The impact of COVID-19 on educational, language & socioemotional outcomes in Reception and KS1

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Executive Summary

This research investigated the impact of the COVID-19 pandemic and related restrictions on young children's development in England, with a focus on language and socioemotional skills, and educational outcomes. The study explored both short-term effects in the immediate aftermath of the pandemic and longer-term impacts up to three years later using both a self-selecting sample and national data.

Reports from teachers indicated that pandemic-related disruptions, including lockdowns and school closures, presented significant challenges to children's development. Specifically, concerns were raised about children's language skills, with reports of smaller vocabularies and difficulties in communication, as well as socioemotional development, including increased internalizing and externalizing behaviors. These challenges were observed not only in England but also in other parts of the world.

However, the research also highlighted the resilience of children and the complexity of the pandemic's impact. Many children in our sample demonstrated language and socioemotional skills within the expected range for their age, both in the year immediately following the lifting of restrictions and two years later. Individual factors, such as ethnicity and gender, were found to play a more significant role in predicting language and socioemotional outcomes than family or school-related factors. This suggests that while the pandemic did present challenges, its long-term impact on development may not be as severe as initially feared, at least in our sample.

In contrast, data from the National Pupil Database indicate that, at a national level, post-pandemic cohorts of children aged five to seven have experienced a significant decline in meeting age-related achievement expectations. After adjusting for demographics, the data show that writing at age seven was hardest hit, suffering a 10 percentage point loss. These negative impacts were most pronounced in older children, those assessed immediately following the pandemic, pupils with lower school attendance, and those who missed out on free nursery provision.

While the pandemic widened existing national achievement gaps for socio-economically disadvantaged children and certain ethnic groups, other gaps shifted unexpectedly. For instance, the performance gap between genders and language speakers actually narrowed, not because of improvement, but because girls and native English speakers experienced a disproportionately larger decline in achievement. Notably, these standard assessments may underrepresent the impact on children with Special Educational Needs and Disabilities (SEND), as the criteria often fail to capture their specific developmental milestones.

The inconsistency between the findings from our sample and those from the national picture are likely to be related to the sample not being representative of the national cohort. Nonetheless, both sets of analyses paint a picture of differential impacts of COVID-19, with some children remaining more vulnerable than others.

In addition to the direct impact on children, the research also examined the experiences of teachers and headteachers during and after the pandemic. The findings revealed the significant strain placed on school staff, including increased workload and negative impacts on their well-being. The findings emphasize the need for targeted ongoing support for both children and school staff to mitigate the long-term effects of the pandemic and ensure the resilience of the education sector.

Key recommendations include:

1. Continue to fund the implementation of NELI in primary schools.
2. Implement intensive, evidence-based writing programs for Key Stage 1 pupils, focusing on fine motor skills (handwriting) and composition.
3. Improve attendance through the use of family liaison officers.
4. Provide targeted support to the most vulnerable children rather than a "one size fits all" approach.
5. Provide funded access to supervision or counseling services for school staff who are managing the "burnout" associated with the post-pandemic context.
6. Boost the capacity of the 'team around the school' so that teachers can access more help from educational psychologists, speech and language therapists and other specialists - without waiting for children to fall further behind and require an EHCP.
7. Consider how curricular pacing and national assessments could better enable and measure the progress of children who are developing at a slower pace.

Section 1: Introduction

The academic years 2019/20 and 2020/21 saw unprecedented disruption to education due to COVID-19 and lockdowns (IfG, 2022). Understanding any long-term impacts of COVID-19 on children's language, socioemotional and educational outcomes and the implications of these for education policy requires a longitudinal view, allowing us to understand an in all probability complex picture shaped by children's language backgrounds, family circumstances and experiences of lockdown.

1.1 Impact of COVID-19 on Educational Outcomes

While the pandemic had a worrying impact on all children, it disproportionately impacted children in areas of disadvantage (The DELVE Initiative, 2020). A "digital divide" left many children and schools without suitable devices, and children in disadvantaged families spent significantly less time on home learning than their wealthier peers (Andrew, et al., 2021). Rising food bank usage and domestic instability further exacerbated challenges for vulnerable groups (NIESR, 2020).

Since early school experiences shape later educational outcomes (Sylva et al., 2008), the disruptions were expected to be particularly detrimental to school starters (The DELVE Initiative, 2020). Indeed, children starting in 2019/20 faced two interrupted years, while the 2020/21 cohort was deemed less "school ready" than previous years (Nicholls et al., 2020). Furthermore, an OFSTED briefing (2020) indicated that post-lockdown Early Years Foundation Stage (EYFS) pupils possessed weaker language and communication skills than previous cohorts. With early language skills being a strong predictor of future academic and social outcomes (Aro et al., 2014; Burchinal et al., 2020; Dale et al., 2023), this decline poses a significant risk to literacy development and future statutory assessment performance. Consequently, this project sought to investigate the long-term impact of COVID-19 on educational outcomes in Reception and Key Stage 1 (Year 1 and 2) children.

1.2 Impact of COVID-19 on Language Development

Extensive research suggests COVID-19 lockdowns affected language development negatively. In England, schools reported that children entering Reception lacked "school readiness," specifically in communication and literacy (Bakopoulou, 2022; Nicholls et al., 2020; Tracey et al., 2021). I CAN (2021) and Ofsted (2022) highlighted teacher observations of receptive or expressive language difficulties, and smaller vocabularies compared to pre-pandemic cohorts. Significant concerns about children's speech and language development were also reported by parents and carers (La Valle et al., 2022). Such a negative impact of the pandemic is not unique to the UK, with international studies confirming that children raised during the pandemic display lower language scores and higher risks of communication delays (e.g., Byrne et al., 2023; Ferrari et al., 2022; Fung et al., 2023; Giesbrecht et al., 2023; Murillo et al., 2023).

However, evidence regarding the severity of this impact is mixed. Some researchers argue for child resilience, finding no significant differences in language and literacy skills (Hadley et al., 2023). Context appears crucial; for instance, Swedish children showed no decline in decoding and reading comprehension skills, but their schools remained open (Hallin et al., 2022). Similarly, English children who continued attending Early Childhood Education and Care (ECEC) displayed better vocabulary skills than those who did not (Davies et al., 2021).

These disparities highlight that the pandemic's impact varied based on environmental and family circumstances. Coming from disadvantaged backgrounds emerged as a significant risk factor (Bartholo et al., 2022; Fung et al., 2023), while access to educational settings potentially served as a protective factor (Davies et al., 2021) .

With formal education disrupted, the home learning environment (HLE), which already pre-pandemic was established as a predictor of later language proficiency through exposure to books and play (Kluczniok et al., 2018; Melhuish et al., 2008; Nag et al., 2024; Volodina et al., 2024), became the primary driver of development. However, while home learning opportunities and the use of digital technology to support learning increased for some (e.g., Schmeer et al., 2023; Sonnenschein et al., 2021; Wheeler & Hill, 2021), significant inequalities persisted (Andrew et al., 2020a, b). Furthermore, parental mental health and well-being is intrinsically linked to home environment characteristics and child outcomes (Kahn et al., 2002; McGillion et al., 2023), and the pandemic was a period of heightened stress and worries for many caregivers.

The longitudinal relationship between HLE, parental well-being and the language development of school-aged children during and following the pandemic, therefore, warranted further investigation.

1.3 Impact of COVID-19 on Socioemotional Development

In England, schools have reported that post-pandemic cohorts require significantly more support to navigate social interactions and express emotions than previous year groups (Tracey et al., 2021). Similarly, headteachers in special schools have noted children are, on average, five months behind in socioemotional development (Sharp & Skipp, 2022). UK caregivers corroborate these professional observations, reporting, for example, increased irritability, anxiety, tantrums and worries (Chambers et al., 2022; Morgül et al., 2020; Pascal et al., 2020; Paul et al., 2021), raising widespread concerns about the socioemotional impact of the pandemic.

These trends have been mirrored internationally (e.g., Egan et al., 2021; Ng & Ng, 2022). Studies from Ethiopia to the US have, for example, indicated declines in social skills and increases in both internalising and externalising behavioural difficulties (Bayley et al., 2022; Feinberg et al., 2022; Khoury et al., 2021; Levante et al., 2023; Santa-Cruz et al., 2022; Watts & Pattnaik, 2023).

However, similar to findings for language development, the impact was not uniformly: The pandemic largely widened existing gaps. Children from disadvantaged backgrounds, those with limited financial and/or emotional resources and support, and those with Special Educational Needs and Disabilities (SEND) were disproportionately affected (Cattan et al., 2023; Mendolia et al., 2022; Ng & Ng,2022; Waite et al., 2021). Findings regarding gender are mixed, with conflicting data on whether girls or boys were more adversely affected by internalising versus externalising difficulties (Bayley et al., 2022; Cattan et al., 2023; Levante et al., 2023: Mendolia et al., 2022). On the other hand, some studies found behavioural difficulties were temporary or decreased after the initial period of disruption (Cattan et al., 2023; Nolvi et al., 2023), and some caregivers reported improved behaviour due to increased family time (Chambers et al., 2022; Egan et al., 2021).

Several factors are likely to have contributed to these effects on socioemotional development. The (partial) closure of educational settings reduced opportunities for interactions, changed the social contexts and experiences, removed critical "safe spaces" and support systems (Barnes & Melhuish, 2017; Davies et al. 2021; Melhuish & Gardiner, 2017; Singh et al., 2021). When children could attend, restrictions such as facemasks hindered their ability to identify emotions and interact naturally (Bourke et al., 2023; Chester et al., 2023). Furthermore, the lack of contact with families during stricter lockdown periods made it difficult for staff to

support children's and families' socioemotional well-being, and schools initially prioritized physical health and virus containment over socioemotional well-being, leading to missed opportunities for early support (Lacey et al., 2024). Consequently, and again similarly to language development, the HLE became the primary influence on socioemotional development. Research generally highlights strong links between the quality of the HLE, parental well-being and child socioemotional outcomes (e.g., Rose et al., 2018; Hoyne, 2022; Mensah & Kiernan, 2010; Wirth et al., 2020); during the pandemic specifically, increased parental depression and anxiety as well as household disruptions were associated with higher socioemotional difficulties in children (e.g., Cattan et al., 2023; Feinberg et al., 2022; Khoury et al., 2021; Nolvi et al., 2023; Speight et al., 2021).

Both the findings concerning language development and socioemotional development align with Bronfenbrenner's (2005) bioecological theory, illustrating how national policy changes (lockdowns) altered children's immediate environments, social interactions, and access to education, thereby shaping not only their language but also their socioemotional development.

Finally, the relationship between language and socioemotional skills has to be considered, with language competence being related to prosocial behavior (Bouchard et al., 2008; Girard et al., 2017), while difficulties are often linked to disruptive behaviour and reduced quality of relationships (Kalland & Linnavalli, 2023; Petersen, et al., 2013; Stowe et al., 1999). Therefore, socioemotional and language skills as well as the HLE and parental well-being must be taken into account when investigating the pandemic's long-term impact on children and families.

Given these findings and concerns, investigating the pandemic's long-term impact is essential for understanding how to support children moving forward. Our project, consequently, focussed on the long-term impact of COVID-19 on language skills and socioemotional well-being, and how they relate to broader educational outcomes in Reception and Key Stage 1 (Years 1 and 2) children.

Section 2: Methods

We employed a longitudinal, mixed-methods design to examine language, socioemotional well-being, and educational outcomes, with a focus on children in the early stages of schooling from Reception to Year 2 in England. Data were collected in the academic years 2021/2022, 2022/2023, and 2023/24 (see Figure 2.1).

Figure 2.1:
ICICLES Project Timeline and data collection points
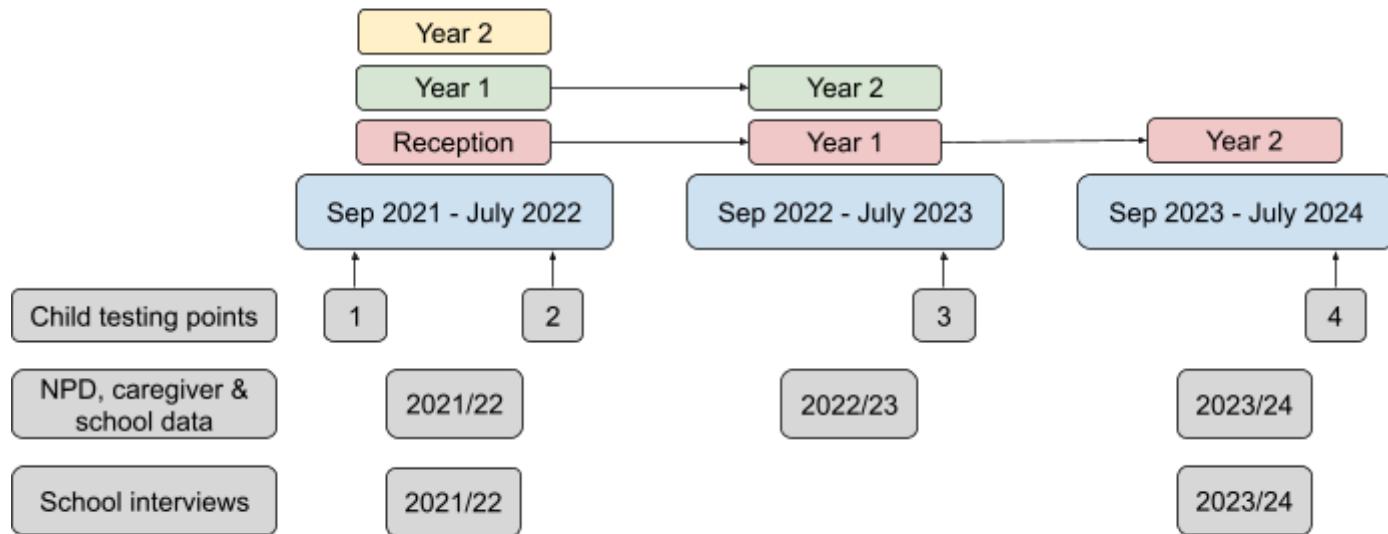
Schools signed a memorandum of understanding and data sharing agreement at the start of the study. Caregivers signed an online consent form for their children to participate. The study was approved by the National Institute of Economic and Social Research ethics committee. Schools received £200 for a tablet to conduct the assessments and an additional financial contribution for the time taken to complete the assessments.

2.1 Participants

The findings presented in this report are based on data collected from a sample of 69 schools across the UK (see Figure 2.2). Initial consent was granted by caregivers for 1,559 children to take part in the study. It is important to note, however, that the number of schools and pupils actively participating varied across the different testing points throughout the research period (see Table 2.2). This fluctuation in the final cohort size was due to several reasons, including school withdrawal, children moving to different schools, pupils not being available for assessments and schools not returning all requested data.

Figure 2.2

Distribution of Schools across the UK
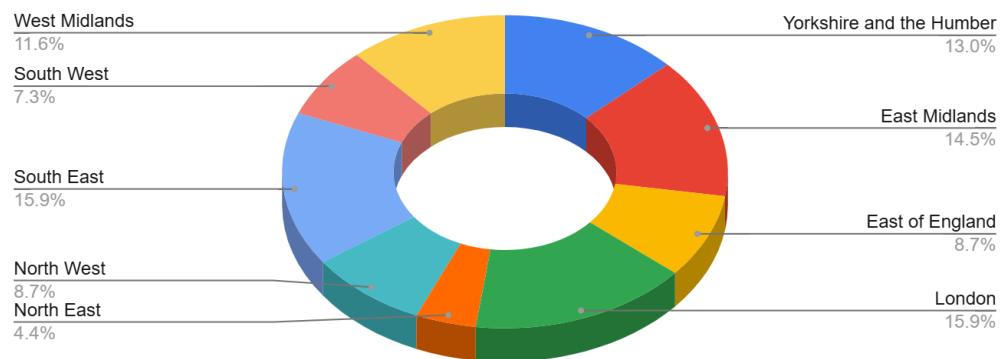
Table 2.1

Characteristics of the Sample in Spring and Summer 2022, Summer 2023 and Summer 2024

	Age (years) M(SD)	Gender	Children eligible for Free School Meals	Children learning English as an Additional Language
Spring 2022	5.91 (0.87)	47.72% female 51.70% male	18.89%	14.63%
Summer 2022	6.29 (0.87)	46.63% female 53.19% male	18.43%	14.18%
Summer 2023	6.78 (0.60)	48.31% female 51.69% male	17.89%	14.33%
Summer 2024	7.04 (1.42)	45.34% female 55.08% male	17.45%	11.02%

Table 2.2

Number of children completing assessments at each timepoint

	Language Screen	SDQ
Spring 2022	630	704
Summer 2022	694	564
Summer 2023	621	548
Summer 2024	236	200

Note: SDQ = Strengths and Difficulties Questionnaire

Table 2.3

Characteristics of Participating Schools in 2022, 2023 and 2024

	2022				2023				2024			
	M	**SD**	**Range**	**National average**	**M**	**SD**	**Range**	**National average**	**M**	**SD**	**Range**	**National average**
Children eligible for free school meals	22%	10.09	9% to 54%	22.5%	35%	16.90	0% to 51%	23.9%	24.3%	12.2	6% to 50%	24.6%
Children with Special Education Needs and Disabilities	11.5%	5.75	3% to 32%	12.2%	40%	12.02	0% to 40%	16.1%	21.5%	9.2	7% to 48%	17.1%
Children learning English as an additional language	16%	15.88	0.50% to 78.%	19.5%	18%	13.14	0% to 47%	22.2%	22.1%	19.6	0% to 65%	22.6%

2.2 Materials and Procedure

Caregiver Questionnaire

Schools emailed all caregivers with children in Reception and KS1 (Year 1 and 2) with a link to an online information sheet, consent form and questionnaire. Caregivers that consented for their children to participate completed the questionnaire between October 2021-June 2022, in June 2023, and June 2024 including questions regarding their children's characteristics (e.g., age, year group), parental characteristics (e.g., occupation), HLE and caregiver well-being.

Children's HLE was assessed using the Home Learning Environment Index (Melhuish, 2010), a questionnaire used to assess the types and frequency of activities of children and their families (e.g., reading, sports). This questionnaire consists of eight items. For each item, caregivers were asked if they engage in a specific activity at home, and if so, how often, by selecting one of seven response options ranging from "*occasionally or less than once a week*" to "*seven times a week/constantly*". One item was removed at the coding stage due to incorrect response options provided for that question ("How often does someone at home take your child to the library"). Responses to the remaining seven items were added to generate a total score (range: 0 to 49). Higher scores indicate more engagement with learning activities at home.

Caregiver well-being was assessed using the Personal Wellbeing Scale (PWS; Benson et al., 2019); a four-item questionnaire that asks to what extent do caregivers agree with four statements regarding their well-being e.g. *strongly agree, agree, neutral* or *disagree*. Responses were scored and a total score was calculated (range: 0 to 12). Higher scores indicate higher levels of well-being.

Schools' and Children's Characteristics

For each school, the percentage of children eligible for free school meals (FSM), with Special Educational Needs and Disabilities (SEND) and learning English as an additional language (EAL) were obtained from the National Pupil Database (NPD). Children's gender, EAL status, SEND status, eligibility for FSM and ethnicity were also obtained through the NPD (see Tables 2.1. and 2.3).

Socioemotional Questionnaire

Teachers, Teaching assistants (TAs) or Headteachers completed an online version of the Strengths and Difficulties Questionnaire (SDQ; Goodman, 1997) for all children in spring and summer 2022, summer 2023 and summer 2024. The SDQ consists of 25 items, each with three response options: *not true, somewhat true*, and *certainly true*. These items are divided into five subscales: emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems and prosocial behaviour.

Language Screening

Teachers, TAs or Headteachers were asked to individually complete the LanguageScreen (Hulme et al., 2024) with all children in spring 2022, summer 2022, summer 2023 and summer 2024. The LanguageScreen is an app-based tool taking approximately 10 minutes to complete. It consists of 77 items and assesses four areas of language: expressive (n = 24) and receptive vocabulary (n = 23), listening comprehension (n = 16) and sentence repetition (n = 14). Data were shared with the research team via a secure drive and raw scores were calculated and converted into standard scores.

Analysis

For all four testing points children's raw scores in each of the five subscales of the SDQ were calculated. Higher scores in all subscales, except the prosocial behaviour subscale, suggest an increase in socioemotional difficulties. For the prosocial behaviour subscale, lower scores indicate more socioemotional difficulties. The mean scores obtained were then calculated and compared to the norms for British children aged 5 to 10 (SDQinfo, 2014). Raw scores obtained in each subscale were then classified into one of four categories: *close to average, slightly raised, high* and *very high.* Scores in the *close to average* category suggest that children are scoring as expected, while scores in the *slightly raised, high* and *very high* categories suggest children are demonstrating some socioemotional difficulties (SDQinfo, 2014). The percentage of children scoring in each of the four categories was then calculated.

For all four testing points, the raw and standard scores of the LanguageScreen were obtained. This was obtained for the total score as well as for all four subscales: expressive and receptive vocabulary, listening comprehension and sentence repetition. Then the mean standard scores were calculated. Furthermore, standard scores were classified into one of three categories: Green (90 or above), Amber (82-89), and Red (81 or below). Scores in the *Green* category indicate that the child's skills are not a cause of concern. Scores in the *Amber* category suggest that the child may benefit from support, while scores in the *Red* category indicate that the child needs support. The percentage of children with scores in each of these categories at all testing points was then calculated.

Quantitative data were analysed primarily using regression analyses exploring the predictors of language, socioemotional well-being and educational outcomes. To weight our data to the national population we implemented weight calibration procedures known as iterative proportional fitting. We weighted our sample using five measures: FSM, EAL, SEND, region and school type. Due to small numbers in our sample, the nine regions of England (East Midlands, East of England, London, North East, North West, South East, South West, West Midlands and Yorkshire and The Humber) were reduced to five categories: Midlands, East of England, London, North and South. Types of schools were classified as: Academy, Local authority school and Other (i.e., free schools, independent schools and pupil referral unit). Children's ethnicity was grouped into five categories to ensure sufficient sample sizes: Asian + Chinese, Black, Mixed, White and Other. Caregiver occupation was grouped into three categories: Caring and services, No occupation and All other occupations. Occupations were classified into these three categories to distinguish between occupations that might have adopted remote work during the pandemic, and occupations that did not and might have still required people to attend their place of work (e.g., frontline and key workers, supermarket workers).

Qualitative data (semi-structured interviews) were analysed using thematic analysis (Braun & Clarke, 2006). A preliminary analysis was carried out immediately following each round of data collection, conducted manually by the same member of the research team. This process started with a familiarisation phase, wherein the researcher immersed themselves in the transcripts through repeated readings and initial note-taking. Subsequently, initial coding was carried out manually, using a spreadsheet to systematically organize and track all emerging codes. Given the semi-structured nature of the interviews, some initial codes were formed deductively, closely mapping to the original interview questions, while others arose inductively, reflecting spontaneous and novel ideas that emerged organically from the interviewees' responses. Following this initial coding, related codes were systematically grouped into broader preliminary themes that captured shared

patterns and conceptual commonalities within the data. The subsequent creation and refinement of these themes was an iterative process, leading to instances where preliminary themes were combined, split, or renamed as the analysis deepened. Because the two rounds of interviews were administered at distinct time points, themes were initially developed and explored separately for each round; however, after the second round of data were analyzed, it was merged with the first, and further collaborative refinement was undertaken to produce the final, comprehensive set of themes presented in the study.

To assess the pandemic effects on children's educational outcomes we used data from the National Pupil Database (NPD) comparing outcomes for the three academic years in our study with a previous cohort that entered Reception in 2016/17 and reached Key Stage 1 in 2018/19. We estimated logistic regression models using STATA statistical packages. We ran the following regression for individual i attending school s with robust standard errors clustered at school level.

$$A_{i,s} = \beta_0 + \tau Y + X_i^{'} + \gamma Y X_i^{'} + Z_s^{'} + \delta Y Z_s^{'} + \epsilon_{i,s} \qquad (1)$$

Here $A_{i,s}$ is our outcome variable measuring one of the performance indicators from EYFS or KS1, Y is 2021/2022 academic year dummy allowing us to compare performance pre and post pandemic, X' is a vector of individual characteristics, such as gender, ethnicity, birth month, SEND, EAL, first language, FSM, region as well as attendance, whereas Z' is a vector of school characteristics, type, percentage of FSM and EAL and $\epsilon_{i,s}$ is the error component.

NPD sample

The sample is composed of all children in England with records from one or more spring school census dates, in January of each school year and all children with national assessment records for the Early Years Foundation Stage Profile (EYFSP), the Year 1 Phonics Screening Check or the Year 2 Key Stage 2 assessments, in the relevant years. Data were cleaned by completing missing demographic information from earlier years, where available, and for Key Stage 1 assessments by using teacher assessed outcomes for children with no test results and 'p scales' assessments for children working below the level of the assessment due to special needs. The total number of records in the dataset for the paired EYFSP cohorts was 2,461,847, of which 2,384,588 had complete data after cleaning. For the Year 1 Phonics paired cohorts, 2,482,319 of 2,551,562 records were complete. For the Year 2 KS1 assessments, 1,908,636 of 1,952,979 records were complete; the smaller number of records at this stage is explained by the fact that KS1 assessments were discontinued as national assessments after 2023.

Data missing after data cleaning primarily results from children who arrived in a school in England for the first time in the summer term of the assessment year and do not have any school census records prior to this. For the EYFSP cohorts this included children who started school later who turned five during the spring or summer terms, and for all cohorts it included children who arrived late due to migration. Data missingness was more common among the pre-pandemic cohort, for children who speak English as an additional language, those living in the South of England and those attending local authority (LA) community schools.

Comparison of different EYFSP frameworks: The EYFSP statutory framework changed in 2021, resulting in a new assessment composed of similar content but divided differently into the twelve early learning goals within the 'good level of development' standard. We have harmonised the results from the 2017 and 2022, 2023 and 2024 cohorts so far as possible, by matching old and new goals based on their content. In two cases, this involved combining a pair of previous goals into single new goals, and in two cases this involved double counting a previous goal which had been split into two new goals. The mapping of the previous and current early learning goals is described in table 2.4.

Table 2.4

EYFSP Early Learning Goals Mapping

Domain	2013 Framework Goals	2021 Framework Goals
Communication and language	a. Listening and attention; b. Understanding	a. Listening, attention and understanding
	c. Speaking	b. Speaking
Personal, social and emotional	a. Managing feelings and behaviour	a. Self-regulation
	b. Health and self-care; c. Self-confidence and self-awareness	b. Managing self
	d. Making relationships	c. Building relationships
Physical	a. Moving and handling	a. Gross motor b. Fine motor
Literacy	a. Reading	a. Comprehension b. Word reading
	b. Writing	c. Writing
Numeracy	a. Numbers	a. Number
	b. Shape, space and measures	b. Pattern

Scores were harmonised by removing additional points allocated to children who exceeded the expected goals under the previous framework to align it with the binary 'pass/fail' scoring of the 2021 framework.

Section 3: Socioemotional Development

How did the restrictions required during the COVID-19 pandemic influence children's socioemotional development?

Key Findings:

- At all testing points, most children scored in the *close to average* category in all five subscales of the SDQ (emotional symptoms, conduct problems, hyperactivity/inattention, peer relationships and prosocial behaviour).
- Although significant differences were found when comparing children's scores on all five subscales to the norms for British children aged 5 to 10 at all four testing points, the overall mean scores for the sample remained within the range expected for children of these ages.
- Not all children followed the same pattern and their individual, family, and school characteristics were related to how they scored on the SDQ in the summer of 2022 and 2023.
- In the summer of 2022, a broad range of factors (individual, family, and school characteristics) were significant predictors of children's internalising scores, while by the summer of 2023 these were mainly predicted by individual characteristics. For externalising scores, in the summer of 2022 only individual characteristics were significant, while in 2023 individual, family and school characteristics were significant. For prosocial scores, in the summer of 2022 only individual characteristics were significant, while in the summer of 2023 individual and family characteristics were significant.

3.1 Children's Socioemotional Well-being Postpandemic

Seven hundred four SDQs were completed in spring 2022, 564 in summer 2022, 548 in summer 2023 and ccc200 in summer 2024. See Table 3.1 for participant characteristics. At all testing points, the majority of participants scored in the *close to average* category in all subscales (see Figures 3.1 to 3.4).

Table 3.1.

Participant Characteristics

	Age (years) M(SD)	Gender	Children learning EAL
Spring 2022 (n=704)	5.91 (0.87)	47.72% female, 51.70% male	14.63%
Summer 2022 (n= 564)	6.29 (0.87)	46.63% female, 53.19% male	14.18%
Summer 2023 (n= 548)	6.81 (0.59)	48.4% female, 51.6% male	15.2%
Summer 2024 (n=200)	7.37 (0.31)	43.50% female, 56.50% male	13.50%

Children's scores at all testing points were additionally compared with the norms for British children (SDQinfo, 2014) to explore how children in this study scored compared to British children aged 5 to 10. Higher scores in all subscales, except the prosocial behaviour subscale, suggest an increase in socioemotional difficulties. For the prosocial behaviour subscale, lower scores indicate more socioemotional difficulties. In spring 2022, children scored significantly higher than the norms only for emotional symptoms ($d = 0.15$) and prosocial behaviour ($d = 0.09$). In summer 2022, children scored significantly higher than the norms in the emotional symptoms ($d = 0.16$) and the prosocial behaviour subscales ($d = 0.23$). They also scored significantly

lower than the norms in the conduct problems (d = 0.09), hyperactivity/inattention (d = 0.09) and peer relationship problems subscales (d = 0.24). In summer 2023, children scored significantly higher in emotional symptoms (d = 0.22) and prosocial behaviour (d = 0.18), but significantly low in peer relationship (d = 0.19) than what was expected for children between 5 and 10 years of age. Finally, in summer 2024, children scored significantly higher in emotional symptoms (d = 0.22) and prosocial behaviour (d = 0.30) and significantly lower in peer relationship problems (d = 0.29). It is important to note that all average scores, including the ones that were significantly higher or lower at any testing point, remained within the range expected for children their age. Given that all effect sizes were also small, these findings indicate that despite statistical differences, overall scores fall within the expected range.

Figure 3.1

Percentage of children in each category Spring 2022
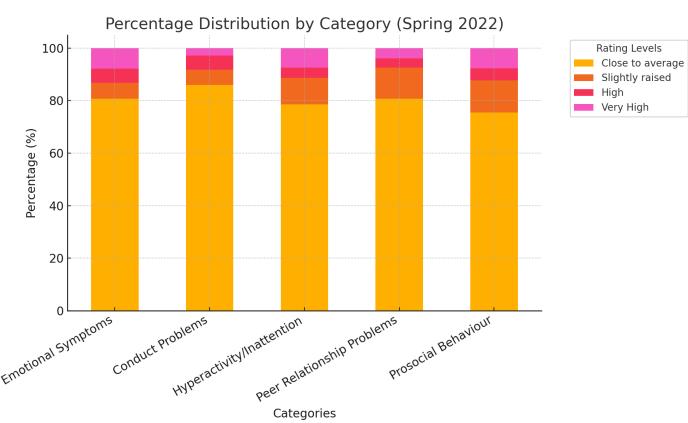
Figure 3.2

Percentage of children in each category Summer 2022
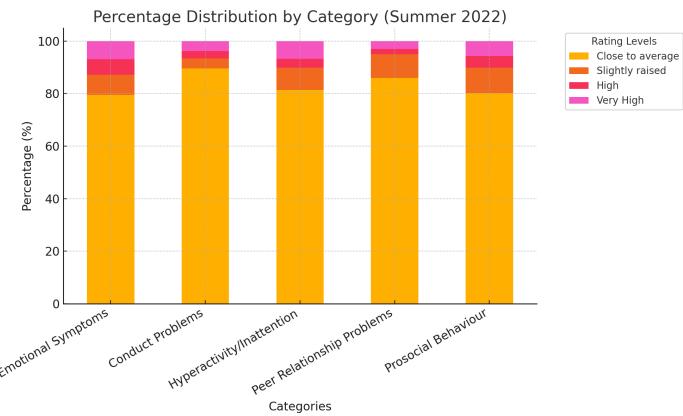
Figure 3.3

Percentage of children in each category Spring 2023
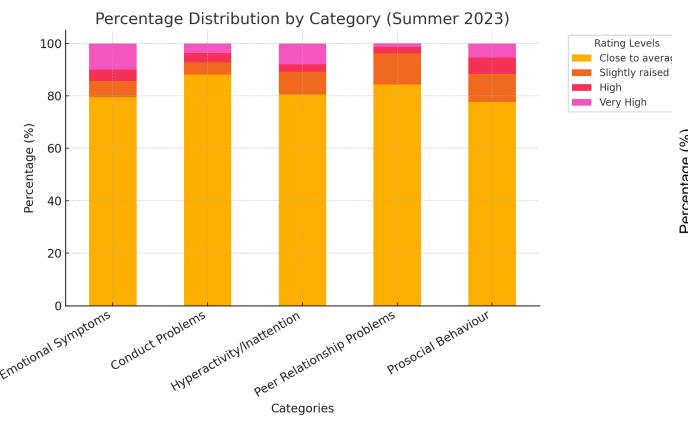
Figure 3.4

Percentage of children in each category Summer 2024
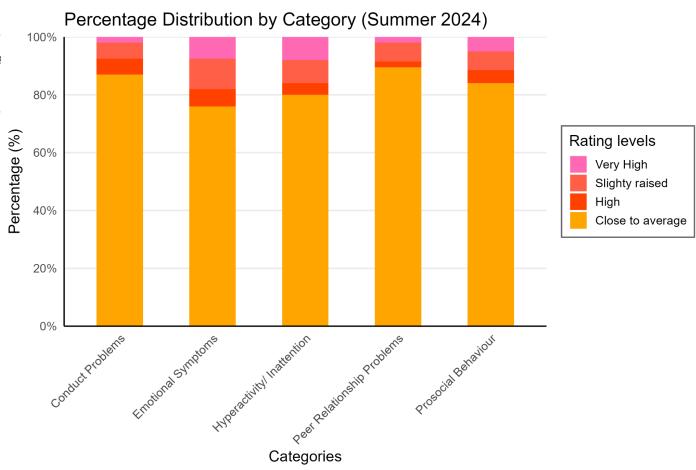
3.2 Factors Predicting Children's Socioemotional Well-being in Summer 2022 and Summer 2023

We explored which factors (individual, family and school) were related to children's scores in summer 2022 and summer 2023. Two hundred ninety-five participants were included in the analyses for 2022 and 160 for 2023 as the remaining children did not complete all assessments or had missing data (see Table 3.2 for 2022 descriptive statistics). Due to the amount of missing data, exploratory regression analyses using multiple

imputation were conducted to estimate and replace the missing values. The results from the exploratory regressions were consistent with those including only participants with a complete dataset. Therefore, the regression analyses based on the 295 participants (Summer 2022) and 160 participants (Summer 2023) with complete data were used. Note that no analyses were conducted for summer 2024 due to small sample size and limited number of participants with complete dataset.

Table 3.2

Descriptive Statistics of Participants Included in the 2022 Regression Analyses

	Mean	SD	Percentage
Child Level Data			
Children's age (in months)	75.08	10.52	
Gender			
● Male			50.16%
● Female			49.84%
Percentage of children with SEND			8.47%
Percentage of children learning EAL			15.25%
Percentage of children eligible for FSM			18.98%
Ethnicity			
● Asian + Chinese			7.45%
● Black			< 5.00% [†]
● Mixed			5.76%
● White			81.01%
● Other			< 5.00 % [†]
Total SDQ score - Summer	5.86	5.33	
Total SDQ score - Spring	6.25	5.69	
Internalising score - Summer (max = 20)	2.74	3.08	
Internalising score - Spring (max = 20)	3.00	3.32	
Externalising score – Summer (max = 20)	3.11	3.70	
Externalising score - Spring (max = 20)	3.25	3.74	
Prosocial score – Spring	7.88	2.26	
Prosocial score – Summer	8.10	2.19	
LanguageScreen total raw score (max = 77)	59.30	11.07	
School Level Data			
Percentage of children eligible for FSM in schools	21.21	11.67	
Percentage of EAL children in schools	17.22	16.82	
Percentage of children with SEND in schools	12.16	6.34	
Parent Level Data			
Home Learning Environment score (max = 49)	25.64	9.03	
Parent/carer Personal Wellbeing score (max = 12)	8.36	2.34	
Occupation			
● No occupation			25.44%
● Caring + Services			17.62%
● All other			56.94%

Note. This table includes the descriptive statistics before iterative proportional fitting. **†** < 5.00% = suppression due to low counts.

Participants' SDQ scores were divided into *externalising scores* and *internalising scores*. *Externalising scores* are the sum of the *conduct problems* and *hyperactivity/inattention* subscales. *Internalising scores* are the sum of the *emotional problems* and *peer problems* subscales. Three regression analyses were conducted at each time point e.g. summer 2022 and summer 2023. The first regression looked at internalising scores, the second looked at externalising scores, and the third was conducted for the prosocial subscale. For each regression, the outcome variable was the SDQ score obtained in summer a) 2022 or b) 2023. We controlled for children's scores in spring 2022 and included the following predictor variables: child's age, gender, individual EAL status, individual eligibility for FSM, individual SEND status, ethnicity, language score in spring 2022, HLE score, caregiver PWS, caregiver occupation, school percentage of FSM, school percentage of children learning EAL, and school percentage of children with SEND.

Internalising Scores

The following variables were significant predictors of children's scores in the summer 2022: scores obtained in spring (t = 6.23, *p* < .001), school percentage of FSM (t = 3.56, *p* = .003), school percentage of children with SEND (t = 2.60, *p* = .020), HLE (t = 2.13, *p* =.050), children's age (t = 2.61, *p* =.020), SEND (t = 3.57, *p* = .003), ethnicity (black ethnic background; t = 3.83, *p* = .002) and parental occupation (all other occupations; (t = 3.24, *p* = .005)). In the summer of 2023, baseline scores (t = 5.41, *p* < .001), and ethnicity (other ethnic background; t = 4.23, *p* < .001; mixed ethnic background t = 2.67, *p* =.014) were the only significant predictors (see Figure 3.5).

Externalising Scores

Only externalising scores obtained in spring 2022 (t = 9.96, *p* < .001), SEND status (t = 3.48, *p* = .003), eligibility for FSM (t = -2.48, *p* = .026) and ethnicity (black ethnic background; t = 3.12, *p* = .007) were significant predictors of children's scores in the summer 2022. Baseline externalising scores (t = 5.25, *p* <.001), percentage of children learning EAL in schools (t = -3.21, *p* =.004), ethnicity (mixed ethnic background (t = -5.86, *p* <.001) and occupation (caring and services (t = -2.43, *p* =.023) were significant predictors of externalising scores in the summer 2023 (see Figure 3.6).

Prosocial scores

Only prosocial scores obtained in spring (t = 8.51, *p* < .001) and SEND status (t = -3.23, *p* = .006) were significant predictors of children's scores in the summer 2022. In summer 2023, prosocial scores obtained in the baseline assessment (t = 3.15, *p* =.004), HLE score (t = -2.78, *p* =.010), and ethnicity (mixed ethnic background t = 3.22, *p* =.004) were the only significant predictors (see Figure 3.7).

