSM = free school meals; SEN = special educational needs; IDACI = Income Deprivation Affecting Children Index; MWBC = Mixed White and Black Caribbean; MWBA = Mixed White and Black African; MWAS = Mixed White and Asian; Numbers reported are unstandardised coefficients.*

**Table 31: Contextualised variation in Attainment 8 scores, EAL and MLE learners at key stage 4 (age 16), 2023**

| Variable | Values | EAL | MLE |
|---|---|---|---|
| | Intercept | 59.38 | 52.39 |
| Gender (vs Girl) | Boy | -4.09 | -2.82 |
| Birth season (vs Autumn) | Spring | -1.20 | -0.89 |
| | Summer | -1.51 | -1.72 |
| Ethnicity (vs White British) | White Other | -2.13 | 6.87 |
| | Black African/MWBA | 0.45 | 7.52 |
| | Black Caribbean/MWBC | -3.19 | -0.29 |
| | Indian | 6.14 | 12.44 |
| | Pakistani | -2.50 | 5.10 |
| | Bangladeshi | 2.96 | 11.41 |
| | Asian Other/Chinese/MWAS | 5.63 | 8.96 |
| | Any Other | -1.70 | 4.06 |
| FSM Ever 6 (vs not eligible) | Eligible | -5.97 | -10.99 |
| IDACI | IDACI (1SD) | -3.15 | -3.75 |
| SEN Provision (vs None) | SEN support | -16.63 | -14.27 |
| | EHCP | -37.82 | -31.07 |
| YearEnter (vs Y2) | Y3 | -0.71 | 0.63 |
| | Y4 | -0.69 | 0.56 |
| | Y5 | -0.72 | 0.43 |
| | Y6 | -0.96 | 0.30 |
| | Y7 | -0.91 | 1.18 |
| | Y8 | -1.30 | -0.22 |
| | Y9 | -1.25 | -0.01 |
| | Y10 | -1.25 | -0.25 |
| | Y11 | -2.31 | -1.08 |
| Variance explained ($R^2$) | | 26.8% | 32.0% |

*Notes: FSM = free school meals; SEN = special educational needs; IDACI = Income Deprivation Affecting Children Index; MWBC = Mixed White and Black Caribbean; MWBA = Mixed White and Black African; MWAS = Mixed White and Asian; Numbers reported are unstandardised coefficients.*

As we did for earlier age groups, we tested interactions between EAL status and other key pupil background variables for the Attainment 8 outcome at age 16. We found that most of these interactions with EAL status had only small effects, including gender (Figure 20), FSM eligibility (Figure 21), neighbourhood deprivation (IDACI; Figure 22), and SEN provision (Figure 23). The interaction between year of entry and EAL status (Figure 19) reflected the same relationship indicated in separate regression models for EAL and MLE pupils; that is, for EAL pupils, later entry was associated with lower key stage 4 attainment, where this pattern was not evident in the same way for MLE-speaking pupils. There was also a significant interaction between EAL and some ethnic groups but as for previous age groups, ethnic group differences are easier to interpret from the separate EAL and MLE models above (Table 31).

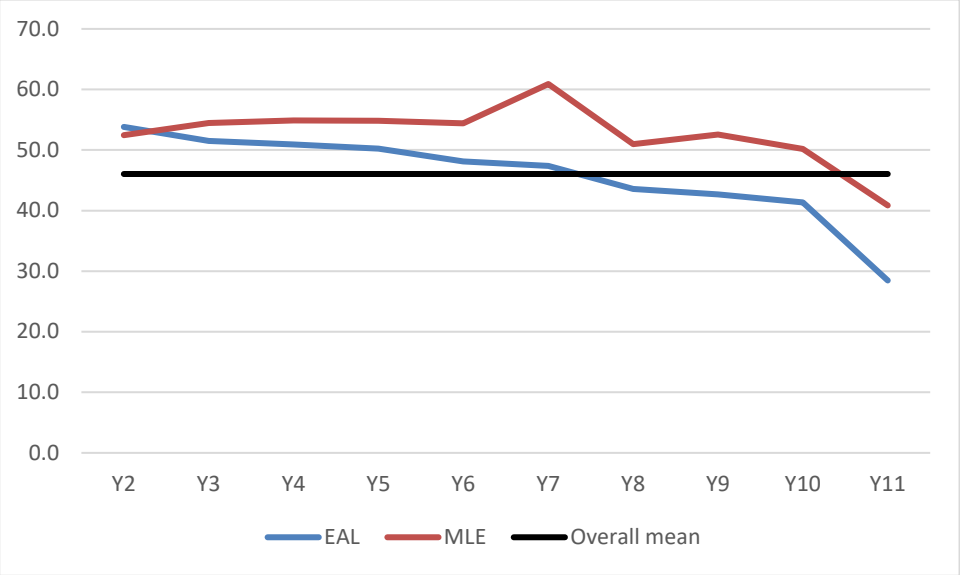



**Figure 19: KS4 Attainment 8, interaction between EAL status and year of entry**

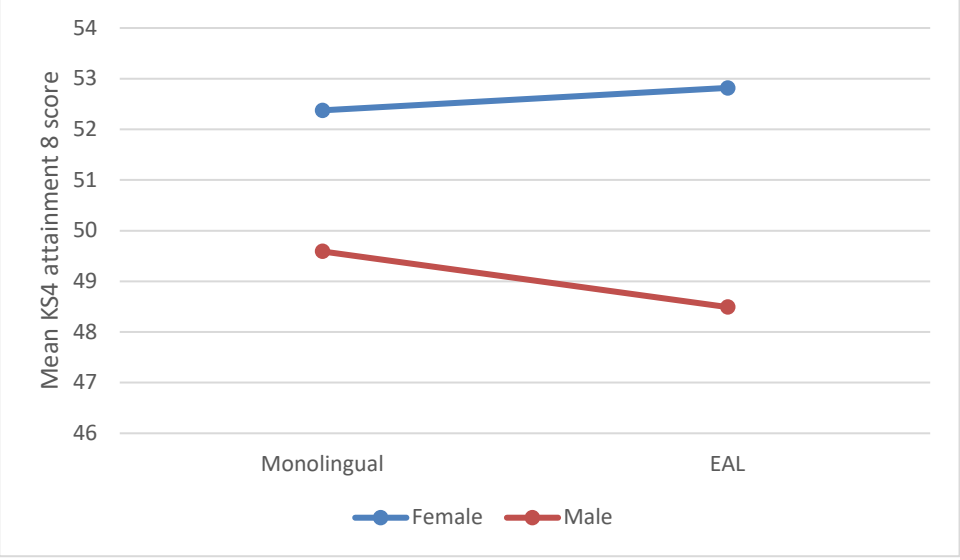



**Figure 20: Key stage 4 Attainment 8, interaction between EAL status and gender**

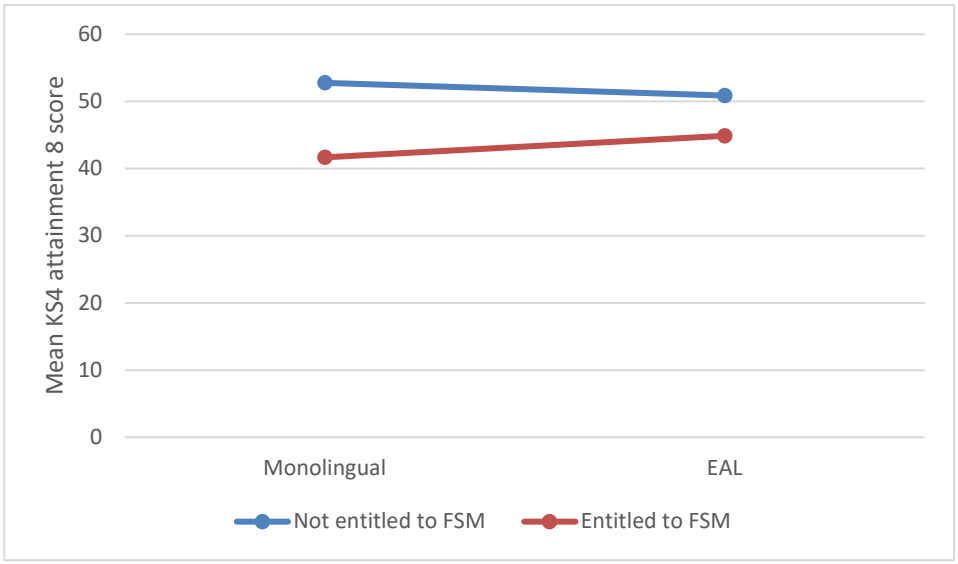



**Figure 21: Interaction between EAL status and FSM eligibility, Attainment 8 scores at key stage 4**

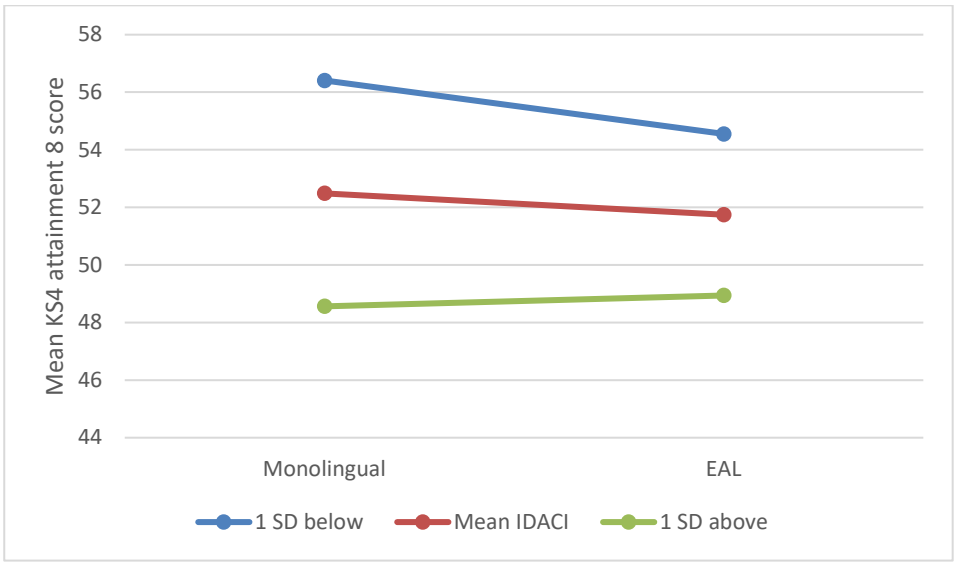



**Figure 22: Interaction between EAL status and neighbourhood deprivation (IDACI), Attainment 8 scores at key stage 4**

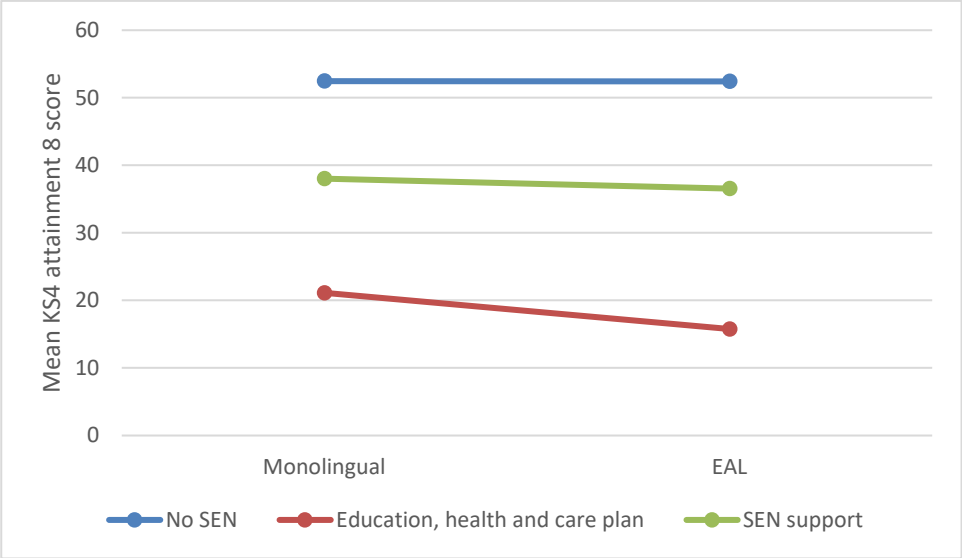



**Figure 23: Interaction between EAL status and SEN provision, Attainment 8 scores at key stage 4**

To the extent that we can compare back to the results from similar regression models run using data from 10 years earlier (Strand, Malmberg & Hall, 2015), the effects of each of these background variables was fairly similar, although the year of entry variable and interactions again provided additional nuanced understandings of attainment at age 16 in the EAL group.

# 7. EAL status and achievement: School- and regional-level variation

In this chapter, we use multilevel regression analysis to account for the fact that pupils are clustered in schools, and there may be some variation in any attainment gap based on EAL status across schools as well as across regions. In addition to considering how the "EAL gap" varied, we also look at the extent to which school composition, in terms of the proportions of EAL pupils and pupils eligible for FSM, was associated with pupil achievement, as well as the extent to which these school composition variables may explain any variation in the EAL attainment gap itself.

We focus on key stage 2 and key stage 4 attainment outcomes in this chapter, as we have more than coarse measures of attainment (reading and maths scaled scores and Attainment 8) at these key stages, and modelling the threshold measures we used in the previous chapters for EYFS and key stage 1 would introduce substantial complications (e.g. we could not examine explained variation in a traditional sense, nor compare coefficients in the same way as for models with continuous outcomes).

It is important to remind the reader that – as noted in Chapter 2 of this report, where we describe our measures and analytic approach – we only include schools with a minimum number (10) of pupil records in the NPD for 2023, and schools with at least 3 EAL pupils, in order to avoid biasing estimates, for example, with results based on a single student within a school. This means that the analytic samples in this chapter for KS2 and KS4 are not directly comparable to those in the previous chapter, which included all available pupil records with full information on the relevant pupil background variables and attainment measures.

## Key stage 2 (age 11): Multilevel models

In this section we analyse the key stage 2 reading and maths scores as outcomes of interest, presenting results from a series of progressive models following a logical sequence from simplest to most complex.

### Model 0: Variation in KS 2 attainment without pupil predictors ("Empty models")

Before including any predictors, including EAL status, the "empty" or "null" models with the key stage 2 reading and maths outcome indicated that about 8% and 10%, respectively, of the total variation in attainment at age 11 lay between schools (see Table 32). This tells us that multilevel models are probably appropriate to account for the clustering of pupils within schools, and is roughly in line with although slightly lower than similar analyses in previous research despite changing measures of assessment at this age (for example, Strand, Malmberg and Hall [2015] found that 11% of the variation in key stage 2 average points score at age 11 lay between schools).

**Table 32: Intra-class correlations (ICCs) for key stage 2 attainment in reading and maths (empty models)**

| | Reading | Maths |
|---|---|---|
| *School ICC* | 0.084 | 0.100 |
| *Number of pupils* | 461935 | 461455 |
| *Number of schools* | 8012 | 8021 |

### Model 1: EAL only

We include a model with EAL status as the sole predictor to gauge how much variance this explained before including other pupil background factors. As evident from the pseudo $R^2$ (marginal) measures in Table 33 and Table 34, EAL status on its own explains very little variation in attainment in either subject. This serves as a basis for comparison to variance explained in subsequent models.

### Model 2: Pupil context

These models include the full range of pupil demographic characteristics, including EAL status, ethnic group, gender, birth season, FSM eligibility, IDACI, and SEN. We have an awareness of what to expect from these pupil variables and their relationship to attainment based on the results from single-level regression models in the previous chapter, but here they form the basis for subsequent modelling steps and comparison in terms of variance explained at multiple levels (pupil and school). As evident in Table 33 and Table 34, these variables together explain 23.8% of the variation in key stage 2 reading and 27.8% in key stage 2 maths, compared to 0.3% and 0.7% explained by EAL status alone in the previous models. Note that this alone does not tell us anything meaningful about the needs of pupils in the EAL group, only that the EAL indicator was not meaningfully accounting for variation in attainment, which is in keeping with the already established complexity and heterogeneity of this group.

### Model 3: Year of entry

These models add year of entry to the above pupil-level variables. This explains an additional 3.8% and 1.6% of the variation in key stage 2 reading and maths outcomes, respectively (see Table 33 and Table 34). This was a small amount, but the effects of year of entry were negative and significant, and more pronounced for reading than for maths in terms of the effect of later entry on attainment.