Figure 3.5
Significant Predictors of Internalising Scores

Significant Predictors of Internalising Scores (Coefficients Only)
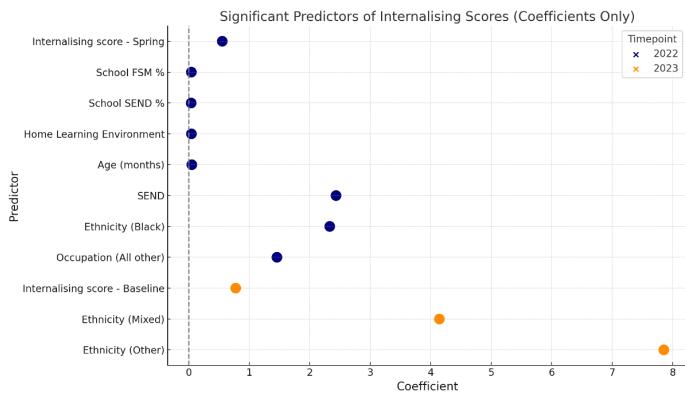
Figure 3.6
Significant Predictors of Externalising Scores

Significant Predictors of Externalising Scores (Coefficients Only)
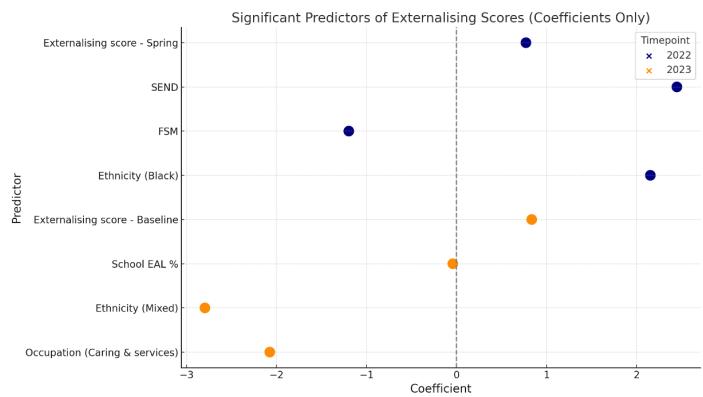
Figure 3.7
Significant Predictors of Prosocial Scores

Significant Predictors of Prosocial Scores (Coefficients Only)
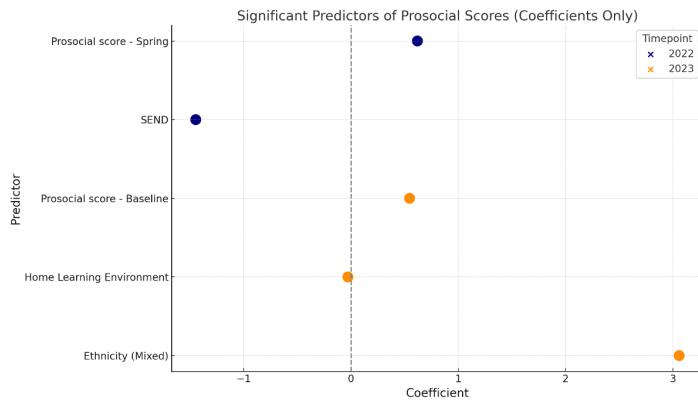
Section 4: Language Development

How did the restrictions required during the COVID-19 pandemic influence children's language development?

Key Findings:

- At all testing points, most children scored in the *Green* category in all subtests of the LanguageScreen (receptive and expressive vocabulary, sentence repetition and listening comprehension).
- Not all children followed the same pattern and their individual, family and school characteristics were related to how they scored on the Language Screen in the summer of 2022 and 2023.
- In the summer of 2022, children's individual and school characteristics were significantly related to their total scores. In the summer of 2023, only children's individual characteristics were significantly related to their total scores.
- Findings suggest that while most participants' language skills were not a cause of concern overall, the impact varied across children depending on their individual, family and school characteristics.

4.1 Children's language skills postpandemic

A total of 630 children were assessed in spring 2022, 694 children in summer 2022, 621 in summer 2023 and 236 in summer 2024 (see Table 4.1 for participant characteristics).

Table 4.1.

Participant Characteristics

	Age (years) M(SD)	Gender	EAL
Spring 2022 (n=630)	5.94 (0.88)	47.30% female, 51.90% male	13.17%
Summer 2022 (n=694)	6.28 (0.88)	47.11% female, 52.44% male	13.68%
Summer 2023 (n=621)	6.81(0.59)	48.3% female, 51.7%% male	13.5%
Summer 2024 (n=236)	7.31(0.32)	44.9% female, 55.1% male	11.4%

See table 4.2 for the total standard scores obtained in the LanguageScreen, as well as standard scores of each subscale in all four testing points. The findings revealed that, consistently across all time points, the majority of participants' total standard scores and standard scores of all subtests of the LanguageScreen (receptive and expressive vocabulary, sentence repetition, and listening comprehension) fell into the Green category (see Figures 4.1 to 4.4), suggesting that overall the language skills of most participants were not a cause of concern. As the distribution of scores by year group mirrored this overall trend, only the aggregated results are reported in this section.

Table 4.2.

Standard scores of the LanguageScreen

	Receptive Vocabulary M (SD)	Expressive Vocabulary M (SD)	Sentence Repetition M (SD)	Listening Comprehension M (SD)	Total M (SD)
Spring 2022	106.63 (13.81)	108.92 (14.26)	106.41 (13.80)	106.32 (14.18)	109.34 (14.12)
Summer 2022	107.85 (12.50)	111.58 (13.79)	107.96 (13.11)	109.63 (13.91)	112.47 (13.69)
Summer 2023	108.95 (12.82)	111.08 (14.08)	108.43 (12.87)	108.98 (13.93)	112.70 (13.43)
Summer 2024	108.89 (10.86)	111.03 (12.17)	110.45 (10.75)	108.06 (12.21)	113.22 (12.24)

Note: The average Standard Score on any subtest is 100.

Figure 4.1

Percentage of children in each category in Spring 2022
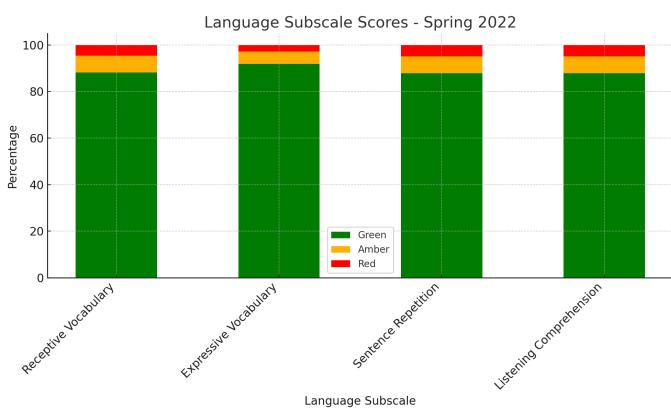
Figure 4.2

Percentage of children in each category in Summer 2022
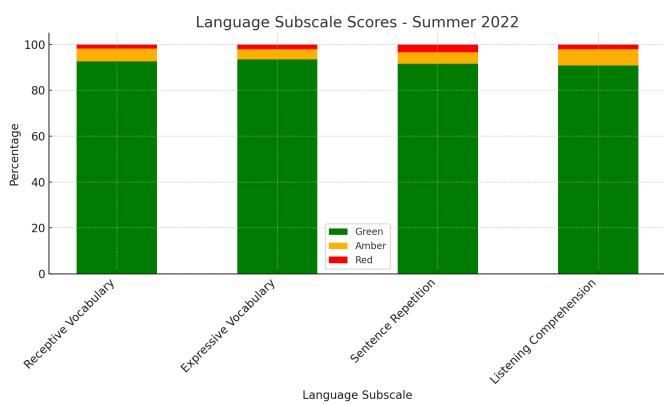
Figure 4.3

Percentage of children in each category in Summer 2023
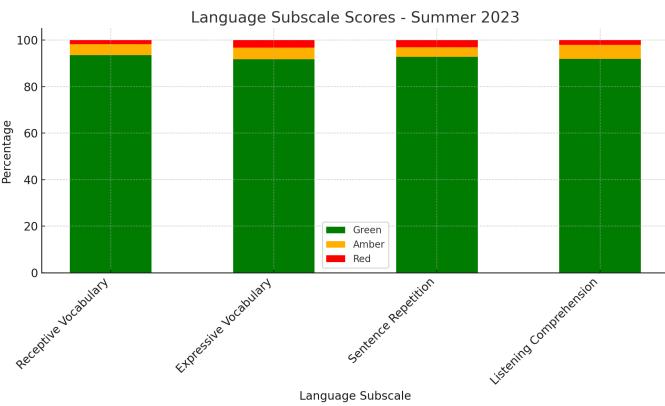
Figure 4.4

Percentage of children in each category in Summer 2024
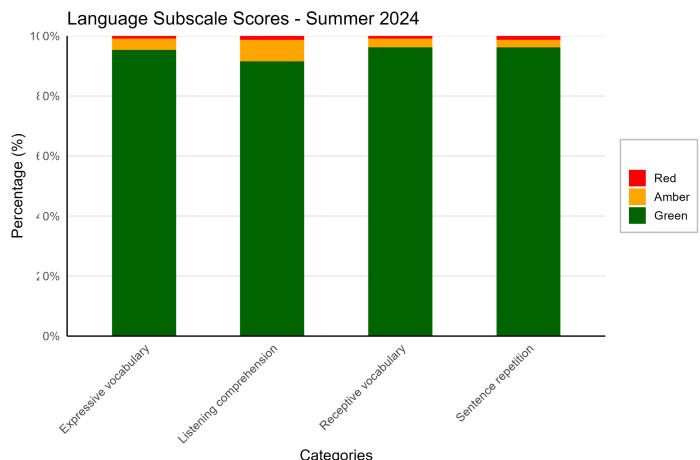
4.2 Factors Predicting Children's Language Outcomes in Summer 2022 and Summer 2023

Five regression analyses were conducted to investigate which individual, school or family factors were predicting the following scores in the summer of 2022 and five further regressions in 2023: 1) total score, 2) expressive vocabulary score, 3) receptive vocabulary score, 4) sentence repetition score and 5) listening comprehension score. The results for the total score are presented here.

In the summer of 2022 only 407 participants had complete data across all assessments and questionnaires, with the rest missing at least one data point for the variables included in these models (e.g., HLE, PWS). Due to the amount of missing data, multiple imputation was used to estimate the missing values, increasing the sample size for these analyses to 605. In the summer of 2023, only 296 participants had complete data across all assessments and questionnaires. Due to the amount of missing data, multiple imputation was used to estimate the missing values, increasing the sample size for these analyses to 605. Note that no analyses were conducted for summer 2024 due to small sample sizes and limited number of participants with complete dataset.

For the regression analyses, the outcome variable was the raw score obtained in the 1) summer of 2022 and 2) the summer 2023. The following predictor variables were included in all regression analyses: age (in months), gender, individual EAL status, individual eligibility for FSM, individual SEND status, ethnicity, HLE score, caregiver PWS, percentage of children eligible for FSM in the school, percentage of children learning EAL in the school and percentage of children with SEND in the school. As this study was part of a longitudinal project assessing children across multiple academic years, in all regression analyses, we controlled for the baseline raw scores obtained during the initial assessment, which took place in spring of 2022.

Results of the regression analysis on the total scores in summer 2022 showed that only the following variables were significant predictors: total raw score in spring 2022 ($t = 24.11$, $p < .001$), percentage of children with SEND in school ($t = 2.21$, $p = .027$), age ($t = 2.64$, $p = .008$), gender ($t = 2.36$, $p = .018$), SEND status ($t = -2.27$, $p = .023$), EAL status ($t = -3.42$, $p < .001$) and ethnicity (Other ethnic background; $t = 2.25$, $p = .024$). For summer 2023, only the total raw score in spring of 2022 ($t = 13.23$, $p < .001$) and ethnicity (other $t = 2.07$, $p = .049$) were significant predictors of children's total raw score in the summer of 2023. These results can be seen in Figure 4.5.

Figure 4.5

Significant predictors of total language score

Significant Predictors of Total Language Score (Coefficients Only)
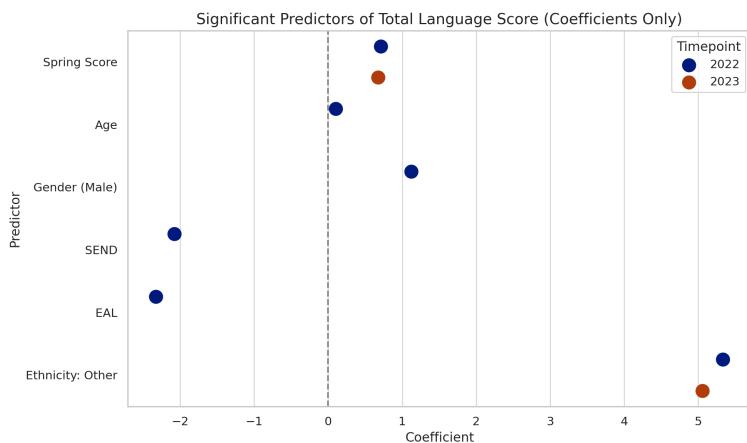
In conclusion, this analysis suggests that most young children are achieving age-appropriate language skills in the years following the pandemic, with some even exceeding expected levels. However, persistent individual-level disparities highlight the importance of targeted intervention and continued support for vulnerable groups. These findings underscore the need for a nuanced, long-term approach to monitoring and supporting language development as educational systems continue to recover from pandemic-related disruptions.

Section 5: Caregiver and Teacher Perspectives

What was the experience of caregivers and teachers during the pandemic?

Key Findings:

- Teachers and caregivers had diverse views of the impact of the pandemic on children's learning.
- Teachers were concerned about the majority of areas of the curriculum at all ages while parents and carers were not concerned and felt their children were coping well at school.
- Teachers workload and scope of responsibilities significantly increased during the restrictions
- Teachers were still reporting negative impacts of the pandemic even 3 years after restrictions were lifted

5.1 Caregiver Perspective of COVID-19

We sent surveys to caregivers at four time points asking them about their experience of the pandemic. Here we report data from time two (Summer 2022), time three (Summer 2023) and time four (Summer 2024), as time one data were limited. We asked if children went to nursery or school during the lockdowns. Figure 5.1 shows the percentage of children who went to school or nursery, and Figure 5.2 shows the percentage of children who were happy to do so. We also asked them if they were concerned about particular areas of their child's education. Figures 5.3 and 5.4 show the percentage of respondents who were concerned, quite concerned and not concerned about key areas of the curriculum. Only a minority of caregivers were very concerned at each time point, indicating that they felt the restrictions would have little impact on their child's educational progress. We also asked how caregivers felt their children were coping with restrictions. Figure 5.5 shows over 80% of caregivers felt their children were coping at each time point. We asked about caregivers' experiences at home during the first national lockdown, and how they felt about helping children with their school activities. Figure 5.6 shows just over 20% of caregivers were confident and enjoyed homeschooling, with a larger proportion being unsure. A higher percentage of caregivers enjoyed and were confident in helping children with activities at home but many were still unsure.

Figure 5.1

Percentage of children who attended school or nursery during the first national lockdown.
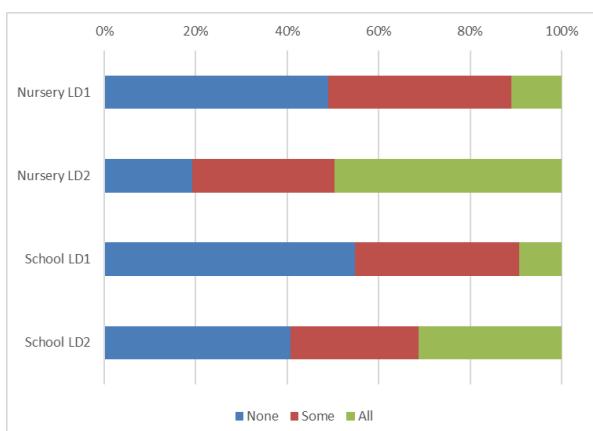
Figure 5.2

Percentage of children happy to go to school or nursery during the first national lockdown.
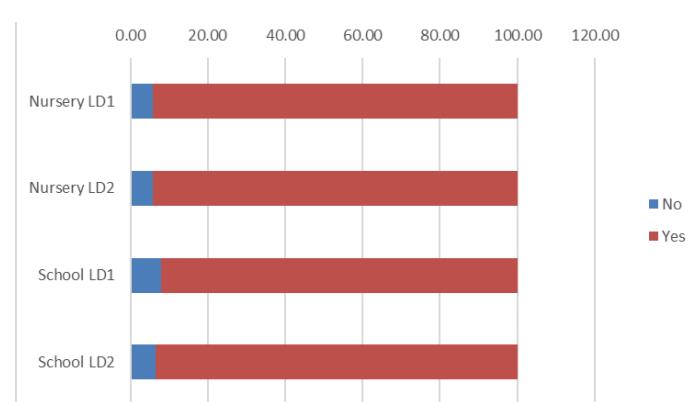
Figure 5.3

Caregivers' concerns about children's progress in EYFS Profile at time two (Summer 2022).
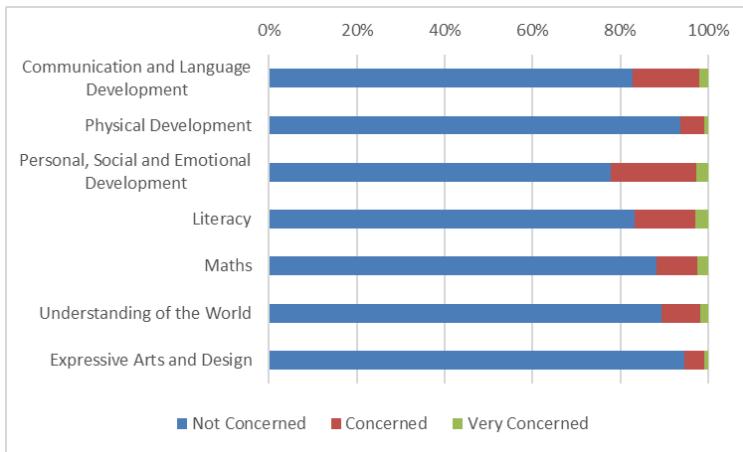
Figure 5.4

Caregivers' concerns about progress in KS1 at time two, time three and time four
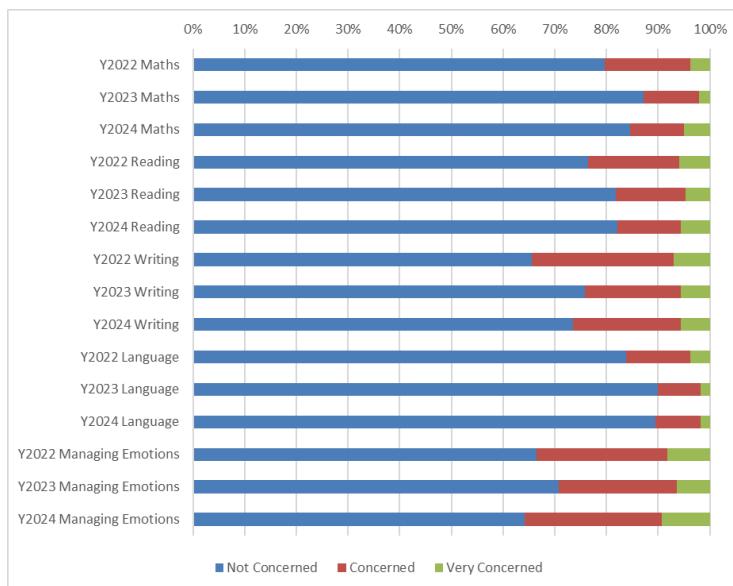
Figure 5.5

Percentage of caregivers concerned about their child coping at school
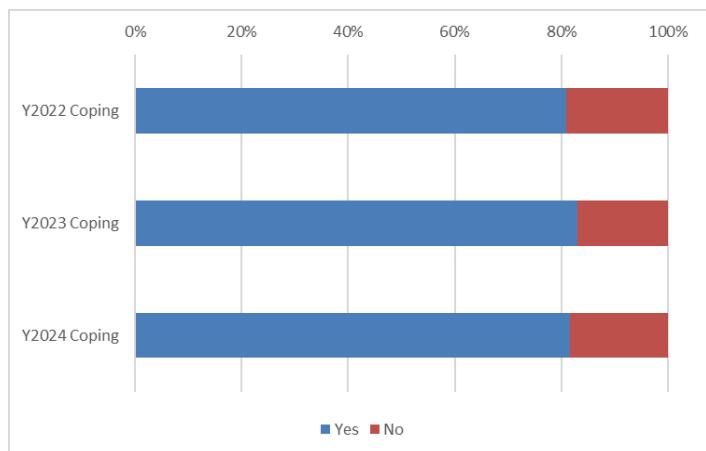
Figure 5.6

Percentage of caregivers who felt confident and enjoyed helping children with activities and homeschooling during the first national lockdown
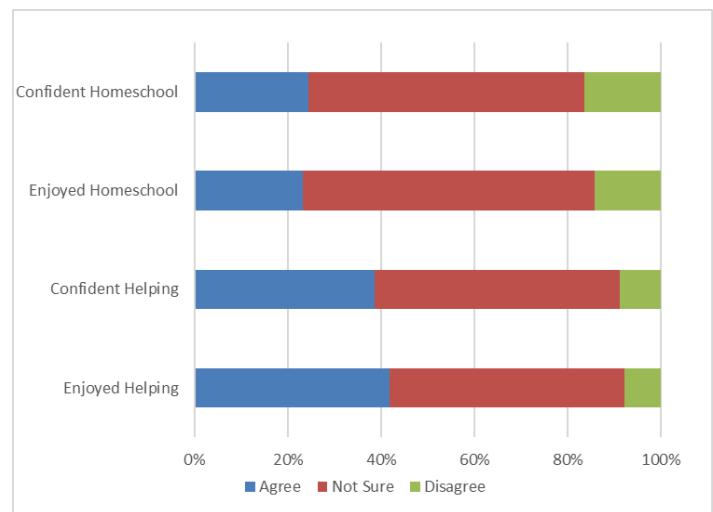
Overall, caregivers were not concerned about their child's educational progress or how they were coping in school, however less than 50% of caregivers felt happy and confident helping their child at home.

5.2 Teachers Perspective of COVID-19

We asked teachers to complete a survey each summer (2022, 2023, 2024). The data here is presented by year. At each timepoint we asked teachers about transition activities, if they had specific concerns about areas of the curriculum, if they were prioritizing areas of the curriculum, and whether they were accessing support. The data is presented by timepoint. At time one, children were in Reception, Year One and Year Two; at time two, children were in Year One and Year Two; and at time three children were only in Year Two.

Survey 2022

In the first survey we asked teachers to reflect on the transition activities in place for children joining Reception or moving up to Year One or Year Two, including the year pre-COVID, 2020, and 2021. Figures 5.7, 5.8 and 5.9 illustrate the changes over time in transition activities across all year groups.

Figure 5.7

Percentage of Reception transition activities pre-COVID, 2021 and 2022
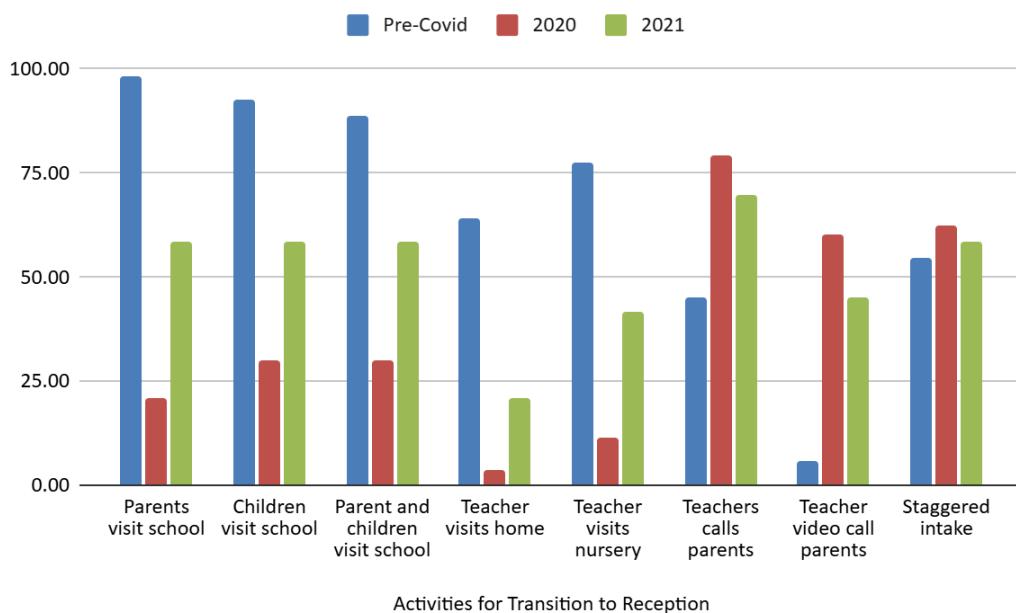
Figure 5.8

Percentage of Y1 transition activities pre-COVID, 2021 and 2022
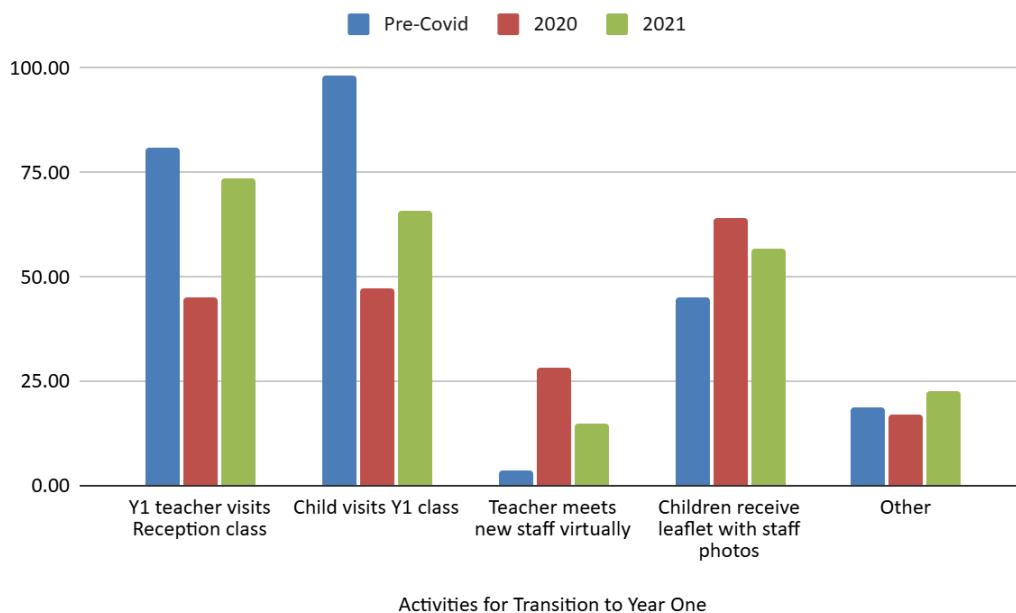
Figure 5.9

Percentage of Y2 transition activities pre-COVID, 2021 and 2022
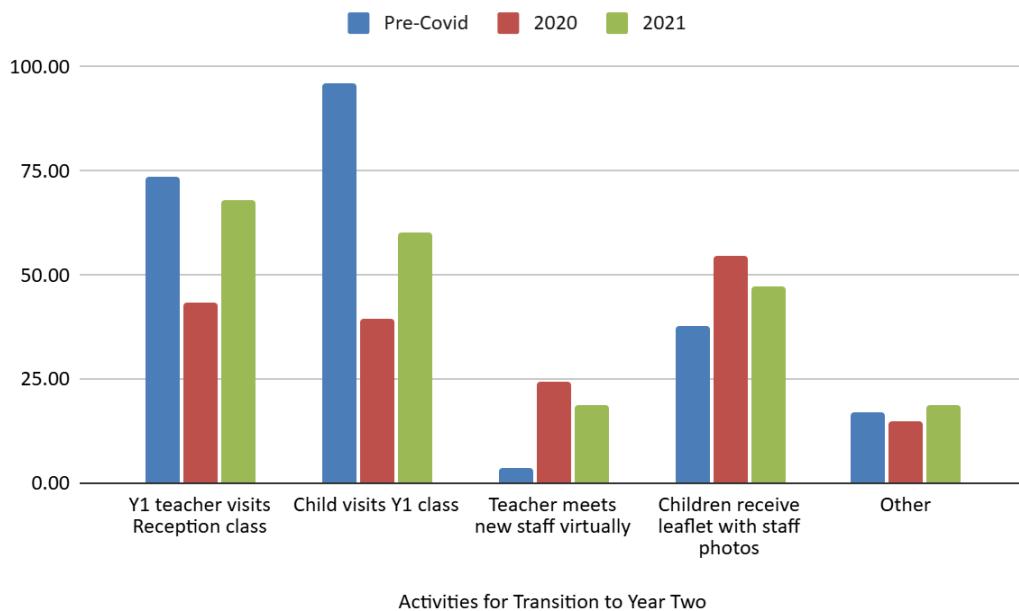
Unlike caregivers, teachers had significant concerns across all three year groups. These can be seen in Figures 5.10 to 5.11.

Figure 5.10

Teachers concerns about Early Learning Goals in EYFSP, Mental Health and Well-being
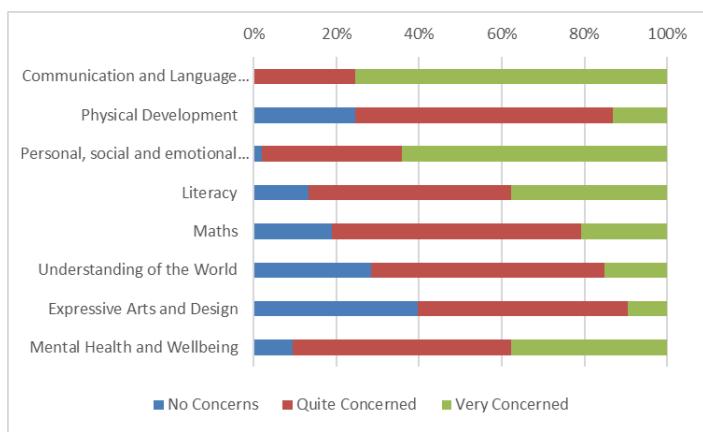
Figure 5.11

Teachers concerns about KS1 curriculum areas and Mental Health and Well-being
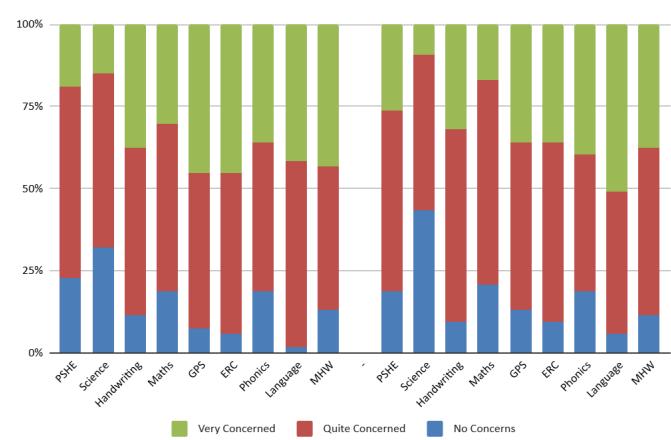
We also asked about areas of the curriculum that they were prioritizing, with almost 100% of respondents reporting they were giving the same priority to all curriculum areas.

Finally, in terms of support, the most popular form of support was existing school resources, followed by the Nuffield Early Language Intervention (NELI) programme (Hulme et al., 2025), as shown in Figure 5.12.

Figure 5.12

Percentage of respondents who felt supported by different sources
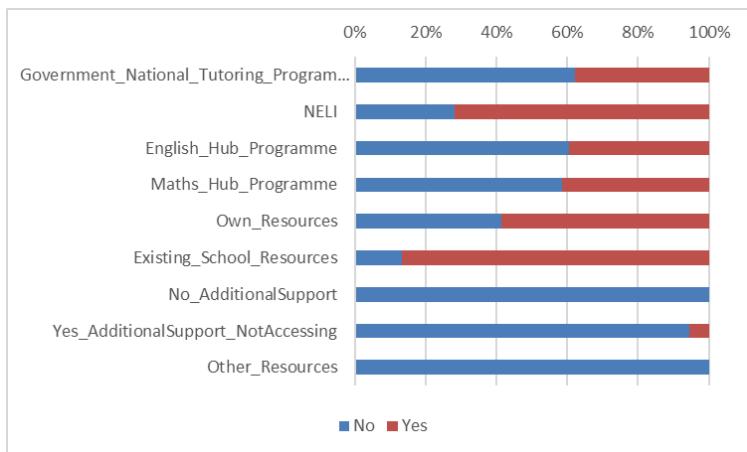
Survey 2023

At time two, we again asked about transition activities for children moving from Reception to Year One, and Year One to Year Two. Figure 5.13 shows that in 2023, schools had reinstated in person visits, and fewer schools were using online meetings or other forms of communication. We also asked if children needed more academic or socioemotional support than previous cohorts. Figure 5.14 shows that the majority of schools responded yes, children did need more support in both areas.

Figure 5.13

Types of transition activities used in 2023
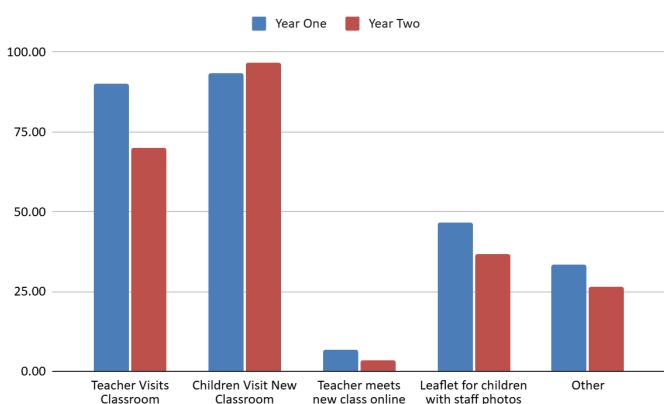
Figure 5.14

Percentage of respondents who think children need more academic and socioemotional support.
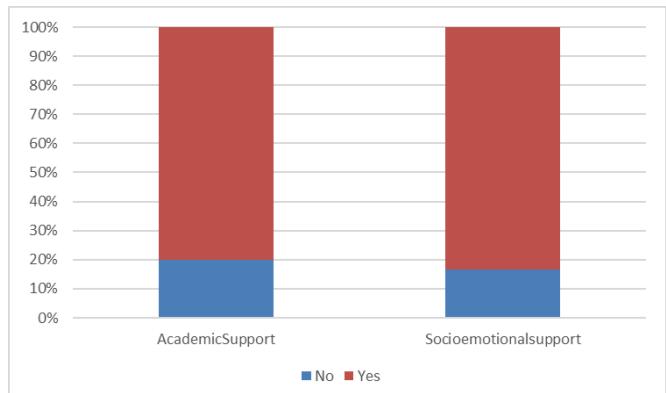
Again, we asked if there were areas of the curriculum that teachers were concerned about. Figure 5.15 shows that for a number of areas concerns had reduced. But significant concerns were still apparent for handwriting, phonics and grammar, punctuation and spelling in both Year One and Year Two. As at time one, the majority of respondents indicated that all areas of the curriculum were getting equal priority in addition to mental health. Finally, we asked whether schools felt supported by local and national institutions. Figure 5.16

shows that over 75% of respondents did not feel supported by the national government. However, nearly 70% felt supported by their local community.

Figure 5.15

Teachers concerns about curriculum areas in Year One and Year Two
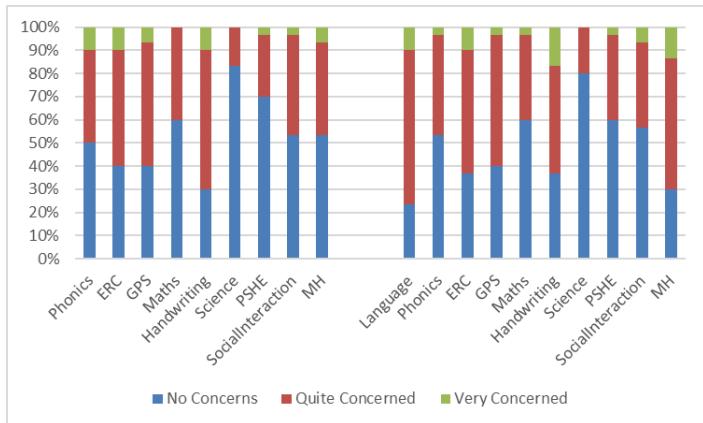
Figure 5.16

Percentage of schools who felt supported by different sources.
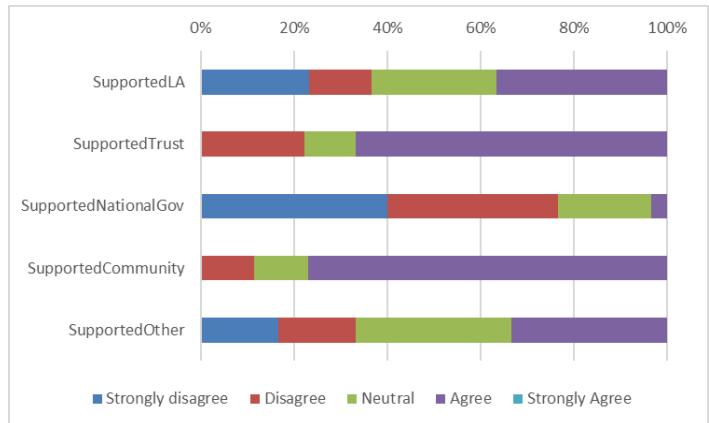
Survey 2024

In the final survey, children were only in Year Two. We asked staff what sort of transition activities took place between Year One and Two. Figure 5.17 shows that again, the majority of respondents used in person meetings rather than online or other forms of communication. Figure 5.18 shows that there are still concerns about certain areas of the curriculum, particularly language, handwriting and grammar, punctuation and spelling. There are also concerns about social interaction and mental health.

Figure 5.17

Percentage of different Year Two transition activities
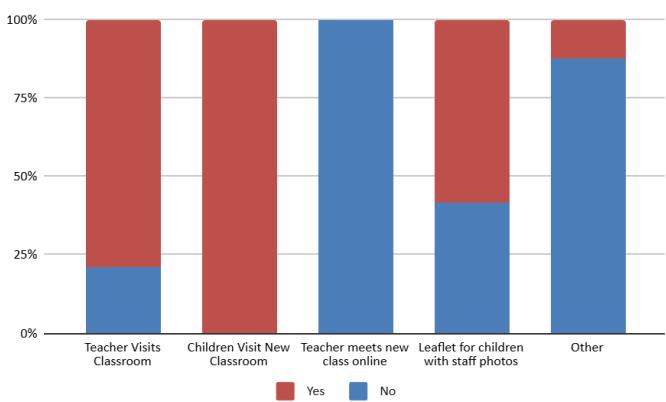
Figure 5.18

Teachers concerns about curriculum areas in Year Two
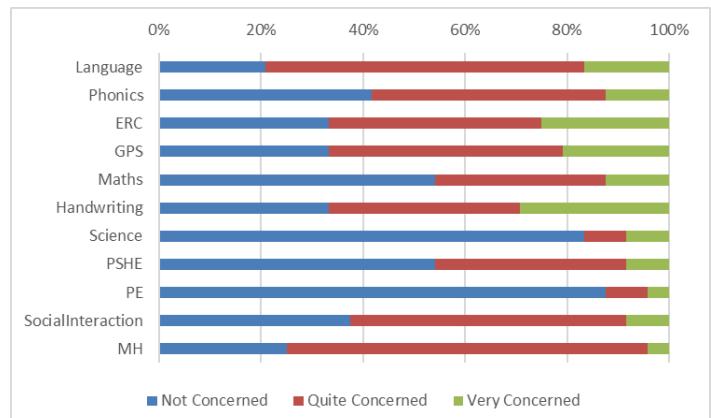
We again asked if schools felt supported by different sources. The majority of respondents felt supported by colleagues, and the senior leadership team, but not by the LA or national government (see Figure 5.19).

Finally, Figure 5.20 shows that the majority of respondents felt that the pandemic was still impacting children, schools and families over two years since all restrictions were lifted.

Figure 5.19

Percentage of schools who felt supported by different sources.
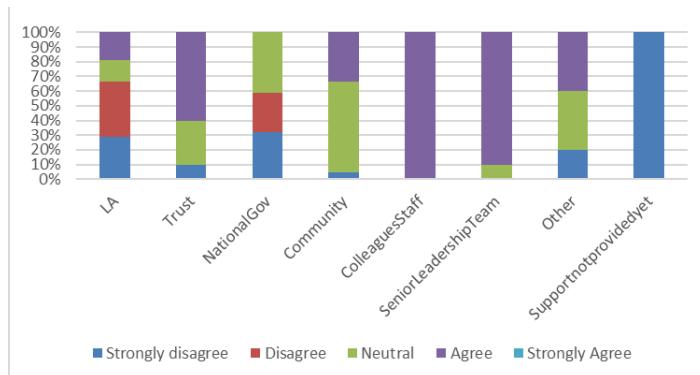
Figure 5.20

Is the pandemic still impacting children, schools and staff?
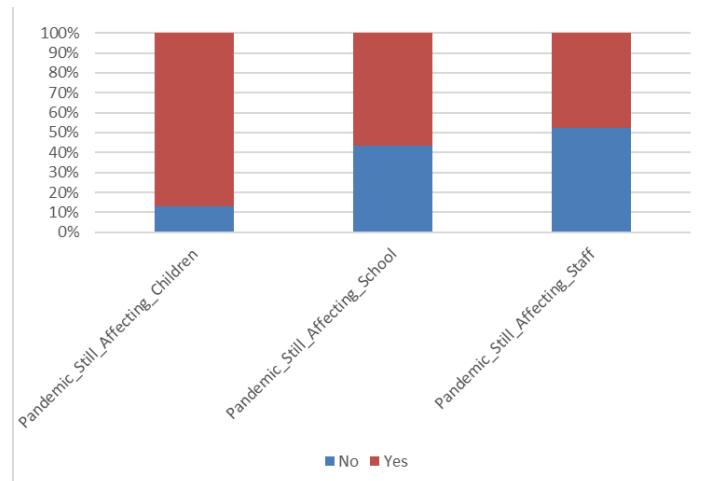
Interviews

We carried out interviews with members of school staff to find out about their experience of the pandemic. We first interviewed staff members in 2021/2022, and then again in 2023/2024. For the first set of interviews, twenty-three staff members agreed to take part; five teachers, two members of the senior leadership team, five headteachers or heads of school, 11 headteachers or heads of school that were also responsible for other roles such as Special Educational Needs Coordinator (SENCO), Designated Safeguarding Lead (DSL), or lead of different curriculum areas. Staff members had a range of experience, working in the school for between three and 25 years.

Nine staff members took part in the second set of interviews, one teacher and eight headteachers, five of whom also held other roles such as SENCO, DSL, or lead of different curriculum areas. Again, staff had a range of experience, working in the school for between five and 25 years.

The first interviews explored participant work, health, well-being, support, and professional concerns during the pandemic and the subsequent year. The second interviews were conducted three years after restrictions were lifted and focused on post-pandemic educational work experiences, ongoing support, and current professional concerns, specifically examining the persistence of pandemic-related staff impacts and other emerging challenges. Table 5.1 contains the themes generated in both rounds of interviews. The same themes emerged plus an additional theme in the later interviews.

Table 5.1

Themes emerging from interviews at both timepoints.

Theme	2021/2022	2023/2024
1. General Experience of the Pandemic	✓	✓
2. Differences Between Lockdowns	✓	✓
3. Post-Pandemic Experience	✓	✓
4. Health and Well-being	✓	✓
5. Support and Resources for Staff	✓	✓
6. View of the Profession	✓	✓
7. Positive Impacts	✓	✓
8. Main Concerns Going Forward	✓	✓
9. Current Impact of the Pandemic and Other Emerging Challenges		✓

Here we summarise the findings from the interviews, expanding on the emergent themes.

General Experience of the Pandemic

The pandemic was an extremely difficult and demanding time, characterized by increased workload and an expanded scope of responsibilities (e.g., providing pastoral care and food support) that blurred the boundaries between school and home life.

> *Everything seemed to fall on schools and we felt very responsible of that and keeping some of those families going with food as well as much as anything else, you know all the having to make up the food packs for families to come and collect. Some families we couldn't get hold of and then that was a worry. We ended up having to make home visits. Just seemed to broaden and broaden and broaden everything that schools were responsible for during a time that was particularly difficult.*

Staff reported high levels of stress and anxiety. Some staff were trying to home school their children while still delivering their own lessons. Last minute changes due to staff illness or new guidance meant that the relationship between caregivers and teachers became strained.

> *It was so difficult for parents to understand that we didn't know these things were going to happen because a lot of them were like well you must've known that was coming but as teachers, even our headteacher, we didn't know anything was coming before it was announced on the news the same as everybody else.*

Differences Between Lockdowns

The first lockdown was often described as more challenging due to the sudden nature of the disruption and lack of established resources. The second lockdown saw schools better prepared, with more effective use of technology for remote learning, although the focus remained on managing staff and student anxiety. In some schools, only the teachers or headteachers were working on site. This meant that they were covering additional responsibilities.

As a member of the leadership team, I was basically covering every single break duty and every single lunch duty, so, I wasn't getting any break in the day until half past three, when the children had gone home'.

There were also feelings of resentment towards those who could stay home, and guilt from those who weren't allowed to be on site.

I felt very guilty that I wasn't there, kind of with my team and I didn't you know [..], I felt I should have been there really physically, like literally supporting them. Rather than kind of you know, being away at a distance.

The period after the first national lockdown was particularly challenging, as teachers were now having to teach in school and online.

That bit I found really difficult because you felt like you were torn between the computer and doing those ones that were at home and the ten that you had there, that was really hard'.

This period also involved a great deal of administrative work, as activities that were paused during lockdown were recommenced, further increasing workload. Adding to this, one participant noted that there was increased pressure on teachers to help children "catch-up", which added to the pressure, and stress was further increased by the obvious learning gaps seen in children after each lockdown. This situation was exacerbated by last minute changes in policy from the government.

One participant said this was

'the hardest time I have ever known in my career and I think it's only now that I'm starting to see the joy, again, in what I do'.

Post-Pandemic Experience

One participant said that the first academic year after restrictions were lifted was the hardest:

'We thought it would get better this year, because actually, we're open, it's business as usual, except that it's not. Because if a child has got COVID like symptoms, they're being advised to isolate and then get tested'.

Staff were tired and supply teachers were hard to come by, especially in rural areas. Whilst there was a general public feeling that things were back to normal this was not the case. The post-pandemic environment is characterized by sustained high workloads and a sense of "firefighting", where staff are constantly reacting to

immediate crises (e.g., student behaviour, attendance issues, and staff shortages) rather than engaging in strategic planning. Staff noted that work responsibilities remained above pre-pandemic levels but there was also a sense of urgency to get children up to speed.

You've still got that external pressure. With the best will in the world, these children are not where they should be because they've missed a year of school along the way, probably more because of the COVID outbreaks. So, I think it's the external pressure that's more of a worry than what's going on in school.

Services in the communities had been reduced meaning that schools were still providing support beyond education with safeguarding, online safety, and applications for benefits. They were also held responsible for long waiting lists e.g. *That's not our fault, we have no control over that but because we're the ones who are making the referral, you know people kind of come back and have a go at us, or shout at us about that. Because you know, we're seen to be the ones who are holding up the process, when in actual fact that's not the case.*

The majority of participants discussed financial difficulties in the second round of interviews, with local authorities making cuts to services and limited school budgets.

Staff Mental Health and Well-being.

Staff mental health and well-being deteriorated significantly due to the emotional demands of supporting students/families, fear of infection, and isolation. The need for emotional support and supervision was highlighted, as staff felt they were doing the "draining" work of supporting others without being supported themselves. Staff had no outlet for getting "rid of the stresses of the day" or getting things "off their chest" as they had limited social interactions with others. Some staff had lost family members, or were unwell, but were expected to continue teaching. One participant said she *'struggled with my physical health, I ended up with chest pains, I am now on three lots of medication, my blood pressure is through the roof'.* Similarly, another participant said making *sure that people are in a good place is draining, and nobody does that for me'.*

Restrictions were particularly hard for staff living alone and those with existing health issues. Support staff who were not directly involved in teaching felt undervalued. After the pandemic, staff with underlying health issues or mental health difficulties, staff asked to provide additional cover and teachers with children continued to struggle. Two years later, the impact on mental health and well-being persisted. Staff attendance patterns are variable, with some staff prioritising their well-being. In addition, newly qualified teachers are entering the profession after training during lockdown, having themselves experienced a year of isolation from families and online learning. For example:

The pressure that it created on staff, we're still feeling the repercussions of it now. You've got some staff who've had long COVID, who've had long-term health issues, following, pandemic as well. So, there's a wider picture of staff that, from my personal view, is not always taken into account by government.

<u>Support and Resources for Staff</u>

While some schools offered formal (e.g., mental health training) and informal support (e.g., team check-ins), staff universally expressed the need for more resources to manage both student and staff well-being. Limited funding and a lack of accessible external services were major barriers to providing adequate support. Some schools received support from the Local Authority or Academy Trust, while others received no support, leading to inequities in provision e.g.

We're not part of an academy trust, so we don't have that wider network of schools and support, it's just us. No support from the local authority, really, other than to say, well done, you're doing really well, keep up the hard work. Well, that's great but where's the practical support?.

In the first round of interviews, staff felt the priority in supporting well-being was to promote a good work life balance, reduce workload and increase resources. Two years later, staff reported that schools were continuing with pandemic related support. However, this focused on policies and practice rather than accessing specific provision. Six participants suggested support initiatives that they felt would be helpful in their school, for example, supervision of staff members akin to that provided in other professions like clinical psychology; access to staff training, counselling services; additional staff; and increased support from local authorities and other services for families to reduce staff workload.

<u>View of the Profession</u>

Staff reported feeling devalued and less respected by the wider public and even some families. The pandemic exacerbated pre-existing issues—primarily high workload, stress, and poor work-life balance—leading to a significant number of experienced educators considering leaving the profession. Staff felt that teaching was not viewed as a valued profession, with people mistakenly perceiving teachers were not working during lockdown while parents and carers took responsibility for their child's education e.g.

I have a real bugbear about the vilification of us in the press and that got to a lot of us actually, and I just think that was very demoralising, the way the public as a whole was talking about us as a profession.

Two years later, staff reported a change in parental attitudes, with unrealistic expectations and a lack of respect leading to one school implementing policies to protect staff members. For example:

It's a real struggle to maintain that level of support whilst also, you know, our main purpose is to be here for the children's education.'

A number of staff said they were thinking of leaving the profession when first interviewed and recruitment was challenging. In the later interviews, participants were still reportedly considering leaving the profession, both experienced teachers and newly qualified staff, due to poor working conditions and pay. In one school, approximately 70% of staff members working during the pandemic had moved to another school or left

the profession entirely. Even three years after the pandemic restrictions were lifted, recruitment and retention remain a significant challenge.

Positive Impacts

Some positive outcomes were reported. For example, staff reported becoming a closer, more resilient team. Some reported that they appreciated the opportunity to spend with family during lockdown. The increased and more effective use of technology has been beneficial, allowing for virtual caregiver evenings and meetings with caregivers which would previously have been difficult due to caregivers' working commitments. Online platforms have also helped staff keep in touch with hard to reach families, building a better relationship. The online environment has helped staff save time.

In the second round of interviews, some staff reported establishing stronger personal boundaries for their work-life balance. They felt that the expectations of the role had changed, and they needed to prioritize their mental and physical health,

Main Concerns going Forward

In the first set of interviews, the primary concerns were the health and well-being of the staff members, and recruitment of good quality staff to replace those who left the profession. Pressure was still considerable, and there was concern that teachers were going to burn out as *'none of us have taken the time to recover, we all went straight back',* although others thought in time they would recover e.g. *staff seem to be amazingly resilient, they are absolutely wonderful'* Two years later, schools were still worried about losing experienced teachers and recruiting new staff. They were also concerned about the limited financial resources available for the school, meaning they struggled to meet children's needs. The need for sustainable work-life balance, and the need for increased respect and value for the profession was raised, as well as concerns about meeting the complex needs of students who had fallen behind or had increased socioemotional difficulties.

Current Impact of the Pandemic and Other Emerging Challenges

Conducted three years after restrictions, the second set of interviews found that the pandemic's direct impacts have morphed into persistent, long-term problems. Only one participant stated that pandemic disruptions were no longer impacting them. However, all other participants recognised a reduced but still present impact of the experience of the pandemic.

I don't always want to kind of use that as an excuse, but when you take that moment to sit back and reflect, you know, it has to come under that umbrella. We are still struggling from that aspect.'
Staff were more conscious of their well-being, and more willing to take time off, making it difficult for senior leadership to meet the needs of the pupils and families while supporting their staff. There was recognition that some of these issues existed before the pandemic but were perhaps exacerbated by the crisis. The situation at the time was complicated by severe budget cuts/financial constraints and the cost-of-living

crisis, which prevented schools from recruiting staff or providing necessary support, leading to even greater demands on existing teachers.

Overall, the data presented above revealed a clear divergence in perspective. Most caregivers expressed little concern about their children's progress, believing the restrictions would have little long-term educational impact and mostly reporting their children were coping well. In stark contrast, teachers reported significant, sustained concerns across all year groups, particularly in fundamental areas like Language, Handwriting, Phonics, and Grammar, Punctuation, and Spelling (GPS), alongside worries about Mental Health and Social Interaction. The post-pandemic environment for school staff was characterized by sustained high workloads and a sense of "firefighting" as they addressed children's increased needs for both academic and socioemotional support, often feeling devalued and unsupported by national government, which contributed to high levels of stress, poor staff well-being, and significant challenges with recruitment and retention that persisted three years after restrictions were lifted.

Section 6: National Pupil Database

How well did children achieve in national assessments compared with a pre-pandemic cohort?

Key Findings:

- Across a range of assessments at ages five (Reception), six (Y1) and seven (Y2), and after adjusting for differences in population demographics, children who belonged to post-pandemic national assessment cohorts suffered lower chances of meeting age-related achievement expectations, with the largest penalty (for writing at age seven) amounting to a loss of more than ten percentage points.
- Relatively larger negative effects on early achievement by post-pandemic cohorts were experienced by older age cohorts, those assessed sooner after the pandemic, children whose individual school attendance rates in early primary school were lower, and those who had not received at least 15 hours of free nursery provision at age three.
- The impact of the post-pandemic achievement losses on existing achievement gaps was uneven; socio-economically disadvantaged children saw pre-pandemic achievement gaps exacerbated for children in post-pandemic cohorts, and children of Other Black and Other Ethnic heritage also experienced worsened achievement gaps at age five, but not by age seven.
- Boys and children who speak English as an Additional Language typically have lower early achievement than girls and those whose first language is English; however, these gaps were attenuated in post-pandemic cohorts, as girls and children who speak English as their First Language appear to have experienced greater negative post-pandemic impacts on their achievement.
- National assessments based on age-related expectations are less useful in understanding the impact of the pandemic and post-pandemic context on children with Special Educational Needs and Disabilities (SEND), because many are working towards earlier stages of development that are not captured as well in the assessments.

6.1 Assessments related to language and literacy

We used regression analysis across national assessment results from 2017-2019 (the pre-pandemic cohort) and 2022-2024 (post-pandemic cohorts) to identify the effect of belonging to a post-pandemic cohort on children's achievement, after adjusting for differences in the demographic make-up of the cohorts, such as the increased rates of deprivation following the pandemic.

Overall, considering the full national cohorts of children, negative impacts of belonging to post-pandemic cohorts, i.e. lower results than pre-pandemic, were seen for achieving age expectations in speaking in the 2022 age-five cohort, fine motor skills (a precursor of writing) in the 2022, 2023 and 2024 age-five cohorts, writing in the 2022 age-five cohort, phonic decoding (a precursor of reading) in the age-six 2022 and 2023 cohorts, and both reading and writing in the 2022 and 2023 age-seven cohorts. The size of the negative effects was substantially larger for the older cohorts of children, assessed at age seven.

This means that children who had their nursery entitlements and school starts disrupted by the pandemic will be reaching the Key Stage 2 end-of-primary assessments in 2026-2029, having been substantially

more likely to be below age-related expectations for language and literacy during their first three years in school. It remains to be seen if these impacts will have washed out by age eleven, or continue to mark children's academic development as they enter the transition to secondary school.

Details of the results in each assessment are described in the following sections. We present the regression margins, which may be interpreted as equivalent to percentages of children achieving the expected standard in each assessment. Full model results and descriptive statistics for the modelled cohorts are presented in the appendix to this report.

EYFSP Speaking

After adjusting for differences in the characteristics of the children in each cohort, there remained a statistically significant impact of belonging to the 2022 age-five cohort on the achievement of the Early Learning Goal (ELG) for speaking. We computed margins for the effect of belonging to this post-pandemic effect; these can be interpreted as the percentages of children who achieved the speaking ELG in the two cohorts, after adjusting these to remove the effects of differences in composition such as different deprivation levels.

The speaking margins were 83.7% for the 2022 cohort, compared with 85.4% in the 2017 cohort; therefore, there was a 1.6 percentage point post-pandemic penalty for the 2022 cohort. However there were no statistically significant differences between the 2023 and 2024 age-five cohorts and their 2017 pre-pandemic counterparts in achievement of speaking.

Figure 6.1

'Speaking' ELG Adjusted Margins
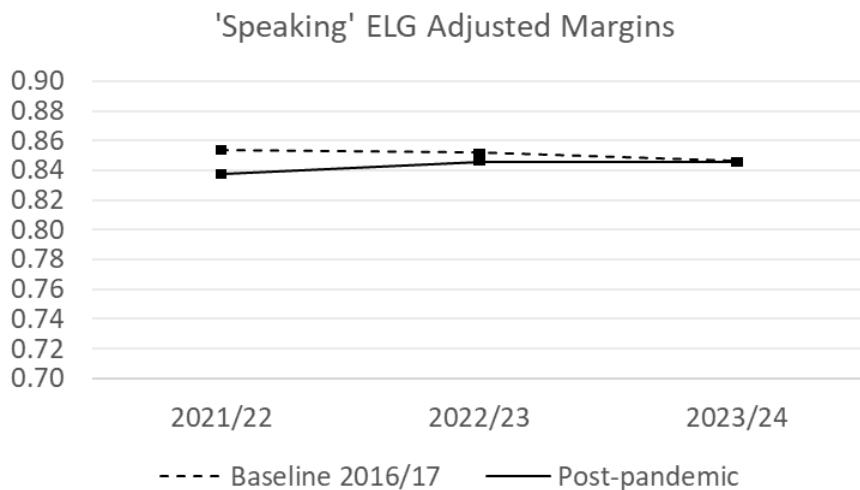
EYFSP Listening

Differences between the three post-pandemic age-five cohorts and the 2017 pre-pandemic cohort for the listening ELG were small and followed a pattern that suggested that the change in the EYFSP framework in 2021 could account for the pattern observed. Therefore, we are not able to draw any conclusions about post-pandemic cohort effects on listening.

Figure 6.2

'Listening' ELG Adjusted Margins

---- Baseline 2016/17 —— Post-pandemic
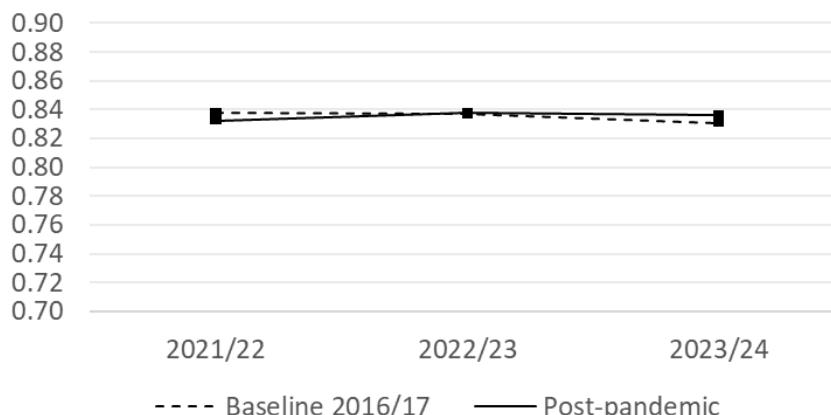
EYFSP Word reading

Similarly, for the word reading ELG, the pattern of margins is more suggestive of effects of the EYFSP framework change in 2021 introducing non-comparability in this learning goal than of post-pandemic deficits in reading development.

Figure 6.3

'Word Reading' ELG Adjusted Margins

---- Baseline 2016/17 —— Post-pandemic
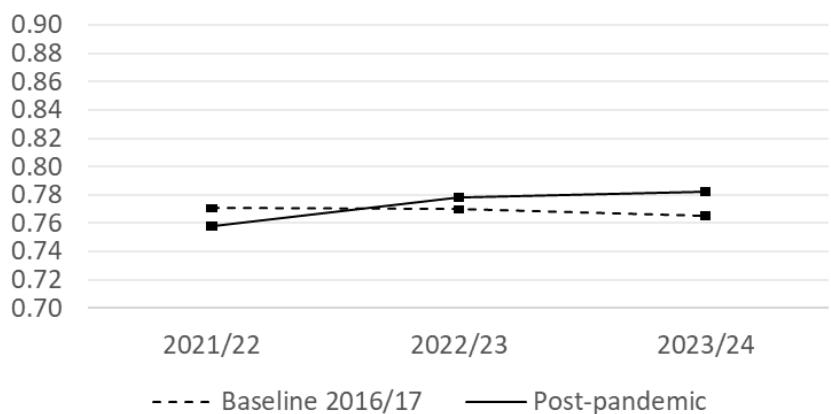
EYFSP Fine Motor Skills

The fine motor skills ELG is an important precursor for writing development because children need to learn to hold and manipulate a pencil proficiently enough to make small and precise marks on paper in order to formulate letters. There were substantial negative effects on achievement of this learning goal by children in the 2022, 2023 and 2024 cohorts, compared with those in the 2017 pre-pandemic cohort.

The impact of belonging to a post-pandemic cohort was greatest for children in the 2022 age-five cohort. After adjusting for differences in children's characteristics, the fine motor development margins were 86.6% in 2022, increasing to 87.2% in 2023, and 87.1% in 2024, compared with 89.3% in the pre-pandemic cohort[1]. This

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[1] The margins for the pre-pandemic baseline cohort differ slightly for each post-pandemic cohort comparison; here and elsewhere, we report the middle baseline value for simplicity.

suggests there could have been ongoing effects of belonging to post-pandemic cohorts for children starting school even four years on from the onset of the COVID-19 pandemic.

Since the effect remained as large as -1.8 percentage points in 2024, down from -2.9 percentage points in 2022, we cannot rule out that changes to the early learning goals in 2021 may have contributed to the size of the fine motor effects. However, the overall pattern is more consistent with what we would expect from a penalty for belonging to a post-pandemic cohort.

Figure 6.4

'Fine Motor' ELG Adjusted Margins

---- Baseline 2016/17   —— Post-pandemic
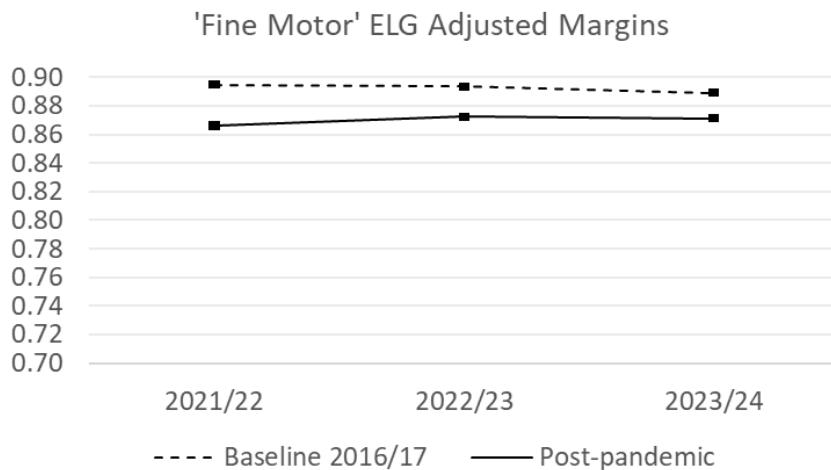
EYFSP Writing

Writing has the lowest achievement rate of the language and literacy ELGs that we are able to make pre/post comparisons for from the EYFS Profile assessments. There was a substantial negative effect of belonging to the 2022 age-five cohort, when compared with the 2017 pre-pandemic cohort, and a smaller negative effect of belonging to the 2023 age-five cohort. However, there was no effect on writing in the 2024 age-five cohort.

After adjusting for differences in children's characteristics, the writing development margins were 70.6% in 2022, increasing to 72.6% in 2023, and 73.3% in 2024, compared with 73.3% in the pre-pandemic cohort. There was, therefore, a 2.8 percentage point deficit in writing achievement for the 2022 age-five cohort, and a 0.8 percentage point penalty for the 2023 age-five cohort.

Figure 6.5

'Writing' ELG Adjusted Margins
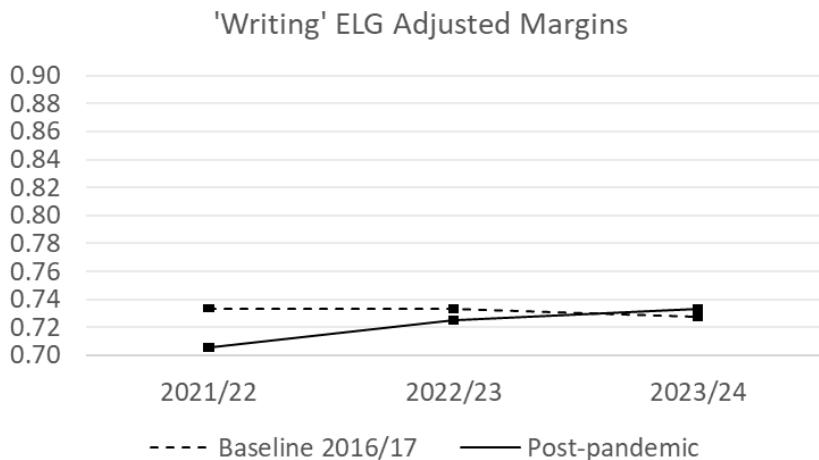
Year 1 Phonics Screening Check

Phonics Screening Check assessments are conducted for most children in Year 1 when they are six years old. These test children's phonic decoding proficiency which is a precursor for being able to read new, unfamiliar words, by breaking them down into sounds. These assessments do not assess comprehension of the words that are read, and we were not able to make a meaningful comparison of the age-five comprehension ELG due to changes to the EYFSP framework in 2021. Nevertheless, phonics assessments do provide a partial interim assessment relevant to reading development that is conducted in between the age-five EYFSP and age-seven KS1 assessments and we have assessed the impact of belonging to a post-pandemic cohort on this outcome.

Similarly to the age-five writing assessments, we observed a substantial negative impact on phonic decoding for the 2022 age-six cohort, and a smaller impact for the 2023 age-six cohort, but no impact for the 2024 age-six cohort. After adjusting for differences in children's characteristics, the phonic decoding margins were 76.7% in 2022, increasing to 80.4% in 2023, and 82.0% in 2024, compared with 82.4% in the 2018 pre-pandemic cohort. This represented a 5.8 percentage point deficit in phonics achievement for the 2022 age-six cohort, and a 2.0 percentage point penalty for the 2023 age-five cohort. Hence, higher levels of pre-pandemic achievement in phonic decoding were contrasted with larger negative impacts for the post-pandemic cohorts.

Figure 6.6

Phonics 'Pass' Adjusted Margins

---- Baseline 2017/18 ——— Post-pandemic
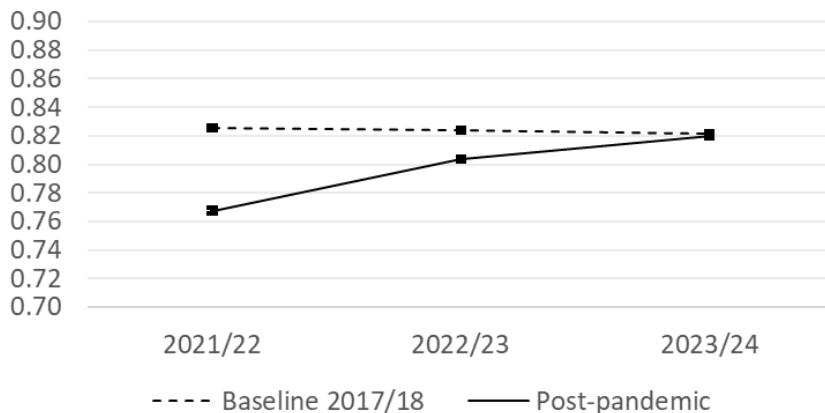
KS1 Reading

The year 2023 was the last in which Key Stage 1 assessments were national requirements, and consequently there are no data for 2024 for age-seven cohorts. However, it seems likely that this cohort would have experienced a negative impact in KS1 reading, given the even greater size of the effects on the 2022 and 2023 age-seven cohorts than at younger ages, when compared with the 2019 pre-pandemic age-seven cohort.

After adjusting for differences in children's characteristics, the reading development margins were 67.8% in 2022, increasing to 69.3% in 2023, compared with 74.7% in the pre-pandemic cohort[2]. There was a 7.1 percentage point deficit in reading achievement for the 2022 age-seven cohort, and a 5.4 percentage point penalty for the 2023 age-seven cohort.

These large negative impacts of belonging to a post-pandemic cohort suggest there is potential for the 2026 and 2027 Key Stage 2 age-eleven assessments to be impacted. However, we will not know if schools have been able to close these deficits until those assessments have taken place.

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[2] The 2023 cohort's 2019 pre-pandemic age-seven reading margin is cited here for simplicity, but post-pandemic deficits are computed using the margins relevant to each cohort, which differ by cohort.

Figure 6.7

Reading 'Expected' Adjusted Margins

- - - - Baseline 2018/19 ⎯⎯⎯ Post-pandemic
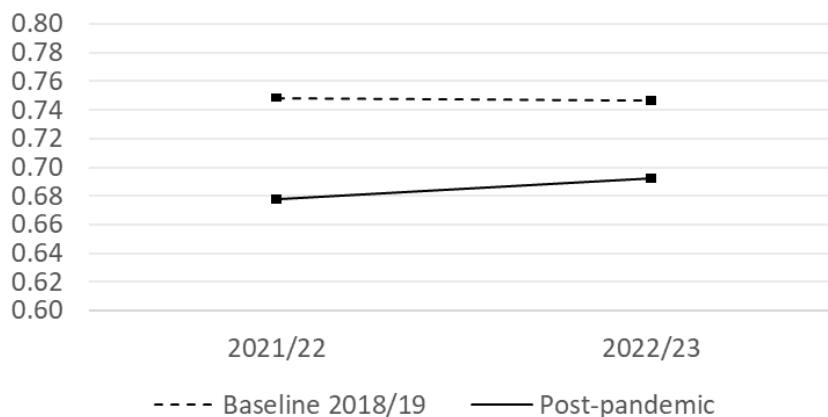
KS1 Writing

Similarly to reading, the age-seven assessments in writing show large negative impacts for children belonging to the post-pandemic cohorts that were assessed in 2022 and 2023. After adjusting for differences in children's characteristics, the writing development margins were 58.4% in 2022, increasing to 61.0% in 2023, compared with 69.0% in the pre-pandemic cohort[3].

There was a 10.8 percentage point deficit in writing achievement for the 2022 age-seven cohort, and a 8.1 percentage point penalty for the 2023 age-seven cohort. These large negative impacts on post-pandemic writing development occurred in the context that writing had the lowest achievement rate of the subjects assessed at age-seven, both before and after the pandemic.

Figure 6.8

Writing 'Expected' Adjusted Margins

- - - - Baseline 2018/19 ⎯⎯⎯ Post-pandemic

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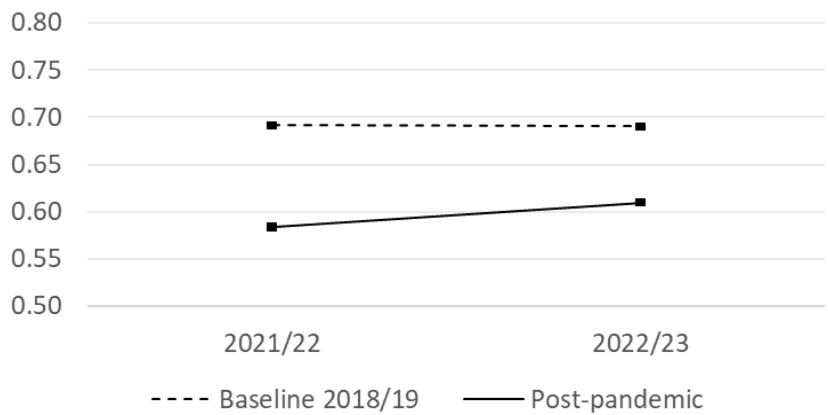
[3] The 2023 cohort's 2019 pre-pandemic age-seven writing margin is cited here for simplicity, but post-pandemic deficits are computed using the margins relevant to each cohort, which differ by cohort.

6.2 Assessments related to socioemotional development

There are fewer available national assessments of socioemotional development than is the case for language and literacy development. These are limited to the age-five EYFS Profile, and it is important to remember that the largest and most concerning effects appeared in older age-cohorts for the language and literacy domain, therefore we do not have as full a picture for socioemotional development.

Having noted this data limitation, among the two assessments we were able to make a meaningful pre/post-pandemic comparison for, the effects are mixed, and negative effects are smaller than those pertaining to writing but similar to speaking.

Overall, considering the full national cohorts of children, negative impacts of belonging to post-pandemic cohorts were seen for achieving age expectations in self-regulation in the 2022, 2023 and 2024 age-five cohorts, but not in relationships, where achievement was similar to a pre-pandemic baseline in 2022 and 2023, and slightly better than pre-pandemic in 2024.

EYFSP Self-regulation

The ELG for self-regulation is a key component of personal, social and emotional development, a domain of children's development which is currently only assessed at age five, but is an important predictor of which children will go on to be identified as having Special Educational Needs and Disabilities (SEND) and issued with a statutory Education, Health and Care Plan (EHCP; Hutchinson, Downs & Ford, 2025) because their needs cannot be met within school budgets.

Self-regulation measures how well children are developing the ability to manage their own feelings and behaviours. There were statistically significant negative effects on self-regulation of belonging to a post-pandemic cohort that were similar in size to those for speaking at the same age, but smaller than those for fine motor skills and writing.

After adjusting for differences in children's characteristics, the self-regulation development margins were 86.0% in 2022, increasing to 86.5% in 2023, and remaining at 86.5% in 2024, compared with 87.7% in the pre-pandemic cohort. There was a 1.9 percentage point deficit in writing achievement for the 2022 age-seven cohort, a 1.2 percentage point penalty for the 2023 age-seven cohort, and a 0.7 percentage point penalty for the 2024 age-seven cohort.

Figure 6.9

'Self Regulation' ELG Adjusted Margins
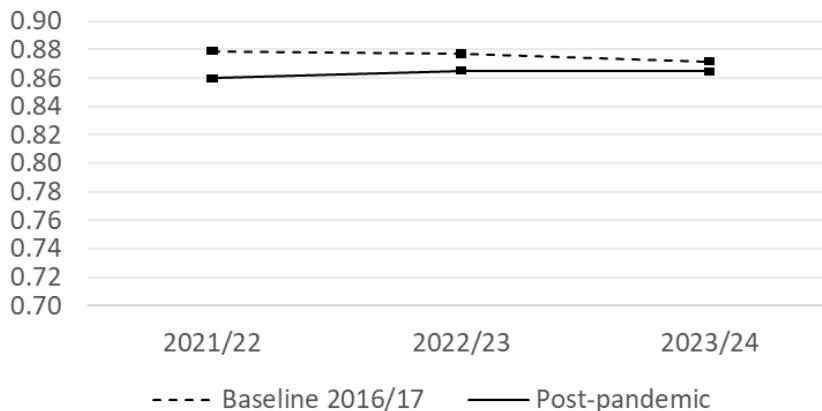
EYFSP Relationships

The relationships ELG measures children's development in responding to their adult carers, and playing cooperatively and safely with other children. There was no evidence of a post-pandemic deficit effect on relationships, with rates of achieving this goal being no different from the 2017 pre-pandemic baseline in the 2022 and 2023 age-five cohorts, and a little better (+0.7 percentage points) in the 2024 age-five cohort.

Figure 6.10

'Relationships' ELG Adjusted Margins
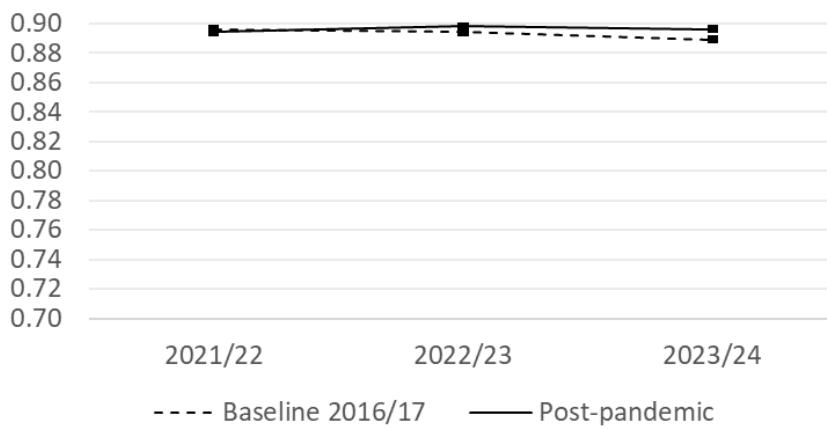
6.3 Assessments related to numeracy

Overall, considering the full national cohorts of children, negative impacts of belonging to post-pandemic cohorts, i.e. lower results than pre-pandemic, were seen for achieving age expectations in numerical pattern in in the 2022, 2023 and 2024 age-five cohorts, but not in number (counting) at age five, and much larger negative impacts on maths achievement were observed in the 2022 and 2023 age-seven cohorts.

This means that children who had their nursery entitlements and school starts disrupted by the pandemic will be reaching the Key Stage 2 end-of-primary assessments in 2026-2029, having been more likely to

be below age-related expectations for numeracy during their first three years in school. It remains to be seen if these impacts will have washed out by age eleven, or continue to affect children's schooling.

EYFSP Number

The number ELG measures children's development in being able to name numbers, particularly up to ten, and recognise the number of objects in a small group without counting. There was no evidence of any post-pandemic deficit in achievement of the number ELG, which was similar to the pre-pandemic 2017 baseline cohort in the 2022 age-five cohort and increased in the 2023 and 2024 cohorts.

The effect of belonging to a post-pandemic cohort after adjusting for changes in children's characteristics between the cohorts was +1.3 percentage points for the 2023 age-five cohort and +1.9 percentage points for the 2024 age-five cohort.

This pattern may suggest that the changes to the EYFSP framework in 2021 made this goal somewhat less challenging, as rapid improvement after an assessment change as the new assessment requirements 'bed in' will tend to follow this pattern. Alternatively, it is possible that efforts by schools to combat the effects of the pandemic were more successful for this ELG than others.

Figure 6.11
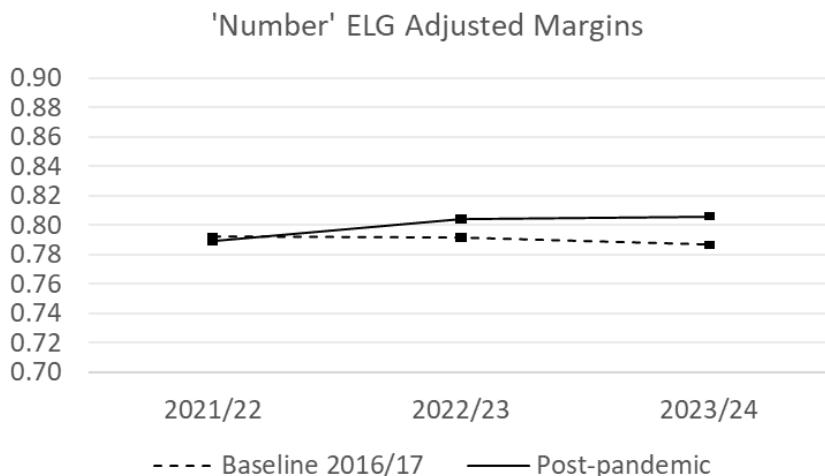
EYFSP Pattern

The pattern ELG measures children's developing ability to understand the relationships between numbers and quantities, such as counting and understanding when values are greater than, equal to or less than other values. There was a substantial negative effect on achievement of the pattern ELG for children in the 2022 age-five cohort, and smaller effects on the 2023 and 2024 age-five cohorts, when compared with a 2017 pre-pandemic cohort.

After adjusting for differences in children's characteristics, the pattern development margins were 78.4% in 2022, increasing to 80.0% in 2023, and 80.2% in 2024, compared with 81.5% in the pre-pandemic cohort[4].

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[4] The margins for the pre-pandemic baseline cohort differ slightly for each post-pandemic cohort comparison; here, we report the middle baseline value for simplicity.

There was a 3.2 percentage point deficit in writing achievement for the 2022 age-five cohort, a 1.5 percentage point penalty for the 2023 age-five cohort, and a 0.7 percentage point penalty for the 2024 age-five cohort.

This pattern of effects suggests that more complex understanding of numbers and their relationships was impacted in post-pandemic cohorts to a greater extent than number recognition and counting.

Figure 6.12

'Pattern' ELG Adjusted Margins

- - - - Baseline 2016/17   ——— Post-pandemic
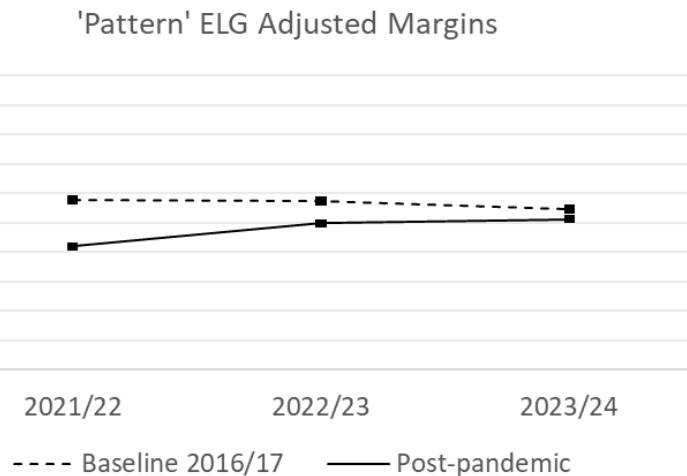
KS1 Maths

Just as we found for national assessments of literacy development, for mathematics, the negative effects of belonging to a post-pandemic cohort were considerably larger in older age-seven cohorts than for those at the start of school. Because the KS1 assessments were discontinued after 2023 it is not possible to say whether there were still negative impacts in the 2024 age-seven cohort, but the size of the effects in the 2022 and 2023 age-seven cohorts suggests there would have been, albeit smaller, had the assessments continued.