## Table 33: Key stage 2 reading attainment multilevel models: Empty through fully contextualised models (Models 0 through 3)

| **Fixed part** | | **Model 0** | | | **Model 1** | | | **Model 2** | | | **Model 3** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **Value(s)** | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | |
| *Intercept* | *Intercept* | 104.1 | 0.03 | * | 104.43 | 0.03 | * | 108.33 | 0.04 | * | 108.38 | 0.04 | * |
| *Language group* | *EAL* | | | | -1.11 | 0.03 | * | -2.27 | 0.04 | * | -1.47 | 0.04 | * |
| *Gender* | *Boy* | | | | | | | -0.43 | 0.02 | * | -0.40 | 0.02 | * |
| *Birth season* | *Spring* | | | | | | | -0.75 | 0.03 | * | -0.75 | 0.03 | * |
| | *Summer* | | | | | | | -1.45 | 0.03 | * | -1.42 | 0.03 | * |
| *Ethnic group* | *White Other* | | | | | | | -0.24 | 0.05 | * | 0.15 | 0.05 | * |
| | *Black African/MWBA* | | | | | | | 0.52 | 0.05 | * | 1.55 | 0.05 | * |
| | *Black Caribbean/MWBC* | | | | | | | -0.78 | 0.07 | * | -0.46 | 0.07 | * |
| | *Indian* | | | | | | | 1.13 | 0.07 | * | 1.86 | 0.06 | * |
| | *Pakistani* | | | | | | | 0.14 | 0.06 | * | 0.13 | 0.06 | * |
| | *Bangladeshi* | | | | | | | 1.59 | 0.09 | * | 1.49 | 0.09 | * |
| | *Any other Asian/Chinese/MWAS* | | | | | | | 0.76 | 0.06 | * | 1.81 | 0.06 | * |
| | *Any other group* | | | | | | | -0.71 | 0.05 | * | -0.03 | 0.05 | |
| *FSM* | *Ever eligible in last 6 years* | | | | | | | -2.43 | 0.03 | * | -2.55 | 0.03 | * |
| *IDACI* | *+/-1SD* | | | | | | | -0.65 | 0.02 | * | -0.74 | 0.02 | * |
| *SEN* | *EHCP* | | | | | | | -16.76 | 0.07 | * | -17.03 | 0.06 | * |
| | *SEN support* | | | | | | | -7.57 | 0.03 | * | -7.75 | 0.03 | * |
| *Year Entered* | *Y1* | | | | | | | | | | -1.06 | 0.09 | * |
| | *Y2* | | | | | | | | | | -2.04 | 0.10 | * |
| | *Y3* | | | | | | | | | | -3.33 | 0.10 | * |
| | *Y4* | | | | | | | | | | -4.81 | 0.12 | * |
| | *Y5* | | | | | | | | | | -7.10 | 0.09 | * |
| | *Y6* | | | | | | | | | | -10.70 | 0.08 | * |
| **Random part** | | | | | | | | | | | | | |
| *Variance* | *Pupil-level* | 79.63 | 0.17 | * | 79.45 | 0.17 | * | 61.03 | 0.13 | * | 58.03 | 0.12 | * |
| | *School-level* | 7.27 | 0.14 | * | 7.13 | 0.14 | * | 5.08 | 0.10 | * | 4.62 | 0.09 | * |
| *Variance explained (Pseudo R-squared)* | *Marginal* | 0.000 | | | 0.003 | | | 0.238 | | | 0.276 | | |
| | *Conditional* | 0.084 | | | 0.085 | | | 0.296 | | | 0.329 | | |
| ICC | *Adjusted* | 0.084 | | | 0.082 | | | 0.077 | | | 0.074 | | |
| | *Conditional* | 0.084 | | | 0.082 | | | 0.059 | | | 0.053 | | |
| | | | | | | | | | | | | | |
| | Model N (pupil) | 461935 | | | | | | | | | | | |
| | Model n (school) | 8012 | | | | | | | | | | | |
| Model fit | -2RLL | 3347590 | | | 3346434 | -1156 | | 3224084 | -122350 | | 3200568 | -23517 | |
| | AIC | 3347594 | | | 3346438 | -1156 | | 3224088 | -122350 | | 3200572 | -23517 | |
| | BIC | 3347616 | | | 3346460 | -1156 | | 3224110 | -122350 | | 3200594 | -23517 | |

*Note: Marginal R2 refers to variance explained only by the fixed part of a model. Conditional R2 refers to variance explained by both fixed and random effects. -2LL=-2 Restricted Log Likelihood; AIC= Aikaike's Information Criterion; BIC=Schwarz's Bayesian Criterion.*

## Table 34: Key stage 2 maths attainment multilevel models: Empty model through fully contextualised model (Models 0 through 3)

| **Fixed part** | | **Model 0** | | | **Model 1** | | | **Model 2** | | | **Model 3** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **Value(s)** | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | |
| *Intercept* | *Intercept* | 103.6 | 0.03 | * | 103.11 | 0.03 | * | 105.71 | 0.04 | * | 105.74 | 0.04 | * |
| *Language group* | *EAL* | | | | 1.61 | 0.03 | * | -0.37 | 0.04 | * | 0.12 | 0.04 | * |
| *Gender* | *Boy* | | | | | | | 1.81 | 0.02 | * | 1.82 | 0.02 | * |
| *Birth season* | *Spring* | | | | | | | -0.71 | 0.03 | * | -0.70 | 0.03 | * |
| | *Summer* | | | | | | | -1.23 | 0.03 | * | -1.21 | 0.03 | * |
| *Ethnic group* | *White Other* | | | | | | | 0.45 | 0.05 | * | 0.71 | 0.05 | * |
| | *Black African/MWBA* | | | | | | | 0.80 | 0.05 | * | 1.42 | 0.05 | * |
| | *Black Caribbean/MWBC* | | | | | | | -1.05 | 0.06 | * | -0.85 | 0.06 | * |
| | *Indian* | | | | | | | 3.26 | 0.06 | * | 3.70 | 0.06 | * |
| | *Pakistani* | | | | | | | 1.16 | 0.06 | * | 1.16 | 0.06 | * |
| | *Bangladeshi* | | | | | | | 2.61 | 0.08 | * | 2.56 | 0.08 | * |
| | *Any other Asian/Chinese/MWAS* | | | | | | | 2.99 | 0.05 | * | 3.61 | 0.05 | * |
| | *Any other group* | | | | | | | 0.04 | 0.04 | | 0.46 | 0.04 | * |
| *FSM* | *Ever eligible in last 6 years* | | | | | | | -2.64 | 0.03 | * | -2.70 | 0.02 | * |
| *IDACI* | *+/-1SD* | | | | | | | -0.63 | 0.01 | * | -0.69 | 0.01 | * |
| *SEN* | *EHCP* | | | | | | | -16.43 | 0.06 | * | -16.59 | 0.06 | * |
| | *SEN support* | | | | | | | -7.96 | 0.03 | * | -8.06 | 0.03 | * |
| *Year Entered* | *Y1* | | | | | | | | | | -1.19 | 0.08 | * |
| | *Y2* | | | | | | | | | | -1.43 | 0.09 | * |
| | *Y3* | | | | | | | | | | -2.15 | 0.09 | * |
| | *Y4* | | | | | | | | | | -2.98 | 0.11 | * |
| | *Y5* | | | | | | | | | | -3.91 | 0.09 | * |
| | *Y6* | | | | | | | | | | -6.40 | 0.07 | * |
| **Random part** | | | | | | | | | | | | | |
| *Variance* | *Pupil-level* | 70.84 | 0.15 | * | 70.41 | 0.15 | * | 50.87 | 0.11 | * | 49.82 | 0.10 | * |
| | *School-level* | 7.85 | 0.14 | * | 7.89 | 0.14 | * | 5.79 | 0.11 | * | 5.53 | 0.10 | * |
| *Variance explained (Pseudo R-squared)* | *Marginal* | 0.000 | | | 0.007 | | | 0.278 | | | 0.294 | | |
| | *Conditional* | 0.100 | | | 0.107 | | | 0.351 | | | 0.364 | | |
| ICC | *Adjusted* | 0.100 | | | 0.101 | | | 0.102 | | | 0.100 | | |
| | *Conditional* | 0.100 | | | 0.100 | | | 0.074 | | | 0.071 | | |
| | | | | | | | | | | | | | |
| | Model N (pupil) | 461455 | | | | | | | | | | | |
| | Model n (school) | 8021 | | | | | | | | | | | |
| Model fit | -2RLL | 3291481 | | | 3288773 | -2708 | | 3138884 | -149889 | | 3129106 | -9778 | |
| | AIC | 3291485 | | | 3288777 | -2708 | | 3138888 | -149889 | | 3129110 | -9778 | |
| | BIC | 3291507 | | | 3288799 | -2708 | | 3138911 | -149889 | | 3129132 | -9778 | |

*Note: Marginal R2 refers to variance explained only by the fixed part of a model. Conditional R2 refers to variance explained by both fixed and random effects. -2LL=-2 Restricted Log Likelihood; AIC= Aikaike's Information Criterion; BIC=Schwarz's Bayesian Criterion.*

### Models 4a through 4d: Random slopes for pupil characteristics

These models included "random slopes" for pupil EAL status, FSM eligibility, SEN and gender (tested separately, as such models are computationally demanding and sometimes have convergence issues if too many random terms are included). A random slope means, in essence, that the effect of a variable is allowed to vary across schools, and we can test whether this variation is significant and explains variation in the outcome(s) of interest. Here, this means that we are testing for whether EAL status, FSM eligibility, SEN (either having an EHCP or SEN support) or gender may have had different impacts on pupils' attainment in key stage 2 reading and maths depending on the school they attended.

Although all of the random effects tested were significant, suggesting that effects did vary across schools, most were small and did not explain much variation in key stage 2 reading or maths (see Table 35 and Table 36) – though the random effects for SEN provision levels explained slightly more than others. Perhaps more interestingly, we can calculate ranges for the variation in effects of these individual pupil variables across the schools included in this analysis (see Table 37 and Table 38) by taking the fixed coefficient and adding 1.96 times positive and negative multiples of the school-level standard-deviation (square root of the random effect for a given variable) to obtain an upper and lower bound for 95% of the school-specific effects for that variable.

What this means practically, as can be seen in the relevant tables, is that the EAL status effect was small but varied across schools to the extent that it could be positive in some and negative in others, with a small negative average effect in key stage 2 reading and very little average effect at all across schools in key stage 2 maths. This may reflect differences across schools in the levels of proficiency in English of their EAL pupils; for example, the relationship of EAL status to educational achievement might be positive in a school where many or most of the EAL pupils are fluent or approaching fluency, but negative in a school where many or most of the EAL pupils are new to English. We cannot check this empirically, however, absent a measure of proficiency in English.

Other random effects were given the same calculations for contrast, where we can see that gender had a very minimal overall effect (after accounting for other pupil variables) that varied in direction across schools in key stage 2 reading. FSM eligibility and SEN tended to have larger overall effects than gender or EAL status, while the effects of FSM eligibility and both levels of SEN provision varied considerably across schools but maintained a consistent negative direction. Notably, the attainment gap associated with FSM eligibility was consistently negative across schools, though this effect varied in size.

## Table 35: Key stage 2 reading, random effects multilevel models

| **Fixed part** | | **Model 4a** | | | **Model 4b** | | | **Model 4c** | | | **Model 4d** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **Value(s)** | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | |
| *Intercept* | *Intercept* | 108.40 | 0.04 | * | 108.37 | 0.04 | * | 83.72 | 0.09 | * | 108.38 | 0.04 | * |
| *Language group* | *EAL* | -1.43 | 0.04 | * | -1.47 | 0.04 | * | -1.48 | 0.04 | * | -1.47 | 0.04 | * |
| *Gender* | *Boy* | -0.40 | 0.02 | * | -0.40 | 0.02 | * | -0.41 | 0.02 | * | -0.40 | 0.02 | * |
| *Birth season* | *Spring* | -0.74 | 0.03 | * | -0.75 | 0.03 | * | -0.74 | 0.03 | * | -0.75 | 0.03 | * |
| | *Summer* | -1.42 | 0.03 | * | -1.42 | 0.03 | * | -1.42 | 0.03 | * | -1.42 | 0.03 | * |
| *Ethnic group* | *White Other* | 0.12 | 0.05 | * | 0.15 | 0.05 | * | 0.12 | 0.05 | * | 0.15 | 0.05 | * |
| | *Black African/MWBA* | 1.52 | 0.05 | * | 1.55 | 0.05 | * | 1.48 | 0.05 | * | 1.54 | 0.05 | * |
| | *Black Caribbean/MWBC* | -0.50 | 0.07 | * | -0.45 | 0.07 | * | -0.53 | 0.07 | * | -0.46 | 0.07 | * |
| | *Indian* | 1.81 | 0.06 | * | 1.88 | 0.06 | * | 1.82 | 0.06 | * | 1.86 | 0.06 | * |
| | *Pakistani* | 0.12 | 0.06 | | 0.15 | 0.06 | * | 0.10 | 0.06 | | 0.13 | 0.06 | * |
| | *Bangladeshi* | 1.47 | 0.09 | * | 1.51 | 0.09 | * | 1.38 | 0.09 | * | 1.49 | 0.09 | * |
| | *Any other Asian/Chinese/MWAS* | 1.76 | 0.06 | * | 1.81 | 0.06 | * | 1.76 | 0.06 | * | 1.81 | 0.06 | * |
| | *Any other group* | -0.05 | 0.05 | | -0.02 | 0.05 | | -0.08 | 0.05 | | -0.03 | 0.05 | |
| *FSM* | *Ever eligible in last 6 years* | -2.54 | 0.03 | * | -2.59 | 0.03 | * | -2.55 | 0.03 | * | -2.55 | 0.03 | * |
| *IDACI* | *+/-1SD* | -0.74 | 0.02 | * | -0.73 | 0.02 | * | -0.73 | 0.02 | * | -0.74 | 0.02 | * |
| *SEN* | *EHCP* | -17.04 | 0.06 | * | -17.03 | 0.06 | * | -16.91 | 0.08 | * | -17.03 | 0.06 | * |
| | *SEN support* | -7.74 | 0.03 | * | -7.74 | 0.03 | * | -7.77 | 0.04 | * | -7.75 | 0.03 | * |
| *Year Entered* | *Y1* | -1.05 | 0.09 | * | -1.06 | 0.09 | * | -1.04 | 0.09 | * | -1.06 | 0.09 | * |
| | *Y2* | -2.02 | 0.10 | * | -2.04 | 0.10 | * | -2.00 | 0.10 | * | -2.04 | 0.10 | * |
| | *Y3* | -3.32 | 0.10 | * | -3.34 | 0.10 | * | -3.32 | 0.10 | * | -3.33 | 0.10 | * |
| | *Y4* | -4.79 | 0.12 | * | -4.82 | 0.12 | * | -4.78 | 0.12 | * | -4.81 | 0.12 | * |
| | *Y5* | -7.10 | 0.09 | * | -7.11 | 0.09 | * | -7.08 | 0.09 | * | -7.10 | 0.09 | * |
| | *Y6* | -10.71 | 0.08 | * | -10.69 | 0.08 | * | -10.68 | 0.08 | * | -10.70 | 0.08 | * |
| **Random part** | | | | | | | | | | | | | |
| *Variance* | *Pupil-level* | 57.68 | 0.12 | * | 57.74 | 0.12 | * | 56.38 | 0.12 | * | 57.91 | 0.12 | * |
| | *School-level* | 3.96 | 0.10 | * | 4.19 | 0.10 | * | 0.58 | 0.16 | * | 4.50 | 0.09 | * |
| *Variance explained (Pseudo R-squared)* | *Marginal* | 0.275 | | | 0.276 | | | 0.264 | | | 0.276 | | |
| | *Conditional* | 0.333 | | | 0.333 | | | 0.373 | | | 0.330 | | |
| | | | | | | | | | | | | | |
| | *EAL* | 1.09 | 0.06 | * | | | | | | | | | |
| | *FSM* | | | | 0.76 | 0.05 | * | | | | | | |
| | *SEN (EHCP)* | | | | | | | 7.11 | 0.24 | * | | | |
| | *SEN (SEN support)* | | | | | | | 2.06 | 0.09 | * | | | |
| | *Gender* | | | | | | | | | | 0.25 | 0.04 | * |
| | | | | | | | | | | | | | |
| ICC | *Adjusted* | 0.080 | | | 0.079 | | | 0.147 | | | 0.076 | | |
| | *Conditional* | 0.058 | | | 0.057 | | | 0.108 | | | 0.055 | | |
| Model fit | -2RLL | 3200099 | -469 | | 3200247 | -320 | | 3197164 | -3404 | | 3200511 | -56 | |
| | AIC | 3200105 | -467 | | 3200253 | -318 | | 3197172 | -3400 | | 3200517 | -54 | |
| | BIC | 3200138 | -456 | | 3200287 | -307 | | 3197216 | -3378 | | 3200550 | -43 | |

*Note: Marginal R2 refers to variance explained only by the fixed part of a model. Conditional R2 refers to variance explained by both fixed and random effects. -2LL=-2 Restricted Log Likelihood; AIC= Aikaike's Information Criterion; BIC=Schwarz's Bayesian Criterion.*