After adjusting for differences in children's characteristics, the maths development margins were 68.5% in 2022, increasing to 71.4% in 2023, compared with 75.4% in the 2017 pre-pandemic cohort[5]. There was a 7.1 percentage point deficit in maths achievement for the 2022 age-seven cohort, and a 4.0 percentage point penalty for the 2023 age-seven cohort.

These large negative impacts of belonging to a post-pandemic cohort were similar in size to those for age-seven reading, suggesting there is potential for the 2026 and 2027 Key Stage 2 age-eleven assessments to be impacted. However, we will not know if schools have been able to mitigate this until those assessments have taken place.

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[5] The 2023 cohort's 2019 pre-pandemic age-seven maths margin is cited here for simplicity, but post-pandemic deficits are computed using the margins relevant to each cohort, which differ by cohort.

Figure 6.13
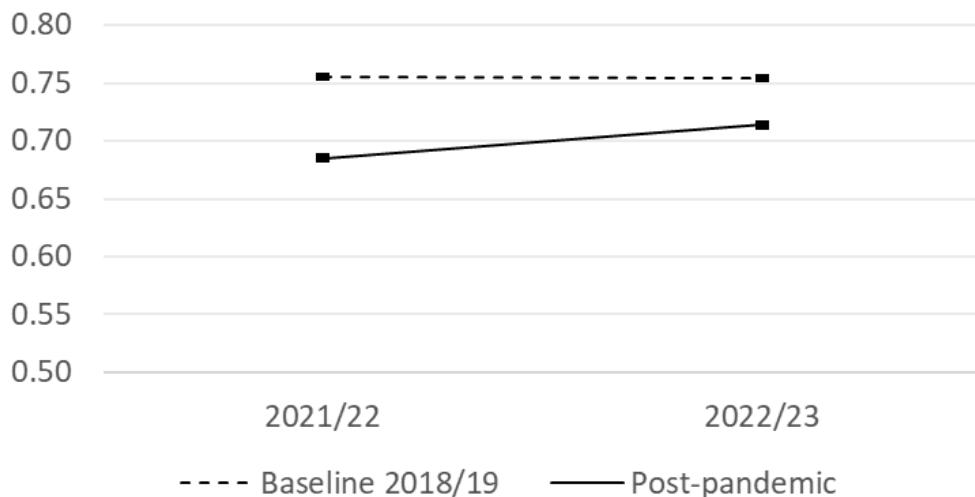
6.4 Overall achievement at age five: a 'good level of development'

Children are deemed to have reached a 'good level of development' (GLD) at age five if they have achieved all the twelve ELGs in five areas: language, socioemotional, physical, literacy and numeracy. We reconstructed the current definition of GLD in the pre-pandemic data by matching the most similar prior ELGs to those currently in the definition to enable a comparison pre- and post-pandemic.

This is not a perfect comparison since the framework for the EYFSP assessments changed in 2021, but it does produce a plausible comparison with negative effects of belonging to a post-pandemic cohort that appear consistent with those found in later assessments at ages six and seven.

The overall pattern of effects shows a moderate sized penalty for belonging to the 2022 age-five cohort compared with children in the 2017 pre-pandemic age-five cohort. A substantially reduced penalty is estimated for the 2023 age-five cohort, and a small but statistically significant penalty remains for the 2024 age-five cohort.

After adjusting for differences in children's characteristics, the GLD margins were 66.1% in 2022, increasing to 68.7% in 2023, and 69.6% in 2024, compared with 70.8% in the pre-pandemic cohort[6]. There was a 4.7 percentage point deficit in writing achievement for the 2022 age-five cohort, a 2.1 percentage point penalty for the 2023 age-five cohort, and a 0.6 percentage point penalty for the 2024 age-five cohort.

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[6] The margins for the pre-pandemic baseline cohort differ slightly for each post-pandemic cohort comparison; here, we report the middle baseline value for simplicity.

Figure 6.14

'GLD' Adjusted Margins

---- Baseline 2016/17 —— Post-pandemic
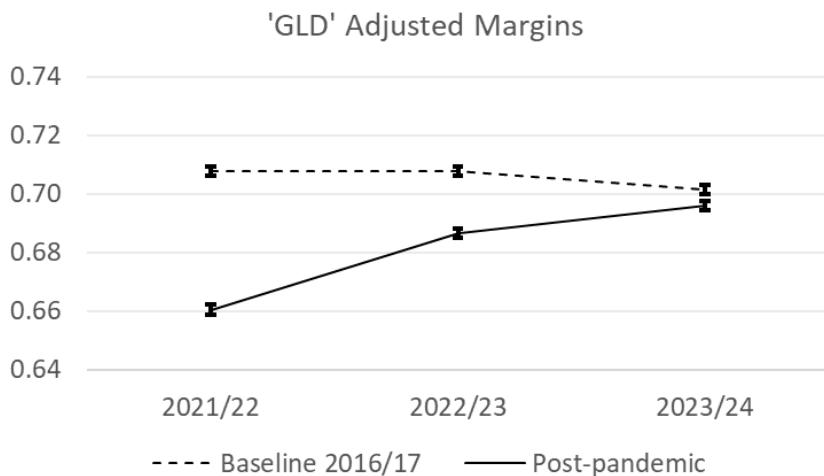
6.5 The role of school attendance in post-pandemic effects on achievement

Since the pandemic and its aftermath, frequent and ongoing concerns have been raised about its impact on the school attendance of children, both in terms of 'lost learning' due to illness and pandemic restrictions in 2020 and 2021, and due to reduced engagement with school in later years that is thought to be linked to changing norms and expectations about the importance of regular school attendance.

The government closed schools to all but a minority of children, and later required them to stay home if they had been potentially exposed to the COVID-19 virus. For some families this has increased their tolerance of missed school days well beyond the immediate aftermath of the pandemic.

We have assessed the contribution of lower school attendance rates to the achievement losses described previously. We did this by adding children's individual school attendance rates to the models used to compare achievement pre- and post-pandemic. We then noted how far attendance accounted for those losses. The results of this are described for selected national assessments in the sections below.

EYFSP 'good level of development'

After adjusting for individual school attendance as well as children's characteristics, the size of the negative effect of belonging to the 2022 age-five cohort was reduced by approximately half, from -4.7 percentage points to -2.3 percentage points. Furthermore, there was no negative effect on achievement of a GLD for the 2023 age-five cohort, after the contribution of attendance to the lost achievement was accounted for.

This demonstrates the key role played by school absences in contributing to lost learning and achievement, in this case reflecting the role of absence in 2022 and 2023, with COVID-19 still circulating, but mandatory restrictions ended. However, it also shows that the effect of individual attendance was not the only explanatory factor in age-five achievement losses in 2022. It is possible these could still reflect the overall

impact of absences across all children, or that other effects, such as from contracting the illness itself, or psychological stress, may have also played a role.

Since deprivation was controlled for as Free School Meals (FSM) eligibility and neighbourhood deprivation (IDACI), increases in poverty were already accounted for. Decreases in economic status that did not cross the eligibility line for FSM may still have contributed to the remaining effect on achievement in 2022. However, since the cost of living crisis superseded the pandemic, it is less likely that those effects would not have also occurred in 2023, therefore health or other effects are more plausible explanations for the remaining impact.

Figure 6.15

'GLD' Adjusted Margins, with Attendance

- - - - Baseline 2016/17
——— Post-pandemic
——— Post-pandemic, after attendance
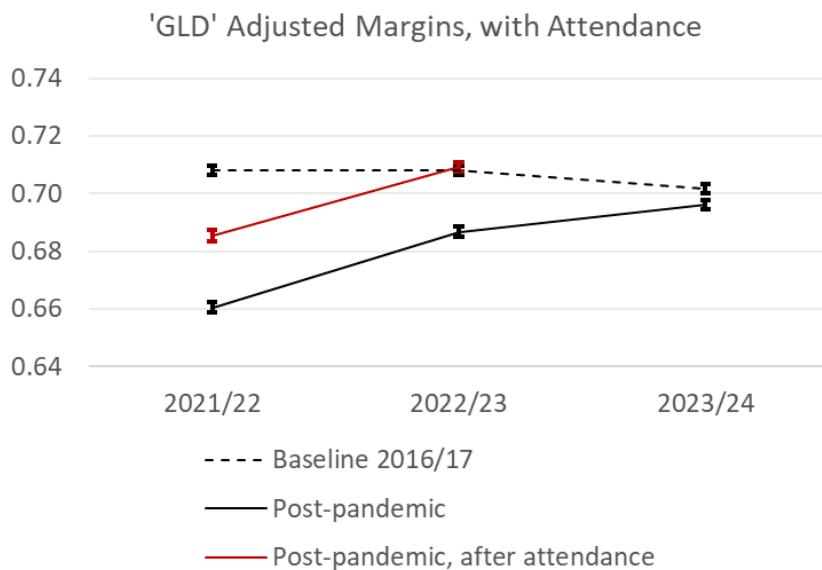
Key Stage 1 Assessments

For older cohorts of children, aged seven in 2022 and 2023, the contribution of individual attendance to achievement losses explained a smaller part of the total negative effect of belonging to a post-pandemic cohort. This was the case for each of the reading, writing and maths expected standard outcomes.

Reading

After adjusting for individual school attendance as well as children's characteristics, the size of the negative effect of belonging to the 2022 age-seven cohort for KS1 Reading achievement was reduced modestly, from -7.1 percentage points to -6.1 percentage points. The effect of belonging to the 2023 age-seven cohort was reduced to a greater extent, from -5.4 percentage points to -3.7 percentage points.

Writing

After adjusting for individual school attendance as well as children's characteristics, the size of the negative effect of belonging to the 2022 age-seven cohort for writing achievement was reduced slightly, from -10.8 percentage points to -9.5 percentage points. The effect of belonging to the 2023 age-seven cohort was reduced by proportionately more, from -8.1 percentage points to -6.1 percentage points.

Maths

Similarly to reading and writing, after adjusting for individual school attendance as well as children's characteristics, the size of the negative effect of belonging to the 2022 age-seven cohort for maths was reduced modestly, from -7.1 percentage points to -5.8 percentage points. The effect of belonging to the 2023 age-seven cohort was reduced from -4.0 percentage points to -2.4 percentage points.

Figure 6.16

Writing Adjusted Margins, with Attendance

- - - - Baseline 2018/19
——— Post-pandemic
——— Post-pandemic, after Attendance
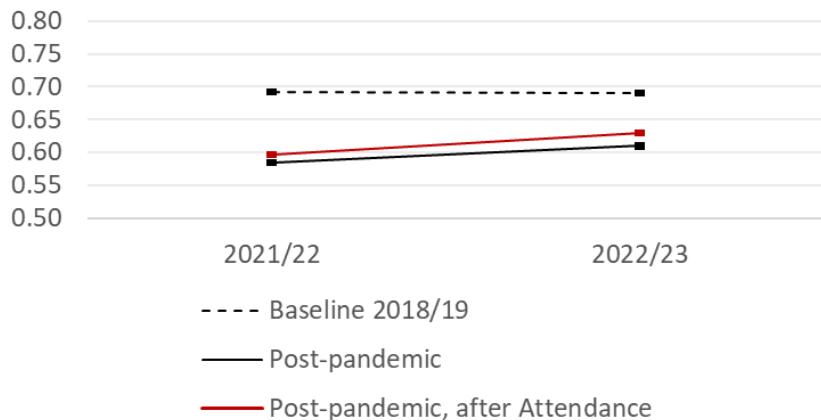
6.6 Protective effects for children who attended free nursery entitlements

Whether children had taken up their entitlement to at least 15 hours of free nursery at age three was a powerful predictor of how large the negative effects of belonging to a post-pandemic cohort were. Interaction effects were included in the models for this, and for key child characteristics in order to understand which children had greater or lesser risk of not achieving age expectations, and differentially so in post-pandemic cohorts.

Children who took up 15 hours or more of free nursery at age three faced a post-pandemic achievement penalty for GLD of -4.1 percentage points in the 2022 age-five cohort, compared with -7.1 percentage points for those who did not have 15+ hours of nursery. In the 2023 age-five cohort whose nursery offer was less affected by pandemic restrictions, this was -1.5 percentage points, compared with -4.5 percentage points. In the 2024 age-five cohort, there was no difference in achievement versus the pre-pandemic cohort for those who had 15+ hours of nursery, compared with -3.4 percentage points for those who did not have at least 15 hours of free nursery at age three.

Figure 6.17

'GLD' Adjusted Margins
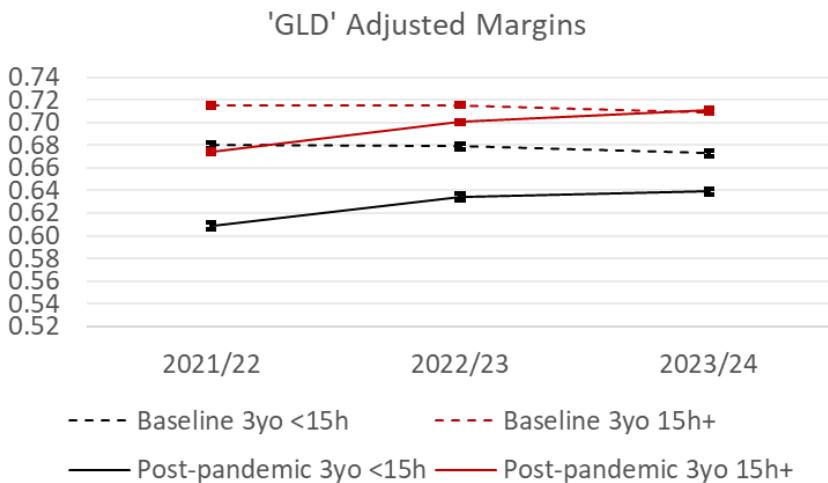
Looking at the older cohorts with age-seven assessments, protective effects of free nursery attendance at age three were smaller than for the younger cohorts in age-five assessments. For achievement of the expected standard in KS1 Reading, there was a post-pandemic cohort penalty of -6.8 percentage points for those who attended 15+ hours of free nursery, compared with -8.1 percentage points for those who did not, in the 2022 age-seven cohort. In the 2023 age-seven cohort whose nursery offer was directly disrupted by the spread of illness in 2021, this was -4.9 percentage points for children with 15+ hours of free nursery, compared with -7.0 percentage points for those who did not receive at least 15 hours of free nursery. Similar patterns were seen for writing and maths age-seven assessments.

Figure 6.18

Reading Adjusted Margins

Figure 6.19

Writing Adjusted Margins
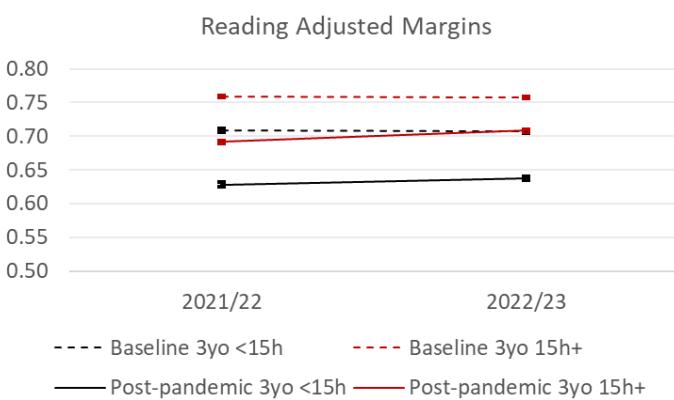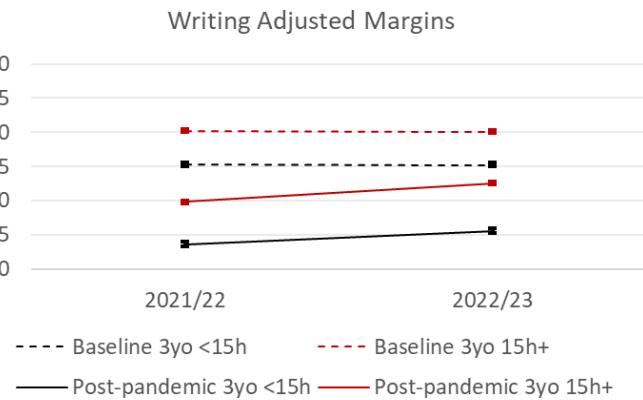
6.7 Differential effects on sub-groups of children

Similarly to the differential negative effects for belonging to a post-pandemic cohort between those who did and did not receive at least 15 hours of free nursery, we also included interaction effects to understand how

different groups of children fared according to other characteristics; specifically: their socio-economic status, gender, whether or not they had additional needs, their ethnicity and the geographical region they lived in.

These were investigated for all available national assessments with full model results reported in the appendix, but due to similarity between patterns, and to avoid an overwhelming number of comparisons, here we present the margins for achievement of a GLD at age five, and for achievement in writing at age seven (the most strongly negatively impacted of the subjects at Key Stage 1).

Negative effects of belonging to a post-pandemic cohort sometimes exacerbated existing inequalities, and sometimes ameliorated them. Achievement of socio-economically disadvantaged children is systematically lower than that of their more affluent peers, and these gaps were widened in the post-pandemic cohorts by greater negative cohort penalties for the disadvantaged. Similarly, age-five achievement gaps were compounded for children in post-pandemic cohorts who had Other Black or Other Ethnic heritage, but this was not true of age-seven writing achievement for any ethnic minority group.

However, larger negative effects of belonging to post-pandemic cohorts were experienced by girls, who typically develop faster than boys, and have higher achievement in the early years of primary school. Similarly, it was children living in the South of England who had larger post-pandemic achievement penalties than their counterparts elsewhere, despite typically having better achievement than children in the Midlands and the North.

The achievement of children with SEND is less well measured in expected age standards, since many children with SEND may be working towards earlier developmental goals. We did not find any evidence of disproportionate negative effects on achievement for children with SEND, but these measurement issues may account for this. It is also likely that children with SEND experienced other difficulties during the pandemic, such as limited access to required care.

Children who speak English as an Additional Language experienced mixed effects of belonging to a post-pandemic cohort. While their achievement was consistently negatively impacted, like that of other children, it was less affected than other children at age five, but similarly affected or more affected than other children (depending on the cohort) for writing at age seven.

Socio-economic disadvantage

The impact of belonging to a post-pandemic cohort was uneven, with socio-economically disadvantaged children experiencing greater chances of losses in achievement than their more affluent peers. There are many plausible explanations for this, from greater health vulnerabilities and exposure to the virus itself, to vulnerability of parental income and access to sufficient food and essential material goods, increased levels of stress, and poorer housing making children's development during lockdowns more precarious. The negative effects of being in a post-pandemic cohort were systematically larger, and persisted more in later cohorts for disadvantaged children.

Considering achievement of a Good Level of Development, the penalty for belonging to the 2022 age-five cohort (compared with a pre-pandemic cohort) was -6.8 percentage points for children eligible for Free

School Meals (FSM) compared with -4.4 percentage points for children not eligible for FSM. In the 2023 age-five cohort, this was -3.7 percentage points for FSM-eligible children compared with -1.9 percentage points for other children. In the 2024 age-five cohort this was -2.3 percentage points for disadvantaged children, compared with no difference from the pre-pandemic cohort for non-disadvantaged children.

For achievement of the expected standard in writing at age seven, children eligible for FSM for one year of their three years in school were the socio-economic group most impacted by belonging to a post-pandemic cohort. In the 2022 age-seven cohort, those with one year of FSM eligibility paid a penalty of -16.6 percentage points on their chances of achievement in writing, compared with -13.1 percentage points for those eligible for FSM for two or three years, and -9.9 percentage points for those who were never eligible for FSM. In the 2023 age-seven cohort, this was -15.5 percentage points for children with one year of FSM, -10.5 percentage points for children with two or three years of FSM, and -7.4 percentage points for those with no FSM.

Figure 6.20

EYFSP 'GLD' Adjusted Margins

- - - - Baseline No FSM - - - - Basline FSM
——— Post-pandemic No FSM ——— Post-pandemic FSM

Figure 6.21

KS1 Writing Adjusted Margins

- - - - Baseline No FSM - - - - Baseline 1yr FSM
——— Post-pandemic No FSM ——— Post-pandemic 1yr FSM
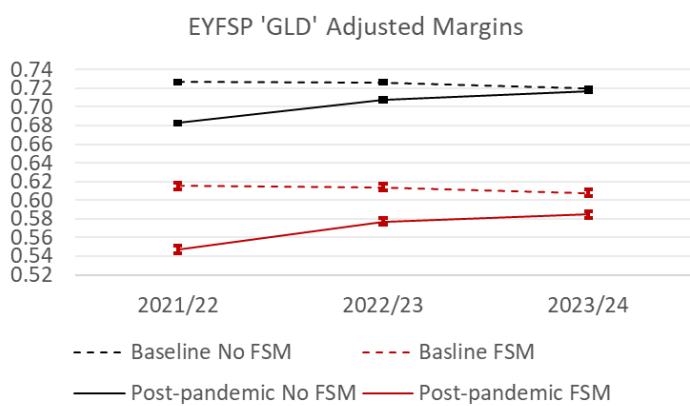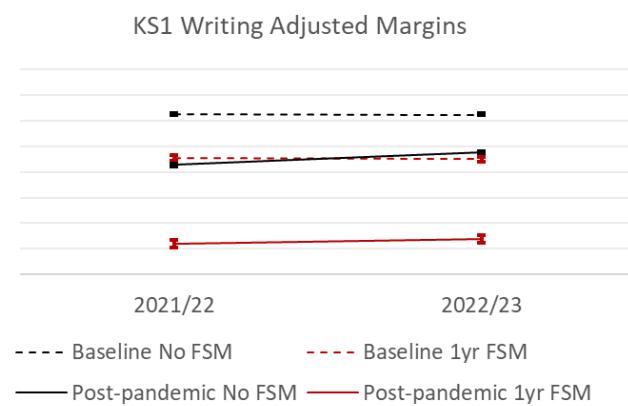
Gender

A different type of post-pandemic effect is seen for gender, whereby it was young girls, who have absolutely higher rates of achievement than young boys, who faced a larger penalty for belonging to a post-pandemic cohort, when compared with their pre-pandemic counterparts.

At age five, girls faced a -5.2 percentage point penalty in achieving a GLD for belonging to the 2022 age-five cohort, whereas boys faced a -4.4 percentage point penalty. In the 2023 age-five cohort, this was -2.5 percentage points for girls, and -1.8 percentage points for boys. In the 2024 age-five cohort, there was no difference compared with a pre-pandemic cohort for boys, and the difference for girls was negligibly small, albeit statistically significant.

The effect of gender was much more subtle for writing at age seven, where girls in the 2022 age-seven cohort faced a -11.0 percentage point penalty, compared with -10.7 percentage points for boys. In the 2023 age-seven cohort, this was -8.5 percentage points for girls, compared with -7.8 percentage points for boys.

The gender differences in post-pandemic effects were larger in reading (not shown) than writing, with girls impacted by a whole percentage point more than boys in the 2022 age-seven cohort, and by 1.4 percentage points more than boys in the 2023 age-seven cohort.

Figure 6.22

EYFSP 'GLD' Adjusted Margins

Figure 6.23

KS1 Writing Adjusted Margins
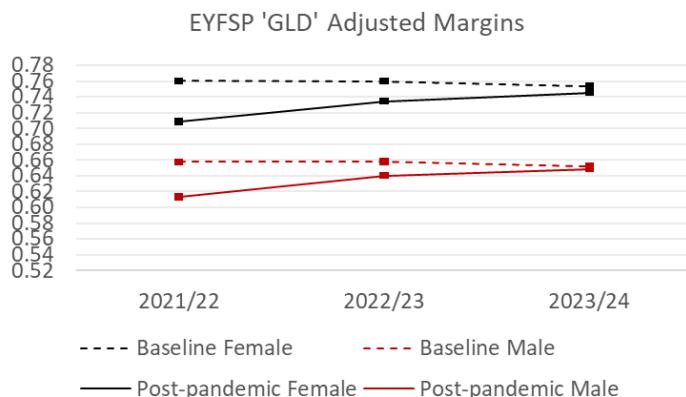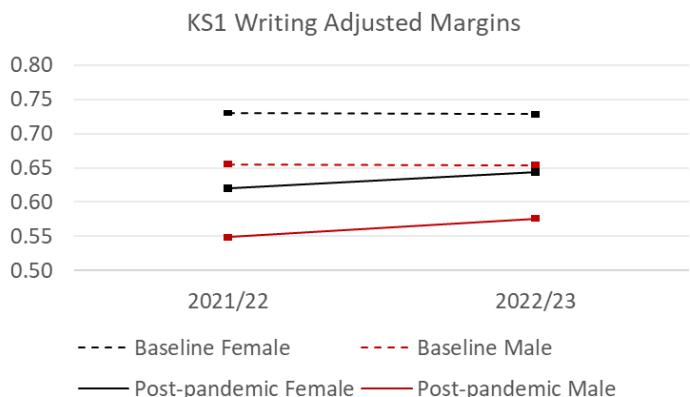
Additional Needs

The effect of belonging to post-pandemic cohorts on achievement of a 'Good Level of Development' at age five was largely the same for children with Special Educational Needs and Disabilities (SEND) and those without SEND. That is to say, children with SEND were negatively impacted by belonging to a post-pandemic cohort, but the effects of this on achievement in national assessments were not different from other children, except in that children with SEND had substantially lower achievement rates both before and after the pandemic than their peers without SEND.

However, at Key Stage 1, the effect of belonging to a post-pandemic cohort attenuated SEND attainment gaps, relative to their size prior to the pandemic. The impact of belonging to a post-pandemic cohort of achievement of the expected standard in KS1 writing fell disproportionately on higher-achieving children who would otherwise have been likely to achieve the age-standard, whereas children with SEND were already more unlikely than likely to achieve the standard prior to the pandemic, therefore fewer of them missed out on the standard because of the post-pandemic circumstances.

This does not mean that children with SEND were not disproportionately impacted by the pandemic, since age expectations do not capture their achievement as well as that of other children. Additionally, their health and access to appropriate care were highly susceptible to the virus, and to the disruption associated with pandemic restrictions. Children with disabilities are also more likely to be related to adults with disabilities, and therefore they may have been more likely to suffer bereavement during the pandemic. These effects, however, were not within the scope of this study since they are not amenable to study through educational datasets.

Figure 6.24

KS1 Writing Adjusted Margins

Legend:
- ---- Baseline no SEND
- ---- Baseline SEN Sup
- —— Post-pandemic no SEND
- —— Post-pandemic SEN Sup
- ---- Baseline EHCP, MS
- ---- Baseline EHCP, SS
- —— Post-pandemic EHCP, MS
- —— Post-pandemic EHCP, SS
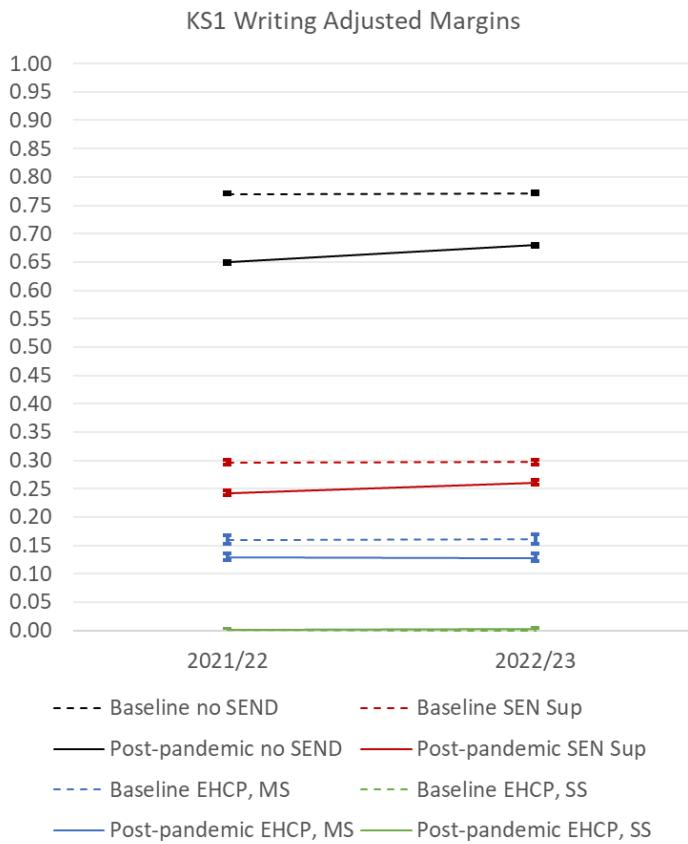
The second major group of children with additional needs that we were able to track within the study were children who speak English as an Additional Language (EAL). This group has lower achievement in the earliest years of education, on average, but makes more than average progress through school. There are vulnerable subsets of children within the EAL cohort, but these tend to be concentrated among children who arrive in schools in England later in education, and we cannot 'see' this group in the early years of school, before they have arrived.

This makes the wider EAL cohort who are present and visible here during the first years of school an interesting subset. As they are still learning to speak in English, their achievement rates are lower than those of children whose first language is English. But the pattern of post-pandemic effects looks similar to that of boys, whose achievement develops more slowly than girls, with smaller effects of belonging to a post-pandemic cohort for children who speak EAL than other children. However, the pattern of effects for KS1 Writing departed from this 'general EAL pattern' somewhat as described below.

Focusing on achievement of a GLD at age five, children in the 2022 age-five cohort who spoke EAL faced a post-pandemic penalty of -4.3 percentage points, compared with -4.9 percentage points for children who spoke English as their First Language (EFL). In the 2023 age-five cohort this was -1.1 percentage points for children speaking EAL compared with -2.3 percentage points for children speaking EFL. In the 2024 age-five cohort, children speaking EAL had GLD achievement that was negligibly higher than their pre-pandemic counterparts, whereas those speaking EFL achieved no differently from the pre-pandemic cohort.

Turning to writing achievement at age seven, in the 2022 age-seven cohort, children speaking EAL and those speaking EFL faced similar post-pandemic penalties, of -10.6 percentage points and -10.8 percentage points, respectively. In the 2023 age-seven cohort, children speaking EAL faced a slightly larger post-pandemic penalty than those who spoke EFL, of -8.3 percentage points compared with -8.0 percentage points.

Figure 6.25

EYFSP 'GLD' Adjusted Margins

- - - - Baseline Not EAL   - - - - Baseline EAL

——— Post-pandemic Not EAL ——— Post-pandemic EAL

Figure 6.26

KS1 Writing Adjusted Margins

- - - - Baseline Not EAL   - - - - Baseline EAL

——— Post-pandemic Not EAL ——— Post-pandemic EAL
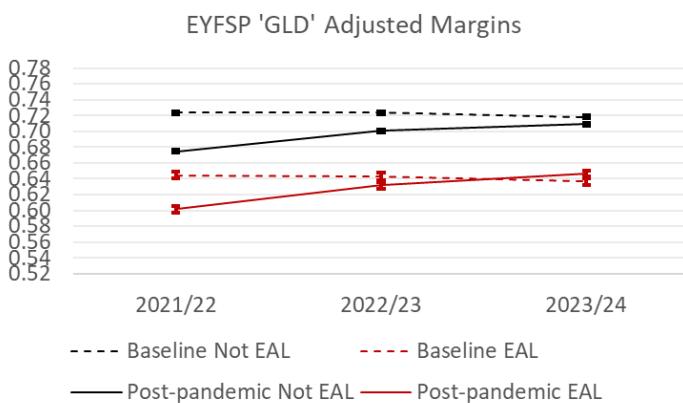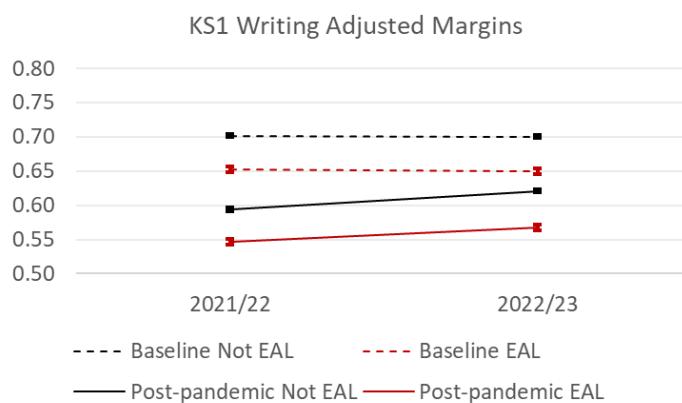
Ethnicity

Several minority ethnic groups experienced negative post-pandemic effects on their achievement that were larger than those for White British children. At age five, achievement of a GLD suffered greater post-pandemic penalties for children belonging to the Indian, Other Asian, Other Black, Black African, and Other Ethnicity groups.

In the case of Indian, Other Asian and Black African children, their absolute achievement remained similar to or greater than White British children, having been greater than White British children before the pandemic. In the 2022 age-five cohort, White British children experienced a negative post-pandemic cohort effect of -4.7 percentage points, but this was -6.4 percentage points for Indian children, -6.6 percentage points for Other Asian children, and -7.4 percentage points for Black African children.

Figure 6.27

'GLD' Adjusted Margins

- - - - Baseline W British   - - - - Baseline Indian

——— Post-pandemic W British ——— Post-pandemic Indian

Figure 6.28

'GLD' Adjusted Margins

- - - - Baseline W British   - - - - Baseline Oth Asian

——— Post-pandemic W British ——— Post-pandemic Oth Asian

Figure 6.29

'GLD' Adjusted Margins

---- Baseline W British   ---- Baseline B African

—— Post-pandemic W British —— Post-pandemic B African
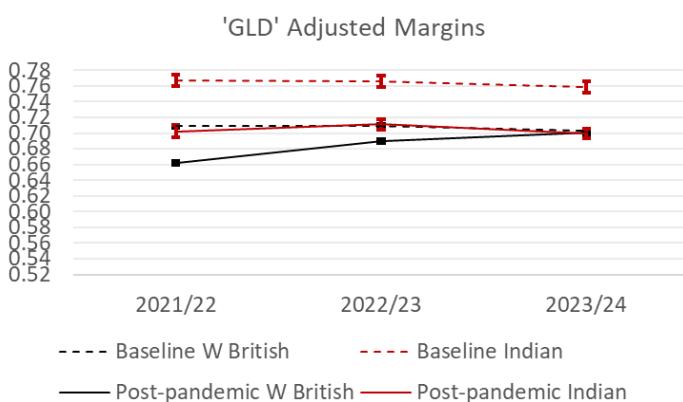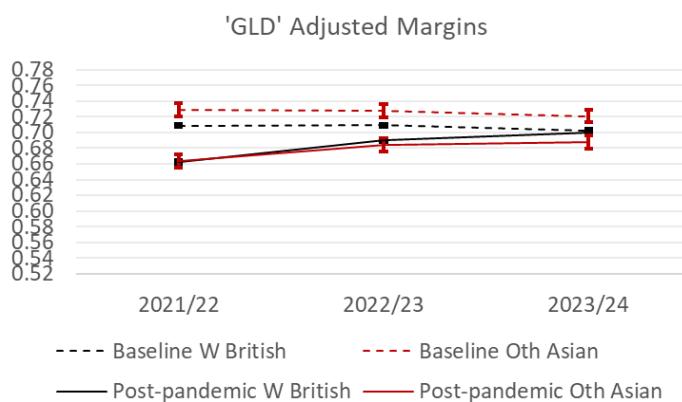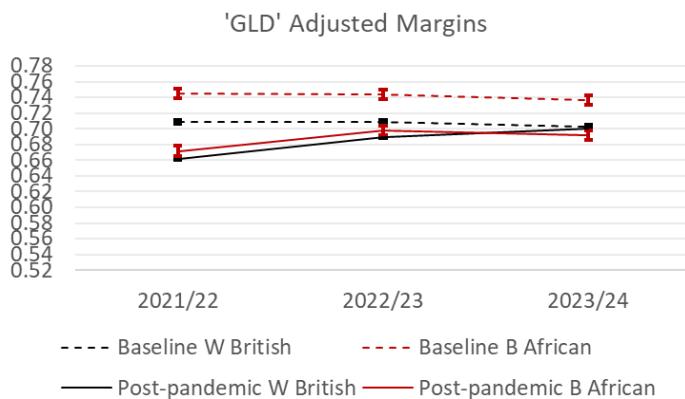
However, in the case of children of Other Black or Other Ethnicity heritage, post-pandemic achievement was also lower than that of White British children, in addition to facing a larger post-pandemic penalty. In the 2022 age-five cohort, the adjusted margin for children with Other Black heritage achieving a GLD was 62.7%, and for children with Other Ethnic heritage it was 61.4%, compared with 66.2% for White British children.

For Other Black children, the negative impact on GLD achievement of belonging to a post-pandemic cohort (e.g. of -7.5 percentage points for the 2022 age-five cohort) was contributed to by lower achievement in the Early Learning Goals for speaking, listening, comprehension, gross motor skills, fine motor skills, and number.

For children with Other Ethnic heritage, the GLD achievement penalty for belonging to a post-pandemic cohort (e.g. -6.9 percentage points for the 2022 age-five cohort) was driven by lower achievement of the speaking, listening, comprehension, gross motor skills, managing self, and number ELGs.

Figure 6.30   **Figure 6.31**

'GLD' Adjusted Margins

---- Baseline W British   ---- Baseline Oth Black

—— Post-pandemic W British —— Post-pandemic Oth Black

'GLD' Adjusted Margins

---- Baseline W British   ---- Baseline Other Eth

—— Post-pandemic W British —— Post-pandemic Other Eth
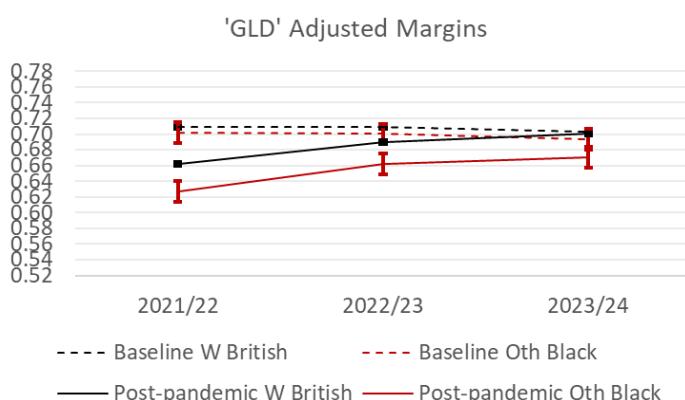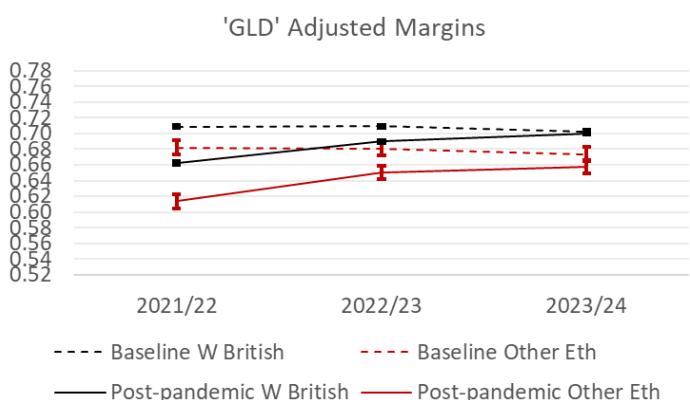
For older cohorts of children, post-pandemic penalties in achievement of the expected standard in writing for the age-seven cohorts in 2022 and 2023 were larger than those for White British children (-11.1

percentage points in 2022) for Chinese children (-12.2 percentage points) and Pakistani children (-12.3 percentage points). None of the minority ethnic groups had both absolutely lower attainment than White British children, and larger post-pandemic penalties.