## Table 36: Key stage 2 maths, random effects multilevel models

| **Fixed part** | | **Model 4a** | | | **Model 4b** | | | **Model 4c** | | | **Model 4d** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **Value(s)** | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | |
| *Intercept* | *Intercept* | 105.77 | 0.04 | * | 105.73 | 0.04 | * | 81.22 | 0.09 | * | 105.74 | 0.04 | * |
| *Language group* | *EAL* | 0.18 | 0.04 | * | 0.12 | 0.04 | * | 0.11 | 0.03 | * | 0.12 | 0.04 | * |
| *Gender* | *Boy* | 1.82 | 0.02 | * | 1.82 | 0.02 | * | 1.82 | 0.02 | * | 1.82 | 0.02 | * |
| *Birth season* | *Spring* | -0.70 | 0.03 | * | -0.70 | 0.03 | * | -0.70 | 0.03 | * | -0.70 | 0.03 | * |
| | *Summer* | -1.21 | 0.03 | * | -1.21 | 0.03 | * | -1.21 | 0.03 | * | -1.21 | 0.03 | * |
| *Ethnic group* | *White Other* | 0.67 | 0.05 | * | 0.71 | 0.05 | * | 0.70 | 0.05 | * | 0.71 | 0.05 | * |
| | *Black African/MWBA* | 1.40 | 0.05 | * | 1.42 | 0.05 | * | 1.38 | 0.05 | * | 1.42 | 0.05 | * |
| | *Black Caribbean/MWBC* | -0.90 | 0.06 | * | -0.84 | 0.06 | * | -0.91 | 0.06 | * | -0.85 | 0.06 | * |
| | *Indian* | 3.64 | 0.06 | * | 3.71 | 0.06 | * | 3.68 | 0.06 | * | 3.70 | 0.06 | * |
| | *Pakistani* | 1.15 | 0.06 | * | 1.17 | 0.06 | * | 1.14 | 0.06 | * | 1.15 | 0.06 | * |
| | *Bangladeshi* | 2.54 | 0.08 | * | 2.58 | 0.08 | * | 2.49 | 0.08 | * | 2.56 | 0.08 | * |
| | *Any other Asian/Chinese/MWAS* | 3.53 | 0.05 | * | 3.61 | 0.05 | * | 3.59 | 0.05 | * | 3.61 | 0.05 | * |
| | *Any other group* | 0.43 | 0.04 | * | 0.47 | 0.04 | * | 0.43 | 0.04 | * | 0.46 | 0.04 | * |
| *FSM* | *Ever eligible in last 6 years* | -2.70 | 0.02 | * | -2.73 | 0.03 | * | -2.70 | 0.02 | * | -2.71 | 0.02 | * |
| *IDACI* | *+/-1SD* | -0.68 | 0.01 | * | -0.67 | 0.01 | * | -0.69 | 0.01 | * | -0.68 | 0.01 | * |
| *SEN* | *EHCP* | -16.60 | 0.06 | * | -16.59 | 0.06 | * | -16.45 | 0.08 | * | -16.59 | 0.06 | * |
| | *SEN support* | -8.06 | 0.03 | * | -8.06 | 0.03 | * | -8.09 | 0.04 | * | -8.06 | 0.03 | * |
| *Year Entered* | *Y1* | -1.17 | 0.08 | * | -1.19 | 0.08 | * | -1.17 | 0.08 | * | -1.19 | 0.08 | * |
| | *Y2* | -1.41 | 0.09 | * | -1.43 | 0.09 | * | -1.38 | 0.09 | * | -1.43 | 0.09 | * |
| | *Y3* | -2.13 | 0.09 | * | -2.15 | 0.09 | * | -2.12 | 0.09 | * | -2.14 | 0.09 | * |
| | *Y4* | -2.97 | 0.11 | * | -2.99 | 0.11 | * | -2.95 | 0.11 | * | -2.98 | 0.11 | * |
| | *Y5* | -3.95 | 0.09 | * | -3.91 | 0.09 | * | -3.88 | 0.08 | * | -3.91 | 0.09 | * |
| | *Y6* | -6.46 | 0.07 | * | -6.40 | 0.07 | * | -6.38 | 0.07 | * | -6.40 | 0.07 | * |
| **Random part** | | | | | | | | | | | | | |
| *Variance* | *Pupil-level* | 49.44 | 0.10 | * | 49.53 | 0.10 | * | 48.07 | 0.10 | * | 49.69 | 0.11 | * |
| | *School-level* | 4.82 | 0.11 | * | 5.15 | 0.11 | * | 0.97 | 0.18 | * | 5.40 | 0.10 | * |
| *Variance explained (Pseudo R-squared)* | *Marginal* | 0.293 | | | 0.294 | | | 0.277 | | | 0.294 | | |
| | *Conditional* | 0.370 | | | 0.368 | | | 0.420 | | | 0.366 | | |
| | | | | | | | | | | | | | |
| | *EAL* | 1.17 | 0.06 | * | | | | | | | | | |
| | *FSM* | | | | 0.72 | 0.05 | * | | | | | | |
| | *SEN (EHCP)* | | | | | | | 8.74 | 0.27 | * | | | |
| | *SEN (SEN support)* | | | | | | | 2.14 | 0.08 | * | | | |
| | *Gender* | | | | | | | | | | 0.26 | 0.03 | * |
| | | | | | | | | | | | | | |
| ICC | *Adjusted* | 0.108 | | | 0.106 | | | 0.198 | | | 0.102 | | |
| | *Conditional* | 0.076 | | | 0.075 | | | 0.143 | | | 0.072 | | |
| Model fit | -2RLL | 3128440 | -666 | | 3128729 | -377 | | 3124263 | -4843 | | 3129019 | -87 | |
| | AIC | 3128446 | -664 | | 3128735 | -375 | | 3124271 | -4839 | | 3129025 | -85 | |
| | BIC | 3128479 | -653 | | 3128768 | -364 | | 3124316 | -4817 | | 3129058 | -74 | |

*Note: Marginal R2 refers to variance explained only by the fixed part of a model. Conditional R2 refers to variance explained by both fixed and random effects. -2LL=-2 Restricted Log Likelihood; AIC= Aikaike's Information Criterion; BIC=Schwarz's Bayesian Criterion.*

**Table 37: Key stage 2 reading, ranges of EAL status and other pupil effects varying across schools**

| Variable | Level 1 (pupil) fixed coefficient | Level 2 (School) variance | Level 2 (School) SD | Range | |
|---|---|---|---|---|---|
| | | | | 95% Lower Bound | 95% Upper Bound |
| EAL | -1.43 | 1.09 | 1.04 | -3.47 | 0.61 |
| FSM | -2.59 | 0.76 | 0.87 | -4.30 | -0.88 |
| SEN (EHCP) | -16.91 | 7.11 | 2.67 | -22.14 | -11.69 |
| SEN (SEN support) | -7.77 | 2.06 | 1.43 | -10.58 | -4.96 |
| Gender | -0.40 | 0.25 | 0.50 | -1.37 | 0.57 |

**Table 38: Key stage 2 maths, ranges of EAL status and other pupil effects varying across schools**

| Variable | Level 1 (pupil) fixed coefficient | Level 2 (School) variance | Level 2 (School) SD | Range | |
|---|---|---|---|---|---|
| | | | | 95% Lower Bound | 95% Upper Bound |
| EAL | 0.18 | 1.17 | 1.08 | -1.94 | 2.30 |
| FSM | -2.70 | 0.72 | 0.85 | -4.37 | -1.03 |
| SEN (EHCP) | -16.45 | 8.74 | 2.96 | -22.24 | -10.65 |
| SEN (SEN support) | -8.09 | 2.14 | 1.46 | -10.96 | -5.22 |
| Gender | 1.82 | 0.26 | 0.51 | 0.82 | 2.83 |

### Models 5 and 6: School composition and cross-level interactions

At Step 5, models include measures of school composition in terms of the percentages of EAL pupils and FSM-eligible pupils, centred around the grand mean at the school level (this facilitates later interpretation of interactions with these variables, where 0 can then have a meaningful interpretation as the mean of the school composition measure). Our interest here was in assessing whether these school variables explained variation in key stage 2 reading and maths outcomes in their own right. What we find (see Model 5 in Table 39 and Table 40) is that these school composition variables explained very little variance in either outcome, comparing back to Model 2 for key stage 2 reading and maths, although their effects were statistically significant.

At Step 6 (Model 6 in the same tables), we tested an interaction between pupil-level EAL status and school proportion EAL; while this was significant it did not explain much of the variance in either outcome, nor did a similar interaction between pupil-level FSM-eligibility and school proportion FSM. When included in models with the relevant random effects for EAL and FSM eligibility, these school variables and interactions did not explain these random effects (see Appendix Tables A4 and A5). We also tested these relationships by dividing schools into quintile bands in terms of the proportions of EAL

pupils and the proportions of FSM-eligible pupils, an approach that did not assume linearity. The results were broadly consistent with those we found using school-level, grand-mean-centred proportions of pupils with EAL status or eligibility for FSM.

### Table 39: Key stage 2 reading, school composition and region models

| **Fixed part** | | **Model 5** | | | **Model 6** | | | **Model 7** | | | **Model 8** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **Value(s)** | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | |
| *Intercept* | *Intercept* | 108.30 | 0.04 | * | 108.25 | 0.04 | * | 108.24 | 0.07 | * | 108.06 | 0.07 | * |
| *Language group* | *EAL* | -1.50 | 0.04 | * | -1.05 | 0.05 | * | -1.51 | 0.04 | * | -1.06 | 0.05 | * |
| *Gender* | *Boy* | -0.40 | 0.02 | * | -0.40 | 0.02 | * | -0.40 | 0.02 | * | -0.40 | 0.02 | * |
| *Birth season* | *Spring* | -0.75 | 0.03 | * | -0.75 | 0.03 | * | -0.74 | 0.03 | * | -0.75 | 0.03 | * |
| | *Summer* | -1.42 | 0.03 | * | -1.42 | 0.03 | * | -1.42 | 0.03 | * | -1.42 | 0.03 | * |
| *Ethnic group* | *White Other* | 0.12 | 0.05 | * | -0.02 | 0.05 | | 0.09 | 0.05 | | -0.05 | 0.05 | |
| | *Black African/MWBA* | 1.51 | 0.05 | * | 1.45 | 0.05 | * | 1.41 | 0.05 | * | 1.38 | 0.05 | * |
| | *Black Caribbean/MWBC* | -0.49 | 0.07 | * | -0.60 | 0.07 | * | -0.60 | 0.07 | * | -0.68 | 0.07 | * |
| | *Indian* | 1.78 | 0.06 | * | 1.67 | 0.06 | * | 1.79 | 0.06 | * | 1.67 | 0.06 | * |
| | *Pakistani* | 0.05 | 0.06 | | 0.01 | 0.06 | | 0.10 | 0.06 | | 0.06 | 0.06 | |
| | *Bangladeshi* | 1.43 | 0.09 | * | 1.42 | 0.09 | * | 1.32 | 0.09 | * | 1.36 | 0.09 | * |
| | *Any other Asian/Chinese/MWAS* | 1.77 | 0.06 | * | 1.64 | 0.06 | * | 1.74 | 0.06 | * | 1.61 | 0.06 | * |
| | *Any other group* | -0.06 | 0.05 | | -0.15 | 0.05 | * | -0.14 | 0.05 | * | -0.21 | 0.05 | * |
| *FSM* | *Ever eligible in last 6 years* | -2.52 | 0.03 | * | -2.66 | 0.03 | | -2.57 | 0.03 | * | -2.66 | 0.03 | * |
| *IDACI* | *+/-1SD* | -0.67 | 0.02 | * | -0.67 | 0.02 | * | -0.75 | 0.02 | * | -0.66 | 0.02 | * |
| *SEN* | *EHCP* | -17.03 | 0.06 | * | -17.03 | 0.06 | * | -17.05 | 0.06 | * | -17.04 | 0.06 | * |
| | *SEN support* | -7.75 | 0.03 | * | -7.74 | 0.03 | * | -7.75 | 0.03 | * | -7.74 | 0.03 | * |
| *Year Entered* | *Y1* | -1.05 | 0.09 | * | -1.06 | 0.09 | * | -1.05 | 0.09 | * | -1.04 | 0.09 | * |
| | *Y2* | -2.03 | 0.10 | * | -2.03 | 0.10 | * | -2.02 | 0.10 | * | -2.01 | 0.10 | * |
| | *Y3* | -3.33 | 0.10 | * | -3.33 | 0.10 | * | -3.32 | 0.10 | * | -3.32 | 0.10 | * |
| | *Y4* | -4.80 | 0.12 | * | -4.81 | 0.12 | * | -4.80 | 0.12 | * | -4.79 | 0.12 | * |
| | *Y5* | -7.08 | 0.09 | * | -7.10 | 0.09 | * | -7.07 | 0.09 | * | -7.08 | 0.09 | * |
| | *Y6* | -10.67 | 0.08 | * | -10.69 | 0.08 | * | -10.65 | 0.08 | * | -10.66 | 0.08 | * |
| *School prop. EAL* | *Grand mean centred (school level)* | 0.01 | 0.00 | * | 0.02 | 0.00 | * | | | | 0.01 | 0.00 | * |
| *School prop. FSM* | *Grand mean centred (school level)* | -0.03 | 0.00 | * | -0.04 | 0.00 | * | | | | -0.04 | 0.00 | * |
| *School prop. EAL*EAL* | *(interaction)* | | | | -0.02 | 0.00 | * | | | | -0.02 | 0.00 | * |
| *School prop. FSM*FSM* | *(interaction)* | | | | 0.02 | 0.00 | * | | | | 0.02 | 0.00 | * |
| *Region (ref South East)* | *North East* | | | | | | | 0.80 | 0.16 | * | 1.21 | 0.16 | * |
| | *North West* | | | | | | | 0.12 | 0.09 | | 0.40 | 0.09 | * |
| | *Yorkshire and The Humber* | | | | | | | -0.59 | 0.10 | * | -0.32 | 0.10 | * |
| | *East Midlands* | | | | | | | -0.79 | 0.11 | * | -0.65 | 0.11 | * |
| | *West Midlands* | | | | | | | 0.13 | 0.10 | | 0.42 | 0.10 | * |
| | *East of England* | | | | | | | -0.22 | 0.10 | * | -0.19 | 0.10 | * |
| | *London* | | | | | | | 1.57 | 0.09 | * | 1.71 | 0.09 | * |
| | *South West* | | | | | | | -0.40 | 0.11 | * | -0.31 | 0.11 | * |
| **Random part** | | | | | | | | | | | | | |
| *Variance* | *Pupil-level* | 58.03 | 0.12 | * | 57.99 | 0.12 | * | 58.03 | 0.12 | * | 57.99 | 0.12 | * |
| | *School-level* | 4.44 | 0.09 | * | 4.33 | 0.09 | * | 4.09 | 0.08 | * | 3.85 | 0.08 | * |
| *Variance explained (Pseu* | *Marginal* | 0.282 | | | 0.283 | | | 0.281 | | | 0.289 | | |
| | *Conditional* | 0.333 | | | 0.333 | | | 0.328 | | | 0.334 | | |
| ICC | *Adjusted* | 0.071 | | | 0.070 | | | 0.066 | | | 0.062 | | |
| | *Conditional* | 0.051 | | | 0.050 | | | 0.047 | | | 0.044 | | |
| Model fit | -2RLL | 3200298 | -269 | | 3199883 | -415 | | 3199743 | -825 | | 3199094 | -789 | |
| | AIC | 3200302 | -269 | | 3199887 | -415 | | 3199747 | -825 | | 3199098 | -789 | |
| | BIC | 3200324 | -269 | | 3199909 | -415 | | 3199769 | -825 | | 3199121 | -789 | |

*Note: Marginal R2 refers to variance explained only by the fixed part of a model. Conditional R2 refers to variance explained by both fixed and random effects. -2LL=-2 Restricted Log Likelihood; AIC= Aikaike's Information Criterion; BIC=Schwarz's Bayesian Criterion.*