Figure 6.32

KS1 Writing Adjusted Margins

---- Baseline W British   ---- Baseline Chinese
——— Post-pandemic W British ——— Post-pandemic Chinese

Figure 6.33

KS1 Writing Adjusted Margins

---- Baseline W British   ---- Baseline Pakistani
——— Post-pandemic W British ——— Post-pandemic Pakistani
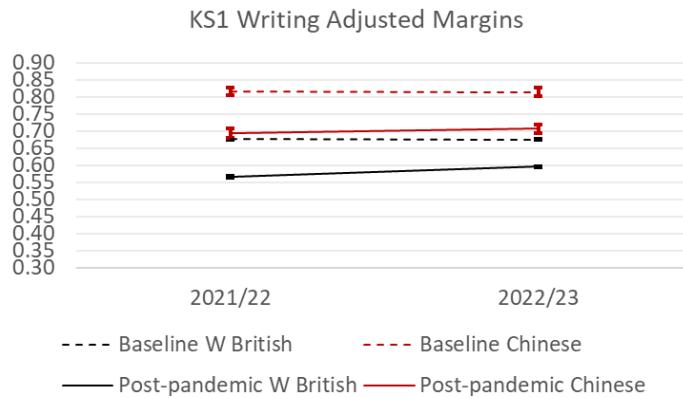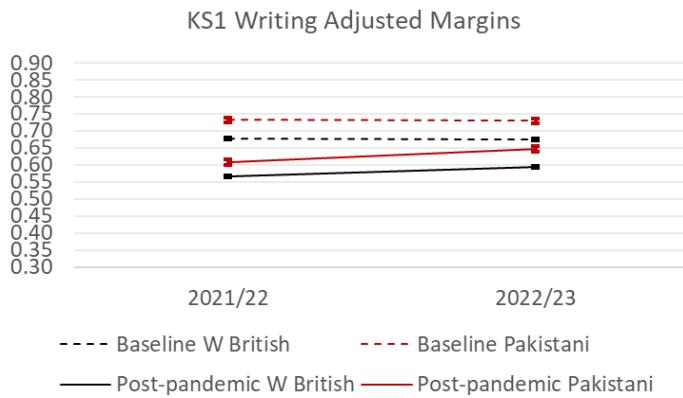
Geographical Region

Children in the South of England (other than London) experienced the largest achievement penalties for belonging to a post-pandemic cohort.

Focusing on achievement of a GLD at age five, children in the 2022 age-five cohort living in the South faced a post-pandemic penalty of -5.5 percentage points, compared with -4.6 percentage points for children in the North, -4.4 percentage points for children in London, and -3.9 percentage points for those in the Midlands.

Turning to writing achievement at age seven, there was somewhat less regional variation in the impact of belonging to post-pandemic cohorts, than for GLD achievement at age five. In the 2022 age-seven cohort, children living in the South faced a post-pandemic penalty of -11.4 percentage points, compared with -10.9 percentage points in the North, -10.6 percentage points in the Midlands, and -9.3 percentage points in London.

Figure 6.34

EYFSP 'GLD' Adjusted Margins

---- Baseline South   ---- Baseline Midlands
——— Post-Pandemic South   ——— Post-pandemic Midlands

Figure 6.35

KS1 Writing Adjusted Margins

---- Baseline South   ---- Baseline Midlands
——— Post-Pandemic South   ——— Post-pandemic Midlands
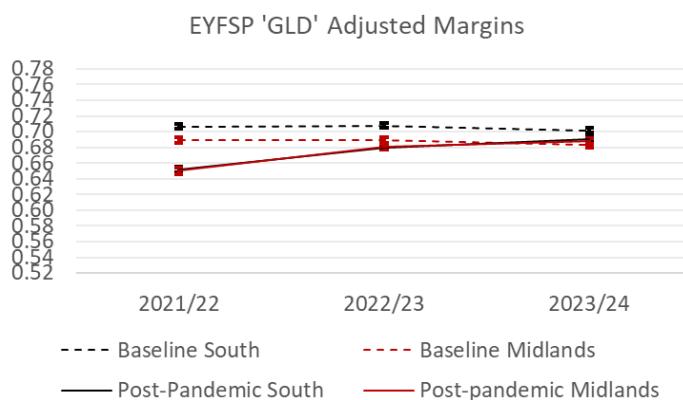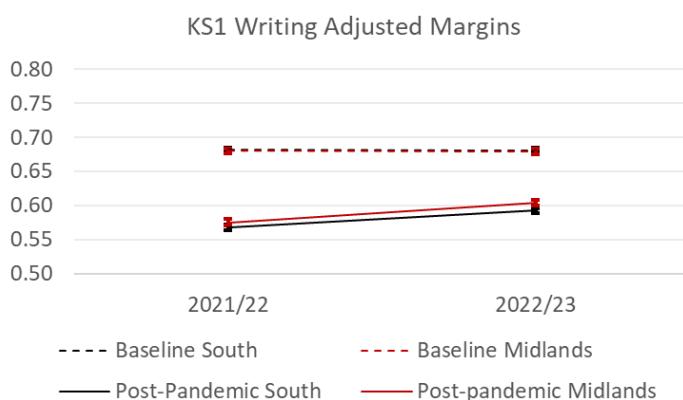
Section 7: Conclusion

Here we summarise the key findings from our longitudinal study examining the language and socioemotional skills of children in Reception and Key Stage 1 (KS1) across three years following the pandemic. The research provides insight into the recovery and evolving impact of the COVID-19 pandemic on young children's development.

7.1 Language Development Findings

The overarching finding across all timepoints is the resilience and recovery of most children's language skills.

At all time points, the vast majority of children scored within the expected range, achieving the "Green" category on the LanguageScreen. Mean scores across all language subscales consistently fell in the average range directly contrasting with initial public concerns about widespread, lasting deficits. A key consistent finding is the longitudinal stability of language ability: children's baseline scores were the most robust predictor of their subsequent language outcomes. This confirms that early language skills remain a strong indicator of later performance and suggests that, for most, development remained on track. However, children with Special Educational Needs and Disabilities (SEND) and those learning English as an Additional Language (EAL) consistently scored lower across multiple language domains, suggesting these children were more impacted by the pandemic. Nonetheless, the predictive significance of SEND and EAL reduced over time, suggesting that as children returned to stable schooling, the disparities linked to these factors may have stabilized rather than widened.

In 2021/2022, some school-level factors (e.g., proportion of SEND or EAL pupils) predicted expressive vocabulary and total scores, but by 2023, this influence was no longer significant, suggesting an evening out of provision/access. In 2023, children showed higher average scores and fewer children requiring support compared to the earlier assessment, indicating overall catch-up. At both timepoints, unexpectedly boys outperformed girls in listening comprehension, a reversal of typical developmental trends, possibly indicating a differential pandemic impact on girls' traditional language advantage. Home Learning Environment (HLE) and Parental Wellbeing Score (PWS) were not significant predictors of language skills. This might suggest limitations in the self-report measures, lack of variance in the sample, or that the compensatory role of the school environment was stronger post-pandemic.

7.2 Socioemotional Development Findings

Children's socioemotional skills were assessed at all timepoints, using the Strengths and Difficulties Questionnaire (SDQ). Similar to the language findings, the majority of children displayed typical socioemotional skills for their age at all timepoints. The percentage of children showing higher than average difficulties was similar to pre-pandemic expected percentages. Compared to British norms, children in the sample scored significantly higher in emotional symptoms and prosocial behaviours in both spring and summer of 2022. By summer 2022, they also scored significantly lower (i.e., better) on conduct problems, peer relationship problems, and hyperactivity/inattention. However, the overall mean scores for the sample remained within the expected range.

The structure of which factors predict socioemotional skills changed over time. In 2022, a broader range of factors (individual, family, and school characteristics) predicted internalizing scores. In 2023, internalizing scores were primarily predicted by individual factors, while externalizing and prosocial scores became more influenced by a range of environmental factors. This highlights a changing post-pandemic influence.

Regression analyses carried out on the data collected in 2022 identified several significant predictors of socioemotional difficulties Spring scores were the most consistent and strong predictor of summer scores across all socioemotional domains. Children with SEND showed more socioemotional difficulties (higher internalizing/externalizing scores) and fewer prosocial behaviours. Older children showed more internalizing difficulties. Children from Black ethnic backgrounds had higher externalizing and internalizing scores, suggesting more socioemotional difficulties. This may reflect the disproportionate health and financial impact of the pandemic on these communities. Contrary to typical findings, children eligible for Free School Meals (FSM) showed less externalizing difficulties and similar internalizing difficulties compared to non-FSM children. This could be due to factors like reduced peer pressure or academic stressors during school disruptions. Caregiver Occupation: Children whose caregiver(s) had an occupation *besides* caring and services showed more internalizing difficulties. This may reflect the stress of balancing employment and full-time care/homeschooling during the pandemic. A school's higher percentage of FSM and SEND pupils was related to higher internalizing scores, possibly due to stretched resources. Unexpectedly, a higher HLE score (based on self-report activities) was marginally related to more internalizing difficulties in 2022, potentially reflecting the stress of curriculum-focused activities over fun ones.

In our second set of regressions, we found that schools with a higher percentage of EAL pupils were related to fewer externalizing difficulties. It is speculated that resources for emotional expression tailored to EAL children may benefit the wider student body. Lower HLE scores were unexpectedly related to children being more prosocial. One potential explanation for this is that children from homes with lower HLE scores may spend more time in varied out-of-home social interactions, supporting prosocial skill development. Finally, Gender and Parent/Carer Well-being were not significant predictors of socioemotional skills in either analysis, suggesting a potential shift in gender differences post-pandemic or a lack of variance in the PWS measure.

7.3 NPD Data

Analysis of the NPD data revealed that children aged five to seven years show a significant decline in meeting age-related expectations, particularly in writing. Disadvantaged children and particular ethnic groups faced widened achievement gaps, while gaps for girls and native speakers narrowed due to disproportionate learning loss. Results also highlight that standard assessments inadequately capture progress for SEND students.

7.4 Caregiver and Teacher Perspectives

Teachers and caregivers held diverse views regarding the pandemic's impact on children's learning. While the majority of caregivers were not concerned and felt their children were coping well at school, teachers expressed significant worry across the majority of curriculum areas for all age groups. This burden on teachers and school staff was compounded by a substantial increase in their workload and scope of responsibilities during the restrictions. Furthermore, the effects appear to be persistent, with teachers reporting negative impacts on children and school staff even three years after restrictions were lifted.

7.5 Conclusion

The results of our study offer a mixed picture of post-pandemic recovery: most young children in our sample demonstrated significant resilience, with their language and socioemotional development largely remaining on or returning to expected trajectories. Conversely, the national picture suggests a decline in the proportion of children meeting age-related expectations. The inconsistency between the findings from our sample and those from the national picture are likely to be related to our sample not being representative of the national sample. However, the findings consistently highlight the need for continued targeted support for children with pre-existing vulnerabilities, namely those with SEND, EAL, and Black ethnic backgrounds. Finally, teachers and caregivers clearly had differing perspectives of the impact of the pandemic on children's educational outcomes. Teachers experienced increased workloads, significant stress and anxiety, as well as ongoing issues of retention and recruitment. The changing influence of family and school factors over time underscores the complex, evolving nature of post-pandemic development and the importance of an integrated approach to support that considers individual and environmental characteristics.

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Appendix 1: Descriptive Statistics for NPD Analysis

Descriptive statistics for EYFSP models
All cases

	2017		2022		2023		2024	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Good Level of Development (GLD)								
GLD not met	187,554	29.1	221,381	35.3	190,545	32.0	189,596	31.9
GLD met	457,294	70.9	405,737	64.7	404,098	68.0	405,642	68.1
Listening ELG								
Goal not met	102,407	15.9	111,037	17.8	101,647	17.1	106,579	18.0
Goal met	541,590	84.1	511,562	82.2	491,902	82.9	487,119	82.0
Speaking ELG								
Goal not met	92,303	14.3	108,475	17.4	97,539	16.4	101,892	17.2
Goal met	551,693	85.7	514,124	82.6	496,010	83.6	491,806	82.8
Self-regulation ELG								
Goal not met	76,111	11.8	92,699	14.9	85,003	14.3	88,961	15.0
Goal met	567,886	88.2	529,900	85.1	508,546	85.7	504,737	85.0
Managing-self ELG								
Goal not met	81,024	12.6	80,542	12.9	73,045	12.3	76,537	12.9
Goal met	562,973	87.4	542,057	87.1	520,504	87.7	517,161	87.1
Relationships ELG								
Goal not met	65,174	10.1	71,218	11.4	65,633	11.1	69,921	11.8
Goal met	578,823	89.9	551,381	88.6	527,916	88.9	523,777	88.2
Gross-motor ELG								
Goal not met	66,038	10.3	49,147	7.9	44,959	7.6	48,564	8.2
Goal met	577,959	89.7	573,452	92.1	548,590	92.4	545,134	91.8
Fine-motor ELG								
Goal not met	66,038	10.3	88,207	14.2	80,388	13.5	84,157	14.2
Goal met	577,959	89.7	534,392	85.8	513,161	86.5	509,541	85.8
Word-reading ELG								
Goal not met	146,677	22.8	157,668	25.3	136,660	23.0	137,435	23.1
Goal met	497,318	77.2	464,931	74.7	456,889	77.0	456,263	76.9
Comprehension ELG								
Goal not met	146,677	22.8	122,574	19.7	110,378	18.6	114,739	19.3
Goal met	497,318	77.2	500,025	80.3	483,171	81.4	478,959	80.7
Writing ELG								

	2017 Frequency	Percent	2022 Frequency	Percent	2023 Frequency	Percent	2024 Frequency	Percent
Goal not met	170,808	26.5	190,029	30.5	167,292	28.2	166,639	28.1
Goal met	473,187	73.5	432,570	69.5	426,257	71.8	427,059	71.9

Descriptive statistics for EYFSP models
All cases

	2017 Frequency	Percent	2022 Frequency	Percent	2023 Frequency	Percent	2024 Frequency	Percent
Number ELG								
Goal not met	132,596	20.6	138,288	22.2	120,961	20.4	123,429	20.8
Goal met	511,400	79.4	484,311	77.8	472,588	79.6	470,269	79.2
Pattern ELG								
Goal not met	117,212	18.2	141,909	22.8	124,272	20.9	126,076	21.2
Goal met	526,784	81.8	480,690	77.2	469,277	79.1	467,622	78.8
Free School Meals								
No FSM	549,826	85.9	497,928	81.3	486,684	81.9	489,421	82.3
FSM	89,910	14.1	114,774	18.7	107,388	18.1	105,057	17.7
IDACI deprivation quartile								
Most deprived	158,138	24.8	150,687	24.6	155,570	26.2	146,989	24.8
Second most deprived	160,478	25.1	153,778	25.1	148,893	25.1	149,086	25.1
Second least deprived	159,490	25.0	154,012	25.2	147,111	24.8	148,637	25.0
Least deprived	160,291	25.1	153,379	25.1	141,578	23.9	148,899	25.1
Targeted age-2 nursery								
15h not received	548,900	85.1	519,109	82.8	496,858	83.6	498,268	83.7
15h received	95,948	14.9	108,009	17.2	97,785	16.4	96,970	16.3
Universal age-3 nursery								
15h+ not received	150,872	23.4	145,336	23.2	132,314	22.3	135,093	22.7
15h+ received	493,976	76.6	481,782	76.8	462,329	77.7	460,145	77.3
Gender								
Female	312,762	48.8	298,855	48.7	290,699	48.9	290,098	48.7
Male	327,517	51.2	314,548	51.3	303,944	51.1	305,140	51.3
Ethnicity								
White British	432,822	68.3	388,288	64.5	373,702	64.1	362,548	62.1
Bangladeshi	10,237	1.6	10,791	1.8	9,922	1.7	10,030	1.7
Indian	19,552	3.1	21,543	3.6	22,170	3.8	25,398	4.3
Other Asian	10,969	1.7	11,929	2.0	11,936	2.0	12,800	2.2
Pakistani	27,328	4.3	26,914	4.5	25,282	4.3	26,603	4.6

	2017		2022		2023		2024	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Black African	21,813	3.4	21,916	3.6	22,659	3.9	26,909	4.6
Black Caribbean	5,840	0.9	4,921	0.8	4,821	0.8	4,767	0.8
Other Black	4,693	0.7	4,400	0.7	4,315	0.7	4,193	0.7
Chinese	3,126	0.5	3,084	0.5	3,126	0.5	3,349	0.6
Other Mixed	14,485	2.3	17,720	2.9	17,906	3.1	18,600	3.2

Descriptive statistics for EYFSP models
All cases

	2017		2022		2023		2024	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
White & Asian	9,852	1.6	11,258	1.9	11,055	1.9	11,145	1.9
White & African	5,528	0.9	5,924	1.0	5,767	1.0	5,787	1.0
White & Caribbean	10,209	1.6	10,205	1.7	10,003	1.7	10,011	1.7
Other Ethnicity	10,927	1.7	13,573	2.3	13,139	2.3	13,844	2.4
Irish	1,499	0.2	1,484	0.2	1,429	0.2	1,439	0.2
Irish Traveller	581	0.1	701	0.1	595	0.1	635	0.1
Other White	42,002	6.6	44,986	7.5	43,468	7.5	43,688	7.5
Gypsy/Romany	1,819	0.3	2,209	0.4	2,004	0.3	2,207	0.4
English as an additional language								
First Language English	514,240	80.5	486,916	79.9	471,028	79.8	462,512	78.4
EAL	124,682	19.5	122,405	20.1	119,258	20.2	127,096	21.6
Level of SEND								
None	582,034	90.9	548,462	89.4	525,070	88.4	514,994	86.6
School Support	49,079	7.7	50,035	8.2	53,519	9.0	59,047	9.9
EHCP mainstream	5,330	0.8	10,276	1.7	10,868	1.8	15,507	2.6
EHCP special	3,879	0.6	4,712	0.8	4,621	0.8	4,944	0.8
Birth month								
Aug	53,427	8.3	52,730	8.6	50,411	8.5	50,613	8.5
Jul	53,966	8.4	52,916	8.6	50,557	8.5	51,635	8.7
Jun	52,280	8.2	50,402	8.2	48,907	8.2	49,209	8.3
May	54,985	8.6	52,038	8.5	50,422	8.5	50,635	8.5
Apr	50,941	8.0	49,028	8.0	47,066	7.9	47,023	7.9
Mar	53,674	8.4	50,625	8.3	48,047	8.1	48,547	8.2
Feb	50,275	7.9	46,005	7.5	43,665	7.3	44,129	7.4
Jan	54,765	8.6	50,548	8.2	50,311	8.5	49,767	8.4
Dec	53,778	8.4	50,873	8.3	49,075	8.3	49,186	8.3

	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Nov	53,754	8.4	50,485	8.2	50,524	8.5	49,857	8.4
Oct	54,304	8.5	53,212	8.7	52,861	8.9	52,622	8.8
Sep	54,130	8.5	54,541	8.9	52,797	8.9	52,015	8.7
Region								
South	234,787	36.4	230,038	36.7	219,238	36.9	219,234	36.8
London	100,378	15.6	97,162	15.5	89,711	15.1	89,403	15.0
Midlands	127,262	19.7	123,462	19.7	117,858	19.8	118,358	19.9
North	182,421	28.3	176,456	28.1	167,836	28.2	168,243	28.3

Descriptive statistics for EYFSP models
All cases

	2017		2022		2023		2024	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
School type								
Mainstream LA school	468,778	72.7	374,875	59.8	344,122	57.9	328,187	55.1
Mainstream Academy Converter	121,437	18.8	179,253	28.6	178,939	30.1	191,683	32.2
Mainstream Academy Sponsor-Led	47,432	7.4	60,302	9.6	58,642	9.9	61,571	10.3
Mainstream Free School	7,201	1.1	12,688	2.0	12,940	2.2	13,797	2.3

Descriptive statistics for EYFSP models
All cases

	2017			2022			2023			2024		
	Frequency	Mean	Std. Dev.	Frequency	Mean	Std. Dev.	Frequency	Mean	Std. Dev.	Frequency	Mean	Std. Dev.
School % FSM	644,014	14.1	12.4	621,345	18.8	15.0	723,940	21.3	15.4	595,237	17.7	14.6
School % EAL	644,080	19.6	24.0	621,940	20.3	22.9	723,932	20.7	22.4	595,199	21.6	22.9
Pupil % attendance	642,801	95.0	5.3	619,471	92.7	7.4	723,008	92.4	8.1	na	na	na

Descriptive statistics for EYFSP models
Complete cases

	2017		2022		2023		2024	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Good Level of Development (GLD)								
GLD not met	180,797	28.7	206,120	34.5	184,673	31.9	183,406	31.7
GLD met	449,730	71.3	391,205	65.5	394,008	68.1	394,649	68.3
Listening ELG								
Goal not met	98,141	15.6	103,412	17.4	98,381	17.0	102,984	17.9
Goal met	531,817	84.4	491,280	82.6	479,245	83.0	473,616	82.1
Speaking ELG								
Goal not met	88,257	14.0	100,839	17.0	94,431	16.3	98,441	17.1
Goal met	541,701	86.0	493,853	83.0	483,195	83.7	478,159	82.9
Self-regulation ELG								
Goal not met	72,866	11.6	86,650	14.6	82,295	14.2	85,955	14.9
Goal met	557,092	88.4	508,042	85.4	495,331	85.8	490,645	85.1
Managing-self ELG								
Goal not met	77,515	12.3	75,262	12.7	70,697	12.2	73,936	12.8
Goal met	552,443	87.7	519,430	87.3	506,929	87.8	502,664	87.2
Relationships ELG								
Goal not met	62,214	9.9	66,169	11.1	63,503	11.0	67,476	11.7
Goal met	567,744	90.1	528,523	88.9	514,123	89.0	509,124	88.3
Gross-motor ELG								
Goal not met	63,378	10.1	45,834	7.7	43,555	7.5	46,898	8.1
Goal met	566,580	89.9	548,858	92.3	534,071	92.5	529,702	91.9
Fine-motor ELG								
Goal not met	63,378	10.1	82,795	13.9	77,846	13.5	81,296	14.1
Goal met	566,580	89.9	511,897	86.1	499,780	86.5	495,304	85.9
Word-reading ELG								
Goal not met	141,094	22.4	147,291	24.8	132,288	22.9	132,847	23.0
Goal met	488,864	77.6	447,401	75.2	445,338	77.1	443,753	77.0
Comprehension ELG								
Goal not met	141,094	22.4	114,064	19.2	106,792	18.5	110,903	19.2
Goal met	488,864	77.6	480,628	80.8	470,834	81.5	465,697	80.8
Writing ELG								

	164,724	26.1	178,311	30.0	162,080	28.1	161,143	27.9
Goal not met								
Goal met	465,234	73.9	416,381	70.0	415,546	71.9	415,457	72.1

Descriptive statistics for EYFSP models
Complete cases

	2017		2022		2023		2024	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Number ELG								
Goal not met	127,598	20.3	129,207	21.7	117,134	20.3	119,242	20.7
Goal met	502,360	79.7	465,485	78.3	460,492	79.7	457,358	79.3
Pattern ELG								
Goal not met	112,414	17.8	132,605	22.3	120,350	20.8	121,813	21.1
Goal met	517,544	82.2	462,087	77.7	457,276	79.2	454,787	78.9
Free School Meals								
No FSM	541,998	86.0	485,554	81.3	473,980	81.9	475,841	82.3
FSM	88,529	14.0	111,771	18.7	104,701	18.1	102,214	17.7
IDACI deprivation quartile								
Most deprived	156,349	24.8	147,348	24.7	151,935	26.3	142,998	24.7
Second most deprived	158,600	25.2	149,903	25.1	145,075	25.1	144,912	25.1
Second least deprived	157,465	25.0	150,154	25.1	143,320	24.8	144,642	25.0
Least deprived	158,113	25.1	149,920	25.1	138,351	23.9	145,503	25.2
Targeted age-2 nursery								
15h not received	536,180	85.0	492,351	82.4	483,610	83.6	483,888	83.7
15h received	94,347	15.0	104,974	17.6	95,071	16.4	94,167	16.3
Universal age-3 nursery								
15h+ not received	143,832	22.8	127,659	21.4	128,241	22.2	130,686	22.6
15h+ received	486,695	77.2	469,666	78.6	450,440	77.8	447,369	77.4
Gender								
Female	307,928	48.8	291,159	48.7	282,985	48.9	281,942	48.8
Male	322,599	51.2	306,166	51.3	295,696	51.1	296,113	51.2
Ethnicity								
White British	431,535	68.4	385,517	64.5	370,816	64.1	358,791	62.1
Bangladeshi	10,168	1.6	10,706	1.8	9,861	1.7	9,950	1.7
Indian	19,403	3.1	21,382	3.6	21,984	3.8	25,147	4.4
Other Asian	10,880	1.7	11,821	2.0	11,815	2.0	12,664	2.2
Pakistani	27,197	4.3	26,714	4.5	25,114	4.3	26,366	4.6

	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Black African	21,563	3.4	21,703	3.6	22,406	3.9	26,609	4.6
Black Caribbean	5,788	0.9	4,877	0.8	4,791	0.8	4,731	0.8
Other Black	4,647	0.7	4,342	0.7	4,275	0.7	4,153	0.7
Chinese	3,082	0.5	3,057	0.5	3,099	0.5	3,316	0.6
Other Mixed	14,374	2.3	17,578	2.9	17,731	3.1	18,387	3.2

Descriptive statistics for EYFSP models
Complete cases

	2017		2022		2023		2024	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
White & Asian	9,799	1.6	11,188	1.9	10,971	1.9	11,036	1.9
White & African	5,491	0.9	5,881	1.0	5,706	1.0	5,731	1.0
White & Caribbean	10,153	1.6	10,117	1.7	9,929	1.7	9,895	1.7
Other Ethnicity	10,825	1.7	13,434	2.2	13,029	2.3	13,711	2.4
Irish	1,496	0.2	1,477	0.2	1,419	0.2	1,429	0.2
Irish Traveller	574	0.1	690	0.1	587	0.1	616	0.1
Other White	41,754	6.6	44,663	7.5	43,164	7.5	43,348	7.5
Gypsy/Romany	1,798	0.3	2,178	0.4	1,984	0.3	2,175	0.4
English as an additional language								
First Language English	507,770	80.5	477,848	80.0	462,133	79.9	453,890	78.5
EAL	122,757	19.5	119,477	20.0	116,548	20.1	124,165	21.5
Level of SEND								
None	573,143	90.9	534,121	89.4	511,426	88.4	500,786	86.6
School Support	48,393	7.7	48,813	8.2	52,246	9.0	57,548	10.0
EHCP mainstream	5,241	0.8	9,966	1.7	10,569	1.8	15,014	2.6
EHCP special	3,750	0.6	4,425	0.7	4,440	0.8	4,707	0.8
Birth month								
Aug	52,576	8.3	51,315	8.6	49,020	8.5	49,154	8.5
Jul	53,124	8.4	51,547	8.6	49,170	8.5	50,160	8.7
Jun	51,447	8.2	49,073	8.2	47,568	8.2	47,796	8.3
May	54,199	8.6	50,629	8.5	49,087	8.5	49,148	8.5
Apr	50,140	8.0	47,704	8.0	45,796	7.9	45,690	7.9
Mar	52,853	8.4	49,259	8.2	46,742	8.1	47,131	8.2
Feb	49,500	7.9	44,755	7.5	42,545	7.4	42,805	7.4
Jan	53,939	8.6	49,213	8.2	48,919	8.5	48,318	8.4
Dec	52,985	8.4	49,591	8.3	47,783	8.3	47,743	8.3

	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Nov	52,929	8.4	49,229	8.2	49,195	8.5	48,447	8.4
Oct	53,499	8.5	51,869	8.7	51,462	8.9	51,107	8.8
Sep	53,336	8.5	53,141	8.9	51,394	8.9	50,556	8.7
Region								
South	229,983	36.5	219,063	36.7	213,004	36.8	212,815	36.8
London	96,837	15.4	90,503	15.2	86,940	15.0	86,576	15.0
Midlands	124,307	19.7	117,493	19.7	114,143	19.7	113,715	19.7
North	179,400	28.5	170,266	28.5	164,594	28.4	164,949	28.5

Descriptive statistics for EYFSP models
Complete cases

	2017		2022		2023		2024	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
School type								
Mainstream LA school	458,667	72.7	355,784	59.6	336,077	58.1	319,832	55.3
Mainstream Academy Converter	119,140	18.9	172,380	28.9	173,662	30.0	185,699	32.1
Mainstream Academy Sponsor-Led	45,970	7.3	57,281	9.6	56,738	9.8	59,511	10.3
Mainstream Free School	6,750	1.1	11,880	2.0	12,204	2.1	13,013	2.3

Descriptive statistics for EYFSP models
Complete cases

	2017			2022			2023			2024		
	Frequency	Mean	Std. Dev.	Frequency	Mean	Std. Dev.	Frequency	Mean	Std. Dev.	Frequency	Mean	Std. Dev.
School % FSM	630,527	14.1	12.4	597,325	18.7	15.0	578,681	20.7	15.2	578,055	17.7	14.6
School % EAL	630,527	19.5	23.9	597,325	20.1	22.7	578,681	20.4	22.3	578,055	21.5	22.9
Pupil % attendance	629,624	95.1	5.2	596,939	92.8	7.1	578,266	93.0	7.3	na	na	na

Descriptive statistics for Phonics models
All cases

	2017		2022		2023		2024	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Phonics Screening Check (PSC)								
Year 1 PSC not passed	115,315	17.4	154,129	24.3	131,908	20.9	121,409	19.5
Year 1 PSC passed	548,556	82.6	481,357	75.7	499,031	79.1	499,857	80.5
Good Level of Development (GLD)								
GLD not met	197,785	30.3	na	na	236,587	37.4	217,429	34.9
GLD met	455,865	69.7	na	na	396,613	62.6	405,964	65.1
Free School Meals								
0 years FSM-eligible	553,458	83.2	495,043	77.6	491,574	77.6	487,509	78.2
1 year FSM-eligible	41,729	6.3	28,415	4.5	29,146	4.6	29,173	4.7
2 years FSM-eligible	70,078	10.5	114,841	18.0	112,480	17.8	106,711	17.1
IDACI deprivation quartile								
Most deprived	173,737	26.3	167,817	26.6	165,361	26.5	163,736	26.6
Second most deprived	166,188	25.2	160,005	25.4	158,492	25.4	155,559	25.3
Second least deprived	162,497	24.6	154,610	24.5	153,639	24.6	150,137	24.4
Least deprived	157,689	23.9	148,571	23.5	147,519	23.6	146,149	23.7
Targeted age-2 nursery								
15h not received	567,673	85.3	526,687	82.5	525,612	83.0	525,101	84.2
15h received	97,592	14.7	111,612	17.5	107,588	17.0	98,292	15.8
Universal age-3 nursery								
15h+ not received	162,716	24.5	139,443	21.8	153,717	24.3	159,487	25.6
15h+ received	502,549	75.5	498,856	78.2	479,483	75.7	463,906	74.4
Gender								
Female	323,008	48.8	308,760	48.8	305,545	48.8	301,414	48.8
Male	338,933	51.2	323,580	51.2	320,931	51.2	315,800	51.2
Ethnicity								
White British	439,739	67.1	403,538	64.8	389,175	63.1	378,122	62.2
Bangladeshi	10,655	1.6	10,919	1.8	11,060	1.8	10,356	1.7
Indian	20,873	3.2	22,330	3.6	24,121	3.9	25,532	4.2
Other Asian	11,758	1.8	12,441	2.0	12,836	2.1	13,337	2.2
Pakistani	28,490	4.3	27,476	4.4	27,664	4.5	26,993	4.4
Black African	23,210	3.5	22,793	3.7	25,138	4.1	28,028	4.6

	2017		2022		2023		2024	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Black Caribbean	6,047	0.9	5,059	0.8	5,040	0.8	5,057	0.8
Other Black	5,005	0.8	4,788	0.8	4,589	0.7	4,641	0.8
Chinese	3,347	0.5	3,493	0.6	3,944	0.6	3,671	0.6
Other Mixed	15,557	2.4	17,533	2.8	18,390	3.0	18,881	3.1
White & Asian	10,318	1.6	11,265	1.8	11,504	1.9	11,464	1.9
White & African	5,816	0.9	5,993	1.0	6,112	1.0	6,043	1.0
White & Caribbean	10,559	1.6	10,343	1.7	10,398	1.7	10,335	1.7
Other Ethnicity	12,288	1.9	13,771	2.2	14,724	2.4	14,666	2.4
Irish	1,604	0.2	1,504	0.2	1,476	0.2	1,450	0.2
Irish Traveller	665	0.1	709	0.1	719	0.1	672	0.1
Other White	47,315	7.2	46,142	7.4	47,571	7.7	46,095	7.6
Gypsy/Romany	2,355	0.4	2,300	0.4	2,492	0.4	2,431	0.4
English as an additional language								
First Language English	524,719	79.4	501,471	79.6	489,832	78.5	479,668	78.1
EAL	136,269	20.6	128,589	20.4	134,104	21.5	134,761	21.9
Level of SEND								
None	576,797	87.1	544,019	86.0	533,025	85.2	517,350	83.9
School Support	72,235	10.9	69,703	11.0	72,463	11.6	75,765	12.3
EHCP mainstream	7,693	1.2	12,372	2.0	13,872	2.2	16,611	2.7
EHCP special	5,236	0.8	6,275	1.0	6,587	1.1	6,875	1.1
Birth month								
Aug	55,857	8.4	53,052	8.4	53,991	8.6	52,619	8.5
Jul	56,033	8.5	54,982	8.7	54,039	8.6	52,569	8.5
Jun	54,214	8.2	52,890	8.4	51,723	8.3	50,857	8.2
May	56,771	8.6	53,452	8.5	53,262	8.5	52,455	8.5
Apr	52,633	8.0	50,910	8.1	49,986	8.0	48,934	7.9
Mar	55,522	8.4	51,833	8.2	51,790	8.3	49,931	8.1
Feb	51,845	7.8	49,521	7.8	46,902	7.5	45,247	7.3
Jan	56,530	8.5	51,807	8.2	51,657	8.2	52,207	8.5
Dec	55,505	8.4	52,292	8.3	51,858	8.3	50,859	8.2
Nov	55,238	8.3	52,240	8.3	51,446	8.2	52,285	8.5
Oct	56,020	8.5	54,734	8.7	54,213	8.7	54,690	8.9
Sep	55,773	8.4	54,627	8.6	55,609	8.9	54,561	8.8
Region								
South	242,798	36.5	234,232	36.7	231,861	36.6	229,296	36.8
London	103,988	15.6	96,339	15.1	96,458	15.2	94,139	15.1

	131,290	19.7	126,826	19.9	125,671	19.8	124,338	19.9
Midlands	131,290	19.7	126,826	19.9	125,671	19.8	124,338	19.9
North	187,189	28.1	180,902	28.3	179,210	28.3	175,620	28.2
School type								
Mainstream LA school	453,595	68.2	379,778	59.5	367,564	58.0	344,780	55.3
Mainstream Academy Converter	148,276	22.3	183,754	28.8	188,890	29.8	199,350	32.0
Mainstream Academy Sponsor-Led	55,485	8.3	62,729	9.8	63,620	10.0	65,526	10.5
Mainstream Free School	7,909	1.2	12,038	1.9	13,126	2.1	13,737	2.2

Descriptive statistics for Phonics models
All cases

	2017			2022			2023			2024		
	Frequency	Mean	Std. Dev.	Frequency	Mean	Std. Dev.	Frequency	Mean	Std. Dev.	Frequency	Mean	Std. Dev.
School % FSM	665,264	15.0	12.1	638297	24.6	16.5	633199	24.8	16.2	623392	24.0	16.0
School % EAL	665,256	21.0	24.3	638297	20.8	23.1	633198	22.1	23.0	623393	22.7	22.9
Year R % attendance	652,588	95.0	5.5	620532	95.6	7.6	612042	92.7	7.3	602885	92.9	7.6
Year 1 % attendance	663,863	95.6	4.9	637523	93.6	6.4	632199	93.6	6.8	na	na	na

Descriptive statistics for Phonics models
Complete cases

	2017		2022		2023		2024	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Phonics Screening Check (PSC)								
Year 1 PSC not passed	111,076	17.0	146,126	23.7	124,138	20.3	114,010	18.9
Year 1 PSC passed	540,731	83.0	470,728	76.3	487,387	79.7	488,123	81.1
Good Level of Development (GLD)								
GLD not met	191,411	29.9	na	na	223,050	36.5	204,790	34.0
GLD met	449,734	70.1	na	na	388,475	63.5	397,343	66.0
Free School Meals								
0 years FSM-eligible	542,119	83.2	477,796	77.5	474,044	77.5	470,216	78.1
1 year FSM-eligible	40,734	6.2	27,263	4.4	27,892	4.6	27,915	4.6
2 years FSM-eligible	68,954	10.6	111,795	18.1	109,589	17.9	104,002	17.3
IDACI deprivation quartile								
Most deprived	171,847	26.4	164,444	26.7	162,256	26.5	160,584	26.7
Second most deprived	164,183	25.2	156,424	25.4	154,905	25.3	152,161	25.3
Second least deprived	160,407	24.6	150,876	24.5	150,071	24.5	146,500	24.3
Least deprived	155,370	23.8	145,110	23.5	144,293	23.6	142,888	23.7
Targeted age-2 nursery								
15h not received	555,857	85.3	508,314	82.4	506,770	82.9	506,390	84.1
15h received	95,950	14.7	108,540	17.6	104,755	17.1	95,743	15.9
Universal age-3 nursery								
15h+ not received	156,532	24.0	129,511	21.0	142,644	23.3	148,686	24.7
15h+ received	495,275	76.0	487,343	79.0	468,881	76.7	453,447	75.3
Gender								
Female	318,006	48.8	301,286	48.8	298,383	48.8	294,224	48.9
Male	333,801	51.2	315,568	51.2	313,142	51.2	307,909	51.1
Ethnicity								
White British	437,837	67.2	400,504	64.9	386,343	63.2	375,144	62.3
Bangladeshi	10,582	1.6	10,836	1.8	10,970	1.8	10,249	1.7
Indian	20,714	3.2	22,056	3.6	23,814	3.9	25,267	4.2
Other Asian	11,663	1.8	12,305	2.0	12,684	2.1	13,183	2.2
Pakistani	28,325	4.3	27,140	4.4	27,314	4.5	26,642	4.4
Black African	22,938	3.5	22,532	3.7	24,857	4.1	27,697	4.6
Black Caribbean	5,990	0.9	4,997	0.8	4,985	0.8	5,010	0.8
Other Black	4,946	0.8	4,715	0.8	4,532	0.7	4,588	0.8
Chinese	3,301	0.5	3,462	0.6	3,904	0.6	3,649	0.6

	2017		2022		2023		2024	
	Frequency	Percent	Frequency	Percent	Frequency	Percent	Frequency	Percent
Other Mixed	15,423	2.4	17,370	2.8	18,218	3.0	18,664	3.1
White & Asian	10,267	1.6	11,192	1.8	11,414	1.9	11,364	1.9
White & African	5,772	0.9	5,932	1.0	6,053	1.0	5,976	1.0
White & Caribbean	10,473	1.6	10,237	1.7	10,293	1.7	10,232	1.7
Other Ethnicity	12,149	1.9	13,595	2.2	14,536	2.4	14,471	2.4
Irish	1,587	0.2	1,477	0.2	1,453	0.2	1,428	0.2
Irish Traveller	610	0.1	660	0.1	643	0.1	604	0.1
Other White	46,977	7.2	45,662	7.4	47,133	7.7	45,646	7.6
Gypsy/Romany	2,253	0.3	2,182	0.4	2,379	0.4	2,319	0.4
English as an additional language								
First Language English	517,784	79.4	491,683	79.7	480,964	78.6	470,869	78.2
EAL	134,023	20.6	125,171	20.3	130,561	21.4	131,264	21.8
Level of SEND								
None	568,118	87.2	530,962	86.1	521,073	85.2	505,650	84.0
School Support	71,069	10.9	67,943	11.0	70,683	11.6	73,774	12.3
EHCP mainstream	7,535	1.2	11,968	1.9	13,438	2.2	16,108	2.7
EHCP special	5,085	0.8	5,981	1.0	6,331	1.0	6,601	1.1
Birth month								
Aug	54,965	8.4	51,707	8.4	52,682	8.6	51,356	8.5
Jul	55,172	8.5	53,561	8.7	52,776	8.6	51,257	8.5
Jun	53,363	8.2	51,538	8.4	50,457	8.3	49,561	8.2
May	55,972	8.6	52,093	8.4	51,917	8.5	51,163	8.5
Apr	51,794	7.9	49,647	8.0	48,775	8.0	47,714	7.9
Mar	54,673	8.4	50,555	8.2	50,535	8.3	48,700	8.1
Feb	51,083	7.8	48,317	7.8	45,723	7.5	44,139	7.3
Jan	55,651	8.5	50,575	8.2	50,434	8.2	50,902	8.5
Dec	54,671	8.4	51,047	8.3	50,686	8.3	49,622	8.2
Nov	54,347	8.3	51,030	8.3	50,243	8.2	51,035	8.5
Oct	55,187	8.5	53,455	8.7	52,957	8.7	53,420	8.9
Sep	54,929	8.4	53,329	8.6	54,340	8.9	53,264	8.8
Region								
South	238,251	36.6	226,384	36.7	224,087	36.6	221,648	36.8
London	100,935	15.5	91,942	14.9	92,303	15.1	90,111	15.0
Midlands	128,567	19.7	122,585	19.9	120,929	19.8	119,754	19.9
North	184,054	28.2	175,943	28.5	174,206	28.5	170,620	28.3
School type								