## Table 40: Key stage 2 maths, school composition and region models

| **Fixed part** | | **Model 5** | | | **Model 6** | | | **Model 7** | | | **Model 8** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **Value(s)** | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | |
| *Intercept* | *Intercept* | 105.71 | 0.04 | * | 105.65 | 0.04 | * | 105.33 | 0.07 | * | 105.20 | 0.07 | * |
| *Language group* | *EAL* | 0.11 | 0.04 | * | 0.60 | 0.04 | * | 0.09 | 0.04 | * | 0.59 | 0.04 | * |
| *Gender* | *Boy* | 1.82 | 0.02 | * | 1.82 | 0.02 | * | 1.82 | 0.02 | * | 1.82 | 0.02 | * |
| *Birth season* | *Spring* | -0.70 | 0.03 | * | -0.70 | 0.03 | * | -0.70 | 0.03 | * | -0.70 | 0.03 | * |
| | *Summer* | -1.21 | 0.03 | * | -1.21 | 0.03 | * | -1.21 | 0.03 | * | -1.21 | 0.03 | * |
| *Ethnic group* | *White Other* | 0.70 | 0.05 | * | 0.55 | 0.05 | * | 0.67 | 0.05 | * | 0.52 | 0.05 | * |
| | *Black African/MWBA* | 1.41 | 0.05 | * | 1.34 | 0.05 | * | 1.32 | 0.05 | * | 1.29 | 0.05 | * |
| | *Black Caribbean/MWBC* | -0.86 | 0.06 | * | -0.98 | 0.06 | * | -0.96 | 0.06 | * | -1.05 | 0.06 | * |
| | *Indian* | 3.67 | 0.06 | * | 3.55 | 0.06 | * | 3.65 | 0.06 | * | 3.55 | 0.06 | * |
| | *Pakistani* | 1.13 | 0.06 | * | 1.08 | 0.06 | * | 1.12 | 0.06 | * | 1.12 | 0.06 | * |
| | *Bangladeshi* | 2.54 | 0.08 | * | 2.53 | 0.08 | * | 2.43 | 0.08 | * | 2.48 | 0.08 | * |
| | *Any other Asian/Chinese/MWAS* | 3.60 | 0.05 | * | 3.46 | 0.05 | * | 3.56 | 0.05 | * | 3.43 | 0.05 | * |
| | *Any other group* | 0.45 | 0.04 | * | 0.35 | 0.04 | * | 0.38 | 0.04 | * | 0.31 | 0.04 | * |
| *FSM* | *Ever eligible in last 6 years* | -2.69 | 0.02 | * | -2.82 | 0.03 | * | -2.72 | 0.02 | * | -2.82 | 0.03 | * |
| *IDACI* | *+/-1SD* | -0.65 | 0.02 | * | -0.64 | 0.02 | * | -0.70 | 0.01 | * | -0.64 | 0.02 | * |
| *SEN* | *EHCP* | -16.59 | 0.06 | * | -16.58 | 0.06 | * | -16.60 | 0.06 | * | -16.59 | 0.06 | * |
| | *SEN support* | -8.06 | 0.03 | * | -8.06 | 0.03 | * | -8.06 | 0.03 | * | -8.06 | 0.03 | * |
| *Year Entered* | *Y1* | -1.18 | 0.08 | * | -1.19 | 0.08 | * | -1.18 | 0.08 | * | -1.18 | 0.08 | * |
| | *Y2* | -1.42 | 0.09 | * | -1.42 | 0.09 | * | -1.42 | 0.09 | * | -1.41 | 0.09 | * |
| | *Y3* | -2.14 | 0.09 | * | -2.15 | 0.09 | * | -2.14 | 0.09 | * | -2.14 | 0.09 | * |
| | *Y4* | -2.98 | 0.11 | * | -2.99 | 0.11 | * | -2.97 | 0.11 | * | -2.97 | 0.11 | * |
| | *Y5* | -3.90 | 0.09 | * | -3.93 | 0.09 | * | -3.89 | 0.09 | * | -3.91 | 0.09 | * |
| | *Y6* | -6.38 | 0.07 | * | -6.42 | 0.07 | * | -6.36 | 0.07 | * | -6.39 | 0.07 | * |
| *School prop. EAL* | *Grand mean centred (school level)* | 0.01 | 0.00 | * | 0.02 | 0.00 | * | | | | 0.00 | 0.00 | |
| *School prop. FSM* | *Grand mean centred (school level)* | -0.02 | 0.00 | * | -0.03 | 0.00 | * | | | | -0.03 | 0.00 | * |
| *School prop. EAL*EAL* | *(interaction)* | | | | -0.02 | 0.00 | * | | | | -0.02 | 0.00 | * |
| *School prop. FSM*FSM* | *(interaction)* | | | | 0.02 | 0.00 | * | | | | 0.02 | 0.00 | * |
| *Region (ref South East)* | *North East* | | | | | | | 1.10 | 0.17 | * | 1.39 | 0.17 | * |
| | *North West* | | | | | | | 0.52 | 0.10 | * | 0.77 | 0.10 | * |
| | *Yorkshire and The Humber* | | | | | | | -0.05 | 0.11 | | 0.20 | 0.11 | |
| | *East Midlands* | | | | | | | -0.18 | 0.12 | | -0.03 | 0.12 | |
| | *West Midlands* | | | | | | | 0.35 | 0.10 | * | 0.62 | 0.10 | * |
| | *East of England* | | | | | | | 0.03 | 0.10 | | 0.07 | 0.10 | |
| | *London* | | | | | | | 1.77 | 0.09 | * | 2.08 | 0.10 | * |
| | *South West* | | | | | | | -0.38 | 0.12 | * | -0.32 | 0.12 | * |
| **Random part** | | | | | | | | | | | | | |
| *Variance* | *Pupil-level* | 49.82 | 0.10 | * | 49.77 | 0.10 | * | 49.82 | 0.10 | * | 49.77 | 0.10 | * |
| | *School-level* | 5.46 | 0.10 | * | 5.37 | 0.10 | * | 5.04 | 0.09 | * | 4.84 | 0.09 | * |
| *Variance explained (Pse* | *Marginal* | 0.299 | | | 0.300 | | | 0.301 | | | 0.308 | | |
| | *Conditional* | 0.368 | | | 0.369 | | | 0.365 | | | 0.369 | | |
| ICC | *Adjusted* | 0.099 | | | 0.097 | | | 0.092 | | | 0.089 | | |
| | *Conditional* | 0.069 | | | 0.068 | | | 0.064 | | | 0.061 | | |
| Model fit | -2RLL | 3129030 | -76 | | 3128497 | -532 | | 3128449 | -657 | | 3127769 | -728 | |
| | AIC | 3129034 | -76 | | 3128501 | -532 | | 3128453 | -657 | | 3127773 | -728 | |
| | BIC | 3129056 | -76 | | 3128523 | -532 | | 3128475 | -657 | | 3127795 | -728 | |

*Note: Marginal R2 refers to variance explained only by the fixed part of a model. Conditional R2 refers to variance explained by both fixed and random effects. -2LL=-2 Restricted Log Likelihood; AIC= Aikaike's Information Criterion; BIC=Schwarz's Bayesian Criterion.*

### Model 7 and 8: Regional variation

At this step, we added variables to account for the nine regions of England, using the South-East as the reference group. The only difference between Models 7 and 8 for key stage 2 reading and key stage 2 maths was that we included region with and without the school variables and interactions included in earlier modelling steps, as this allowed us to compare back to different stages of previous models.

Region did generally appear to have significant effects. In comparison to the South-East, being in London or the North-East was associated with significantly higher achievement, even after accounting for pupil background characteristics and year of entry. Other effects of regions seemed to differ between the key stage 2 maths and reading outcomes, and may have been more sensitive to the analytic sample. We therefore proceed with a closer look specifically at attainment by region and EAL status descriptively across different age groups in a later section.

## Key stage 4 (age 16): Multilevel models

In this section we analyse the key stage 4 Attainment 8 score as our outcome of interest, following a similar logic of sequential models as for key stage 2 above.

### Model 0: Variation in attainment without pupil predictors ("Empty" model)

Before including any predictors, including EAL status, the "empty" or "null" model with the Attainment 8 outcome indicated that about 20% of the total variation in attainment at age 16 lay between schools (i.e. about 80% was between pupils within schools; Table 41). This tells us that multilevel models are appropriate to account for the clustering of pupils within schools, and is roughly in line with similar analyses in previous research despite changing measures of assessment at this age (for example, in the 2015 report by Strand, Malmberg and Hall that we update in this report, they found 16% of the variation in Best 8 points score at age 16 lay between schools).

Although we focus on Attainment 8 scores in our analyses, we include an ICC for a corresponding model for Progress 8 scores, where it is apparent that there is a considerably lower proportion of total variation at the level of the school.

**Table 41: Intra-class correlations (ICCs) for key stage 4 attainment (empty models)**

| | Attainment 8 | Progress 8 |
|---|---|---|
| *School ICC* | 0.204 | 0.114 |
| *Number of pupils* | 549584 | 549584 |
| *Number of schools* | 2857 | 2857 |

### Model 1 through Model 3: Pupil-level variables

As we follow a similar logic and include the same variables as we did for key stage 2, we report in brief here for key stage 4. Here again, EAL status explained little variation in the outcome of interest (Attainment 8 score) in comparison to other pupil demographic characteristics (see Table 42). Year of entry had significant effects except in years 3 through 5; that is, according to these results, entering later than year 5 was associated with a significant educational disadvantage in age 16 achievement, but entering up to and including in year 5 was not. Put differently, pupils who joined by year 5 could "catch up", which is in keeping with previous findings about the time taken to gain proficiency (e.g. Strand and Lindorff, 2020).

## Table 42: Key stage 4 Attainment 8 multilevel models: Empty model through fully contextualised model (Models 0 through 3)

| **Fixed part** | | **Model 0** | | | **Model 1** | | | **Model 2** | | | **Model 3** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **Value(s)** | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | |
| *Intercept* | *Intercept* | 47.0 | 0.17 | * | 46.53 | 0.18 | * | 53.01 | 0.15 | * | 53.03 | 0.14 | * |
| *Language group* | *EAL* | | | | 2.64 | 0.07 | * | -1.01 | 0.08 | * | 0.05 | 0.08 | |
| *Gender* | *Boy* | | | | | | | -2.95 | 0.05 | * | -2.93 | 0.05 | * |
| *Birth season* | *Spring* | | | | | | | -0.86 | 0.06 | * | -0.85 | 0.06 | * |
| | *Summer* | | | | | | | -1.52 | 0.06 | * | -1.52 | 0.05 | * |
| *Ethnic group* | *White Other* | | | | | | | 2.62 | 0.11 | * | 3.11 | 0.11 | * |
| | *Black African/MWBA* | | | | | | | 3.97 | 0.12 | * | 4.72 | 0.12 | * |
| | *Black Caribbean/MWBC* | | | | | | | -2.45 | 0.15 | * | -2.15 | 0.14 | * |
| | *Indian* | | | | | | | 7.15 | 0.15 | * | 7.57 | 0.15 | * |
| | *Pakistani* | | | | | | | 3.19 | 0.13 | * | 3.19 | 0.13 | * |
| | *Bangladeshi* | | | | | | | 7.45 | 0.20 | * | 7.30 | 0.20 | * |
| | *Any other Asian/Chinese/MWAS* | | | | | | | 6.35 | 0.12 | * | 7.00 | 0.12 | * |
| | *Any other group* | | | | | | | 1.48 | 0.10 | * | 2.09 | 0.10 | * |
| *FSM* | *Ever eligible in last 6 years* | | | | | | | -8.95 | 0.06 | * | -9.02 | 0.06 | * |
| *IDACI* | *+/-1SD* | | | | | | | -2.64 | 0.03 | * | -2.73 | 0.03 | * |
| *SEN* | *EHCP* | | | | | | | -21.63 | 0.15 | * | -21.83 | 0.15 | * |
| | *SEN support* | | | | | | | -13.75 | 0.07 | * | -13.92 | 0.07 | * |
| *Year Entered* | *Y3* | | | | | | | | | | 0.42 | 0.21 | |
| | *Y4* | | | | | | | | | | 0.39 | 0.22 | |
| | *Y5* | | | | | | | | | | -0.05 | 0.23 | |
| | *Y6* | | | | | | | | | | -1.45 | 0.26 | * |
| | *Y7* | | | | | | | | | | -0.63 | 0.19 | * |
| | *Y8* | | | | | | | | | | -4.62 | 0.25 | * |
| | *Y9* | | | | | | | | | | -4.95 | 0.28 | * |
| | *Y10* | | | | | | | | | | -6.75 | 0.23 | * |
| | *Y11* | | | | | | | | | | -17.55 | 0.24 | * |
| **Random part** | *Pupil-level* | 343.30 | 0.66 | * | 342.49 | 0.66 | * | 281.42 | 0.54 | * | 278.15 | 0.53 | * |
| *Variance* | *School-level* | 87.99 | 2.34 | * | 87.91 | 2.34 | * | 54.18 | 1.45 | * | 51.45 | 1.38 | * |
| | *Marginal* | 0.000 | | | 0.003 | | | 0.179 | | | 0.190 | | |
| *Variance explained (* | *Conditional* | 0.204 | | | 0.206 | | | 0.311 | | | 0.316 | | |
| ICC | *Adjusted* | 0.204 | | | 0.204 | | | 0.161 | | | 0.156 | | |
| | *Conditional* | 0.204 | | | 0.204 | | | 0.133 | | | 0.126 | | |
| | Model N (pupil) | 549584 | | | | | | | | | | | |
| | Model n (school) | 2857 | | | | | | | | | | | |
| Model fit | -2RLL | 4779756 | | | 4778460 | -1296 | | 4669728 | -108732 | | 4663194 | -6534 | |
| | AIC | 4779760 | | | 4778464 | -1296 | | 4669732 | -108732 | | 4663198 | -6534 | |
| | BIC | 4779782 | | | 4778486 | -1296 | | 4669754 | -108732 | | 4663220 | -6534 | |

*Note: Marginal R2 refers to variance explained only by the fixed part of a model. Conditional R2 refers to variance explained by both fixed and random effects. -2LL=-2 Restricted Log Likelihood; AIC= Aikaike's Information Criterion; BIC=Schwarz's Bayesian Criterion.*

### Models 4a through 4d: Random effects

We considered the same random effects for key stage 4 as for key stage 2 outcomes; that is, we tested whether EAL gaps varied according to the school a young person attended, as well as whether the effects of being eligible for FSM, having some SEN provision or being a boy varied across schools (Table 43). We found, similarly to key stage 2 reading and maths, that while all of these variables had significant variation in their effects across schools, they explained quite little of the variation in the Attainment 8 outcome overall. Nonetheless, we looked at the 95% range of effects across schools in the analysis (see Table 44); here again we see a smaller effect of EAL status than the other pupil factors in the table on average across schools (the fixed effect), but considerable variation to the extent that this effect could amount to positive or negative 4 points depending on the school attended. As noted above for a similar result in key stage 2, this may reflect differences across schools in the levels of proficiency in English of their EAL pupils. Also similarly to results for key stage 2, no schools “turned around” the educational disadvantage gap associated with FSM eligibility.

## Table 43: Key stage 4 Attainment 8, random effects multilevel models

| **Fixed part** | | **Model 4a** | | | **Model 4b** | | | **Model 4c** | | | **Model 4d** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **Value(s)** | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | |
| *Intercept* | *Intercept* | 53.07 | 0.15 | * | 52.93 | 0.15 | * | 17.10 | 0.23 | * | 53.01 | 0.14 | * |
| *Language group* | *EAL* | 0.36 | 0.11 | * | 0.07 | 0.08 | | 0.04 | 0.08 | | 0.05 | 0.08 | |
| *Gender* | *Boy* | -2.93 | 0.05 | * | -2.94 | 0.05 | * | -2.94 | 0.05 | * | -2.92 | 0.06 | * |
| *Birth season* | *Spring* | -0.85 | 0.06 | * | -0.85 | 0.06 | * | -0.85 | 0.06 | * | -0.85 | 0.06 | * |
| | *Summer* | -1.52 | 0.05 | * | -1.52 | 0.05 | * | -1.52 | 0.05 | * | -1.52 | 0.05 | * |
| *Ethnic group* | *White Other* | 2.99 | 0.12 | * | 3.15 | 0.11 | * | 3.14 | 0.11 | * | 3.11 | 0.11 | * |
| | *Black African/MWBA* | 4.55 | 0.12 | * | 4.70 | 0.12 | * | 4.73 | 0.11 | * | 4.71 | 0.12 | * |
| | *Black Caribbean/MWB* | -2.27 | 0.15 | * | -2.12 | 0.14 | * | -2.14 | 0.14 | * | -2.15 | 0.14 | * |
| | *Indian* | 7.45 | 0.15 | * | 7.75 | 0.15 | * | 7.57 | 0.15 | * | 7.57 | 0.15 | * |
| | *Pakistani* | 3.05 | 0.14 | * | 3.27 | 0.13 | * | 3.18 | 0.13 | * | 3.19 | 0.13 | * |
| | *Bangladeshi* | 7.21 | 0.20 | * | 7.38 | 0.20 | * | 7.30 | 0.20 | * | 7.29 | 0.20 | * |
| | *Any other Asian/Chines* | 6.83 | 0.12 | * | 7.01 | 0.12 | * | 7.00 | 0.12 | * | 6.99 | 0.12 | * |
| | *Any other group* | 1.96 | 0.10 | * | 2.10 | 0.10 | * | 2.10 | 0.10 | * | 2.09 | 0.10 | * |
| *FSM* | *Ever eligible in last 6 ye* | -8.99 | 0.06 | * | -9.15 | 0.08 | * | -9.00 | 0.06 | * | -9.02 | 0.06 | * |
| *IDACI* | *+/-1SD* | -2.72 | 0.03 | * | -2.68 | 0.03 | * | -2.72 | 0.03 | * | -2.73 | 0.03 | * |
| *SEN* | *EHCP* | -21.83 | 0.15 | * | -21.77 | 0.15 | * | -21.92 | 0.19 | * | -21.84 | 0.15 | * |
| | *SEN support* | -13.92 | 0.07 | * | -13.90 | 0.07 | * | -13.98 | 0.10 | * | -13.92 | 0.07 | * |
| *Year Entered* | *Y3* | 0.41 | 0.21 | * | 0.44 | 0.21 | * | 0.43 | 0.21 | * | 0.42 | 0.21 | * |
| | *Y4* | 0.38 | 0.22 | | 0.41 | 0.22 | | 0.41 | 0.22 | | 0.39 | 0.22 | |
| | *Y5* | -0.09 | 0.23 | | -0.02 | 0.23 | | -0.06 | 0.23 | | -0.05 | 0.23 | |
| | *Y6* | -1.41 | 0.26 | * | -1.43 | 0.26 | * | -1.44 | 0.26 | * | -1.45 | 0.26 | * |
| | *Y7* | -0.62 | 0.19 | * | -0.58 | 0.19 | * | -0.63 | 0.19 | * | -0.63 | 0.19 | * |
| | *Y8* | -4.62 | 0.25 | * | -4.57 | 0.25 | * | -4.59 | 0.25 | * | -4.61 | 0.25 | * |
| | *Y9* | -4.91 | 0.28 | * | -4.90 | 0.28 | * | -4.93 | 0.28 | * | -4.95 | 0.28 | * |
| | *Y10* | -6.83 | 0.23 | * | -6.67 | 0.22 | * | -6.72 | 0.22 | * | -6.74 | 0.23 | * |
| | *Y11* | -17.58 | 0.24 | * | -17.36 | 0.24 | * | -17.52 | 0.24 | * | -17.55 | 0.24 | * |
| **Random part** | | | | | | | | | | | | | |
| *Variance* | *Pupil-level* | 276.96 | 0.53 | * | 276.55 | 0.53 | * | 276.24 | 0.53 | * | 277.53 | 0.53 | * |
| | *School-level* | 48.33 | 1.40 | * | 49.08 | 1.40 | * | 34.37 | 1.70 | * | 50.25 | 1.39 | * |
| *Variance explained (Pseudo R-squared)* | *Marginal* | 0.189 | | | 0.190 | | | 0.189 | | | 0.190 | | |
| | *Conditional* | 0.320 | | | 0.322 | | | 0.324 | | | 0.317 | | |
| | | | | | | | | | | | | | |
| | *EAL* | 5.04 | 0.31 | * | | | | | | | | | |
| | *FSM* | | | | 4.67 | 0.24 | * | | | | | | |
| | *SEN (EHCP)* | | | | | | | 14.70 | 1.17 | * | | | |
| | *SEN (SEN support)* | | | | | | | 6.02 | 0.35 | * | | | |
| | *Gender* | | | | | | | | | | 1.43 | 0.12 | * |
| | | | | | | | | | | | | | |
| ICC | *Adjusted* | 0.162 | | | 0.163 | | | 0.166 | | | 0.157 | | |
| | *Conditional* | 0.131 | | | 0.132 | | | 0.135 | | | 0.127 | | |
| Model fit | -2RLL | 4662437 | -757 | | 4662124 | -1070 | | 4662115 | -1079 | | 4662956 | -238 | |
| | AIC | 4662443 | -755 | | 4662130 | -1068 | | 4662123 | -1075 | | 4662962 | -236 | |
| | BIC | 4662477 | -744 | | 4662164 | -1057 | | 4662168 | -1053 | | 4662996 | -224 | |

*Note: Marginal R2 refers to variance explained only by the fixed part of a model. Conditional R2 refers to variance explained by both fixed and random effects. -2LL=-2 Restricted Log Likelihood; AIC= Aikaike's Information Criterion; BIC=Schwarz's Bayesian Criterion.*

**Table 44: Key stage 4 Attainment 8, ranges of EAL and other pupil effects varying across schools**

| Variable | Level 1 (pupil) fixed coefficient | Level 2 (School) variance | Level 2 (School) SD | Range | |
|---|---|---|---|---|---|
| | | | | 95% Lower Bound | 95% Upper Bound |
| EAL | 0.36 | 5.04 | 2.25 | -4.04 | 4.76 |
| FSM | -9.15 | 4.67 | 2.16 | -13.39 | -4.91 |
| SEN (EHCP) | -21.92 | 14.70 | 3.83 | -29.43 | -14.40 |
| SEN (SEN support) | -13.98 | 6.02 | 2.45 | -18.79 | -9.17 |
| Gender | -2.92 | 1.43 | 1.19 | -5.26 | -0.58 |

## Models 5 and 6: School composition

Again we consider school composition in terms of EAL status and FSM eligibility, and as for key stage 2 outcomes the effects of these, and their interactions with the corresponding pupil level variables (EAL and FSM) were quite small though significant (see Table 45), and did not explain random effects when entered into models together with these (see Appendix Table A6).

Figure 24a shows the interactions between school-level EAL composition and pupil EAL status in key stage 4, whereby pupils in schools with large proportions of EAL learners performed similarly regardless of individual EAL status, but in low-percentage EAL schools, EAL pupils out-performed MLE speakers by just under 2 points. The equivalent interaction for pupil-level FSM eligibility and school proportion FSM-eligible appears almost negligible (see Figure 24b), with individual FSM eligibility having slightly less effect in high-proportion FSM-eligible schools, and pupils not eligible for FSM out-performing FSM-eligible peers slightly more in low-proportion FSM-eligible schools.

As noted for key stage 2 in a previous section, we also tested these relationships by dividing schools into quintile bands in terms of the proportions of EAL pupils and the proportions of FSM-eligible pupils, an approach that did not assume linearity. The results were broadly consistent with those we found using school-level, grand-mean-centred proportions of pupils with EAL status or eligibility for FSM.

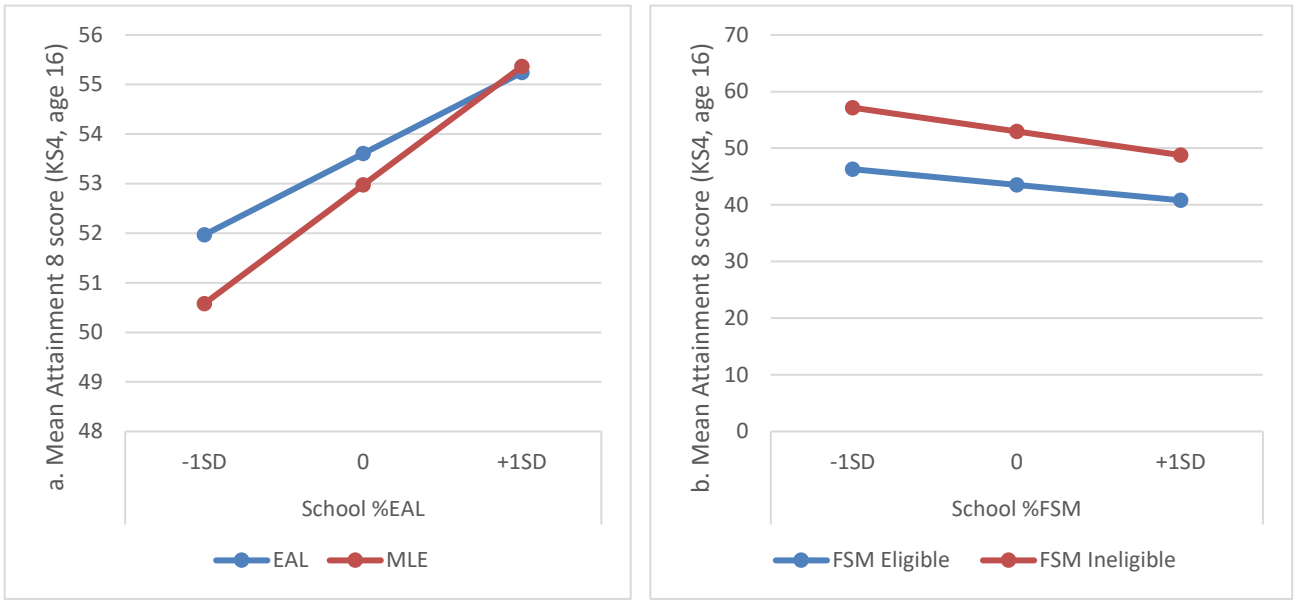



**Figure 24 Interaction between pupil-level EAL status and school-level % EAL (a) and pupil-level FSM eligibility and school-level % FSM eligible (b) at key stage 4**

## Models 7 and 8: Regional variation

For the Attainment 8 outcome, the only significant region effects, when we omitted the school variables, were for the East Midlands (negative and relatively small effect) and London (positive, larger effect), as shown in Table 45. Again, because the regional effects seemed potentially sensitive to the inclusion of different schools and pupils, we look more closely at regional variation in a descriptive way across EAL learners and their MLE counterparts in the next section.

## Table 45: Key stage 4 Attainment 8, school composition and region models

| **Fixed part** | | **Model 5** | | | **Model 6** | | | **Model 7** | | | **Model 8** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **Value(s)** | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | |
| *Intercept* | *Intercept* | 53.00 | 0.13 | * | 52.97 | 0.13 | * | 52.63 | 0.33 | * | 50.85 | 0.29 | * |
| *Language group* | *EAL* | 0.02 | 0.08 | | 0.63 | 0.10 | * | 0.03 | 0.08 | | 0.64 | 0.10 | * |
| *Gender* | *Boy* | -2.93 | 0.05 | * | -2.93 | 0.05 | * | -2.94 | 0.05 | * | -2.93 | 0.05 | * |
| *Birth season* | *Spring* | -0.85 | 0.06 | * | -0.85 | 0.06 | * | -0.85 | 0.06 | * | -0.85 | 0.06 | * |
| | *Summer* | -1.52 | 0.05 | * | -1.52 | 0.05 | * | -1.52 | 0.05 | * | -1.52 | 0.05 | * |
| *Ethnic group* | *White Other* | 3.09 | 0.11 | * | 2.86 | 0.12 | * | 3.08 | 0.11 | * | 2.84 | 0.12 | * |
| | *Black African/MWBA* | 4.70 | 0.12 | * | 4.62 | 0.12 | * | 4.65 | 0.12 | * | 4.59 | 0.12 | * |
| | *Black Caribbean/MWBC* | -2.15 | 0.14 | * | -2.32 | 0.15 | * | -2.21 | 0.14 | * | -2.35 | 0.15 | * |
| | *Indian* | 7.48 | 0.15 | * | 7.34 | 0.15 | * | 7.54 | 0.15 | * | 7.34 | 0.15 | * |
| | *Pakistani* | 3.12 | 0.13 | * | 3.09 | 0.13 | * | 3.17 | 0.13 | * | 3.11 | 0.13 | * |
| | *Bangladeshi* | 7.30 | 0.20 | * | 7.30 | 0.20 | * | 7.23 | 0.20 | * | 7.28 | 0.20 | * |
| | *Any other Asian/Chinese/MWAS* | 6.96 | 0.12 | * | 6.79 | 0.12 | * | 6.97 | 0.12 | * | 6.78 | 0.12 | * |
| | *Any other group* | 2.08 | 0.10 | * | 1.96 | 0.10 | * | 2.04 | 0.10 | * | 1.94 | 0.10 | * |
| *FSM* | *Ever eligible in last 6 years* | -8.99 | 0.06 | * | -9.42 | 0.06 | * | -9.03 | 0.06 | * | -9.42 | 0.06 | * |
| *IDACI* | *+/-1SD* | -2.66 | 0.03 | * | -2.64 | 0.03 | * | -2.73 | 0.03 | * | -2.64 | 0.03 | * |
| *SEN* | *EHCP* | -21.83 | 0.15 | * | -21.79 | 0.15 | * | -21.83 | 0.15 | * | -21.80 | 0.15 | * |
| | *SEN support* | -13.91 | 0.07 | * | -13.90 | 0.07 | * | -13.93 | 0.07 | * | -13.90 | 0.07 | * |
| *Year Entered* | *Y3* | 0.42 | 0.21 | * | 0.40 | 0.21 | | 0.42 | 0.21 | * | 0.41 | 0.21 | * |
| | *Y4* | 0.39 | 0.22 | | 0.38 | 0.22 | | 0.39 | 0.22 | | 0.39 | 0.22 | |
| | *Y5* | -0.05 | 0.23 | | -0.05 | 0.23 | | -0.04 | 0.23 | | -0.04 | 0.23 | |
| | *Y6* | -1.44 | 0.26 | * | -1.45 | 0.26 | * | -1.45 | 0.26 | * | -1.44 | 0.26 | * |
| | *Y7* | -0.63 | 0.19 | * | -0.66 | 0.19 | * | -0.63 | 0.19 | * | -0.65 | 0.19 | * |
| | *Y8* | -4.60 | 0.25 | * | -4.60 | 0.25 | * | -4.61 | 0.25 | * | -4.59 | 0.25 | * |
| | *Y9* | -4.94 | 0.28 | * | -4.94 | 0.28 | * | -4.95 | 0.28 | * | -4.93 | 0.28 | * |
| | *Y10* | -6.71 | 0.23 | * | -6.71 | 0.23 | * | -6.74 | 0.23 | * | -6.70 | 0.23 | * |
| | *Y11* | -17.50 | 0.24 | * | -17.41 | 0.24 | * | -17.53 | 0.24 | * | -17.40 | 0.24 | * |
| *School prop. EAL* | *Grand mean centred (school level)* | 0.11 | 0.01 | * | 0.13 | 0.01 | * | | | | 0.09 | 0.01 | * |
| *School prop. FSM* | *Grand mean centred (school level)* | -0.26 | 0.01 | * | -0.29 | 0.01 | * | | | | -0.32 | 0.01 | * |
| *School prop. EAL*EAL* | *(interaction)* | | | | -0.04 | 0.00 | * | | | | -0.04 | 0.00 | * |
| *School prop. FSM*FSM* | *(interaction)* | | | | 0.10 | 0.00 | * | | | | 0.10 | 0.00 | * |
| *Region (ref South East)* | *North East* | | | | | | | 0.61 | 0.75 | | 5.28 | 0.65 | * |
| | *North West* | | | | | | | -0.49 | 0.48 | | 2.56 | 0.42 | * |
| | *Yorkshire and The Humber* | | | | | | | -0.57 | 0.53 | | 2.27 | 0.46 | * |
| | *East Midlands* | | | | | | | -1.37 | 0.55 | * | 0.18 | 0.47 | |
| | *West Midlands* | | | | | | | 0.11 | 0.50 | | 3.07 | 0.44 | * |
| | *East of England* | | | | | | | -0.68 | 0.50 | | 0.00 | 0.43 | |
| | *London* | | | | | | | 4.17 | 0.46 | * | 6.01 | 0.43 | * |
| | *South West* | | | | | | | 0.10 | 0.55 | | 1.27 | 0.47 | * |
| **Random part** | | | | | | | | | | | | | |
| *Variance* | *Pupil-level* | 278.14 | 0.53 | * | 277.81 | 0.53 | * | 278.15 | 0.53 | | 277.82 | 0.53 | * |
| | *School-level* | 39.41 | 1.07 | * | 37.96 | 1.03 | * | 48.56 | 1.31 | | 34.28 | 0.93 | * |
| *Variance explained (Pseud* | *Marginal* | 0.252 | | | 0.255 | | | 0.198 | | | 0.264 | | |
| | *Conditional* | 0.345 | | | 0.344 | | | 0.317 | | | 0.345 | | |
| ICC | *Adjusted* | 0.124 | | | 0.120 | | | 0.149 | | | 0.110 | | |
| | *Conditional* | 0.093 | | | 0.090 | | | 0.119 | | | 0.081 | | |
| Model fit | -2RLL | 4662444 | -750 | | 4661704 | -740 | | 4663020 | -174 | | 4661411 | -294 | |
| | AIC | 4662448 | -750 | | 4661708 | -740 | | 4663024 | -174 | | 4661415 | -294 | |
| | BIC | 4662470 | -750 | | 4661731 | -740 | | 4663046 | -174 | | 4661437 | -294 | |

*Note: Marginal R2 refers to variance explained only by the fixed part of a model. Conditional R2 refers to variance explained by both fixed and random effects. -2LL=-2 Restricted Log Likelihood; AIC= Aikaike's Information Criterion; BIC=Schwarz's Bayesian Criterion.*

## Regional variation

As signposted above, in this section we examine how attainment at various ages (5, 7, 11 and 16; corresponding to EYFS, KS1, KS2 and KS4), varies across the regions of England.

In Table 46, we can see that effect sizes for EAL attainment gaps at age 5 did vary by region, but mostly not by too much. The EAL–MLE gap was smaller in London (*d*=-0.19) than elsewhere, and largest in the North-West (*d*=-0.33), Yorkshire & the Humber (*d*=-0.34) and the South-West (*d*=-0.32).