	444,776	68.2	367,536	59.6	355,831	58.2	333,765	55.4
Mainstream LA school	444,776	68.2	367,536	59.6	355,831	58.2	333,765	55.4
Mainstream Academy Converter	145,643	22.3	177,953	28.8	182,484	29.8	192,692	32.0
Mainstream Academy Sponsor-Led	53,851	8.3	59,964	9.7	60,748	9.9	62,719	10.4
Mainstream Free School	7,537	1.2	11,401	1.8	12,462	2.0	12,957	2.2

Descriptive statistics for Phonics models
Complete cases

	2017			2022			2023			2024		
	Frequency	Mean	Std. Dev.	Frequency	Mean	Std. Dev.	Frequency	Mean	Std. Dev.	Frequency	Mean	Std. Dev.
School % FSM	651,807	15.0	12.1	616,854	24.6	16.4	611,525	24.7	16.2	602,133	23.9	16.0
School % EAL	651,807	20.8	24.2	616,854	20.6	23.0	611,525	21.9	23.0	602,133	22.5	22.8
Year R % attendance	642,394	95.0	5.4	605,396	95.6	7.5	597,523	92.8	7.2	588,095	92.9	7.4
Year 1 % attendance	650,918	95.6	4.8	616,795	93.7	6.2	611,436	93.7	6.5	na	na	na

Descriptive statistics for Key Stage 1 models
All cases

	2017		2022		2023	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Reading						
KS1 Reading below expected	166,667	25.0	210,319	32.9	205,020	31.6
KS1 Reading expected standard	499,741	75.0	428,088	67.1	443,144	68.4
Writing						
KS1 Writing below expected	204,610	30.7	269,619	42.2	258,112	39.8
KS1 Writing expected standard	461,792	69.3	368,780	57.8	390,035	60.2
Maths						
KS1 Maths below expected	161,990	24.3	205,271	32.2	191,016	29.5
KS1 Maths expected standard	504,404	75.7	433,141	67.8	457,145	70.5
Phonics Screening Check (PSC)						
Year 1 PSC not passed	112,082	17.2	na	na	150,381	24.1
Year 1 PSC passed	540,367	82.8	na	na	474,790	75.9
Free School Meals, years						
0 years FSM-eligible	539,023	80.8	484,301	75.6	488,940	75.3
1 year FSM-eligible	34,150	5.1	20,095	3.1	19,269	3.0
2 years FSM-eligible	26,988	4.0	45,980	7.2	28,112	4.3
3 years FSM-eligible	66,933	10.0	90,021	14.1	113,331	17.4
IDACI deprivation quartile						
Most deprived	165,518	25.0	160,698	25.4	163,025	25.4
Second most deprived	166,341	25.1	157,552	24.9	158,996	24.7
Second least deprived	165,288	25.0	157,561	24.9	160,494	25.0
Least deprived	164,431	24.9	157,687	24.9	159,950	24.9
Targeted age-2 nursery						
15h not received	570,193	85.5	525,460	82.1	537,864	82.8
15h received	96,901	14.5	114,937	17.9	111,788	17.2
Universal age-3 nursery						
15h+ not received	169,678	25.4	144,613	22.6	150,591	23.2
15h+ received	497,416	74.6	495,784	77.4	499,061	76.8
Gender						
Female	323,568	48.8	309,209	48.7	314,595	48.9
Male	339,634	51.2	325,654	51.3	329,349	51.1
Ethnicity						
White British	437,865	66.6	406,704	64.9	403,501	63.6
Bangladeshi	10,823	1.6	10,657	1.7	11,139	1.8

	2017		2022		2023	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Indian	21,434	3.3	22,158	3.5	24,551	3.9
Other Asian	11,957	1.8	12,354	2.0	13,434	2.1
Pakistani	28,809	4.4	27,863	4.4	28,039	4.4
Black African	23,725	3.6	23,299	3.7	25,882	4.1
Black Caribbean	6,086	0.9	5,343	0.9	5,153	0.8
Other Black	5,068	0.8	4,674	0.7	4,982	0.8
Chinese	3,323	0.5	3,809	0.6	4,418	0.7
Other Mixed	15,817	2.4	17,437	2.8	18,053	2.8
White & Asian	10,374	1.6	10,912	1.7	11,406	1.8
White & African	5,876	0.9	6,118	1.0	6,147	1.0
White & Caribbean	10,636	1.6	10,220	1.6	10,533	1.7
Other Ethnicity	12,666	1.9	14,004	2.2	14,714	2.3
Irish	1,577	0.2	1,487	0.2	1,458	0.2
Irish Traveller	679	0.1	758	0.1	699	0.1
Other White	47,792	7.3	46,190	7.4	48,343	7.6
Gypsy/Romany	2,524	0.4	2,466	0.4	2,482	0.4
English as an additional language						
First Language English	524,333	79.2	501,247	79.2	503,534	78.4
EAL	137,997	20.8	131,945	20.8	138,660	21.6
Level of SEND						
None	562,285	84.8	531,828	83.8	534,548	83.1
School Support	84,874	12.8	82,253	13.0	85,536	13.3
EHCP mainstream	9,758	1.5	13,505	2.1	15,606	2.4
EHCP special	6,303	1.0	7,287	1.1	7,725	1.2
Birth month						
Aug	55,950	8.4	53,702	8.5	54,172	8.4
Jul	56,193	8.5	55,785	8.8	55,995	8.7
Jun	54,262	8.2	53,276	8.4	53,848	8.4
May	56,905	8.6	54,010	8.5	54,395	8.4
Apr	52,805	8.0	50,695	8.0	51,806	8.0
Mar	55,555	8.4	51,523	8.1	52,787	8.2
Feb	51,960	7.8	47,584	7.5	50,396	7.8
Jan	56,618	8.5	52,999	8.3	52,781	8.2
Dec	55,624	8.4	52,074	8.2	53,182	8.3
Nov	55,274	8.3	51,249	8.1	53,186	8.3
Oct	56,166	8.5	56,070	8.8	55,776	8.7

	Frequency	Percent	Frequency	Percent	Frequency	Percent
Sep	55,890	8.4	55,896	8.8	55,620	8.6
Region						
South	243,270	36.5	234,787	36.7	238,120	36.7
London	103,440	15.5	96,920	15.1	97,786	15.1
Midlands	132,152	19.8	127,076	19.8	129,523	19.9

	2017		2022		2023	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
North	188,232	28.2	181,614	28.4	184,223	28.4
School type						
Mainstream LA school	427,471	64.1	382,187	59.7	377,312	58.1
Mainstream Academy Converter	170,528	25.6	184,427	28.8	194,327	29.9
Mainstream Academy Sponsor-Led	60,916	9.1	62,678	9.8	65,476	10.1
Mainstream Free School	8,179	1.2	11,105	1.7	12,537	1.9

Descriptive statistics for Key Stage 1 models
All cases

	2017			2022			2023		
	Frequency	Mean	Std. Dev.	Frequency	Mean	Std. dev.	Frequency	Mean	Std. Dev
School % FSM	666,776	16.2	13.0	640,042	24.2	16.8	649,446	24.6	16.7
School % EAL	666,805	20.9	24.4	640,126	21.0	23.5	649,486	21.7	23.2
Reception % attendance	646,642	95.0	5.5	na	na	na	616,623	95.6	7.7
Year 1 % attendance	656,346	95.6	5.0	625,774	95.8	7.5	632,097	93.6	6.5
Year 2 % attendance	666,286	96.2	4.6	639,203	94.1	6.1	616,623	95.6	7.7

Descriptive statistics for Key Stage 1 models
All cases

	2017		2022		2023	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Reading						
KS1 Reading below expected	166,667	25.0	210,319	32.9	205,020	31.6
KS1 Reading expected standard	499,741	75.0	428,088	67.1	443,144	68.4
Writing						
KS1 Writing below expected	204,610	30.7	269,619	42.2	258,112	39.8
KS1 Writing expected standard	461,792	69.3	368,780	57.8	390,035	60.2
Maths						
KS1 Maths below expected	161,990	24.3	205,271	32.2	191,016	29.5
KS1 Maths expected standard	504,404	75.7	433,141	67.8	457,145	70.5
Phonics Screening Check (PSC)						
Year 1 PSC not passed	112,082	17.2	na	na	150,381	24.1
Year 1 PSC passed	540,367	82.8	na	na	474,790	75.9
Free School Meals, years						
0 years FSM-eligible	539,023	80.8	484,301	75.6	488,940	75.3
1 year FSM-eligible	34,150	5.1	20,095	3.1	19,269	3.0
2 years FSM-eligible	26,988	4.0	45,980	7.2	28,112	4.3
3 years FSM-eligible	66,933	10.0	90,021	14.1	113,331	17.4
IDACI deprivation quartile						
Most deprived	165,518	25.0	160,698	25.4	163,025	25.4
Second most deprived	166,341	25.1	157,552	24.9	158,996	24.7
Second least deprived	165,288	25.0	157,561	24.9	160,494	25.0
Least deprived	164,431	24.9	157,687	24.9	159,950	24.9
Targeted age-2 nursery						
15h not received	570,193	85.5	525,460	82.1	537,864	82.8
15h received	96,901	14.5	114,937	17.9	111,788	17.2
Universal age-3 nursery						
15h+ not received	169,678	25.4	144,613	22.6	150,591	23.2
15h+ received	497,416	74.6	495,784	77.4	499,061	76.8
Gender						
Female	323,568	48.8	309,209	48.7	314,595	48.9
Male	339,634	51.2	325,654	51.3	329,349	51.1
Ethnicity						
White British	437,865	66.6	406,704	64.9	403,501	63.6

	Frequency	Percent	Frequency	Percent	Frequency	Percent
Bangladeshi	10,823	1.6	10,657	1.7	11,139	1.8
Indian	21,434	3.3	22,158	3.5	24,551	3.9
Other Asian	11,957	1.8	12,354	2.0	13,434	2.1

	2017		2022		2023	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Pakistani	28,809	4.4	27,863	4.4	28,039	4.4
Black African	23,725	3.6	23,299	3.7	25,882	4.1
Black Caribbean	6,086	0.9	5,343	0.9	5,153	0.8
Other Black	5,068	0.8	4,674	0.7	4,982	0.8
Chinese	3,323	0.5	3,809	0.6	4,418	0.7
Other Mixed	15,817	2.4	17,437	2.8	18,053	2.8
White & Asian	10,374	1.6	10,912	1.7	11,406	1.8
White & African	5,876	0.9	6,118	1.0	6,147	1.0
White & Caribbean	10,636	1.6	10,220	1.6	10,533	1.7
Other Ethnicity	12,666	1.9	14,004	2.2	14,714	2.3
Irish	1,577	0.2	1,487	0.2	1,458	0.2
Irish Traveller	679	0.1	758	0.1	699	0.1
Other White	47,792	7.3	46,190	7.4	48,343	7.6
Gypsy/Romany	2,524	0.4	2,466	0.4	2,482	0.4
English as an additional language						
First Language English	524,333	79.2	501,247	79.2	503,534	78.4
EAL	137,997	20.8	131,945	20.8	138,660	21.6
Level of SEND						
None	562,285	84.8	531,828	83.8	534,548	83.1
School Support	84,874	12.8	82,253	13.0	85,536	13.3
EHCP mainstream	9,758	1.5	13,505	2.1	15,606	2.4
EHCP special	6,303	1.0	7,287	1.1	7,725	1.2
Birth month						
Aug	55,950	8.4	53,702	8.5	54,172	8.4
Jul	56,193	8.5	55,785	8.8	55,995	8.7
Jun	54,262	8.2	53,276	8.4	53,848	8.4
May	56,905	8.6	54,010	8.5	54,395	8.4
Apr	52,805	8.0	50,695	8.0	51,806	8.0
Mar	55,555	8.4	51,523	8.1	52,787	8.2
Feb	51,960	7.8	47,584	7.5	50,396	7.8
Jan	56,618	8.5	52,999	8.3	52,781	8.2
Dec	55,624	8.4	52,074	8.2	53,182	8.3
Nov	55,274	8.3	51,249	8.1	53,186	8.3

	2017		2022		2023	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Oct	56,166	8.5	56,070	8.8	55,776	8.7
Sep	55,890	8.4	55,896	8.8	55,620	8.6
Region						
South	243,270	36.5	234,787	36.7	238,120	36.7
London	103,440	15.5	96,920	15.1	97,786	15.1
Midlands	132,152	19.8	127,076	19.8	129,523	19.9
North	188,232	28.2	181,614	28.4	184,223	28.4
School type						
Mainstream LA school	427,471	64.1	382,187	59.7	377,312	58.1
Mainstream Academy Converter	170,528	25.6	184,427	28.8	194,327	29.9
Mainstream Academy Sponsor-Led	60,916	9.1	62,678	9.8	65,476	10.1
Mainstream Free School	8,179	1.2	11,105	1.7	12,537	1.9

Descriptive statistics for Key Stage 1 models
All cases

	2017			2022			2023		
	Frequency	Mean	Std. Dev.	Frequency	Mean	Std. dev.	Frequency	Mean	Std. Dev
School % FSM	666,776	16.2	13.0	640,042	24.2	16.8	649,446	24.6	16.7
School % EAL	666,805	20.9	24.4	640,126	21.0	23.5	649,486	21.7	23.2
Reception % attendance	646,642	95.0	5.5	na	na	na	616,623	95.6	7.7
Year 1 % attendance	656,346	95.6	5.0	625,774	95.8	7.5	632,097	93.6	6.5
Year 2 % attendance	666,286	96.2	4.6	639,203	94.1	6.1	616,623	95.6	7.7

Appendix 2: Regression Tables for NPD Analysis

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
Achieving 'Good Level of Development' at EYFSP			
Post-pandemic cohorts	0.624***	0.726***	0.794***
	(0.00882)	(0.0104)	(0.0115)
Eligible for Free School Meals (FSM)	0.539***	0.533***	0.532***
	(0.00509)	(0.00506)	(0.00507)
Post-pandemic cohorts#FSM	0.932***	0.936***	0.909***
	(0.0115)	(0.0117)	(0.0117)
IDACI, 3rd most deprived quarter	0.831***	0.832***	0.838***
	(0.00630)	(0.00633)	(0.00645)
IDACI, 2nd most deprived quarter	0.711***	0.715***	0.723***
	(0.00606)	(0.00601)	(0.00610)
IDACI, most deprived quarter	0.641***	0.651***	0.656***
	(0.00623)	(0.00624)	(0.00623)
Received targeted 2-year-old nursery 15h	0.678***	0.682***	0.680***
	(0.00467)	(0.00483)	(0.00482)
School, percent eligible for FSM	1.004***	1.004***	1.004***
	(0.000315)	(0.000296)	(0.000305)
Received universal 3-year-old nursery 15h	1.232***	1.244***	1.243***
	(0.0107)	(0.0109)	(0.0109)
Post-pandemic cohorts#3-year-old nursery 15h	1.153***	1.166***	1.223***
	(0.0128)	(0.0130)	(0.0138)
Male	0.540***	0.540***	0.541***
	(0.00351)	(0.00353)	(0.00354)
Post-pandemic cohorts#Male	1.102***	1.078***	1.040***
	(0.0100)	(0.00991)	(0.00972)
Bangladeshi	1.063*	1.039	1.032
	(0.0364)	(0.0360)	(0.0360)
Indian	1.460***	1.447***	1.440***
	(0.0400)	(0.0398)	(0.0399)
Other Asian	1.133***	1.123***	1.120***
	(0.0311)	(0.0309)	(0.0310)
Pakistani	0.968	0.948**	0.940***
	(0.0217)	(0.0213)	(0.0212)
Black African	1.261***	1.244***	1.241***
	(0.0273)	(0.0271)	(0.0271)
Black Caribbean	0.817***	0.803***	0.798***
	(0.0279)	(0.0275)	(0.0275)
Other Black	0.961	0.948	0.945
	(0.0381)	(0.0376)	(0.0377)
Chinese	1.408***	1.410***	1.410***
	(0.0669)	(0.0672)	(0.0673)
Other Mixed	1.147***	1.140***	1.137***
	(0.0255)	(0.0255)	(0.0255)
White & Asian	1.288***	1.282***	1.279***

VARIABLES	(0.0345)	(0.0344)	(0.0345)
White & African	1.097***	1.089**	1.086**
	(0.0378)	(0.0376)	(0.0377)

	(2021/22)	(2022/23)	(2023/24)
VARIABLES	odds ratio	odds ratio	odds ratio
White & Caribbean	0.892***	0.883***	0.880***
	(0.0220)	(0.0218)	(0.0218)
Other Ethnicity	0.857***	0.846***	0.842***
	(0.0231)	(0.0229)	(0.0228)
Irish	1.049	1.044	1.043
	(0.0685)	(0.0684)	(0.0686)
Irish Traveller	0.271***	0.269***	0.268***
	(0.0276)	(0.0274)	(0.0274)
Other White	0.769***	0.766***	0.764***
	(0.0133)	(0.0133)	(0.0133)
Gypsy/Romany	0.197***	0.195***	0.194***
	(0.0132)	(0.0131)	(0.0131)
Post-pandemic cohorts#Bangladeshi	1.005	0.994	1.001
	(0.0416)	(0.0440)	(0.0445)
Post-pandemic cohorts#Indian	0.861***	0.785***	0.690***
	(0.0285)	(0.0258)	(0.0225)
Post-pandemic cohorts#Other Asian	0.888***	0.862***	0.829***
	(0.0321)	(0.0313)	(0.0304)
Post-pandemic cohorts#Pakistani	0.974	0.968	0.939**
	(0.0277)	(0.0273)	(0.0271)
Post-pandemic cohorts#Black African	0.836***	0.844***	0.766***
	(0.0241)	(0.0235)	(0.0213)
Post-pandemic cohorts#Black Caribbean	0.976	0.952	0.966
	(0.0474)	(0.0465)	(0.0479)
Post-pandemic cohorts#Other Black	0.861***	0.902*	0.891**
	(0.0449)	(0.0497)	(0.0501)
Post-pandemic cohorts#Chinese	1.139*	1.101	1.124*
	(0.0759)	(0.0762)	(0.0759)
Post-pandemic cohorts#Other Mixed	0.952*	0.913***	0.927**
	(0.0281)	(0.0271)	(0.0278)
Post-pandemic cohorts#White & Asian	0.934*	0.918**	0.967
	(0.0333)	(0.0339)	(0.0358)
Post-pandemic cohorts#White & African	1.042	0.981	0.968
	(0.0489)	(0.0469)	(0.0466)
Post-pandemic cohorts#White & Caribbean	1.035	1.016	1.059
	(0.0354)	(0.0357)	(0.0374)
Post-pandemic cohorts#Other Ethnicity	0.904***	0.948	0.926**
	(0.0323)	(0.0340)	(0.0334)
Post-pandemic cohorts#Irish	0.970	0.951	0.972
	(0.0892)	(0.0887)	(0.0945)
Post-pandemic cohorts#Irish Traveller	1.036	0.938	0.988
	(0.139)	(0.134)	(0.134)
Post-pandemic cohorts#Other White	1.154***	1.152***	1.195***
	(0.0262)	(0.0266)	(0.0274)
Post-pandemic cohorts#Gypsy/Romany	1.369***	1.355***	1.418***
	(0.119)	(0.126)	(0.125)
English as an additional language (EAL)	0.636***	0.626***	0.623***
	(0.00886)	(0.00871)	(0.00868)
Post-pandemic cohorts#EAL	1.069***	1.088***	1.120***
	(0.0196)	(0.0201)	(0.0205)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
School, percent speaking EAL	1.001***	1.002***	1.002***
	(0.000240)	(0.000229)	(0.000227)
SEND, School Support	0.134***	0.129***	0.124***
	(0.00141)	(0.00130)	(0.00121)
SEND, EHCP mainstream	0.0196***	0.0188***	0.0164***
	(0.000769)	(0.000712)	(0.000570)
SEND, EHCP special	0.000536***	0.000411***	0.000312***
	(0.000271)	(0.000239)	(0.000215)
July-born	1.145***	1.150***	1.131***
	(0.0112)	(0.0113)	(0.0112)
June-born	1.335***	1.350***	1.318***
	(0.0132)	(0.0136)	(0.0133)
May-born	1.542***	1.550***	1.518***
	(0.0151)	(0.0156)	(0.0155)
April-born	1.742***	1.749***	1.721***
	(0.0177)	(0.0181)	(0.0179)
March-born	1.993***	2.014***	2.000***
	(0.0205)	(0.0208)	(0.0210)
February-born	2.263***	2.262***	2.245***
	(0.0237)	(0.0244)	(0.0242)
January-born	2.693***	2.803***	2.766***
	(0.0300)	(0.0321)	(0.0320)
December-born	2.895***	2.967***	2.931***
	(0.0310)	(0.0323)	(0.0324)
November-born	3.276***	3.414***	3.338***
	(0.0356)	(0.0382)	(0.0376)
October-born	3.697***	3.816***	3.724***
	(0.0401)	(0.0428)	(0.0417)
September-born	4.255***	4.368***	4.330***
	(0.0480)	(0.0504)	(0.0509)
London	1.416***	1.391***	1.385***
	(0.0251)	(0.0247)	(0.0246)
Midlands	0.902***	0.896***	0.895***
	(0.0115)	(0.0115)	(0.0115)
North	0.923***	0.915***	0.914***
	(0.0105)	(0.0105)	(0.0105)
Post-pandemic cohorts#London	1.023	0.976	1.013
	(0.0215)	(0.0201)	(0.0214)
Post-pandemic cohorts#Midlands	1.100***	1.123***	1.100***
	(0.0188)	(0.0184)	(0.0182)
Post-pandemic cohorts#North	1.057***	1.063***	1.033**
	(0.0157)	(0.0153)	(0.0149)
Mainstream Academy Converter	1.102***	1.074***	1.072***
	(0.0102)	(0.00945)	(0.00932)
Mainstream Academy Sponsor-Led	1.157***	1.127***	1.124***
	(0.0171)	(0.0152)	(0.0149)
Mainstream Free School	1.355***	1.289***	1.320***
	(0.0536)	(0.0489)	(0.0510)

Constant	2.741***	2.684***	2.713***
	(0.0372)	(0.0365)	(0.0370)
Observations	1,227,852	1,209,208	1,208,582
School clusters	19,507	19,307	19,798
Pseudo R-squared	0.1600	0.1659	0.1780
Degrees of freedom	72	72	72

<div align="center">Cluster robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1</div>

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio

Achieving 'Good Level of Development' at EYFSP, model with attendance

	(2021/22) odds ratio	(2022/23) odds ratio
Post-pandemic cohorts	0.743***	0.839***
	(0.0109)	(0.0125)
Eligible for Free School Meals (FSM)	0.606***	0.599***
	(0.00575)	(0.00572)
Post-pandemic cohorts#FSM	0.959***	1.009
	(0.0121)	(0.0129)
IDACI, 3rd most deprived quarter	0.858***	0.862***
	(0.00659)	(0.00665)
IDACI, 2nd most deprived quarter	0.756***	0.765***
	(0.00652)	(0.00649)
IDACI, most deprived quarter	0.694***	0.710***
	(0.00687)	(0.00690)
Received targeted 2-year-old nursery 15h	0.681***	0.687***
	(0.00470)	(0.00486)
School, percent eligible for FSM	1.005***	1.005***
	(0.000323)	(0.000305)
Received universal 3-year-old nursery 15h	1.146***	1.152***
	(0.0101)	(0.0103)
Post-pandemic cohorts#3-year-old nursery 15h	1.081***	1.088***
	(0.0123)	(0.0125)
Attendance, percent during Reception year	1.073***	1.075***
	(0.000502)	(0.000515)
Male	0.533***	0.533***
	(0.00351)	(0.00352)
Post-pandemic cohorts#Male	1.099***	1.074***
	(0.0102)	(0.0101)
Bangladeshi	1.222***	1.188***
	(0.0427)	(0.0421)
Indian	1.553***	1.535***
	(0.0431)	(0.0428)
Other Asian	1.189***	1.176***
	(0.0328)	(0.0326)
Pakistani	1.079***	1.050**
	(0.0244)	(0.0239)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Black African	1.128***	1.102***
	(0.0244)	(0.0239)
Black Caribbean	0.810***	0.791***
	(0.0276)	(0.0271)
Other Black	0.907**	0.887***
	(0.0356)	(0.0349)
Chinese	1.317***	1.317***
	(0.0632)	(0.0635)
Other Mixed	1.177***	1.167***
	(0.0265)	(0.0264)
White & Asian	1.345***	1.337***
	(0.0364)	(0.0363)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
White & African	1.073**	1.061*
	(0.0375)	(0.0372)
White & Caribbean	0.932***	0.920***
	(0.0234)	(0.0232)
Other Ethnicity	0.872***	0.857***
	(0.0236)	(0.0233)
Irish	1.130*	1.125*
	(0.0740)	(0.0740)
Irish Traveller	0.441***	0.442***
	(0.0438)	(0.0442)
Other White	0.820***	0.817***
	(0.0143)	(0.0143)
Gypsy/Romany	0.277***	0.275***
	(0.0189)	(0.0189)
Post-pandemic cohorts#Bangladeshi	1.067	1.200***
	(0.0458)	(0.0545)
Post-pandemic cohorts#Indian	0.908***	0.859***
	(0.0310)	(0.0289)
Post-pandemic cohorts#Other Asian	0.904***	0.920**
	(0.0331)	(0.0340)
Post-pandemic cohorts#Pakistani	1.053*	1.124***
	(0.0308)	(0.0326)
Post-pandemic cohorts#Black African	0.803***	0.839***
	(0.0233)	(0.0237)
Post-pandemic cohorts#Black Caribbean	0.982	1.036
	(0.0479)	(0.0516)
Post-pandemic cohorts#Other Black	0.840***	0.940
	(0.0440)	(0.0523)
Post-pandemic cohorts#Chinese	1.106	1.087
	(0.0745)	(0.0765)
Post-pandemic cohorts#Other Mixed	0.958	0.947*
	(0.0289)	(0.0286)
Post-pandemic cohorts#White & Asian	0.921**	0.930*
	(0.0334)	(0.0350)
Post-pandemic cohorts#White & African	1.030	1.010
	(0.0490)	(0.0493)
Post-pandemic cohorts#White & Caribbean	1.032	1.052
	(0.0363)	(0.0380)
Post-pandemic cohorts#Other Ethnicity	0.893***	0.990
	(0.0323)	(0.0361)
Post-pandemic cohorts#Irish	0.969	0.950
	(0.0907)	(0.0920)

VARIABLES	1.026	1.016
Post-pandemic cohorts#Irish Traveller	1.026	1.016
	(0.137)	(0.147)
Post-pandemic cohorts#Other White	1.147***	1.177***
	(0.0265)	(0.0276)
Post-pandemic cohorts#Gypsy/Romany	1.343***	1.440***
	(0.118)	(0.137)
English as an additional language (EAL)	0.647***	0.634***
	(0.00905)	(0.00885)
Post-pandemic cohorts#EAL	1.061***	1.102***
	(0.0197)	(0.0207)
School, percent speaking EAL	1.001***	1.002***
	(0.000243)	(0.000236)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
SEND, School Support	0.141***	0.136***
	(0.00149)	(0.00138)
SEND, EHCP mainstream	0.0228***	0.0221***
	(0.000906)	(0.000848)
SEND, EHCP special	0.000621***	0.000505***
	(0.000336)	(0.000294)
July-born	1.144***	1.150***
	(0.0113)	(0.0115)
June-born	1.335***	1.350***
	(0.0134)	(0.0138)
May-born	1.546***	1.557***
	(0.0154)	(0.0159)
April-born	1.745***	1.755***
	(0.0180)	(0.0184)
March-born	2.002***	2.023***
	(0.0209)	(0.0213)
February-born	2.273***	2.277***
	(0.0242)	(0.0250)
January-born	2.537***	2.632***
	(0.0287)	(0.0306)
December-born	2.865***	2.934***
	(0.0312)	(0.0325)
November-born	3.246***	3.387***
	(0.0359)	(0.0387)
October-born	3.669***	3.786***
	(0.0404)	(0.0433)
September-born	4.237***	4.332***
	(0.0486)	(0.0510)
London	1.422***	1.388***
	(0.0254)	(0.0249)
Midlands	0.896***	0.889***
	(0.0117)	(0.0116)
North	0.917***	0.908***
	(0.0107)	(0.0106)
Post-pandemic cohorts#London	1.021	1.014
	(0.0221)	(0.0218)
Post-pandemic cohorts#Midlands	1.124***	1.143***

	(0.0198)	(0.0194)
Post-pandemic cohorts#North	1.068***	1.064***
	(0.0163)	(0.0159)
Mainstream Academy Converter	1.095***	1.066***
	(0.0104)	(0.00961)
Mainstream Academy Sponsor-Led	1.166***	1.135***
	(0.0177)	(0.0158)
Mainstream Free School	1.295***	1.233***
	(0.0519)	(0.0485)
Constant	0.00339***	0.00265***
	(0.000158)	(0.000126)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Observations	1,226,563	1,207,890
School clusters	19,446	19,350
Pseudo R-squared	0.1816	0.1889
Degrees of freedom	73	73

Cluster robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
Achieved the 'Speaking' Early Learning Goal			
Post-pandemic cohorts	0.704***	0.786***	0.831***
	(0.0141)	(0.0163)	(0.0171)
Eligible for Free School Meals (FSM)	0.601***	0.594***	0.593***
	(0.00736)	(0.00738)	(0.00740)
Post-pandemic cohorts#FSM	0.971*	0.989	0.988
	(0.0154)	(0.0161)	(0.0165)
IDACI, 3rd most deprived quarter	0.767***	0.766***	0.768***
	(0.00843)	(0.00837)	(0.00846)
IDACI, 2nd most deprived quarter	0.641***	0.642***	0.649***
	(0.00769)	(0.00760)	(0.00775)
IDACI, most deprived quarter	0.581***	0.585***	0.585***
	(0.00785)	(0.00771)	(0.00782)
Received targeted 2-year-old nursery 15h	0.776***	0.787***	0.786***
	(0.00688)	(0.00720)	(0.00716)
School, percent eligible for FSM	0.999**	0.999*	0.999
	(0.000407)	(0.000392)	(0.000406)
Received universal 3-year-old nursery 15h	1.448***	1.470***	1.457***
	(0.0169)	(0.0174)	(0.0173)
Post-pandemic cohorts#3-year-old nursery 15h	1.178***	1.191***	1.201***
	(0.0172)	(0.0176)	(0.0177)
Male	0.568***	0.568***	0.570***
	(0.00501)	(0.00505)	(0.00509)
Post-pandemic cohorts#Male	1.085***	1.066***	1.038***
	(0.0132)	(0.0132)	(0.0130)
Bangladeshi	0.760***	0.747***	0.739***
	(0.0302)	(0.0301)	(0.0299)
Indian	0.994	0.987	0.980
	(0.0350)	(0.0350)	(0.0350)
Other Asian	0.765***	0.760***	0.755***
	(0.0258)	(0.0257)	(0.0257)
Pakistani	0.789***	0.776***	0.768***
	(0.0237)	(0.0233)	(0.0234)
Black African	0.947*	0.937**	0.933**
	(0.0272)	(0.0271)	(0.0272)
Black Caribbean	0.851***	0.840***	0.834***
	(0.0417)	(0.0415)	(0.0413)
Other Black	0.734***	0.725***	0.721***
	(0.0362)	(0.0360)	(0.0360)
Chinese	0.768***	0.767***	0.766***
	(0.0417)	(0.0419)	(0.0419)
Other Mixed	0.979	0.974	0.970
	(0.0299)	(0.0299)	(0.0299)
White & Asian	0.981	0.976	0.971

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
	(0.0351)	(0.0351)	(0.0351)
White & African	0.990	0.984	0.980
	(0.0469)	(0.0469)	(0.0470)
White & Caribbean	1.023	1.015	1.010
	(0.0367)	(0.0366)	(0.0367)
Other Ethnicity	0.621***	0.614***	0.609***
	(0.0206)	(0.0205)	(0.0204)
Irish	1.149	1.148	1.150
	(0.114)	(0.115)	(0.116)
Irish Traveller	0.429***	0.425***	0.422***
	(0.0504)	(0.0502)	(0.0501)
Other White	0.509***	0.506***	0.503***
	(0.0110)	(0.0110)	(0.0110)
Gypsy/Romany	0.195***	0.193***	0.191***
	(0.0139)	(0.0138)	(0.0137)
Post-pandemic cohorts#Bangladeshi	0.893**	0.897**	0.843***
	(0.0430)	(0.0480)	(0.0440)
Post-pandemic cohorts#Indian	0.764***	0.682***	0.573***
	(0.0320)	(0.0288)	(0.0235)
Post-pandemic cohorts#Other Asian	0.783***	0.777***	0.730***
	(0.0343)	(0.0344)	(0.0322)
Post-pandemic cohorts#Pakistani	0.862***	0.857***	0.775***
	(0.0316)	(0.0319)	(0.0294)
Post-pandemic cohorts#Black African	0.778***	0.750***	0.690***
	(0.0281)	(0.0268)	(0.0244)
Post-pandemic cohorts#Black Caribbean	0.839***	0.786***	0.804***
	(0.0551)	(0.0533)	(0.0536)
Post-pandemic cohorts#Other Black	0.834***	0.901	0.872**
	(0.0542)	(0.0598)	(0.0596)
Post-pandemic cohorts#Chinese	1.046	1.105	1.039
	(0.0793)	(0.0885)	(0.0797)
Post-pandemic cohorts#Other Mixed	0.887***	0.839***	0.833***
	(0.0349)	(0.0330)	(0.0337)
Post-pandemic cohorts#White & Asian	0.924*	0.880***	0.923
	(0.0444)	(0.0433)	(0.0453)
Post-pandemic cohorts#White & African	0.986	0.890*	0.925
	(0.0625)	(0.0571)	(0.0601)
Post-pandemic cohorts#White & Caribbean	0.992	0.894**	0.930
	(0.0487)	(0.0444)	(0.0468)
Post-pandemic cohorts#Other Ethnicity	0.840***	0.828***	0.832***
	(0.0355)	(0.0353)	(0.0361)
Post-pandemic cohorts#Irish	0.921	0.836	0.930
	(0.128)	(0.113)	(0.140)
Post-pandemic cohorts#Irish Traveller	0.863	0.827	0.809
	(0.134)	(0.131)	(0.130)
Post-pandemic cohorts#Other White	1.170***	1.156***	1.209***
	(0.0329)	(0.0336)	(0.0349)
Post-pandemic cohorts#Gypsy/Romany	1.492***	1.558***	1.445***
	(0.137)	(0.159)	(0.130)
English as an additional language (EAL)	0.430***	0.424***	0.420***
	(0.00782)	(0.00777)	(0.00772)
Post-pandemic cohorts#EAL	1.093***	1.127***	1.199***

	(0.0253)	(0.0266)	(0.0278)
School, percent speaking EAL	1.004***	1.004***	1.005***
	(0.000292)	(0.000291)	(0.000288)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
SEND, School Support	0.104***	0.101***	0.0973***
	(0.00105)	(0.00100)	(0.000941)
SEND, EHCP mainstream	0.0174***	0.0158***	0.0136***
	(0.000481)	(0.000423)	(0.000341)
SEND, EHCP special	0.00141***	0.00103***	0.00110***
	(0.000217)	(0.000179)	(0.000172)
July-born	1.118***	1.116***	1.100***
	(0.0138)	(0.0140)	(0.0140)
June-born	1.290***	1.290***	1.265***
	(0.0164)	(0.0168)	(0.0166)
May-born	1.443***	1.452***	1.413***
	(0.0182)	(0.0188)	(0.0186)
April-born	1.640***	1.645***	1.592***
	(0.0218)	(0.0222)	(0.0217)
March-born	1.838***	1.870***	1.859***
	(0.0248)	(0.0256)	(0.0259)
February-born	2.091***	2.077***	2.051***
	(0.0292)	(0.0299)	(0.0296)
January-born	2.760***	2.897***	2.777***
	(0.0403)	(0.0437)	(0.0425)
December-born	2.760***	2.919***	2.805***
	(0.0394)	(0.0426)	(0.0416)
November-born	3.091***	3.261***	3.140***
	(0.0451)	(0.0493)	(0.0479)
October-born	3.524***	3.662***	3.491***
	(0.0529)	(0.0555)	(0.0535)
September-born	3.883***	4.043***	3.971***
	(0.0584)	(0.0631)	(0.0628)
London	1.353***	1.337***	1.331***
	(0.0329)	(0.0329)	(0.0328)
Midlands	0.791***	0.786***	0.784***
	(0.0152)	(0.0152)	(0.0153)
North	0.814***	0.806***	0.806***
	(0.0145)	(0.0145)	(0.0145)
Post-pandemic cohorts#London	0.934**	0.905***	0.936**
	(0.0268)	(0.0261)	(0.0275)
Post-pandemic cohorts#Midlands	1.102***	1.117***	1.124***
	(0.0267)	(0.0271)	(0.0273)
Post-pandemic cohorts#North	1.044**	1.041*	1.042*
	(0.0223)	(0.0227)	(0.0230)
Mainstream Academy Converter	1.048***	1.019	1.016
	(0.0137)	(0.0127)	(0.0126)
Mainstream Academy Sponsor-Led	0.986	0.977	0.989
	(0.0180)	(0.0171)	(0.0173)

	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
Mainstream Free School	1.271***	1.226***	1.297***
	(0.0546)	(0.0505)	(0.0522)
Constant	11.21***	11.02***	11.34***
	(0.217)	(0.214)	(0.223)
VARIABLES			
Observations	1,224,650	1,207,584	1,206,558
School clusters	19,435	19,376	19,775
Pseudo R-squared	0.2293	0.2406	0.2554
Degrees of freedom	72	72	72