**Table 46: EYFS (age 5) attainment, regional variation by EAL status**

| | EAL | | | | MLE | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Region** | Mean | N | SD | %GLD[1] | Mean | N | SD | %GLD[1] | Cohen's d |
| North-East | **12.75** | 2412 | 5.82 | 58% | **14.04** | 25203 | 5.23 | 67% | -0.24 |
| North-West | **12.32** | 13756 | 6.21 | 57% | **14.09** | 68157 | 5.11 | 66% | -0.33 |
| **Yorkshire and The Humber** | **12.53** | 9949 | 5.96 | 56% | **14.31** | 49883 | 4.93 | 69% | -0.34 |
| **East Midlands** | **13.07** | 9026 | 5.82 | 62% | **14.36** | 41859 | 4.88 | 69% | -0.25 |
| **West Midlands** | **12.88** | 14733 | 6.04 | 62% | **14.19** | 52680 | 5.10 | 68% | -0.25 |
| **East of England** | **13.25** | 11595 | 5.62 | 62% | **14.52** | 57211 | 4.70 | 69% | -0.26 |
| **London** | **13.61** | 40908 | 5.58 | 66% | **14.61** | 51089 | 4.83 | 73% | -0.19 |
| South-West | **13.20** | 5467 | 5.53 | 59% | **14.69** | 48756 | 4.50 | 70% | -0.32 |
| South-East | **13.71** | 15814 | 5.30 | 64% | **14.81** | 82176 | 4.44 | 71% | -0.24 |
| **Grand total** | **13.20** | 123660 | 5.75 | 62% | **14.44** | 477014 | 4.83 | 69% | -0.25 |

*Notes: Sourced from FSP_GLD, which represents the % achieving a GLD at age 5; ELG = Early Learning Goal.*

At age 7 (key stage 1; Table 47), the effect sizes for EAL attainment gaps in reading were smaller than those of attainment at age 5, but variation was still apparent. The smallest (*d*=-0.12, -0.13 and -0.14) were in the South-East, East of England, and London, respectively, while the largest (*d*=-0.28) was in Yorkshire & the Humber.

**Table 47: Key stage 1 (age 7) reading attainment, regional variation by EAL status**

| | EAL | | | | MLE | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Region** | Mean | N | SD | %READ EXP[1] | Mean | N | SD | %READ EXP[1] | Cohen's d |
| **North-East** | **1.57** | 2696 | 0.88 | 59% | **1.79** | 26876 | 0.85 | 70% | -0.26 |
| **North-West** | **1.58** | 15737 | 0.88 | 60% | **1.77** | 72132 | 0.84 | 69% | -0.22 |
| **Yorkshire and The Humber** | **1.52** | 11669 | 0.89 | 58% | **1.77** | 52660 | 0.85 | 68% | -0.28 |
| **East Midlands** | **1.63** | 9912 | 0.87 | 63% | **1.78** | 45557 | 0.86 | 69% | -0.18 |
| **West Midlands** | **1.65** | 16350 | 0.87 | 64% | **1.79** | 55640 | 0.86 | 70% | -0.16 |
| **East of England** | **1.69** | 12821 | 0.87 | 64% | **1.80** | 59935 | 0.86 | 69% | -0.13 |
| **London** | **1.79** | 45292 | 0.87 | 69% | **1.91** | 51047 | 0.87 | 74% | -0.14 |
| **South-West** | **1.60** | 6109 | 0.88 | 60% | **1.81** | 52564 | 0.84 | 70% | -0.24 |
| **South-East** | **1.73** | 17377 | 0.87 | 67% | **1.83** | 85711 | 0.85 | 71% | -0.12 |
| **Grand total** | **1.69** | 137963 | 0.88 | 65% | **1.81** | 502122 | 0.85 | 70% | -0.14 |

*Notes: 1 Sourced from KS1READEXP, which represents the % achieving expected or above in KS1 Reading; 2 Sourced from KS1READ*

For key stage 1 maths (Table 48), effect sizes for EAL attainment gaps by region were even smaller than those for reading, but we can still see variation and the smallest gaps were in the South-East (*d*=-0.02), East of England (*d*=-0.05) and London (*d*=-0.05).

**Table 48: Key stage 1 (age 7) maths attainment, regional variation by EAL status**

| | EAL | | | | MLE | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Region** | Mean | N | SD | %MATH EXP[1] | Mean | N | SD | %MATH EXP[1] | Cohen's d |
| **North-East** | **1.66** | 2696 | 0.86 | 65% | **1.80** | 26878 | 0.79 | 71% | -0.17 |
| **North-West** | **1.68** | 15740 | 0.84 | 66% | **1.78** | 72132 | 0.78 | 71% | -0.13 |
| **Yorkshire and The Humber** | **1.62** | 11669 | 0.86 | 63% | **1.79** | 52659 | 0.80 | 70% | -0.21 |
| **East Midlands** | **1.75** | 9914 | 0.83 | 69% | **1.79** | 45555 | 0.80 | 71% | -0.06 |
| **West Midlands** | **1.72** | 16351 | 0.83 | 68% | **1.78** | 55640 | 0.80 | 71% | -0.08 |
| **East of England** | **1.75** | 12821 | 0.82 | 68% | **1.79** | 59932 | 0.80 | 70% | -0.05 |
| **London** | **1.85** | 45292 | 0.83 | 73% | **1.90** | 51047 | 0.82 | 75% | -0.05 |
| **South-West** | **1.70** | 6107 | 0.83 | 67% | **1.80** | 52563 | 0.78 | 72% | -0.13 |
| **South-East** | **1.80** | 17379 | 0.83 | 71% | **1.82** | 85708 | 0.79 | 72% | -0.02 |
| **Grand total** | **1.76** | 137969 | 0.84 | 69% | **1.81** | 502114 | 0.80 | 71% | -0.05 |

*Notes: 1 Sourced from KS1MATHEXP, which represents the % achieving expected or above in*

For key stage 2 (age 11; Table 49) reading, effect sizes of the EAL attainment gaps by region were roughly comparable to those in key stage 1, with smaller effects in the South-East and East of England (*d*=-0.09); London (*d*=-0.14) and the West Midlands (*d*=-0.12) close behind; and Yorkshire & the Humber and the South-West having the largest EAL attainment gaps of any region (*d*=-0.25 and *d*=-0.24, respectively).

**Table 49: Key stage 2 (age 11) reading attainment, regional variation by EAL status**

| | EAL | | | | MLE | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Region** | Mean | N | SD | %READEXP[1] | Mean | N | SD | %READEXP[1] | Cohen's d |
| **North-East** | **101.83** | 2640 | 10.95 | 66% | **104.09** | 28369 | 9.74 | 75% | -0.23 |
| **North-West** | **101.80** | 16939 | 10.52 | 66% | **104.00** | 74560 | 9.72 | 74% | -0.22 |
| **Yorkshire and The Humber** | **101.13** | 12766 | 10.67 | 63% | **103.66** | 54525 | 9.76 | 72% | -0.25 |
| **East Midlands** | **101.81** | 10319 | 10.31 | 65% | **103.71** | 47850 | 9.76 | 73% | -0.19 |
| **West Midlands** | **102.54** | 18217 | 10.18 | 68% | **103.75** | 57140 | 9.96 | 73% | -0.12 |
| **East of England** | **103.09** | 13058 | 10.18 | 70% | **104.02** | 61484 | 9.98 | 73% | -0.09 |
| **London** | **103.98** | 49094 | 10.38 | 74% | **105.39** | 48902 | 10.12 | 78% | -0.14 |
| **South-West** | **101.84** | 6210 | 10.75 | 65% | **104.19** | 55576 | 9.78 | 74% | -0.24 |
| **South-East** | **103.45** | 17835 | 10.43 | 71% | **104.38** | 89008 | 9.99 | 74% | -0.09 |
| **Grand total** | **102.88** | 147078 | 10.46 | 70% | **104.13** | 517414 | 9.89 | 74% | -0.12 |

*Notes: 1Sourced from KS2_READEXP, which represents the % reaching standard in KS2 reading*

For key stage 2 maths (Table 50), as was the case in key stage 1, effect sizes for EAL status attainment gaps by region tended to be smaller overall than for reading, but by age 11 these gaps mostly appear in favour of EAL pupils. For key stage 2 maths the smallest gaps are evident in Yorkshire & the Humber (*d*=-0.03), the North-East (*d*=0.07), North-West (*d*=0.08), and East Midlands (*d*=0.09).

**Table 50: Key stage 2 (age 11) maths attainment, regional variation by EAL status**

| | EAL | | | | MLE | | | | |
|---|---|---|---|---|---|---|---|---|---|
| **Region** | Mean | N | SD | %MATH EXP[1] | Mean | N | SD | %MATH EXP[1] | Cohen's d |
| **North-East** | **103.57** | 2640 | 10.23 | 75% | **102.88** | 28340 | 9.15 | 74% | 0.07 |
| **North-West** | **103.51** | 16945 | 10.01 | 75% | **102.78** | 74477 | 9.30 | 72% | 0.08 |
| **Yorkshire and The Humber** | **102.47** | 12771 | 10.29 | 71% | **102.73** | 54455 | 9.26 | 72% | -0.03 |
| **East Midlands** | **103.62** | 10319 | 9.75 | 75% | **102.74** | 47698 | 9.20 | 72% | 0.09 |
| **West Midlands** | **103.89** | 18177 | 9.87 | 76% | **102.50** | 57037 | 9.52 | 71% | 0.15 |
| **East of England** | **104.28** | 13063 | 9.60 | 77% | **102.69** | 61434 | 9.47 | 71% | 0.17 |
| **London** | **105.23** | 49065 | 10.01 | 81% | **104.19** | 48839 | 9.83 | 77% | 0.11 |
| **South-West** | **103.46** | 6215 | 9.77 | 73% | **102.46** | 55489 | 9.16 | 70% | 0.11 |
| **South-East** | **104.93** | 17845 | 9.70 | 78% | **102.72** | 88889 | 9.40 | 71% | 0.23 |
| **Grand total** | **104.29** | 147040 | 9.96 | 77% | **102.82** | 516658 | 9.39 | 72% | 0.15 |

*Notes: 1Sourced from KS2_MATHEXP, which represents the % reaching standard in KS2 maths*

At age 16 (key stage 4; Table 51), attainment gaps mostly favoured EAL pupils across regions, and their effect sizes were very small, with the smallest in Yorkshire & the Humber (*d*=-0.05) and London (*d*=0.04).

**Table 51: Key stage 4 (age 16) Attainment 8, regional variation by EAL status**

| | EAL | | | | MLE | | | | Cohen's d |
|---|---|---|---|---|---|---|---|---|---|
| **Region** | Mean | N | SD | %PASS[1] | Mean | N | SD | %PASS[1] | |
| North-East | **46.19** | 1930 | 22.16 | 45% | **43.89** | 26119 | 21.11 | 41% | 0.11 |
| North-West | **46.82** | 12250 | 21.16 | 44% | **43.62** | 72098 | 21.27 | 41% | 0.15 |
| **Yorkshire & the Humber** | **43.68** | 9266 | 22.37 | 41% | **44.65** | 51754 | 21.09 | 43% | -0.05 |
| **East Midlands** | **46.40** | 7893 | 21.33 | 44% | **44.69** | 45105 | 20.61 | 42% | 0.08 |
| **West Midlands** | **46.60** | 13854 | 21.16 | 45% | **44.05** | 54941 | 20.85 | 40% | 0.12 |
| **East of England** | **48.17** | 9228 | 21.47 | 47% | **45.95** | 59496 | 21.17 | 45% | 0.10 |
| **London** | **50.53** | 37280 | 21.85 | 54% | **49.66** | 53241 | 22.48 | 53% | 0.04 |
| South-West | **48.07** | 4264 | 21.57 | 47% | **45.69** | 52150 | 21.02 | 44% | 0.11 |
| South-East | **50.79** | 12774 | 22.22 | 53% | **46.61** | 84070 | 21.78 | 47% | 0.19 |
| **Grand total** | **48.38** | 108739 | 21.82 | 49% | **45.53** | 498974 | 21.39 | 44% | 0.13 |

*Notes: Sourced from key stage 4_L2BASICS_95, representing % achieving 9–5 pass in English and maths.*

# 8. Implications for policy and practice

Our aim in this research was to update the evidence on the relationship(s) between EAL status and educational attainment in England, building on the previous research summarised in the Introduction to this report.

From the available data, we know that the EAL pupil population in England is large and growing. In 1997, when the first reliable national data were collected, pupils using EAL accounted for around 7% of the English compulsory school population aged 5–16. This has increased threefold to over 21%, or more than 1-in-5, of all pupils in 2024. However, the composition and distribution of the EAL population have also changed over time. EAL pupils are becoming more widely distributed outside of urban areas, with a greater proportion of schools containing high concentrations of EAL learners. We might therefore expect language support needs to be more widely distributed than they were 10 years ago.

Many pupils recorded as EAL learners in the 1960s–1980s had arrived in England directly from overseas, often with limited proficiency in English, the language of classroom instruction. As of 2023, the majority of pupils recorded as using EAL may have been born in the UK and/or have experienced all of their formal education in England. This speaks to the heterogeneity of the group recorded as EAL pupils, which might include:

- Children born in the UK and brought up with another language as well as English, as part of their cultural heritage, but mostly using English at home and school;
- Children from other countries educated in English-medium or bilingual schools abroad, who can read and write fluently in two or more languages;
- Children from abroad who speak, read or write little or no English upon arrival.

The only instances where the aggregate data for 2023 showed substantial underachievement by EAL pupils were in reception at age 5, where the proportion achieving a Good Level of Development is lower than that of MLE-speakers, and in achievement in reading at age 7. After age 7, average differences in attainment between pupils using EAL and MLE speakers are small or in favour of the EAL group.

This does not mean, however, that language learning needs no longer exist.

Rather, just as Strand, Malmberg and Hall (2015) found 10 years ago, our results suggest that the EAL flag used in the school census is not a sound basis for targeting support, because the flag alone does not provide any information about a pupil's proficiency in English. Indeed, this also limits what we have been able to show in our analysis, as we do not have access to what would really be needed to understand the relationships between EAL and attainment: Levels of proficiency in English.

In the absence of that information, we have shown that while most risk factors for low attainment (such as FSM eligibility) apply regardless of EAL status, looking at pupils' year of entry to the English school system can provide a useful insight into which learners may need language support and when:

- There is no EAL attainment gap at the end of key stage 2 (age 11) for pupils entering in Reception, or at the end of key stage 4 (age 16) for pupils entering before year 6. Indeed, many of these pupils know a heritage language in addition to English, which can be an asset to attainment (Hessel & Strand, 2023).
- Later entry is negatively associated with attainment for EAL pupils but not for MLE speakers. This likely reflects the language learning needs of the recently entered EAL cohort.
- Current policy allows for discounting pupils from performance tables if they arrived at the school within two years prior to assessment, but this does not fully account for the time required to acquire proficiency in English and access the curriculum, estimated to take around six years. Our results show a reduction in attainment for those arriving more than two years earlier, e.g. pupils in years 1–3 for key stage 2 and years 7–9 for key stage 4.
- These pupils (arriving in years 1–3 for key stage 2 or years 7–9 for key stage 4) will have had the entitlement to three years of EAL funding specified in the NFF, but still achieved below the national average at the end of the relevant key stage. Three years of funding is not enough to close the gap.

A fairer and more equitable targeting of EAL funding resources within the NFF could be achieved even without an overall increase in the level of funding, for example:

1. If mandatory reporting on proficiency in English (based on bands of proficiency in English used in Wales) were to be reintroduced in England, funding could be targeted directly to pupils with language learning needs, and the duration or level of funding could be proportionate to the extent of that need (for example by applying weights for those at the first four stages (A= New to English; B= Early Acquisition; C= Developing Competence; and D= Competent) compared to E= Fluent.
2. The current system of funding EAL pupils for three years after they arrive in Reception could be maintained, but the approximately 20% of pupils speaking EAL who arrive in year 1 or later in primary school, or year 7 or later in secondary school, could be funded for twice as long, i.e. for a full six years to support them in acquiring proficiency in English.
3. Given the increasingly wide geographical distribution of EAL pupils in England, schools and teachers need appropriate training to understand English-language proficiency, assess it accurately, and provide effective and targeted support to the pupils who require it.

The implications arising from this research, and the studies that preceded it, are therefore:

1. A measure of proficiency in English, or at least a better proxy for it than the current EAL flag, is needed to facilitate better targeting of support.
2. Appropriate training is needed for teachers and schools to facilitate assessment of and support for pupils' proficiency in English.
3. The funding provided for schools should reflect actual language support needs. A decade's worth of research underscores the need to consider proficiency in English rather than EAL status (as currently defined) as an indicator of language support needs, as well as the importance of sustaining that support – for those who need it – for long enough to facilitate full proficiency in the language of instruction.