Cluster robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
Achieving the 'Listening' Early Learning Goal			
Post-pandemic cohorts	0.818***	0.877***	0.896***
	(0.0157)	(0.0176)	(0.0175)
Eligible for Free School Meals (FSM)	0.592***	0.587***	0.585***
	(0.00684)	(0.00685)	(0.00687)
Post-pandemic cohorts#FSM	1.001	1.020	1.002
	(0.0151)	(0.0158)	(0.0159)
IDACI, 3rd most deprived quarter	0.787***	0.794***	0.788***
	(0.00816)	(0.00827)	(0.00824)
IDACI, 2nd most deprived quarter	0.668***	0.677***	0.674***
	(0.00762)	(0.00767)	(0.00763)
IDACI, most deprived quarter	0.608***	0.619***	0.616***
	(0.00780)	(0.00791)	(0.00793)
Received targeted 2-year-old nursery 15h	0.728***	0.731***	0.736***
	(0.00617)	(0.00639)	(0.00648)
School, percent eligible for FSM	1.000	1.001	1.001**
	(0.000391)	(0.000374)	(0.000388)
Received universal 3-year-old nursery 15h	1.337***	1.349***	1.341***
	(0.0149)	(0.0153)	(0.0153)
Post-pandemic cohorts#3-year-old nursery 15h	1.166***	1.154***	1.191***
	(0.0166)	(0.0166)	(0.0169)
Male	0.542***	0.543***	0.545***
	(0.00457)	(0.00460)	(0.00464)
Post-pandemic cohorts#Male	1.047***	1.041***	1.028**
	(0.0124)	(0.0125)	(0.0123)
Bangladeshi	0.791***	0.778***	0.776***
	(0.0300)	(0.0299)	(0.0299)
Indian	1.065*	1.058*	1.057*
	(0.0351)	(0.0352)	(0.0354)
Other Asian	0.841***	0.835***	0.833***
	(0.0271)	(0.0271)	(0.0272)
Pakistani	0.820***	0.808***	0.805***
	(0.0236)	(0.0232)	(0.0235)
Black African	0.970	0.960	0.959
	(0.0261)	(0.0259)	(0.0261)
Black Caribbean	0.751***	0.741***	0.735***
	(0.0344)	(0.0341)	(0.0341)
Other Black	0.761***	0.752***	0.749***
	(0.0360)	(0.0357)	(0.0358)
Chinese	1.005	1.005	1.003
	(0.0558)	(0.0560)	(0.0561)
Other Mixed	0.972	0.967	0.964
	(0.0279)	(0.0278)	(0.0280)
White & Asian	1.057	1.053	1.051
	(0.0362)	(0.0362)	(0.0364)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
White & African	1.014	1.007	1.005
	(0.0449)	(0.0448)	(0.0450)
White & Caribbean	0.938**	0.931**	0.927**
	(0.0303)	(0.0302)	(0.0303)
Other Ethnicity	0.671***	0.664***	0.660***
	(0.0217)	(0.0216)	(0.0216)
Irish	1.017	1.015	1.017
	(0.0891)	(0.0893)	(0.0904)
Irish Traveller	0.436***	0.432***	0.430***
	(0.0482)	(0.0479)	(0.0478)
Other White	0.597***	0.594***	0.591***
	(0.0124)	(0.0124)	(0.0124)
Gypsy/Romany	0.231***	0.229***	0.227***
	(0.0158)	(0.0157)	(0.0157)
Post-pandemic cohorts#Bangladeshi	0.931	0.914*	0.882**
	(0.0439)	(0.0481)	(0.0451)
Post-pandemic cohorts#Indian	0.768***	0.695***	0.616***
	(0.0312)	(0.0280)	(0.0245)
Post-pandemic cohorts#Other Asian	0.812***	0.793***	0.786***
	(0.0347)	(0.0341)	(0.0337)
Post-pandemic cohorts#Pakistani	0.887***	0.882***	0.831***
	(0.0317)	(0.0320)	(0.0302)
Post-pandemic cohorts#Black African	0.780***	0.738***	0.700***
	(0.0267)	(0.0249)	(0.0235)
Post-pandemic cohorts#Black Caribbean	0.897*	0.894*	0.876**
	(0.0546)	(0.0562)	(0.0550)
Post-pandemic cohorts#Other Black	0.825***	0.859**	0.864**
	(0.0515)	(0.0551)	(0.0564)
Post-pandemic cohorts#Chinese	0.941	0.988	0.962
	(0.0729)	(0.0801)	(0.0759)
Post-pandemic cohorts#Other Mixed	0.901***	0.884***	0.842***
	(0.0337)	(0.0336)	(0.0320)
Post-pandemic cohorts#White & Asian	0.883***	0.874***	0.902**
	(0.0410)	(0.0413)	(0.0422)
Post-pandemic cohorts#White & African	0.935	0.853***	0.922
	(0.0562)	(0.0510)	(0.0569)
Post-pandemic cohorts#White & Caribbean	1.030	0.949	0.982
	(0.0463)	(0.0429)	(0.0451)
Post-pandemic cohorts#Other Ethnicity	0.873***	0.880***	0.894***
	(0.0361)	(0.0373)	(0.0387)
Post-pandemic cohorts#Irish	1.029	0.919	0.954
	(0.133)	(0.116)	(0.132)
Post-pandemic cohorts#Irish Traveller	0.931	0.949	0.855
	(0.140)	(0.150)	(0.132)
Post-pandemic cohorts#Other White	1.150***	1.141***	1.196***
	(0.0313)	(0.0322)	(0.0339)
Post-pandemic cohorts#Gypsy/Romany	1.472***	1.505***	1.402***
	(0.129)	(0.151)	(0.124)
English as an additional language (EAL)	0.503***	0.497***	0.494***
	(0.00857)	(0.00849)	(0.00848)
Post-pandemic cohorts#EAL	1.091***	1.139***	1.176***
	(0.0239)	(0.0255)	(0.0261)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
School, percent speaking EAL	1.004***	1.004***	1.004***
	(0.000285)	(0.000285)	(0.000277)
SEND, School Support	0.118***	0.114***	0.108***
	(0.00117)	(0.00111)	(0.00104)
SEND, EHCP mainstream	0.0203***	0.0195***	0.0158***
	(0.000557)	(0.000515)	(0.000402)
SEND, EHCP special	0.00210***	0.00174***	0.00164***
	(0.000274)	(0.000243)	(0.000222)
July-born	1.147***	1.136***	1.111***
	(0.0136)	(0.0137)	(0.0135)
June-born	1.323***	1.310***	1.275***
	(0.0161)	(0.0162)	(0.0160)
May-born	1.496***	1.496***	1.461***
	(0.0182)	(0.0186)	(0.0184)
April-born	1.691***	1.690***	1.636***
	(0.0214)	(0.0219)	(0.0212)
March-born	1.929***	1.933***	1.895***
	(0.0250)	(0.0252)	(0.0250)
February-born	2.175***	2.127***	2.093***
	(0.0290)	(0.0292)	(0.0288)
January-born	2.696***	2.756***	2.676***
	(0.0377)	(0.0398)	(0.0391)
December-born	2.844***	2.923***	2.817***
	(0.0392)	(0.0409)	(0.0399)
November-born	3.166***	3.272***	3.133***
	(0.0446)	(0.0472)	(0.0451)
October-born	3.574***	3.625***	3.496***
	(0.0516)	(0.0522)	(0.0507)
September-born	3.986***	4.086***	4.003***
	(0.0581)	(0.0610)	(0.0606)
London	1.364***	1.350***	1.351***
	(0.0317)	(0.0317)	(0.0319)
Midlands	0.817***	0.812***	0.809***
	(0.0147)	(0.0147)	(0.0148)
North	0.845***	0.839***	0.836***
	(0.0141)	(0.0141)	(0.0142)
Post-pandemic cohorts#London	0.915***	0.882***	0.926***
	(0.0254)	(0.0246)	(0.0263)
Post-pandemic cohorts#Midlands	1.062***	1.103***	1.110***
	(0.0247)	(0.0259)	(0.0259)
Post-pandemic cohorts#North	1.014	1.023	1.019
	(0.0208)	(0.0214)	(0.0215)
Mainstream Academy Converter	1.054***	1.032***	1.026**
	(0.0132)	(0.0125)	(0.0122)
Mainstream Academy Sponsor-Led	1.001	1.001	1.017
	(0.0178)	(0.0174)	(0.0176)
Mainstream Free School	1.264***	1.222***	1.260***
	(0.0543)	(0.0519)	(0.0489)
Constant	8.786***	8.684***	9.017***

	(0.160)	(0.159)	(0.167)
Observations	1,224,650	1,207,584	1,206,558
School clusters	19,435	19,376	19,775
Pseudo R-squared	0.2079	0.2169	0.2327
Degrees of freedom	72	72	72

Cluster robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
Achieving the 'Word Reading' Early Learning Goal			
Post-pandemic cohorts	0.704***	0.828***	0.877***
	(0.0108)	(0.0134)	(0.0142)
Eligible for Free School Meals (FSM)	0.534***	0.531***	0.531***
	(0.00521)	(0.00521)	(0.00523)
Post-pandemic cohorts#FSM	0.941***	0.934***	0.913***
	(0.0120)	(0.0122)	(0.0122)
IDACI, 3rd most deprived quarter	0.783***	0.791***	0.788***
	(0.00665)	(0.00687)	(0.00679)
IDACI, 2nd most deprived quarter	0.648***	0.655***	0.659***
	(0.00606)	(0.00614)	(0.00618)
IDACI, most deprived quarter	0.581***	0.593***	0.591***
	(0.00610)	(0.00622)	(0.00615)
Received targeted 2-year-old nursery 15h	0.677***	0.679***	0.679***
	(0.00490)	(0.00501)	(0.00507)
School, percent eligible for FSM	1.001***	1.001**	1.001***
	(0.000325)	(0.000313)	(0.000321)
Received universal 3-year-old nursery 15h	1.245***	1.261***	1.255***
	(0.0118)	(0.0120)	(0.0120)
Post-pandemic cohorts#3-year-old nursery 15h	1.171***	1.189***	1.237***
	(0.0141)	(0.0145)	(0.0152)
Male	0.588***	0.589***	0.590***
	(0.00410)	(0.00412)	(0.00414)
Post-pandemic cohorts#Male	1.170***	1.146***	1.107***
	(0.0115)	(0.0115)	(0.0112)
Bangladeshi	1.049	1.027	1.025
	(0.0359)	(0.0353)	(0.0353)
Indian	1.508***	1.493***	1.490***
	(0.0441)	(0.0440)	(0.0441)
Other Asian	1.132***	1.123***	1.122***
	(0.0323)	(0.0322)	(0.0323)
Pakistani	0.979	0.959*	0.956*
	(0.0231)	(0.0226)	(0.0227)
Black African	1.332***	1.318***	1.319***
	(0.0310)	(0.0308)	(0.0309)
Black Caribbean	0.839***	0.827***	0.824***
	(0.0307)	(0.0304)	(0.0303)

VARIABLES			
Other Black	0.999	0.988	0.987
	(0.0411)	(0.0408)	(0.0409)
Chinese	1.545***	1.547***	1.547***
	(0.0820)	(0.0824)	(0.0826)
Other Mixed	1.144***	1.138***	1.136***
	(0.0274)	(0.0274)	(0.0274)
White & Asian	1.302***	1.295***	1.293***
	(0.0385)	(0.0384)	(0.0385)
White & African	1.114***	1.106***	1.105***
	(0.0411)	(0.0410)	(0.0410)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
White & Caribbean	0.892***	0.884***	0.882***
	(0.0233)	(0.0231)	(0.0231)
Other Ethnicity	0.848***	0.838***	0.835***
	(0.0237)	(0.0235)	(0.0235)
Irish	1.042	1.037	1.038
	(0.0741)	(0.0740)	(0.0744)
Irish Traveller	0.250***	0.248***	0.247***
	(0.0246)	(0.0244)	(0.0244)
Other White	0.773***	0.770***	0.768***
	(0.0143)	(0.0143)	(0.0143)
Gypsy/Romany	0.199***	0.197***	0.197***
	(0.0129)	(0.0128)	(0.0128)
Post-pandemic cohorts#Bangladeshi	1.049	1.000	0.987
	(0.0460)	(0.0448)	(0.0455)
Post-pandemic cohorts#Indian	0.861***	0.761***	0.685***
	(0.0309)	(0.0267)	(0.0241)
Post-pandemic cohorts#Other Asian	0.976	0.904***	0.897***
	(0.0378)	(0.0350)	(0.0350)
Post-pandemic cohorts#Pakistani	0.996	0.985	0.944*
	(0.0295)	(0.0305)	(0.0292)
Post-pandemic cohorts#Black African	0.962	0.917***	0.824***
	(0.0299)	(0.0277)	(0.0249)
Post-pandemic cohorts#Black Caribbean	1.087	0.961	1.065
	(0.0566)	(0.0500)	(0.0570)
Post-pandemic cohorts#Other Black	0.972	1.019	1.008
	(0.0543)	(0.0596)	(0.0594)
Post-pandemic cohorts#Chinese	1.277***	1.127	1.230***
	(0.0993)	(0.0894)	(0.0962)
Post-pandemic cohorts#Other Mixed	1.015	0.968	0.961
	(0.0322)	(0.0317)	(0.0313)
Post-pandemic cohorts#White & Asian	0.957	0.964	0.977
	(0.0381)	(0.0396)	(0.0404)
Post-pandemic cohorts#White & African	1.085	1.054	1.035
	(0.0555)	(0.0549)	(0.0543)
Post-pandemic cohorts#White & Caribbean	1.083**	1.014	1.045
	(0.0394)	(0.0379)	(0.0391)
Post-pandemic cohorts#Other Ethnicity	0.990	1.007	1.006
	(0.0374)	(0.0382)	(0.0383)
Post-pandemic cohorts#Irish	1.000	0.876	0.937
	(0.102)	(0.0909)	(0.100)
Post-pandemic cohorts#Irish Traveller	1.037	0.962	0.933
	(0.138)	(0.134)	(0.125)
Post-pandemic cohorts#Other White	1.195***	1.166***	1.220***

	(0.0292)	(0.0291)	(0.0302)
Post-pandemic cohorts#Gypsy/Romany	1.390***	1.354***	1.410***
	(0.120)	(0.122)	(0.123)
English as an additional language (EAL)	0.626***	0.618***	0.616***
	(0.00920)	(0.00908)	(0.00909)
Post-pandemic cohorts#EAL	1.108***	1.119***	1.148***
	(0.0216)	(0.0223)	(0.0225)
School, percent speaking EAL	1.000	1.001**	1.001**
	(0.000246)	(0.000241)	(0.000242)
SEND, School Support	0.194***	0.186***	0.182***
	(0.00173)	(0.00163)	(0.00154)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
SEND, EHCP mainstream	0.0655***	0.0603***	0.0518***
	(0.00154)	(0.00139)	(0.00108)
SEND, EHCP special	0.00320***	0.00262***	0.00261***
	(0.000437)	(0.000358)	(0.000405)
July-born	1.136***	1.139***	1.131***
	(0.0116)	(0.0119)	(0.0119)
June-born	1.315***	1.329***	1.300***
	(0.0137)	(0.0142)	(0.0139)
May-born	1.487***	1.485***	1.470***
	(0.0156)	(0.0159)	(0.0159)
April-born	1.674***	1.674***	1.651***
	(0.0180)	(0.0186)	(0.0183)
March-born	1.903***	1.933***	1.920***
	(0.0209)	(0.0216)	(0.0216)
February-born	2.143***	2.152***	2.122***
	(0.0242)	(0.0251)	(0.0247)
January-born	2.539***	2.656***	2.606***
	(0.0304)	(0.0328)	(0.0327)
December-born	2.716***	2.802***	2.740***
	(0.0315)	(0.0331)	(0.0330)
November-born	3.074***	3.221***	3.135***
	(0.0362)	(0.0390)	(0.0384)
October-born	3.490***	3.559***	3.504***
	(0.0417)	(0.0435)	(0.0428)
September-born	3.956***	4.084***	4.021***
	(0.0488)	(0.0511)	(0.0518)
London	1.388***	1.365***	1.363***
	(0.0263)	(0.0261)	(0.0261)
Midlands	0.872***	0.867***	0.866***
	(0.0123)	(0.0123)	(0.0123)
North	0.853***	0.847***	0.846***
	(0.0107)	(0.0107)	(0.0107)
Post-pandemic cohorts#London	0.968	0.931***	0.949**
	(0.0218)	(0.0211)	(0.0219)
Post-pandemic cohorts#Midlands	1.061***	1.071***	1.065***
	(0.0196)	(0.0200)	(0.0202)
Post-pandemic cohorts#North	1.080***	1.067***	1.060***
	(0.0175)	(0.0177)	(0.0176)

Mainstream Academy Converter	1.079***	1.050***	1.053***
	(0.0106)	(0.0102)	(0.0101)
Mainstream Academy Sponsor-Led	1.073***	1.046***	1.042***
	(0.0163)	(0.0148)	(0.0145)
Mainstream Free School	1.304***	1.223***	1.298***
	(0.0516)	(0.0469)	(0.0490)
Constant	4.617***	4.521***	4.595***
	(0.0687)	(0.0680)	(0.0690)
Observations	1,224,650	1,207,584	1,206,558
School clusters	19,435	19,376	19,775
Pseudo R-squared	0.1482	0.1556	0.1653
Degrees of freedom	72	72	72

Cluster robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
Achieving the 'Word Reading' Early Learning Goal			
Post-pandemic cohorts	0.704***	0.828***	0.877***
	(0.0108)	(0.0134)	(0.0142)
Eligible for Free School Meals (FSM)	0.534***	0.531***	0.531***
	(0.00521)	(0.00521)	(0.00523)
Post-pandemic cohorts#FSM	0.941***	0.934***	0.913***
	(0.0120)	(0.0122)	(0.0122)
IDACI, 3rd most deprived quarter	0.783***	0.791***	0.788***
	(0.00665)	(0.00687)	(0.00679)
IDACI, 2nd most deprived quarter	0.648***	0.655***	0.659***
	(0.00606)	(0.00614)	(0.00618)
IDACI, most deprived quarter	0.581***	0.593***	0.591***
	(0.00610)	(0.00622)	(0.00615)
Received targeted 2-year-old nursery 15h	0.677***	0.679***	0.679***
	(0.00490)	(0.00501)	(0.00507)
School, percent eligible for FSM	1.001***	1.001**	1.001***
	(0.000325)	(0.000313)	(0.000321)
Received universal 3-year-old nursery 15h	1.245***	1.261***	1.255***
	(0.0118)	(0.0120)	(0.0120)
Post-pandemic cohorts#3-year-old nursery 15h	1.171***	1.189***	1.237***
	(0.0141)	(0.0145)	(0.0152)
Male	0.588***	0.589***	0.590***
	(0.00410)	(0.00412)	(0.00414)
Post-pandemic cohorts#Male	1.170***	1.146***	1.107***
	(0.0115)	(0.0115)	(0.0112)
Bangladeshi	1.049	1.027	1.025
	(0.0359)	(0.0353)	(0.0353)
Indian	1.508***	1.493***	1.490***

	(0.0441)	(0.0440)	(0.0441)
Other Asian	1.132***	1.123***	1.122***
	(0.0323)	(0.0322)	(0.0323)
Pakistani	0.979	0.959*	0.956*
	(0.0231)	(0.0226)	(0.0227)
Black African	1.332***	1.318***	1.319***
	(0.0310)	(0.0308)	(0.0309)
Black Caribbean	0.839***	0.827***	0.824***
	(0.0307)	(0.0304)	(0.0303)
Other Black	0.999	0.988	0.987
	(0.0411)	(0.0408)	(0.0409)
Chinese	1.545***	1.547***	1.547***
	(0.0820)	(0.0824)	(0.0826)
Other Mixed	1.144***	1.138***	1.136***
	(0.0274)	(0.0274)	(0.0274)
White & Asian	1.302***	1.295***	1.293***
	(0.0385)	(0.0384)	(0.0385)
White & African	1.114***	1.106***	1.105***
	(0.0411)	(0.0410)	(0.0410)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
White & Caribbean	0.892***	0.884***	0.882***
	(0.0233)	(0.0231)	(0.0231)
Other Ethnicity	0.848***	0.838***	0.835***
	(0.0237)	(0.0235)	(0.0235)
Irish	1.042	1.037	1.038
	(0.0741)	(0.0740)	(0.0744)
Irish Traveller	0.250***	0.248***	0.247***
	(0.0246)	(0.0244)	(0.0244)
Other White	0.773***	0.770***	0.768***
	(0.0143)	(0.0143)	(0.0143)
Gypsy/Romany	0.199***	0.197***	0.197***
	(0.0129)	(0.0128)	(0.0128)
Post-pandemic cohorts#Bangladeshi	1.049	1.000	0.987
	(0.0460)	(0.0448)	(0.0455)
Post-pandemic cohorts#Indian	0.861***	0.761***	0.685***
	(0.0309)	(0.0267)	(0.0241)
Post-pandemic cohorts#Other Asian	0.976	0.904***	0.897***
	(0.0378)	(0.0350)	(0.0350)
Post-pandemic cohorts#Pakistani	0.996	0.985	0.944*
	(0.0295)	(0.0305)	(0.0292)
Post-pandemic cohorts#Black African	0.962	0.917***	0.824***
	(0.0299)	(0.0277)	(0.0249)
Post-pandemic cohorts#Black Caribbean	1.087	0.961	1.065
	(0.0566)	(0.0500)	(0.0570)
Post-pandemic cohorts#Other Black	0.972	1.019	1.008
	(0.0543)	(0.0596)	(0.0594)
Post-pandemic cohorts#Chinese	1.277***	1.127	1.230***
	(0.0993)	(0.0894)	(0.0962)
Post-pandemic cohorts#Other Mixed	1.015	0.968	0.961
	(0.0322)	(0.0317)	(0.0313)
Post-pandemic cohorts#White & Asian	0.957	0.964	0.977
	(0.0381)	(0.0396)	(0.0404)
Post-pandemic cohorts#White & African	1.085	1.054	1.035
	(0.0555)	(0.0549)	(0.0543)

	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
Post-pandemic cohorts#White & Caribbean	1.083**	1.014	1.045
	(0.0394)	(0.0379)	(0.0391)
Post-pandemic cohorts#Other Ethnicity	0.990	1.007	1.006
	(0.0374)	(0.0382)	(0.0383)
Post-pandemic cohorts#Irish	1.000	0.876	0.937
	(0.102)	(0.0909)	(0.100)
Post-pandemic cohorts#Irish Traveller	1.037	0.962	0.933
	(0.138)	(0.134)	(0.125)
Post-pandemic cohorts#Other White	1.195***	1.166***	1.220***
	(0.0292)	(0.0291)	(0.0302)
Post-pandemic cohorts#Gypsy/Romany	1.390***	1.354***	1.410***
	(0.120)	(0.122)	(0.123)
English as an additional language (EAL)	0.626***	0.618***	0.616***
	(0.00920)	(0.00908)	(0.00909)
Post-pandemic cohorts#EAL	1.108***	1.119***	1.148***
	(0.0216)	(0.0223)	(0.0225)
School, percent speaking EAL	1.000	1.001**	1.001**
	(0.000246)	(0.000241)	(0.000242)
SEND, School Support	0.194***	0.186***	0.182***
	(0.00173)	(0.00163)	(0.00154)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
SEND, EHCP mainstream	0.0655***	0.0603***	0.0518***
	(0.00154)	(0.00139)	(0.00108)
SEND, EHCP special	0.00320***	0.00262***	0.00261***
	(0.000437)	(0.000358)	(0.000405)
July-born	1.136***	1.139***	1.131***
	(0.0116)	(0.0119)	(0.0119)
June-born	1.315***	1.329***	1.300***
	(0.0137)	(0.0142)	(0.0139)
May-born	1.487***	1.485***	1.470***
	(0.0156)	(0.0159)	(0.0159)
April-born	1.674***	1.674***	1.651***
	(0.0180)	(0.0186)	(0.0183)
March-born	1.903***	1.933***	1.920***
	(0.0209)	(0.0216)	(0.0216)
February-born	2.143***	2.152***	2.122***
	(0.0242)	(0.0251)	(0.0247)
January-born	2.539***	2.656***	2.606***
	(0.0304)	(0.0328)	(0.0327)
December-born	2.716***	2.802***	2.740***
	(0.0315)	(0.0331)	(0.0330)
November-born	3.074***	3.221***	3.135***
	(0.0362)	(0.0390)	(0.0384)
October-born	3.490***	3.559***	3.504***
	(0.0417)	(0.0435)	(0.0428)
September-born	3.956***	4.084***	4.021***
	(0.0488)	(0.0511)	(0.0518)
London	1.388***	1.365***	1.363***
	(0.0263)	(0.0261)	(0.0261)
Midlands	0.872***	0.867***	0.866***

	(0.0123)	(0.0123)	(0.0123)
North	0.853***	0.847***	0.846***
	(0.0107)	(0.0107)	(0.0107)
Post-pandemic cohorts#London	0.968	0.931***	0.949**
	(0.0218)	(0.0211)	(0.0219)
Post-pandemic cohorts#Midlands	1.061***	1.071***	1.065***
	(0.0196)	(0.0200)	(0.0202)
Post-pandemic cohorts#North	1.080***	1.067***	1.060***
	(0.0175)	(0.0177)	(0.0176)
Mainstream Academy Converter	1.079***	1.050***	1.053***
	(0.0106)	(0.0102)	(0.0101)
Mainstream Academy Sponsor-Led	1.073***	1.046***	1.042***
	(0.0163)	(0.0148)	(0.0145)
Mainstream Free School	1.304***	1.223***	1.298***
	(0.0516)	(0.0469)	(0.0490)
Constant	4.617***	4.521***	4.595***
	(0.0687)	(0.0680)	(0.0690)
Observations	1,224,650	1,207,584	1,206,558
School clusters	19,435	19,376	19,775
Pseudo R-squared	0.1482	0.1556	0.1653
Degrees of freedom	72	72	72

Cluster robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
Achieved 'Fine Motor' Early Learning Goal			
Post-pandemic cohorts	0.740***	0.807***	0.812***
	(0.0177)	(0.0199)	(0.0196)
Eligible for Free School Meals (FSM)	0.630***	0.625***	0.622***
	(0.00847)	(0.00851)	(0.00852)
Post-pandemic cohorts#FSM	0.944***	0.982	0.943***
	(0.0165)	(0.0175)	(0.0172)
IDACI, 3rd most deprived quarter	0.824***	0.821***	0.820***
	(0.00984)	(0.00984)	(0.00997)
IDACI, 2nd most deprived quarter	0.704***	0.708***	0.705***
	(0.00934)	(0.00939)	(0.00928)
IDACI, most deprived quarter	0.629***	0.636***	0.635***
	(0.00942)	(0.00954)	(0.00948)
Received targeted 2-year-old nursery 15h	0.754***	0.753***	0.757***
	(0.00708)	(0.00725)	(0.00734)
School, percent eligible for FSM	0.999	1.000	1.000
	(0.000475)	(0.000462)	(0.000471)
Received universal 3-year-old nursery 15h	1.258***	1.277***	1.266***
	(0.0170)	(0.0175)	(0.0175)
Post-pandemic cohorts#3-year-old nursery 15h	1.086***	1.077***	1.112***
	(0.0182)	(0.0184)	(0.0189)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
Male	0.400***	0.401***	0.402***
	(0.00437)	(0.00441)	(0.00445)
Post-pandemic cohorts#Male	0.816***	0.828***	0.839***
	(0.0120)	(0.0125)	(0.0126)
Bangladeshi	0.887**	0.869***	0.867***
	(0.0431)	(0.0429)	(0.0429)
Indian	1.266***	1.257***	1.260***
	(0.0527)	(0.0527)	(0.0533)
Other Asian	1.165***	1.158***	1.158***
	(0.0498)	(0.0499)	(0.0505)
Pakistani	0.893***	0.877***	0.876***
	(0.0303)	(0.0302)	(0.0305)
Black African	1.162***	1.150***	1.149***
	(0.0381)	(0.0381)	(0.0384)
Black Caribbean	1.125**	1.109*	1.103*
	(0.0636)	(0.0634)	(0.0633)
Other Black	1.080	1.069	1.066
	(0.0631)	(0.0630)	(0.0633)
Chinese	1.550***	1.551***	1.551***
	(0.132)	(0.133)	(0.134)
Other Mixed	1.166***	1.160***	1.158***
	(0.0408)	(0.0409)	(0.0411)
White & Asian	1.167***	1.160***	1.159***
	(0.0477)	(0.0478)	(0.0481)
White & African	1.240***	1.233***	1.231***
	(0.0665)	(0.0667)	(0.0670)
White & Caribbean	1.124***	1.114***	1.110***
	(0.0442)	(0.0441)	(0.0443)
Other Ethnicity	0.999	0.987	0.982
	(0.0418)	(0.0416)	(0.0416)
Irish	0.860	0.855	0.856
	(0.0837)	(0.0840)	(0.0848)
Irish Traveller	0.542***	0.537***	0.534***
	(0.0717)	(0.0716)	(0.0716)
Other White	1.032	1.028	1.025
	(0.0289)	(0.0291)	(0.0292)
Gypsy/Romany	0.387***	0.382***	0.379***
	(0.0324)	(0.0322)	(0.0322)
Post-pandemic cohorts#Bangladeshi	1.054	1.056	1.076
	(0.0649)	(0.0677)	(0.0676)
Post-pandemic cohorts#Indian	0.978	0.928	0.895**
	(0.0502)	(0.0470)	(0.0450)
Post-pandemic cohorts#Other Asian	0.937	0.908*	0.898**
	(0.0511)	(0.0505)	(0.0493)
Post-pandemic cohorts#Pakistani	0.990	0.979	0.940
	(0.0405)	(0.0409)	(0.0403)
Post-pandemic cohorts#Black African	0.877***	0.871***	0.826***
	(0.0367)	(0.0357)	(0.0334)
Post-pandemic cohorts#Black Caribbean	0.839**	0.775***	0.852**
	(0.0633)	(0.0575)	(0.0641)
Post-pandemic cohorts#Other Black	0.783***	0.844**	0.814***

	(0.0593)	(0.0645)	(0.0633)
Post-pandemic cohorts#Chinese	1.393***	1.403***	1.269**
	(0.165)	(0.169)	(0.145)
Post-pandemic cohorts#Other Mixed	1.003	0.952	0.906**
	(0.0452)	(0.0431)	(0.0405)
Post-pandemic cohorts#White & Asian	1.027	1.021	1.024
	(0.0563)	(0.0564)	(0.0562)
Post-pandemic cohorts#White & African	0.979	0.855**	0.935
	(0.0698)	(0.0606)	(0.0674)
Post-pandemic cohorts#White & Caribbean	0.939	0.885**	0.929
	(0.0490)	(0.0459)	(0.0500)
Post-pandemic cohorts#Other Ethnicity	0.970	0.974	0.948
	(0.0527)	(0.0521)	(0.0513)
Post-pandemic cohorts#Irish	1.042	0.989	1.233
	(0.143)	(0.129)	(0.181)
Post-pandemic cohorts#Irish Traveller	0.668**	0.662**	0.573***
	(0.114)	(0.116)	(0.100)
Post-pandemic cohorts#Other White	1.096**	1.077**	1.037
	(0.0389)	(0.0392)	(0.0377)
Post-pandemic cohorts#Gypsy/Romany	1.154	1.205*	1.074
	(0.120)	(0.136)	(0.117)
English as an additional language (EAL)	0.864***	0.853***	0.851***
	(0.0186)	(0.0185)	(0.0187)
Post-pandemic cohorts#EAL	1.051*	1.064**	1.087***
	(0.0287)	(0.0300)	(0.0305)
School, percent speaking EAL	0.999***	0.999**	0.999**
	(0.000352)	(0.000347)	(0.000342)
SEND, School Support	0.141***	0.132***	0.127***
	(0.00144)	(0.00133)	(0.00124)

	(2021/22)	(2022/23)	(2023/24)
VARIABLES	odds ratio	odds ratio	odds ratio
SEND, EHCP mainstream	0.0239***	0.0214***	0.0191***
	(0.000610)	(0.000529)	(0.000437)
SEND, EHCP special	0.00243***	0.00206***	0.00188***
	(0.000285)	(0.000239)	(0.000225)
July-born	1.149***	1.145***	1.130***
	(0.0154)	(0.0156)	(0.0156)
June-born	1.344***	1.342***	1.301***
	(0.0183)	(0.0186)	(0.0183)
May-born	1.542***	1.539***	1.514***
	(0.0214)	(0.0216)	(0.0218)
April-born	1.771***	1.769***	1.727***
	(0.0256)	(0.0263)	(0.0256)
March-born	2.022***	2.019***	2.011***
	(0.0297)	(0.0299)	(0.0304)
February-born	2.339***	2.322***	2.290***
	(0.0359)	(0.0369)	(0.0359)
January-born	2.773***	2.900***	2.792***
	(0.0449)	(0.0486)	(0.0468)
December-born	2.964***	3.035***	2.950***
	(0.0471)	(0.0493)	(0.0488)
November-born	3.329***	3.505***	3.415***

	(0.0540)	(0.0580)	(0.0571)
October-born	3.835***	3.910***	3.794***
	(0.0640)	(0.0662)	(0.0647)
September-born	4.374***	4.484***	4.401***
	(0.0747)	(0.0777)	(0.0779)
London	1.223***	1.206***	1.209***
	(0.0369)	(0.0367)	(0.0370)
Midlands	0.809***	0.802***	0.799***
	(0.0193)	(0.0193)	(0.0194)
North	0.842***	0.834***	0.832***
	(0.0184)	(0.0184)	(0.0185)
Post-pandemic cohorts#London	0.969	0.913**	0.986
	(0.0341)	(0.0330)	(0.0360)
Post-pandemic cohorts#Midlands	1.097***	1.089***	1.092***
	(0.0323)	(0.0320)	(0.0324)
Post-pandemic cohorts#North	1.040	1.043	1.048*
	(0.0271)	(0.0276)	(0.0278)
Mainstream Academy Converter	1.051***	1.034**	1.034**
	(0.0159)	(0.0152)	(0.0149)
Mainstream Academy Sponsor-Led	0.963*	0.956**	0.988
	(0.0217)	(0.0207)	(0.0211)
Mainstream Free School	1.180***	1.104*	1.153***
	(0.0630)	(0.0566)	(0.0601)
Constant	17.13***	16.98***	17.48***
	(0.381)	(0.382)	(0.396)
Observations	1,224,650	1,207,584	1,206,558
School clusters	19,435	19,376	19,775
Pseudo R-squared	0.2276	0.2393	0.2562
Degrees of freedom	72	72	72

Cluster robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
Achieving the 'Writing' Early Learning Goal			
Post-pandemic cohorts	0.695***	0.790***	0.855***
	(0.0101)	(0.0118)	(0.0128)
Eligible for Free School Meals (FSM)	0.539***	0.534***	0.533***
	(0.00512)	(0.00511)	(0.00511)
Post-pandemic cohorts#FSM	0.920***	0.929***	0.900***
	(0.0114)	(0.0117)	(0.0117)
IDACI, 3rd most deprived quarter	0.817***	0.818***	0.819***
	(0.00638)	(0.00649)	(0.00653)
IDACI, 2nd most deprived quarter	0.692***	0.696***	0.700***
	(0.00601)	(0.00602)	(0.00608)
IDACI, most deprived quarter	0.622***	0.631***	0.630***
	(0.00619)	(0.00622)	(0.00616)
Received targeted 2-year-old nursery 15h	0.672***	0.678***	0.677***

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	(0.00469)	(0.00482)	(0.00487)
School, percent eligible for FSM	1.003***	1.003***	1.003***
	(0.000315)	(0.000301)	(0.000310)
Received universal 3-year-old nursery 15h	1.236***	1.249***	1.245***
	(0.0111)	(0.0113)	(0.0113)
Post-pandemic cohorts#3-year-old nursery 15h	1.140***	1.164***	1.213***
	(0.0131)	(0.0134)	(0.0141)
Male	0.538***	0.539***	0.540***
	(0.00360)	(0.00362)	(0.00363)
Post-pandemic cohorts#Male	1.120***	1.095***	1.057***
	(0.0105)	(0.0104)	(0.0102)
Bangladeshi	1.108***	1.084**	1.077**
	(0.0374)	(0.0370)	(0.0368)
Indian	1.557***	1.544***	1.535***
	(0.0430)	(0.0428)	(0.0429)
Other Asian	1.207***	1.197***	1.193***
	(0.0342)	(0.0340)	(0.0341)
Pakistani	0.990	0.970	0.961*
	(0.0224)	(0.0221)	(0.0219)
Black African	1.343***	1.328***	1.325***
	(0.0300)	(0.0299)	(0.0299)
Black Caribbean	0.847***	0.833***	0.827***
	(0.0300)	(0.0296)	(0.0295)
Other Black	1.011	0.998	0.995
	(0.0413)	(0.0409)	(0.0409)
Chinese	1.616***	1.620***	1.620***
	(0.0822)	(0.0827)	(0.0830)
Other Mixed	1.175***	1.168***	1.165***
	(0.0272)	(0.0271)	(0.0271)
White & Asian	1.319***	1.312***	1.308***
	(0.0368)	(0.0367)	(0.0368)
White & African	1.122***	1.114***	1.111***
	(0.0392)	(0.0391)	(0.0391)

	(2021/22)	(2022/23)	(2023/24)
VARIABLES	odds ratio	odds ratio	odds ratio
White & Caribbean	0.903***	0.894***	0.891***
	(0.0226)	(0.0224)	(0.0224)
Other Ethnicity	0.891***	0.880***	0.875***
	(0.0247)	(0.0245)	(0.0244)
Irish	1.015	1.010	1.010
	(0.0676)	(0.0677)	(0.0679)
Irish Traveller	0.264***	0.262***	0.261***
	(0.0270)	(0.0268)	(0.0268)
Other White	0.806***	0.803***	0.801***
	(0.0144)	(0.0144)	(0.0144)
Gypsy/Romany	0.197***	0.195***	0.193***
	(0.0129)	(0.0128)	(0.0127)
Post-pandemic cohorts#Bangladeshi	1.003	0.962	0.973
	(0.0425)	(0.0423)	(0.0433)
Post-pandemic cohorts#Indian	0.848***	0.755***	0.676***
	(0.0286)	(0.0250)	(0.0222)

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	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
Post-pandemic cohorts#Other Asian	0.916**	0.845***	0.829***
	(0.0342)	(0.0314)	(0.0314)
Post-pandemic cohorts#Pakistani	0.956	0.953*	0.920***
	(0.0277)	(0.0275)	(0.0271)
Post-pandemic cohorts#Black African	0.877***	0.862***	0.793***
	(0.0260)	(0.0249)	(0.0228)
Post-pandemic cohorts#Black Caribbean	1.017	0.965	1.037
	(0.0507)	(0.0479)	(0.0532)
Post-pandemic cohorts#Other Black	0.902*	0.942	0.948
	(0.0487)	(0.0541)	(0.0547)
Post-pandemic cohorts#Chinese	1.229***	1.129	1.160**
	(0.0892)	(0.0835)	(0.0845)
Post-pandemic cohorts#Other Mixed	0.979	0.930**	0.937**
	(0.0300)	(0.0286)	(0.0292)
Post-pandemic cohorts#White & Asian	0.944	0.944	0.969
	(0.0353)	(0.0364)	(0.0375)
Post-pandemic cohorts#White & African	1.044	1.010	1.018
	(0.0501)	(0.0495)	(0.0501)
Post-pandemic cohorts#White & Caribbean	1.040	1.018	1.064*
	(0.0361)	(0.0367)	(0.0382)
Post-pandemic cohorts#Other Ethnicity	0.926**	0.942	0.940*
	(0.0340)	(0.0345)	(0.0348)
Post-pandemic cohorts#Irish	1.014	0.962	0.985
	(0.0962)	(0.0919)	(0.0976)
Post-pandemic cohorts#Irish Traveller	1.006	0.904	0.963
	(0.136)	(0.128)	(0.131)
Post-pandemic cohorts#Other White	1.164***	1.135***	1.186***
	(0.0273)	(0.0271)	(0.0281)
Post-pandemic cohorts#Gypsy/Romany	1.388***	1.383***	1.426***
	(0.117)	(0.125)	(0.127)
English as an additional language (EAL)	0.653***	0.643***	0.640***
	(0.00932)	(0.00918)	(0.00917)
Post-pandemic cohorts#EAL	1.067***	1.093***	1.109***
	(0.0201)	(0.0208)	(0.0209)
School, percent speaking EAL	1.000	1.001***	1.001***
	(0.000240)	(0.000233)	(0.000230)
SEND, School Support	0.172***	0.164***	0.158***
	(0.00161)	(0.00151)	(0.00141)
	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
VARIABLES			
SEND, EHCP mainstream	0.0449***	0.0395***	0.0344***
	(0.00125)	(0.00109)	(0.000881)
SEND, EHCP special	0.00189***	0.00144***	0.00139***
	(0.000391)	(0.000337)	(0.000325)
July-born	1.145***	1.146***	1.133***
	(0.0113)	(0.0114)	(0.0114)
June-born	1.336***	1.347***	1.318***
	(0.0133)	(0.0137)	(0.0134)
May-born	1.547***	1.553***	1.523***
	(0.0154)	(0.0159)	(0.0157)
April-born	1.741***	1.751***	1.727***
	(0.0180)	(0.0184)	(0.0182)

		(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio

VARIABLES	(2021/22)	(2022/23)	(2023/24)
March-born	2.016***	2.038***	2.022***
	(0.0212)	(0.0215)	(0.0216)
February-born	2.288***	2.289***	2.277***
	(0.0247)	(0.0253)	(0.0252)
January-born	2.724***	2.842***	2.787***
	(0.0312)	(0.0334)	(0.0331)
December-born	2.948***	3.020***	2.984***
	(0.0325)	(0.0337)	(0.0339)
November-born	3.338***	3.482***	3.411***
	(0.0373)	(0.0399)	(0.0394)
October-born	3.812***	3.913***	3.836***
	(0.0430)	(0.0453)	(0.0445)
September-born	4.391***	4.525***	4.433***
	(0.0515)	(0.0538)	(0.0537)
London	1.439***	1.416***	1.410***
	(0.0264)	(0.0261)	(0.0260)
Midlands	0.900***	0.895***	0.894***
	(0.0120)	(0.0119)	(0.0120)
North	0.900***	0.893***	0.893***
	(0.0106)	(0.0106)	(0.0106)
Post-pandemic cohorts#London	1.003	0.951**	0.989
	(0.0220)	(0.0201)	(0.0219)
Post-pandemic cohorts#Midlands	1.075***	1.085***	1.066***
	(0.0186)	(0.0186)	(0.0184)
Post-pandemic cohorts#North	1.050***	1.053***	1.040***
	(0.0159)	(0.0158)	(0.0156)
Mainstream Academy Converter	1.088***	1.063***	1.065***
	(0.0102)	(0.00964)	(0.00948)
Mainstream Academy Sponsor-Led	1.125***	1.104***	1.105***
	(0.0165)	(0.0151)	(0.0150)
Mainstream Free School	1.351***	1.267***	1.346***
	(0.0539)	(0.0462)	(0.0493)
Constant	3.237***	3.177***	3.219***
	(0.0453)	(0.0448)	(0.0455)
Observations	1,224,650	1,207,584	1,206,558
School clusters	19,435	19,376	19,775
Pseudo R-squared	0.1525	0.1593	0.1701
Degrees of freedom	72	72	72