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# Appendix

**Table A1: Number and percentage of EAL students recorded in 2022/23 by LA (all English LAs except Isles of Scilly & City of London, excluded for low counts)**

| Rank | LA | EAL N | EAL % | Total roll |
|---|---|---|---|---|
| 1 | Newham | 42722 | 66.1% | 64,675 |
| 2 | Harrow | 24822 | 63.2% | 39,279 |
| 3 | Brent | 30623 | 63.0% | 48,583 |
| 4 | Tower Hamlets | 28347 | 61.4% | 46,188 |
| 5 | Ealing | 32792 | 59.6% | 55,012 |
| 6 | Hounslow | 26931 | 58.6% | 45,967 |
| 7 | Redbridge | 33193 | 56.8% | 58,439 |
| 8 | Leicester | 33042 | 54.7% | 60,375 |
| 9 | Westminster | 11582 | 53.5% | 21,648 |
| 10 | Slough | 17584 | 51.6% | 34,056 |
| 11 | Luton | 20047 | 49.2% | 40,733 |
| 12 | Camden | 10512 | 48.3% | 21,775 |
| 13 | Kensington & Chelsea | 6490 | 48.1% | 13,487 |
| 14 | Hillingdon | 25326 | 47.5% | 53,270 |
| 15 | Barnet | 29476 | 47.2% | 62,481 |
| 16 | Enfield | 26492 | 47.1% | 56,270 |
| 17 | Barking & Dagenham | 21149 | 46.5% | 45,468 |
| 18 | Haringey | 17479 | 45.6% | 38,337 |
| 19 | Lambeth | 16395 | 44.8% | 36,601 |
| 20 | Manchester | 40613 | 43.6% | 93,201 |
| 21 | Hackney | 14485 | 42.8% | 33,877 |
| 22 | Waltham Forest | 18126 | 42.6% | 42,563 |
| 23 | Hammersmith and Fulham | 8367 | 41.1% | 20,375 |
| 24 | Birmingham | 83846 | 40.5% | 207,175 |
| 25 | Merton | 10919 | 38.9% | 28,050 |
| 26 | Wandsworth | 12802 | 38.5% | 33,255 |
| 27 | Islington | 9043 | 37.8% | 23,938 |
| 28 | Blackburn with Darwen | 10335 | 36.7% | 28,125 |
| 29 | Reading | 8932 | 36.1% | 24,719 |
| 30 | Coventry | 21144 | 35.2% | 60,135 |
| 31 | Bradford | 34829 | 34.4% | 101,309 |
| 32 | Peterborough | 14011 | 34.3% | 40,894 |
| 33 | Southwark | 14477 | 33.8% | 42,864 |
| 34 | Kingston upon Thames | 9223 | 33.8% | 27,287 |
| 35 | Sutton | 13838 | 33.5% | 41,334 |
| 36 | Lewisham | 12687 | 33.2% | 38,254 |
| 37 | Nottingham | 16114 | 32.9% | 127,678 |
| 38 | Greenwich | 14719 | 32.6% | 45,184 |
| 39 | Croydon | 19019 | 32.6% | 58,285 |

| | | | | |
|---|---|---|---|---|
| 40 | Sandwell | 20283 | 32.4% | 62,558 |
| 41 | Oldham | 14287 | 31.1% | 45,986 |
| 42 | Southampton | 10253 | 30.2% | 33,935 |
| 43 | Wolverhampton | 14711 | 29.6% | 49,696 |
| 44 | Bolton | 15620 | 29.1% | 53,667 |
| 45 | Milton Keynes | 14283 | 27.9% | 51,170 |
| 46 | Derby | 12307 | 27.2% | 45,238 |
| 47 | Bedford | 8141 | 25.9% | 31,415 |
| 48 | Richmond upon Thames | 7473 | 25.8% | 28,980 |
| 49 | Rochdale | 9823 | 25.8% | 38,048 |
| 50 | Newcastle upon Tyne | 10825 | 25.4% | 42,560 |
| 51 | Havering | 10280 | 24.3% | 42,224 |
| 52 | Wokingham | 7023 | 23.6% | 29,785 |
| 53 | Walsall | 12713 | 23.5% | 54,123 |
| 54 | Stoke-on-Trent | 9545 | 23.2% | 41,196 |
| 55 | Sheffield | 19703 | 23.1% | 85,194 |
| 56 | Kirklees | 15337 | 22.8% | 67,374 |
| 57 | Thurrock | 7041 | 22.3% | 31,613 |
| 58 | Trafford | 9513 | 21.8% | 43,709 |
| 59 | Swindon | 7975 | 21.5% | 37,064 |
| 60 | Leeds | 28144 | 21.4% | 131,361 |
| 61 | Bristol, City of | 13547 | 21.2% | 63,975 |
| 62 | West Northamptonshire | 14021 | 20.7% | 67,893 |
| 63 | Salford | 7922 | 20.6% | 38,532 |
| 64 | Portsmouth | 5592 | 20.2% | 27,642 |
| 65 | Bexley | 8790 | 20.1% | 43,662 |
| 66 | Buckinghamshire | 17189 | 19.2% | 89,595 |
| 67 | Liverpool | 14838 | 19.1% | 77,791 |
| 68 | Middlesbrough | 4726 | 18.3% | 25,858 |
| 69 | Bury | 5217 | 17.8% | 29,344 |
| 70 | Kingston upon Hull, City of | 7487 | 17.3% | 43,163 |
| 71 | Hertfordshire | 34344 | 17.0% | 202,108 |
| 72 | North Northamptonshire | 9596 | 17.0% | 56,356 |
| 73 | Oxfordshire | 16222 | 16.1% | 100,654 |
| 74 | Brighton and Hove | 4898 | 15.6% | 31,475 |
| 75 | Cambridgeshire | 14284 | 15.6% | 91,509 |
| 76 | Bournemouth, Christchurch & Poole | 7997 | 15.1% | 52,915 |
| 77 | Windsor and Maidenhead | 3433 | 15.0% | 22,905 |
| 78 | Medway | 7447 | 15.0% | 49,642 |
| 79 | Bromley | 7909 | 14.9% | 53,229 |
| 80 | Calderdale | 5412 | 14.8% | 36,534 |
| 81 | Telford and Wrekin | 4716 | 14.7% | 32,082 |
| 82 | Tameside | 5471 | 14.6% | 37,586 |
| 83 | Bracknell Forest | 2754 | 14.6% | 18,830 |
| 84 | Surrey | 23324 | 14.2% | 163,679 |

| | | | | |
|---|---|---|---|---|
| 85 | Southend-on-Sea | 4229 | 13.5% | 31,337 |
| 86 | Doncaster | 6285 | 13.1% | 48,075 |
| 87 | Kent | 32468 | 13.0% | 250,389 |
| 88 | Warwickshire | 11566 | 13.0% | 88,998 |
| 89 | Warrington | 4296 | 12.9% | 33,286 |
| 90 | Lancashire | 22936 | 12.8% | 179,116 |
| 91 | North Lincolnshire | 3120 | 12.7% | 24,640 |
| 92 | Solihull | 5067 | 12.5% | 40,480 |
| 93 | Norfolk | 14732 | 12.4% | 119,236 |
| 94 | West Sussex | 14609 | 12.3% | 118,751 |
| 95 | Stockport | 5284 | 12.0% | 43,893 |
| 96 | South Gloucestershire | 4901 | 11.9% | 41,090 |
| 97 | Lincolnshire | 12434 | 11.4% | 109,347 |
| 98 | Wakefield | 6282 | 11.4% | 55,038 |
| 99 | Rotherham | 5135 | 11.3% | 45,533 |
| 100 | Dudley | 5281 | 11.0% | 48,051 |
| 101 | West Berkshire | 2923 | 10.8% | 27,118 |
| 102 | Gateshead | 3083 | 10.7% | 28,940 |
| 103 | Herefordshire, County of | 2476 | 10.4% | 23,828 |
| 104 | Suffolk | 10499 | 10.0% | 104,491 |
| 105 | Nottinghamshire | 12627 | 9.9% | 127,678 |
| 106 | Essex | 20983 | 9.5% | 221,845 |
| 107 | Blackpool | 1871 | 9.4% | 19,955 |
| 108 | Somerset | 6679 | 9.2% | 72,603 |
| 109 | Worcestershire | 7606 | 9.2% | 82,665 |
| 110 | Gloucestershire | 8484 | 9.2% | 92,117 |
| 111 | York | 2318 | 9.0% | 25,724 |
| 112 | Darlington | 1427 | 8.8% | 16,231 |
| 113 | Plymouth | 3436 | 8.7% | 39,371 |
| 114 | Cheshire East | 5000 | 8.7% | 57,167 |
| 115 | Leicestershire | 8646 | 8.6% | 100,953 |
| 116 | Hampshire | 15781 | 8.6% | 184,221 |
| 117 | Central Bedfordshire | 3980 | 8.3% | 48,039 |
| 118 | Wigan | 3847 | 8.0% | 48,253 |
| 119 | Staffordshire | 9608 | 7.7% | 125,041 |
| 120 | North Somerset | 2350 | 7.5% | 31,524 |
| 121 | Stockton-on-Tees | 2348 | 7.3% | 32,359 |
| 122 | Bath and North-East Somerset | 1944 | 7.1% | 27,503 |
| 123 | North-East Lincolnshire | 1723 | 7.1% | 24,220 |
| 124 | Cheshire West and Chester | 3645 | 7.0% | 51,907 |
| 125 | East Sussex | 4699 | 6.9% | 68,349 |
| 126 | Sefton | 2799 | 6.9% | 40,672 |
| 127 | Wiltshire | 4891 | 6.9% | 70,702 |
| 128 | Barnsley | 2448 | 6.9% | 35,247 |
| 129 | Knowsley | 1366 | 6.4% | 21,452 |

| | | | | |
|---|---|---|---|---|
| 130 | Sunderland | 2661 | 6.4% | 41,653 |
| 131 | South Tyneside | 1405 | 6.1% | 23,012 |
| 132 | North Yorkshire | 4793 | 5.8% | 83,133 |
| 133 | Wirral | 2799 | 5.5% | 51,193 |
| 134 | North Tyneside | 1700 | 5.4% | 31,560 |
| 135 | Torbay | 1095 | 5.4% | 31,560 |
| 136 | St. Helens | 1427 | 5.2% | 27,279 |
| 137 | Hartlepool | 794 | 5.2% | 15,141 |
| 138 | Devon | 5115 | 5.0% | 101,363 |
| 139 | Rutland | 295 | 4.8% | 6,105 |
| 140 | East Riding of Yorkshire | 2154 | 4.7% | 46,084 |
| 141 | Shropshire | 1888 | 4.7% | 40,001 |
| 142 | Halton | 812 | 4.3% | 19,052 |
| 143 | Cumbria | 2960 | 4.2% | 70,791 |
| 144 | Dorset | 1963 | 4.1% | 48,420 |
| 145 | Isle of Wight | 670 | 4.0% | 16,831 |
| 146 | County Durham | 2510 | 3.4% | 74,332 |
| 147 | Derbyshire | 3766 | 3.4% | 109,404 |
| 148 | Cornwall | 2183 | 2.9% | 74,578 |
| 149 | Northumberland | 1197 | 2.6% | 45,449 |
| 150 | Redcar and Cleveland | 517 | 2.4% | 21,330 |

## Table A2: EAL data for Inner London boroughs 2012/13 and 2022/23

| | 2013 | | | | | 2023 | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Laname** | **EAL** | **MLE** | **Uncl** | **Total** | **%EAL** | **EAL** | **MLE** | **Uncl** | **Total** | **%EAL** | **Change** |
| Camden | 10,179 | 8,524 | 115 | 18,820 | **54.4%** | 10,512 | 11,082 | 181 | 21,775 | **48.7%** | -5.7% |
| City of London | 128 | | | 175 | **74.0%** | 145 | | | 271 | **53.7%** | -20.3% |
| Greenwich | 11,967 | 18,927 | 171 | 31,065 | **38.7%** | 14,719 | 29,876 | 589 | 45,184 | **33.0%** | -5.7% |
| Hackney | 13,115 | 12,544 | 78 | 25,735 | **51.1%** | 14,485 | 19,327 | 65 | 33,877 | **42.8%** | -8.3% |
| Hammersmith & Fulham | 7,234 | 8,442 | 71 | 15,745 | **46.2%** | 8,367 | 11,836 | 172 | 20,375 | **41.4%** | -4.7% |
| Haringey | 15,868 | 14,889 | 119 | 30,880 | **51.6%** | 17,479 | 20,351 | 507 | 38,337 | **46.2%** | -5.4% |
| Islington | 8,851 | 10,025 | 32 | 18,915 | **46.9%** | 9,043 | 14,825 | 70 | 23,938 | **37.9%** | -9.0% |
| Kensington & Chelsea | 5,274 | 4,641 | 11 | 9,920 | **53.2%** | 6,490 | 6,895 | 102 | 13,487 | **48.5%** | -4.7% |
| Lambeth | 12,978 | 15,006 | 77 | 28,060 | **46.4%** | 16,395 | 19,920 | 286 | 36,601 | **45.1%** | -1.2% |
| Lewisham | 9,849 | 22,313 | 344 | 32,505 | **30.6%** | 12,687 | 25,291 | 276 | 38,254 | **33.4%** | 2.8% |
| Newham | 32,258 | 12,390 | 171 | 44,820 | **72.2%** | 42,722 | 21,552 | 401 | 64,675 | **66.5%** | -5.8% |
| Southwark | 13,281 | 18,114 | 305 | 31,700 | **42.3%** | 14,477 | 28,051 | 336 | 42,864 | **34.0%** | -8.3% |
| Tower Hamlets | 24,831 | 9,104 | 93 | 34,030 | **73.2%** | 28,347 | 17,785 | 56 | 46,188 | **61.4%** | -11.7% |
| Wandsworth | 10,884 | 14,288 | 86 | 25,260 | **43.2%** | 12,802 | 20,214 | 239 | 33,255 | **38.8%** | -4.5% |
| Westminster | 12,198 | 6,081 | 91 | 18,370 | **66.7%** | 11582 | 9,912 | 154 | 21648 | **53.9%** | -12.8% |
| | **188,895** | **175,335** | **1,766** | **366,000** | **51.9%** | **220,252** | **257,042** | **3,435** | **480,729** | **46.1%** | -5.7% |

*Notes: MLE= Monolingual-English speakers; Uncl = unclassified. Cells with <10 observations have been left blank, including for monolingual-English-speaking pupils, so that numbers cannot be inferred by deduction. % EAL calculated excluding the small number of "unclassified" pupils.*

## Table A3: Percentage of EAL learners for each London borough, 2011–2024

| | %EAL | %EAL | %EAL | %EAL | %EAL | %EAL | %EAL | %EAL | %EAL | %EAL | %EAL | %EAL | %EAL | %EAL |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Inner London LA name** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** | **2017** | **2018** | **2019** | **2020** | **2021** | **2022** | **2023** | **2024** |
| Tower Hamlets | 75% | 74% | 73% | 73% | 74% | 73% | 73% | 72% | 70% | 67% | 64% | 63% | 61% | 60% |
| City of London | 73% | 72% | 74% | 73% | 65% | 58% | 59% | 52% | 50% | 60% | 59% | 60% | 54% | 52% |
| Newham | 71% | 72% | 72% | 72% | 71% | 71% | 71% | 70% | 70% | 69% | 68% | 67% | 66% | 67% |
| Westminster | 68% | 68% | 67% | 68% | 67% | 65% | 65% | 62% | 60% | 58% | 56% | 55% | 54% | 53% |
| Kensington & Chelsea | 54% | 54% | 53% | 53% | 52% | 53% | 51% | 51% | 49% | 52% | 51% | 50% | 48% | 48% |
| Camden | 54% | 55% | 54% | 55% | 56% | 56% | 57% | 56% | 54% | 52% | 51% | 51% | 49% | 47% |
| Hackney | 53% | 52% | 51% | 51% | 51% | 51% | 49% | 48% | 47% | 46% | 45% | 44% | 43% | 42% |
| Haringey | 51% | 51% | 52% | 53% | 53% | 53% | 52% | 52% | 50% | 50% | 48% | 47% | 46% | 46% |
| Hammersmith & Fulham | 46% | 46% | 46% | 46% | 46% | 44% | 44% | 43% | 42% | 41% | 41% | 41% | 41% | 42% |
| Islington | 45% | 46% | 47% | 46% | 45% | 45% | 44% | 43% | 42% | 39% | 38% | 38% | 38% | 38% |
| Lambeth | 45% | 45% | 46% | 47% | 47% | 47% | 49% | 48% | 47% | 46% | 46% | 45% | 45% | 45% |
| Wandsworth | 43% | 43% | 43% | 44% | 46% | 46% | 46% | 45% | 43% | 42% | 41% | 40% | 39% | 40% |
| Southwark | 42% | 41% | 42% | 43% | 42% | 42% | 42% | 41% | 39% | 38% | 36% | 35% | 34% | 34% |
| Greenwich | 38% | 39% | 39% | 40% | 39% | 40% | 39% | 39% | 38% | 37% | 35% | 34% | 33% | 33% |
| Lewisham | 30% | 31% | 31% | 31% | 31% | 31% | 32% | 33% | 33% | 35% | 34% | 33% | 33% | 34% |
| **All 15 Inner London** | **51%** | **52%** | **52%** | **52%** | **52%** | **52%** | **52%** | **51%** | **50%** | **49%** | **48%** | **47%** | **46%** | **46%** |
| Barking & Dagenham | 38% | 40% | 43% | 45% | 48% | 49% | 51% | 52% | 51% | 50% | 48% | 46% | 47% | 47% |
| Barnet | 42% | 43% | 43% | 44% | 44% | 44% | 45% | 46% | 46% | 47% | 46% | 47% | 48% | 48% |
| Bexley | 12% | 13% | 13% | 14% | 15% | 16% | 16% | 17% | 18% | 18% | 19% | 20% | 20% | 21% |
| Brent | 59% | 60% | 61% | 62% | 63% | 63% | 64% | 66% | 65% | 65% | 64% | 64% | 63% | 64% |
| Bromley | 8% | 9% | 9% | 10% | 11% | 12% | 12% | 13% | 13% | 14% | 14% | 14% | 15% | 16% |
| Croydon | 26% | 27% | 28% | 29% | 30% | 32% | 32% | 33% | 33% | 33% | 33% | 32% | 33% | 33% |
| Ealing | 56% | 57% | 59% | 60% | 60% | 60% | 60% | 61% | 61% | 61% | 60% | 60% | 60% | 59% |
| Enfield | 44% | 45% | 45% | 46% | 47% | 48% | 48% | 49% | 50% | 49% | 49% | 48% | 48% | 47% |
| Harrow | 54% | 56% | 58% | 60% | 62% | 63% | 64% | 63% | 63% | 63% | 63% | 63% | 63% | 64% |
| Havering | 8% | 9% | 10% | 11% | 13% | 14% | 16% | 18% | 19% | 20% | 21% | 23% | 25% | 26% |
| Hillingdon | 36% | 38% | 40% | 41% | 43% | 45% | 46% | 47% | 48% | 48% | 48% | 48% | 48% | 48% |
| Hounslow | 56% | 57% | 57% | 58% | 59% | 59% | 59% | 61% | 61% | 61% | 60% | 59% | 59% | 59% |
| Kingston upon Thames | 29% | 30% | 31% | 31% | 33% | 33% | 34% | 34% | 34% | 34% | 33% | 33% | 34% | 34% |
| Merton | 37% | 38% | 40% | 41% | 42% | 43% | 43% | 43% | 42% | 41% | 39% | 39% | 39% | 39% |
| Redbridge | 57% | 58% | 59% | 60% | 61% | 62% | 62% | 62% | 61% | 61% | 59% | 58% | 57% | 57% |
| Richmond upon Thames | 19% | 19% | 20% | 20% | 21% | 22% | 23% | 24% | 24% | 24% | 23% | 24% | 26% | 27% |
| Sutton | 17% | 18% | 20% | 21% | 23% | 25% | 25% | 27% | 28% | 30% | 30% | 32% | 34% | 35% |
| Waltham Forest | 48% | 50% | 50% | 51% | 52% | 51% | 50% | 49% | 47% | 46% | 43% | 43% | 43% | 42% |

*Note: Percentages excluded the small proportion of pupils recorded as "unclassified".*

## Table A4: Key stage 2 reading, exploring EAL slope and school composition

| **Fixed part** | | **Model 0** | | | **Model 1** | | | **Model 2** | | | **Model 3** | | | **Model 4** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **Value(s)** | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | |
| *Intercept* | *Intercept* | 104.1 | 0.03 | * | 104.43 | 0.03 | * | 104.43 | 0.04 | * | 102.83 | 0.07 | * | 102.67 | 0.08 | * |
| *Language group* | *EAL* | | | | -1.11 | 0.03 | * | -1.12 | 0.04 | * | -1.07 | 0.04 | * | -0.67 | 0.09 | * |
| *School prop. EAL* | *Lowest* | | | | | | | | | | -1.05 | 0.39 | * | -1.07 | 0.40 | * |
| | *Low-Mid* | | | | | | | | | | -1.00 | 0.11 | * | -0.94 | 0.12 | * |
| | *Middle* | | | | | | | | | | -0.70 | 0.08 | * | -0.65 | 0.08 | * |
| | *Mid-High* | | | | | | | | | | -0.40 | 0.07 | * | -0.44 | 0.08 | * |
| *School prop. FSM* | *Lowest* | | | | | | | | | | 4.94 | 0.09 | * | 5.14 | 0.10 | * |
| | *Low-Mid* | | | | | | | | | | 3.31 | 0.09 | * | 3.57 | 0.10 | * |
| | *Middle* | | | | | | | | | | 2.03 | 0.08 | * | 2.29 | 0.09 | * |
| | *Mid-High* | | | | | | | | | | 0.98 | 0.08 | * | 1.09 | 0.09 | * |
| *School prop. EAL*EAL* | *Lowest*EAL* | | | | | | | | | | | | | -0.14 | 0.84 | |
| | *Low-Mid*EAL* | | | | | | | | | | | | | -0.56 | 0.21 | * |
| | *Middle*EAL* | | | | | | | | | | | | | -0.26 | 0.12 | * |
| | *Mid-High*EAL* | | | | | | | | | | | | | 0.21 | 0.09 | * |
| *School prop. FSM*EAL* | *Lowest*EAL* | | | | | | | | | | | | | -0.56 | 0.14 | * |
| | *Low-Mid*EAL* | | | | | | | | | | | | | -0.74 | 0.13 | * |
| | *Middle*EAL* | | | | | | | | | | | | | -0.70 | 0.12 | * |
| | *Mid-High*EAL* | | | | | | | | | | | | | -0.28 | 0.11 | * |
| **Random part** | | | | | | | | | | | | | | | | |
| *Variance* | *Pupil-level* | 79.63 | 0.17 | * | 79.45 | 0.17 | * | 78.78 | 0.17 | * | 78.84 | 0.17 | * | 78.84 | 0.17 | * |
| | *School-level* | 7.27 | 0.14 | * | 7.13 | 0.14 | * | 5.82 | 0.15 | * | 3.41 | 0.11 | * | 3.43 | 0.11 | * |
| *Variance explained (Pseua* | *Marginal* | 0.000 | | | 0.003 | | | 0.003 | | | 0.032 | | | 0.033 | | |
| | *Conditional* | 0.084 | | | 0.085 | | | 0.094 | | | 0.093 | | | 0.093 | | |
| | | | | | | | | | | | | | | | | |
| | *EAL* | | | | | | | 2.10 | 0.10 | * | 1.86 | 0.09 | * | 1.81 | 0.09 | * |
| | | | | | | | | | | | | | | | | |
| ICC | *Adjusted* | 0.084 | | | 0.082 | | | 0.091 | | | 0.063 | | | 0.062 | | |
| | *Conditional* | 0.084 | | | 0.082 | | | 0.091 | | | 0.061 | | | 0.060 | | |
| | Model N (pupil) | 461935 | | | | | | | | | | | | | | |
| | Model n (school) | 8012 | | | | | | | | | | | | | | |
| Model fit | -2RLL | 3347590 | | | 3346434 | -1156 | | 3345589 | -845 | | 3342753 | -2836 | | 3342687 | -66 | |
| | AIC | 3347594 | | | 3346438 | -1156 | | 3345595 | -843 | | 3342759 | -2836 | | 3342693 | -66 | |
| | BIC | 3347616 | | | 3346460 | -1156 | | 3345628 | -832 | | 3342793 | -2836 | | 3342726 | -66 | |

*Note: Marginal R2 refers to variance explained only by the fixed part of a model. Conditional R2 refers to variance explained by both fixed and random effects. -2LL=-2 Restricted Log Likelihood; AIC= Aikaike's Information Criterion; BIC=Schwarz's Bayesian Criterion.*

## Table A5: Key stage 2 maths, exploring EAL slopes and school composition

| **Fixed part** | | **Model 0** | | | **Model 1** | | | **Model 2** | | | **Model 3** | | | **Model 4** | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **Value(s)** | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | |
| *Intercept* | *Intercept* | 103.6 | 0.03 | * | 103.11 | 0.03 | * | 103.12 | 0.04 | * | 101.42 | 0.07 | * | 101.51 | 0.08 | * |
| *Language group* | *EAL* | | | | 1.61 | 0.03 | * | 1.64 | 0.04 | * | 1.69 | 0.04 | * | 1.55 | 0.09 | * |
| *School prop. EAL* | *Lowest* | | | | | | | | | | -0.88 | 0.41 | * | -1.08 | 0.42 | * |
| | *Low-Mid* | | | | | | | | | | -0.68 | 0.12 | * | -0.83 | 0.12 | * |
| | *Middle* | | | | | | | | | | -0.44 | 0.08 | * | -0.61 | 0.09 | * |
| | *Mid-High* | | | | | | | | | | -0.21 | 0.07 | * | -0.44 | 0.08 | * |
| *School prop. FSM* | *Lowest* | | | | | | | | | | 4.74 | 0.10 | * | 4.76 | 0.11 | * |
| | *Low-Mid* | | | | | | | | | | 3.16 | 0.09 | * | 3.25 | 0.10 | * |
| | *Middle* | | | | | | | | | | 2.02 | 0.09 | * | 2.11 | 0.10 | * |
| | *Mid-High* | | | | | | | | | | 1.07 | 0.08 | * | 1.10 | 0.09 | * |
| *School prop. EAL*EAL* | *Lowest*EAL* | | | | | | | | | | | | | 0.80 | 0.79 | |
| | *Low-Mid*EAL* | | | | | | | | | | | | | 0.30 | 0.20 | |
| | *Middle*EAL* | | | | | | | | | | | | | 0.43 | 0.12 | * |
| | *Mid-High*EAL* | | | | | | | | | | | | | 0.58 | 0.09 | * |
| *School prop. FSM*EAL* | *Lowest*EAL* | | | | | | | | | | | | | -0.05 | 0.13 | |
| | *Low-Mid*EAL* | | | | | | | | | | | | | -0.30 | 0.12 | * |
| | *Middle*EAL* | | | | | | | | | | | | | -0.25 | 0.11 | * |
| | *Mid-High*EAL* | | | | | | | | | | | | | -0.08 | 0.11 | |
| **Random part** | | | | | | | | | | | | | | | | |
| *Variance* | *Pupil-level* | 70.84 | 0.15 | * | 70.41 | 0.15 | * | 69.79 | 0.15 | * | 69.82 | 0.15 | * | 69.82 | 0.15 | * |
| | *School-level* | 7.85 | 0.14 | * | 7.89 | 0.14 | * | 6.72 | 0.15 | * | 4.45 | 0.12 | * | 4.46 | 0.12 | * |
| *Variance explained (Pseua* | *Marginal* | 0.000 | | | 0.007 | | | 0.007 | | | 0.034 | | | 0.034 | | |
| | *Conditional* | 0.100 | | | 0.107 | | | 0.117 | | | 0.113 | | | 0.113 | | |
| | | | | | | | | | | | | | | | | |
| | *EAL* | | | | | | | 1.93 | 0.09 | * | 1.81 | 0.09 | * | 1.78 | 0.08 | * |
| | | | | | | | | | | | | | | | | |
| ICC | *Adjusted* | 0.100 | | | 0.101 | | | 0.110 | | | 0.082 | | | 0.082 | | |
| | *Conditional* | 0.100 | | | 0.100 | | | 0.109 | | | 0.079 | | | 0.079 | | |
| | Model N (pupil) | 461455 | | | | | | | | | | | | | | |
| | Model n (school) | 8021 | | | | | | | | | | | | | | |
| Model fit | -2RLL | 3291481 | | | 3288773 | -2708 | | 3287857 | -916 | | 3285503 | -2354 | | 3285466 | -37 | |
| | AIC | 3291485 | | | 3288777 | -2708 | | 3287863 | -914 | | 3285509 | -2354 | | 3285472 | -37 | |
| | BIC | 3291507 | | | 3288799 | -2708 | | 3287896 | -903 | | 3285542 | -2354 | | 3285505 | -37 | |

*Note: Marginal R2 refers to variance explained only by the fixed part of a model. Conditional R2 refers to variance explained by both fixed and random effects. -2LL=-2 Restricted Log Likelihood; AIC= Aikaike's Information Criterion; BIC=Schwarz's Bayesian Criterion.*

## Table A6: Key stage 4 Attainment 8, exploring EAL slope and school composition

| **Fixed part** | | **Model 4a** | | | **Model 4a-2** | | | **Model 4a-3** | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Variable** | **Value(s)** | Coeff. | S.E. | | Coeff. | S.E. | | Coeff. | S.E. | |
| *Intercept* | *Intercept* | 53.07 | 0.15 | * | 53.05 | 0.13 | * | 52.97 | 0.13 | * |
| *Language group* | *EAL* | 0.36 | 0.11 | * | 0.32 | 0.11 | * | 0.74 | 0.12 | * |
| *Gender* | *Boy* | -2.93 | 0.05 | * | -2.93 | 0.05 | * | -2.93 | 0.05 | * |
| *Birth season* | *Spring* | -0.85 | 0.06 | * | -0.85 | 0.06 | * | -0.85 | 0.06 | * |
| | *Summer* | -1.52 | 0.05 | * | -1.52 | 0.05 | * | -1.52 | 0.05 | * |
| *Ethnic group* | *White Other* | 2.99 | 0.12 | * | 2.97 | 0.12 | * | 2.86 | 0.12 | * |
| | *Black African/MWBA* | 4.55 | 0.12 | * | 4.54 | 0.12 | * | 4.52 | 0.12 | * |
| | *Black Caribbean/MWBC* | -2.27 | 0.15 | * | -2.28 | 0.15 | * | -2.35 | 0.15 | * |
| | *Indian* | 7.45 | 0.15 | * | 7.35 | 0.15 | * | 7.29 | 0.15 | * |
| | *Pakistani* | 3.05 | 0.14 | * | 2.99 | 0.14 | * | 3.03 | 0.14 | * |
| | *Bangladeshi* | 7.21 | 0.20 | * | 7.21 | 0.20 | * | 7.24 | 0.20 | * |
| | *Any other Asian/Chinese/MWAS* | 6.83 | 0.12 | * | 6.79 | 0.12 | * | 6.71 | 0.12 | * |
| | *Any other group* | 1.96 | 0.10 | * | 1.95 | 0.10 | * | 1.90 | 0.10 | * |
| *FSM* | *Ever eligible in last 6 years* | -8.99 | 0.06 | * | -8.96 | 0.06 | * | -9.40 | 0.06 | * |
| *IDACI* | *+/-1SD* | -2.72 | 0.03 | * | -2.65 | 0.03 | * | -2.63 | 0.03 | * |
| *SEN* | *EHCP* | -21.83 | 0.15 | * | -21.84 | 0.15 | * | -21.79 | 0.15 | * |
| | *SEN support* | -13.92 | 0.07 | * | -13.91 | 0.07 | * | -13.90 | 0.07 | * |
| *Year Entered* | *Y3* | 0.41 | 0.21 | * | 0.41 | 0.21 | * | 0.40 | 0.21 | |
| | *Y4* | 0.38 | 0.22 | | 0.40 | 0.22 | | 0.40 | 0.22 | |
| | *Y5* | -0.09 | 0.23 | | -0.07 | 0.23 | | -0.07 | 0.23 | |
| | *Y6* | -1.41 | 0.26 | * | -1.40 | 0.26 | * | -1.40 | 0.26 | * |
| | *Y7* | -0.62 | 0.19 | * | -0.62 | 0.19 | * | -0.65 | 0.19 | * |
| | *Y8* | -4.62 | 0.25 | * | -4.59 | 0.25 | * | -4.58 | 0.25 | * |
| | *Y9* | -4.91 | 0.28 | * | -4.89 | 0.28 | * | -4.89 | 0.28 | * |
| | *Y10* | -6.83 | 0.23 | * | -6.79 | 0.23 | * | -6.76 | 0.23 | * |
| | *Y11* | -17.58 | 0.24 | * | -17.53 | 0.24 | * | -17.38 | 0.24 | * |
| *School prop. EAL* | *Grand mean centred (school level)* | | | | 0.11 | 0.01 | * | 0.13 | 0.01 | * |
| *School prop. FSM* | *Grand mean centred (school level)* | | | | -0.25 | 0.01 | * | -0.29 | 0.01 | * |
| *School prop. EAL*EAL* | *(interaction)* | | | | | | | -0.04 | 0.00 | * |
| *School prop. FSM*FSM* | *(interaction)* | | | | | | | 0.10 | 0.00 | * |
| **Random part** | *Pupil-level* | 276.96 | 0.53 | * | 276.98 | 0.53 | * | 276.69 | 0.53 | * |
| *Variance* | *School-level* | 48.33 | 1.40 | * | 36.85 | 1.10 | * | 35.62 | 1.07 | * |
| *Variance explained (Pseudo R* | *Marginal* | 0.189 | | | 0.251 | | | 0.253 | | |
| | *Conditional* | 0.320 | | | 0.349 | | | 0.347 | | |
| | *EAL* | 5.04 | 0.31 | * | 4.84 | 0.30 | * | 4.61 | 0.29 | * |
| | *FSM* | | | | | | | | | |
| | *SEN (EHCP)* | | | | | | | | | |
| | *SEN (SEN support)* | | | | | | | | | |
| | *Gender* | | | | | | | | | |
| ICC | *Adjusted* | 0.162 | | | 0.131 | | | 0.127 | | |
| | *Conditional* | 0.131 | | | 0.098 | | | 0.095 | | |
| Model fit | -2 Restricted Log Likelihood | 4662437 | | | 4661715 | -722 | | 4661020 | -696 | |
| | Akaike's Information Criterion (AIC) | 4662443 | | | 4661721 | -722 | | 4661026 | -696 | |
| | Schwarz's Bayesian Criterion (BIC) | 4662477 | | | 4661755 | -722 | | 4661059 | -696 | |

*Note: Marginal R2 refers to variance explained only by the fixed part of a model. Conditional R2 refers to variance explained by both fixed and random effects. -2LL=-2 Restricted Log Likelihood; AIC= Aikaike's Information Criterion; BIC=Schwarz's Bayesian Criterion.*

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