Cluster robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
Achievement of the 'Self Regulation' Early Learning Goal			
Post-pandemic cohorts	0.674***	0.715***	0.733***
	(0.0149)	(0.0164)	(0.0170)
Eligible for Free School Meals (FSM)	0.603***	0.599***	0.596***
	(0.00776)	(0.00782)	(0.00786)
Post-pandemic cohorts#FSM	1.073***	1.090***	1.073***
	(0.0179)	(0.0189)	(0.0188)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
IDACI, 3rd most deprived quarter	0.829***	0.826***	0.832***
	(0.00939)	(0.00933)	(0.00955)
IDACI, 2nd most deprived quarter	0.721***	0.728***	0.729***
	(0.00918)	(0.00916)	(0.00923)
IDACI, most deprived quarter	0.662***	0.668***	0.677***
	(0.00958)	(0.00951)	(0.00978)
Received targeted 2-year-old nursery 15h	0.712***	0.713***	0.722***
	(0.00656)	(0.00685)	(0.00692)
School, percent eligible for FSM	1.000	1.001	1.001*
	(0.000452)	(0.000442)	(0.000455)
Received universal 3-year-old nursery 15h	1.259***	1.266***	1.262***
	(0.0162)	(0.0164)	(0.0165)
Post-pandemic cohorts#3-year-old nursery 15h	1.091***	1.064***	1.128***
	(0.0174)	(0.0173)	(0.0182)
Male	0.440***	0.441***	0.443***
	(0.00444)	(0.00449)	(0.00456)
Post-pandemic cohorts#Male	1.014	1.040***	1.037**
	(0.0140)	(0.0145)	(0.0146)
Bangladeshi	0.856***	0.844***	0.843***
	(0.0403)	(0.0403)	(0.0406)
Indian	1.142***	1.139***	1.141***
	(0.0445)	(0.0448)	(0.0455)
Other Asian	0.948	0.942	0.942
	(0.0363)	(0.0364)	(0.0369)
Pakistani	0.910***	0.901***	0.900***
	(0.0300)	(0.0300)	(0.0304)
Black African	0.936**	0.929**	0.927**
	(0.0280)	(0.0280)	(0.0283)
Black Caribbean	0.738***	0.729***	0.721***
	(0.0366)	(0.0365)	(0.0365)
Other Black	0.744***	0.737***	0.732***
	(0.0385)	(0.0385)	(0.0386)
Chinese	0.956	0.952	0.948
	(0.0603)	(0.0604)	(0.0607)
Other Mixed	0.987	0.983	0.980
	(0.0325)	(0.0327)	(0.0330)
White & Asian	1.104**	1.099**	1.097**
	(0.0433)	(0.0434)	(0.0438)
White & African	1.021	1.015	1.011
	(0.0508)	(0.0510)	(0.0514)
White & Caribbean	0.900***	0.893***	0.887***
	(0.0329)	(0.0329)	(0.0331)
Other Ethnicity	0.745***	0.737***	0.732***
	(0.0278)	(0.0278)	(0.0278)
Irish	1.097	1.095	1.100
	(0.111)	(0.112)	(0.114)
Irish Traveller	0.486***	0.481***	0.478***

	(0.0636)	(0.0635)	(0.0636)
Other White	0.680***	0.675***	0.671***
	(0.0164)	(0.0165)	(0.0165)
Gypsy/Romany	0.291***	0.288***	0.285***
	(0.0224)	(0.0222)	(0.0222)
Post-pandemic cohorts#Bangladeshi	1.075	1.048	1.082
	(0.0627)	(0.0648)	(0.0638)
Post-pandemic cohorts#Indian	0.931	0.899**	0.864***
	(0.0464)	(0.0436)	(0.0403)
Post-pandemic cohorts#Other Asian	0.969	0.976	0.960
	(0.0485)	(0.0497)	(0.0488)
Post-pandemic cohorts#Pakistani	1.059	1.062	1.060
	(0.0435)	(0.0442)	(0.0451)
Post-pandemic cohorts#Black African	0.878***	0.834***	0.772***
	(0.0332)	(0.0317)	(0.0284)
Post-pandemic cohorts#Black Caribbean	0.950	0.974	0.929
	(0.0632)	(0.0659)	(0.0623)
Post-pandemic cohorts#Other Black	0.939	0.917	0.917
	(0.0649)	(0.0645)	(0.0655)
Post-pandemic cohorts#Chinese	1.305***	1.392***	1.276***
	(0.119)	(0.131)	(0.118)
Post-pandemic cohorts#Other Mixed	0.970	0.950	0.929*
	(0.0411)	(0.0403)	(0.0398)
Post-pandemic cohorts#White & Asian	1.041	0.965	1.003
	(0.0553)	(0.0517)	(0.0538)
Post-pandemic cohorts#White & African	1.007	0.908	0.850**
	(0.0667)	(0.0603)	(0.0573)
Post-pandemic cohorts#White & Caribbean	1.030	0.962	1.009
	(0.0504)	(0.0476)	(0.0508)
Post-pandemic cohorts#Other Ethnicity	1.049	1.091*	1.097*
	(0.0504)	(0.0540)	(0.0559)
Post-pandemic cohorts#Irish	0.904	0.832	0.957
	(0.127)	(0.112)	(0.143)
Post-pandemic cohorts#Irish Traveller	1.041	1.065	0.975
	(0.185)	(0.191)	(0.176)
Post-pandemic cohorts#Other White	1.269***	1.289***	1.319***
	(0.0402)	(0.0417)	(0.0432)
Post-pandemic cohorts#Gypsy/Romany	1.710***	1.807***	1.695***
	(0.170)	(0.199)	(0.181)
English as an additional language (EAL)	0.648***	0.641***	0.638***
	(0.0127)	(0.0127)	(0.0128)
Post-pandemic cohorts#EAL	1.188***	1.231***	1.262***
	(0.0305)	(0.0316)	(0.0325)
School, percent speaking EAL	1.000	1.001*	1.001*
	(0.000327)	(0.000325)	(0.000324)
SEND, School Support	0.109***	0.102***	0.0957***
	(0.00110)	(0.00103)	(0.000948)
	(2021/22)	(2022/23)	(2023/24)
VARIABLES	odds ratio	odds ratio	odds ratio
SEND, EHCP mainstream	0.0180***	0.0166***	0.0134***
	(0.000490)	(0.000434)	(0.000330)
SEND, EHCP special	0.00132***	0.00125***	0.00113***
	(0.000205)	(0.000198)	(0.000176)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
July-born	1.095***	1.098***	1.060***
	(0.0147)	(0.0152)	(0.0148)
June-born	1.247***	1.245***	1.217***
	(0.0173)	(0.0176)	(0.0174)
May-born	1.392***	1.390***	1.370***
	(0.0195)	(0.0198)	(0.0199)
April-born	1.542***	1.527***	1.472***
	(0.0221)	(0.0225)	(0.0218)
March-born	1.695***	1.681***	1.689***
	(0.0245)	(0.0246)	(0.0255)
February-born	1.855***	1.821***	1.794***
	(0.0277)	(0.0280)	(0.0279)
January-born	2.130***	2.155***	2.137***
	(0.0337)	(0.0352)	(0.0355)
December-born	2.208***	2.240***	2.173***
	(0.0337)	(0.0351)	(0.0342)
November-born	2.445***	2.467***	2.391***
	(0.0383)	(0.0392)	(0.0382)
October-born	2.722***	2.727***	2.626***
	(0.0431)	(0.0439)	(0.0425)
September-born	3.039***	2.991***	2.931***
	(0.0490)	(0.0487)	(0.0486)
London	1.368***	1.358***	1.363***
	(0.0370)	(0.0372)	(0.0379)
Midlands	0.841***	0.835***	0.831***
	(0.0182)	(0.0183)	(0.0184)
North	0.863***	0.856***	0.852***
	(0.0170)	(0.0171)	(0.0173)
Post-pandemic cohorts#London	0.917***	0.920**	0.928**
	(0.0298)	(0.0305)	(0.0309)
Post-pandemic cohorts#Midlands	1.070**	1.120***	1.093***
	(0.0294)	(0.0310)	(0.0308)
Post-pandemic cohorts#North	1.036	1.066***	1.043*
	(0.0250)	(0.0262)	(0.0260)
Mainstream Academy Converter	1.057***	1.029**	1.039***
	(0.0150)	(0.0141)	(0.0143)
Mainstream Academy Sponsor-Led	0.986	0.982	0.983
	(0.0202)	(0.0193)	(0.0192)
Mainstream Free School	1.227***	1.125***	1.146**
	(0.0610)	(0.0509)	(0.0632)
Constant	17.45***	17.62***	18.16***
	(0.369)	(0.375)	(0.393)
Observations	1,224,650	1,207,584	1,206,558
School clusters	19,435	19,376	19,775
Pseudo R-squared	0.2283	0.2405	0.2619
Degrees of freedom	72	72	72

Cluster robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

Achievement of 'Relationships' Early Learning Goal

Post-pandemic cohorts	0.847***	0.923***	0.952*
	(0.0213)	(0.0237)	(0.0242)
Eligible for Free School Meals (FSM)	0.625***	0.618***	0.618***
	(0.00857)	(0.00861)	(0.00870)
Post-pandemic cohorts#FSM	1.084***	1.111***	1.079***
	(0.0201)	(0.0213)	(0.0208)
IDACI, 3rd most deprived quarter	0.808***	0.810***	0.808***
	(0.0104)	(0.0104)	(0.0105)
IDACI, 2nd most deprived quarter	0.704***	0.708***	0.700***
	(0.0101)	(0.0100)	(0.00995)
IDACI, most deprived quarter	0.636***	0.648***	0.644***
	(0.0104)	(0.0104)	(0.0104)
Received targeted 2-year-old nursery 15h	0.748***	0.754***	0.763***
	(0.00762)	(0.00793)	(0.00801)
School, percent eligible for FSM	0.999***	0.999**	0.999**
	(0.000512)	(0.000498)	(0.000513)
Received universal 3-year-old nursery 15h	1.298***	1.304***	1.303***
	(0.0179)	(0.0183)	(0.0185)
Post-pandemic cohorts#3-year-old nursery 15h	1.126***	1.098***	1.154***
	(0.0198)	(0.0196)	(0.0204)
Male	0.474***	0.476***	0.478***
	(0.00511)	(0.00519)	(0.00527)
Post-pandemic cohorts#Male	0.997	1.009	1.009
	(0.0152)	(0.0155)	(0.0154)
Bangladeshi	0.786***	0.763***	0.768***
	(0.0388)	(0.0383)	(0.0392)
Indian	1.046	1.033	1.037
	(0.0433)	(0.0432)	(0.0440)
Other Asian	0.910**	0.899***	0.901**
	(0.0362)	(0.0361)	(0.0368)
Pakistani	0.821***	0.799***	0.804***
	(0.0286)	(0.0282)	(0.0289)
Black African	0.895***	0.880***	0.883***
	(0.0286)	(0.0284)	(0.0289)
Black Caribbean	0.789***	0.770***	0.767***
	(0.0426)	(0.0421)	(0.0424)
Other Black	0.717***	0.702***	0.701***
	(0.0392)	(0.0389)	(0.0393)
Chinese	0.810***	0.807***	0.801***
	(0.0531)	(0.0532)	(0.0534)
Other Mixed	1.001	0.991	0.990
	(0.0357)	(0.0357)	(0.0362)
White & Asian	1.068	1.059	1.057
	(0.0456)	(0.0456)	(0.0461)
White & African	0.982	0.971	0.970
	(0.0530)	(0.0530)	(0.0536)
	(2021/22)	(2022/23)	(2023/24)

VARIABLES	odds ratio	odds ratio	odds ratio
White & Caribbean	0.932*	0.919**	0.916**
	(0.0367)	(0.0365)	(0.0369)
Other Ethnicity	0.725***	0.711***	0.708***
	(0.0291)	(0.0288)	(0.0290)
Irish	1.078	1.073	1.079
	(0.119)	(0.120)	(0.123)
Irish Traveller	0.464***	0.457***	0.454***
	(0.0613)	(0.0609)	(0.0611)
Other White	0.701***	0.695***	0.690***
	(0.0183)	(0.0183)	(0.0185)
Gypsy/Romany	0.332***	0.325***	0.323***
	(0.0282)	(0.0279)	(0.0280)
Post-pandemic cohorts#Bangladeshi	0.958	0.957	0.926
	(0.0593)	(0.0627)	(0.0584)
Post-pandemic cohorts#Indian	0.841***	0.806***	0.753***
	(0.0448)	(0.0412)	(0.0376)
Post-pandemic cohorts#Other Asian	0.835***	0.851***	0.789***
	(0.0439)	(0.0463)	(0.0427)
Post-pandemic cohorts#Pakistani	1.016	1.007	0.955
	(0.0450)	(0.0453)	(0.0435)
Post-pandemic cohorts#Black African	0.822***	0.795***	0.714***
	(0.0336)	(0.0327)	(0.0285)
Post-pandemic cohorts#Black Caribbean	0.876*	0.870*	0.841**
	(0.0652)	(0.0656)	(0.0627)
Post-pandemic cohorts#Other Black	0.891	0.861**	0.900
	(0.0665)	(0.0652)	(0.0695)
Post-pandemic cohorts#Chinese	1.232**	1.291**	1.181*
	(0.118)	(0.130)	(0.115)
Post-pandemic cohorts#Other Mixed	0.869***	0.861***	0.816***
	(0.0404)	(0.0402)	(0.0382)
Post-pandemic cohorts#White & Asian	0.933	0.908	0.910
	(0.0537)	(0.0534)	(0.0536)
Post-pandemic cohorts#White & African	0.988	0.851**	0.883
	(0.0718)	(0.0619)	(0.0670)
Post-pandemic cohorts#White & Caribbean	0.993	0.909*	0.979
	(0.0539)	(0.0495)	(0.0550)
Post-pandemic cohorts#Other Ethnicity	0.972	1.012	0.994
	(0.0513)	(0.0537)	(0.0543)
Post-pandemic cohorts#Irish	0.841	0.770*	0.789
	(0.129)	(0.115)	(0.128)
Post-pandemic cohorts#Irish Traveller	0.998	1.015	1.019
	(0.186)	(0.191)	(0.197)
Post-pandemic cohorts#Other White	1.110***	1.141***	1.135***
	(0.0384)	(0.0408)	(0.0406)
Post-pandemic cohorts#Gypsy/Romany	1.585***	1.546***	1.579***
	(0.178)	(0.195)	(0.192)
English as an additional language (EAL)	0.643***	0.630***	0.630***
	(0.0135)	(0.0134)	(0.0136)
Post-pandemic cohorts#EAL	1.185***	1.196***	1.248***
	(0.0329)	(0.0337)	(0.0350)
School, percent speaking EAL	1.000	1.001***	1.001***
	(0.000360)	(0.000367)	(0.000365)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
SEND, School Support	0.106***	0.0989***	0.0925***
	(0.00111)	(0.00103)	(0.000954)
SEND, EHCP mainstream	0.0182***	0.0165***	0.0132***
	(0.000456)	(0.000405)	(0.000307)
SEND, EHCP special	0.00146***	0.00108***	0.00112***
	(0.000190)	(0.000161)	(0.000149)
July-born	1.083***	1.091***	1.056***
	(0.0161)	(0.0167)	(0.0164)
June-born	1.213***	1.207***	1.191***
	(0.0186)	(0.0189)	(0.0186)
May-born	1.343***	1.346***	1.320***
	(0.0208)	(0.0211)	(0.0211)
April-born	1.456***	1.448***	1.418***
	(0.0229)	(0.0234)	(0.0230)
March-born	1.596***	1.601***	1.612***
	(0.0256)	(0.0260)	(0.0267)
February-born	1.722***	1.699***	1.696***
	(0.0284)	(0.0291)	(0.0289)
January-born	2.038***	2.083***	2.064***
	(0.0352)	(0.0376)	(0.0370)
December-born	2.078***	2.095***	2.067***
	(0.0347)	(0.0359)	(0.0357)
November-born	2.268***	2.320***	2.261***
	(0.0389)	(0.0405)	(0.0401)
October-born	2.463***	2.519***	2.430***
	(0.0426)	(0.0446)	(0.0431)
September-born	2.737***	2.696***	2.706***
	(0.0483)	(0.0482)	(0.0489)
London	1.329***	1.305***	1.319***
	(0.0400)	(0.0399)	(0.0410)
Midlands	0.804***	0.795***	0.793***
	(0.0192)	(0.0192)	(0.0194)
North	0.852***	0.842***	0.840***
	(0.0186)	(0.0187)	(0.0189)
Post-pandemic cohorts#London	0.887***	0.862***	0.887***
	(0.0327)	(0.0321)	(0.0333)
Post-pandemic cohorts#Midlands	1.048	1.099***	1.055*
	(0.0327)	(0.0342)	(0.0331)
Post-pandemic cohorts#North	1.032	1.026	1.018
	(0.0286)	(0.0287)	(0.0287)
Mainstream Academy Converter	1.060***	1.021	1.019
	(0.0174)	(0.0162)	(0.0160)
Mainstream Academy Sponsor-Led	0.939***	0.936***	0.952**
	(0.0218)	(0.0210)	(0.0216)
Mainstream Free School	1.163***	1.109*	1.185***
	(0.0650)	(0.0596)	(0.0659)
Constant	23.03***	23.14***	24.03***
	(0.538)	(0.542)	(0.576)
Observations	1,224,650	1,207,584	1,206,558

	19,435	19,376	19,775
School clusters	19,435	19,376	19,775
Pseudo R-squared	0.2418	0.2560	0.2790
Degrees of freedom	72	72	72

Cluster robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
Achieving the 'Number' Early Learning Goal			
Post-pandemic cohorts	0.760***	0.890***	0.926***
	(0.0121)	(0.0145)	(0.0153)
Eligible for Free School Meals (FSM)	0.551***	0.546***	0.544***
	(0.00545)	(0.00544)	(0.00545)
Post-pandemic cohorts#FSM	0.928***	0.946***	0.925***
	(0.0121)	(0.0126)	(0.0126)
IDACI, 3rd most deprived quarter	0.800***	0.797***	0.800***
	(0.00700)	(0.00712)	(0.00717)
IDACI, 2nd most deprived quarter	0.663***	0.664***	0.673***
	(0.00637)	(0.00637)	(0.00653)
IDACI, most deprived quarter	0.597***	0.599***	0.601***
	(0.00643)	(0.00645)	(0.00647)
Received targeted 2-year-old nursery 15h	0.700***	0.705***	0.702***
	(0.00515)	(0.00538)	(0.00540)
School, percent eligible for FSM	1.001***	1.001***	1.001***
	(0.000330)	(0.000319)	(0.000326)
Received universal 3-year-old nursery 15h	1.269***	1.287***	1.281***
	(0.0123)	(0.0126)	(0.0126)
Post-pandemic cohorts#3-year-old nursery 15h	1.171***	1.171***	1.211***
	(0.0146)	(0.0148)	(0.0153)
Male	0.717***	0.719***	0.721***
	(0.00516)	(0.00520)	(0.00523)
Post-pandemic cohorts#Male	1.248***	1.214***	1.162***
	(0.0128)	(0.0127)	(0.0122)
Bangladeshi	1.016	0.999	0.986
	(0.0372)	(0.0370)	(0.0367)
Indian	1.405***	1.397***	1.385***
	(0.0413)	(0.0414)	(0.0412)
Other Asian	1.127***	1.120***	1.114***
	(0.0330)	(0.0330)	(0.0330)
Pakistani	0.910***	0.894***	0.881***
	(0.0213)	(0.0211)	(0.0209)
Black African	1.296***	1.286***	1.278***
	(0.0306)	(0.0306)	(0.0305)
Black Caribbean	0.866***	0.855***	0.846***
	(0.0328)	(0.0326)	(0.0323)
Other Black	0.973	0.964	0.958
	(0.0416)	(0.0415)	(0.0413)
Chinese	1.915***	1.921***	1.924***

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	(0.112)	(0.112)	(0.113)
Other Mixed	1.172***	1.167***	1.162***
	(0.0299)	(0.0299)	(0.0299)
White & Asian	1.261***	1.256***	1.251***
	(0.0384)	(0.0384)	(0.0384)
White & African	1.127***	1.120***	1.115***
	(0.0428)	(0.0428)	(0.0428)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
White & Caribbean	0.914***	0.906***	0.901***
	(0.0247)	(0.0246)	(0.0245)
Other Ethnicity	0.859***	0.851***	0.843***
	(0.0250)	(0.0249)	(0.0247)
Irish	1.003	0.999	0.998
	(0.0726)	(0.0727)	(0.0729)
Irish Traveller	0.277***	0.274***	0.273***
	(0.0267)	(0.0266)	(0.0264)
Other White	0.811***	0.809***	0.805***
	(0.0153)	(0.0154)	(0.0154)
Gypsy/Romany	0.199***	0.197***	0.195***
	(0.0124)	(0.0123)	(0.0122)
Post-pandemic cohorts#Bangladeshi	0.961	0.900**	0.906**
	(0.0427)	(0.0422)	(0.0432)
Post-pandemic cohorts#Indian	0.791***	0.689***	0.630***
	(0.0288)	(0.0249)	(0.0223)
Post-pandemic cohorts#Other Asian	0.878***	0.785***	0.772***
	(0.0344)	(0.0313)	(0.0306)
Post-pandemic cohorts#Pakistani	0.910***	0.888***	0.864***
	(0.0266)	(0.0269)	(0.0272)
Post-pandemic cohorts#Black African	0.833***	0.789***	0.739***
	(0.0261)	(0.0241)	(0.0224)
Post-pandemic cohorts#Black Caribbean	0.971	0.891**	0.976
	(0.0520)	(0.0488)	(0.0547)
Post-pandemic cohorts#Other Black	0.888**	0.912	0.850***
	(0.0508)	(0.0542)	(0.0506)
Post-pandemic cohorts#Chinese	1.119	1.052	1.047
	(0.0953)	(0.0918)	(0.0881)
Post-pandemic cohorts#Other Mixed	0.940*	0.879***	0.885***
	(0.0318)	(0.0297)	(0.0302)
Post-pandemic cohorts#White & Asian	0.956	0.886***	0.916**
	(0.0400)	(0.0376)	(0.0390)
Post-pandemic cohorts#White & African	0.970	0.955	0.960
	(0.0508)	(0.0512)	(0.0520)
Post-pandemic cohorts#White & Caribbean	1.009	0.966	1.024
	(0.0384)	(0.0372)	(0.0403)
Post-pandemic cohorts#Other Ethnicity	0.889***	0.890***	0.908**
	(0.0341)	(0.0351)	(0.0358)
Post-pandemic cohorts#Irish	0.973	0.934	0.941
	(0.102)	(0.101)	(0.104)
Post-pandemic cohorts#Irish Traveller	0.920	0.910	0.948
	(0.119)	(0.124)	(0.127)
Post-pandemic cohorts#Other White	1.102***	1.063**	1.116***
	(0.0276)	(0.0270)	(0.0286)
Post-pandemic cohorts#Gypsy/Romany	1.323***	1.320***	1.268***
	(0.105)	(0.116)	(0.103)

	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
English as an additional language (EAL)	0.637***	0.629***	0.623***
	(0.00955)	(0.00944)	(0.00941)
Post-pandemic cohorts#EAL	1.068***	1.084***	1.108***
	(0.0212)	(0.0219)	(0.0224)
School, percent speaking EAL	1.000	1.000*	1.001***
	(0.000249)	(0.000244)	(0.000242)
SEND, School Support	0.197***	0.188***	0.182***
	(0.00177)	(0.00167)	(0.00157)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
SEND, EHCP mainstream	0.0536***	0.0477***	0.0409***
	(0.00126)	(0.00111)	(0.000892)
SEND, EHCP special	0.00265***	0.00213***	0.00219***
	(0.000435)	(0.000346)	(0.000372)
July-born	1.150***	1.157***	1.136***
	(0.0120)	(0.0123)	(0.0122)
June-born	1.364***	1.369***	1.331***
	(0.0145)	(0.0148)	(0.0144)
May-born	1.547***	1.550***	1.528***
	(0.0166)	(0.0170)	(0.0169)
April-born	1.763***	1.763***	1.746***
	(0.0198)	(0.0199)	(0.0200)
March-born	2.013***	2.046***	2.018***
	(0.0228)	(0.0233)	(0.0233)
February-born	2.307***	2.301***	2.274***
	(0.0270)	(0.0276)	(0.0274)
January-born	2.788***	2.936***	2.853***
	(0.0344)	(0.0374)	(0.0367)
December-born	3.029***	3.105***	3.041***
	(0.0366)	(0.0377)	(0.0375)
November-born	3.424***	3.604***	3.511***
	(0.0422)	(0.0457)	(0.0450)
October-born	3.935***	4.065***	3.999***
	(0.0497)	(0.0521)	(0.0518)
September-born	4.540***	4.686***	4.603***
	(0.0593)	(0.0628)	(0.0622)
London	1.404***	1.389***	1.377***
	(0.0278)	(0.0278)	(0.0276)
Midlands	0.839***	0.834***	0.831***
	(0.0119)	(0.0119)	(0.0120)
North	0.841***	0.835***	0.834***
	(0.0108)	(0.0108)	(0.0108)
Post-pandemic cohorts#London	0.964	0.921***	0.964
	(0.0230)	(0.0220)	(0.0236)
Post-pandemic cohorts#Midlands	1.074***	1.073***	1.091***
	(0.0202)	(0.0204)	(0.0209)
Post-pandemic cohorts#North	1.055***	1.039**	1.052***
	(0.0175)	(0.0173)	(0.0178)
Mainstream Academy Converter	1.063***	1.044***	1.043***
	(0.0108)	(0.0103)	(0.0101)

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	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
Mainstream Academy Sponsor-Led	1.047***	1.044***	1.045***
	(0.0158)	(0.0148)	(0.0150)
Mainstream Free School	1.365***	1.269***	1.333***
	(0.0540)	(0.0476)	(0.0487)
Constant	4.360***	4.275***	4.332***
	(0.0658)	(0.0646)	(0.0664)
Observations	1,224,650	1,207,584	1,206,558
School clusters	19,435	19,376	19,775
Pseudo R-squared	0.1498	0.1578	0.1685
Degrees of freedom	72	72	72

Cluster robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
Achievement of 'Pattern' Early Learning Goal			
Post-pandemic cohorts	0.567***	0.659***	0.694***
	(0.00978)	(0.0116)	(0.0123)
Eligible for Free School Meals (FSM)	0.550***	0.546***	0.544***
	(0.00578)	(0.00578)	(0.00577)
Post-pandemic cohorts#FSM	0.934***	0.958***	0.937***
	(0.0127)	(0.0133)	(0.0134)
IDACI, 3rd most deprived quarter	0.776***	0.773***	0.771***
	(0.00726)	(0.00730)	(0.00740)
IDACI, 2nd most deprived quarter	0.635***	0.636***	0.643***
	(0.00653)	(0.00654)	(0.00673)
IDACI, most deprived quarter	0.572***	0.574***	0.573***
	(0.00655)	(0.00659)	(0.00660)
Received targeted 2-year-old nursery 15h	0.707***	0.710***	0.709***
	(0.00539)	(0.00555)	(0.00563)
School, percent eligible for FSM	1.000	1.000	1.000
	(0.000347)	(0.000334)	(0.000345)
Received universal 3-year-old nursery 15h	1.335***	1.359***	1.354***
	(0.0138)	(0.0141)	(0.0142)
Post-pandemic cohorts#3-year-old nursery 15h	1.123***	1.123***	1.152***
	(0.0144)	(0.0146)	(0.0151)
Male	0.689***	0.691***	0.694***
	(0.00525)	(0.00530)	(0.00533)
Post-pandemic cohorts#Male	1.256***	1.224***	1.175***
	(0.0133)	(0.0131)	(0.0127)
Bangladeshi	0.918**	0.901***	0.889***
	(0.0349)	(0.0346)	(0.0342)
Indian	1.243***	1.233***	1.222***
	(0.0379)	(0.0378)	(0.0377)
Other Asian	0.967	0.960	0.954
	(0.0295)	(0.0294)	(0.0293)

Pakistani	0.843***	0.828***	0.815***
	(0.0216)	(0.0213)	(0.0211)
Black African	1.157***	1.146***	1.139***
	(0.0293)	(0.0292)	(0.0290)
Black Caribbean	0.799***	0.789***	0.780***
	(0.0330)	(0.0328)	(0.0325)
Other Black	0.880***	0.871***	0.865***
	(0.0386)	(0.0385)	(0.0383)
Chinese	1.376***	1.378***	1.378***
	(0.0758)	(0.0762)	(0.0764)
Other Mixed	1.094***	1.089***	1.083***
	(0.0292)	(0.0292)	(0.0291)
White & Asian	1.145***	1.139***	1.133***
	(0.0370)	(0.0370)	(0.0369)
White & African	1.072*	1.066	1.061
	(0.0436)	(0.0436)	(0.0435)

	(2021/22)	(2022/23)	(2023/24)
VARIABLES	odds ratio	odds ratio	odds ratio
	(0.0274)	(0.0273)	(0.0272)
Other Ethnicity	0.751***	0.742***	0.735***
	(0.0225)	(0.0224)	(0.0222)
Irish	0.993	0.989	0.988
	(0.0786)	(0.0788)	(0.0791)
Irish Traveller	0.252***	0.249***	0.248***
	(0.0250)	(0.0248)	(0.0247)
Other White	0.687***	0.684***	0.680***
	(0.0135)	(0.0136)	(0.0136)
Gypsy/Romany	0.190***	0.188***	0.186***
	(0.0124)	(0.0123)	(0.0122)
Post-pandemic cohorts#Bangladeshi	1.055	0.980	1.016
	(0.0489)	(0.0483)	(0.0490)
Post-pandemic cohorts#Indian	0.875***	0.766***	0.701***
	(0.0327)	(0.0284)	(0.0254)
Post-pandemic cohorts#Other Asian	0.974	0.896***	0.876***
	(0.0388)	(0.0363)	(0.0352)
Post-pandemic cohorts#Pakistani	0.972	0.939*	0.940*
	(0.0306)	(0.0301)	(0.0314)
Post-pandemic cohorts#Black African	0.917***	0.875***	0.821***
	(0.0297)	(0.0278)	(0.0261)
Post-pandemic cohorts#Black Caribbean	1.059	0.975	1.041
	(0.0598)	(0.0560)	(0.0611)
Post-pandemic cohorts#Other Black	0.939	1.034	0.936
	(0.0545)	(0.0634)	(0.0568)
Post-pandemic cohorts#Chinese	1.478***	1.430***	1.363***
	(0.122)	(0.121)	(0.112)
Post-pandemic cohorts#Other Mixed	0.974	0.944*	0.934*
	(0.0338)	(0.0329)	(0.0326)
Post-pandemic cohorts#White & Asian	1.038	0.974	1.011
	(0.0448)	(0.0426)	(0.0447)
Post-pandemic cohorts#White & African	1.023	0.973	1.024
	(0.0559)	(0.0540)	(0.0581)
Post-pandemic cohorts#White & Caribbean	0.998	0.945	1.017
	(0.0396)	(0.0382)	(0.0418)
Post-pandemic cohorts#Other Ethnicity	0.986	1.005	1.013

	(0.0382)	(0.0399)	(0.0407)
Post-pandemic cohorts#Irish	0.978	0.897	0.914
	(0.107)	(0.0984)	(0.105)
Post-pandemic cohorts#Irish Traveller	1.000	1.046	1.008
	(0.132)	(0.147)	(0.138)
Post-pandemic cohorts#Other White	1.258***	1.231***	1.285***
	(0.0322)	(0.0322)	(0.0335)
Post-pandemic cohorts#Gypsy/Romany	1.308***	1.370***	1.360***
	(0.108)	(0.124)	(0.117)
English as an additional language (EAL)	0.561***	0.554***	0.548***
	(0.00895)	(0.00885)	(0.00879)
Post-pandemic cohorts#EAL	1.190***	1.202***	1.226***
	(0.0245)	(0.0252)	(0.0254)
School, percent speaking EAL	1.000	1.001***	1.001***
	(0.000260)	(0.000251)	(0.000248)
SEND, School Support	0.179***	0.170***	0.164***
	(0.00165)	(0.00156)	(0.00146)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
SEND, EHCP mainstream	0.0427***	0.0387***	0.0343***
	(0.00105)	(0.000925)	(0.000767)
SEND, EHCP special	0.00160***	0.00124***	0.00130***
	(0.000309)	(0.000236)	(0.000263)
July-born	1.142***	1.145***	1.121***
	(0.0122)	(0.0125)	(0.0124)
June-born	1.350***	1.361***	1.319***
	(0.0149)	(0.0152)	(0.0149)
May-born	1.535***	1.531***	1.506***
	(0.0168)	(0.0172)	(0.0172)
April-born	1.744***	1.742***	1.713***
	(0.0200)	(0.0203)	(0.0201)
March-born	1.982***	2.016***	1.989***
	(0.0231)	(0.0235)	(0.0235)
February-born	2.292***	2.270***	2.237***
	(0.0278)	(0.0281)	(0.0279)
January-born	2.771***	2.930***	2.860***
	(0.0351)	(0.0384)	(0.0380)
December-born	2.982***	3.077***	2.991***
	(0.0369)	(0.0386)	(0.0380)
November-born	3.384***	3.583***	3.494***
	(0.0432)	(0.0466)	(0.0461)
October-born	3.874***	4.027***	3.925***
	(0.0506)	(0.0535)	(0.0527)
September-born	4.458***	4.627***	4.491***
	(0.0592)	(0.0634)	(0.0626)
London	1.355***	1.338***	1.326***
	(0.0294)	(0.0293)	(0.0290)
Midlands	0.787***	0.782***	0.779***
	(0.0132)	(0.0132)	(0.0132)
North	0.788***	0.781***	0.779***
	(0.0121)	(0.0121)	(0.0121)

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	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
Post-pandemic cohorts#London	0.994	0.957*	0.998
	(0.0252)	(0.0243)	(0.0256)
Post-pandemic cohorts#Midlands	1.135***	1.157***	1.164***
	(0.0236)	(0.0241)	(0.0244)
Post-pandemic cohorts#North	1.133***	1.127***	1.145***
	(0.0208)	(0.0210)	(0.0216)
Mainstream Academy Converter	1.065***	1.044***	1.046***
	(0.0117)	(0.0112)	(0.0109)
Mainstream Academy Sponsor-Led	1.033**	1.021	1.027*
	(0.0163)	(0.0153)	(0.0156)
Mainstream Free School	1.350***	1.262***	1.329***
	(0.0558)	(0.0470)	(0.0497)
Constant	6.197***	6.076***	6.183***
	(0.104)	(0.102)	(0.105)
Observations	1,224,650	1,207,584	1,206,558
School clusters	19,435	19,376	19,775
Pseudo R-squared	0.1663	0.1743	0.1856
Degrees of freedom	72	72	72

Cluster robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
Passing the Year 1 Phonics Screening Check			
Post-pandemic cohorts	0.543***	0.672***	0.826***
	(0.00982)	(0.0121)	(0.0154)
Eligible for FSM for 1 year	0.581***	0.580***	0.579***
	(0.00834)	(0.00831)	(0.00832)
Eligible for FSM for 2 years	0.583***	0.580***	0.579***
	(0.00699)	(0.00694)	(0.00694)
Post-pandemic cohorts#FSM 1 year	0.832***	0.798***	0.836***
	(0.0172)	(0.0169)	(0.0180)
Post-pandemic cohorts#FSM 2 years	0.914***	0.923***	0.922***
	(0.0133)	(0.0139)	(0.0143)
IDACI, 3rd most deprived quarter	0.837***	0.856***	0.846***
	(0.00784)	(0.00803)	(0.00810)
IDACI, 2nd most deprived quarter	0.743***	0.754***	0.757***
	(0.00778)	(0.00778)	(0.00790)
IDACI, most deprived quarter	0.714***	0.729***	0.726***
	(0.00844)	(0.00857)	(0.00862)
Received targeted 2-year-old nursery 15h	0.755***	0.745***	0.745***
	(0.00561)	(0.00579)	(0.00588)
School, percent eligible for FSM	1.001	1.001**	1.001*
	(0.000373)	(0.000372)	(0.000378)
Received universal 3-year-old nursery 15h	1.337***	1.352***	1.366***
	(0.0139)	(0.0140)	(0.0143)
Post-pandemic cohorts#3-year-old nursery 15h	1.042***	1.200***	1.223***

	(0.0130)	(0.0152)	(0.0156)
Male	0.772***	0.772***	0.772***
	(0.00607)	(0.00607)	(0.00607)
Post-pandemic cohorts#Male	1.096***	1.072***	1.027**
	(0.0114)	(0.0115)	(0.0113)
Bangladeshi	1.614***	1.585***	1.573***
	(0.0742)	(0.0727)	(0.0722)
Indian	2.243***	2.220***	2.210***
	(0.0801)	(0.0794)	(0.0790)
Other Asian	1.806***	1.792***	1.787***
	(0.0652)	(0.0645)	(0.0643)
Pakistani	1.537***	1.512***	1.497***
	(0.0452)	(0.0443)	(0.0437)
Black African	1.837***	1.820***	1.814***
	(0.0507)	(0.0502)	(0.0500)
Black Caribbean	0.980	0.970	0.966
	(0.0406)	(0.0403)	(0.0400)
Other Black	1.382***	1.371***	1.367***
	(0.0658)	(0.0652)	(0.0651)
Chinese	2.458***	2.461***	2.463***
	(0.174)	(0.174)	(0.174)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
Other Mixed	1.425***	1.419***	1.417***
	(0.0399)	(0.0397)	(0.0397)
White & Asian	1.560***	1.553***	1.550***
	(0.0537)	(0.0534)	(0.0533)
White & African	1.332***	1.326***	1.323***
	(0.0556)	(0.0553)	(0.0552)
White & Caribbean	0.942**	0.937**	0.935**
	(0.0278)	(0.0276)	(0.0276)
Other Ethnicity	1.213***	1.203***	1.199***
	(0.0409)	(0.0404)	(0.0403)
Irish	0.969	0.965	0.964
	(0.0695)	(0.0692)	(0.0692)
Irish Traveller	0.204***	0.203***	0.203***
	(0.0195)	(0.0194)	(0.0194)
Other White	1.000	0.997	0.997
	(0.0208)	(0.0207)	(0.0207)
Gypsy/Romany	0.192***	0.190***	0.190***
	(0.0109)	(0.0108)	(0.0108)
Post-pandemic cohorts#Bangladeshi	0.966	1.028	0.889**
	(0.0513)	(0.0563)	(0.0484)
Post-pandemic cohorts#Indian	0.761***	0.695***	0.601***
	(0.0325)	(0.0290)	(0.0248)
Post-pandemic cohorts#Other Asian	0.799***	0.772***	0.734***
	(0.0358)	(0.0353)	(0.0341)
Post-pandemic cohorts#Pakistani	0.838***	0.963	0.857***
	(0.0302)	(0.0358)	(0.0319)
Post-pandemic cohorts#Black African	0.870***	0.806***	0.661***
	(0.0301)	(0.0280)	(0.0226)

	1.022	0.957	0.993
Post-pandemic cohorts#Black Caribbean	(0.0562)	(0.0555)	(0.0581)
Post-pandemic cohorts#Other Black	0.933	0.874**	0.910
	(0.0580)	(0.0570)	(0.0585)
Post-pandemic cohorts#Chinese	0.768***	0.804**	1.024
	(0.0688)	(0.0722)	(0.0993)
Post-pandemic cohorts#Other Mixed	0.935*	0.935*	0.907***
	(0.0337)	(0.0341)	(0.0338)
Post-pandemic cohorts#White & Asian	0.944	0.950	0.933
	(0.0418)	(0.0439)	(0.0433)
Post-pandemic cohorts#White & African	0.965	0.927	0.970
	(0.0529)	(0.0523)	(0.0563)
Post-pandemic cohorts#White & Caribbean	0.994	1.049	1.046
	(0.0387)	(0.0421)	(0.0436)
Post-pandemic cohorts#Other Ethnicity	0.860***	0.922*	0.858***
	(0.0358)	(0.0388)	(0.0368)
Post-pandemic cohorts#Irish	1.023	1.028	0.993
	(0.106)	(0.106)	(0.105)
Post-pandemic cohorts#Irish Traveller	1.120	1.323**	1.140
	(0.147)	(0.178)	(0.153)
Post-pandemic cohorts#Other White	1.127***	1.058**	1.099***
	(0.0302)	(0.0285)	(0.0305)
Post-pandemic cohorts#Gypsy/Romany	1.304***	1.587***	1.653***
	(0.0989)	(0.117)	(0.124)
English as an additional language (EAL)	0.768***	0.760***	0.757***
	(0.0128)	(0.0127)	(0.0126)
Post-pandemic cohorts#EAL	1.050**	1.028	1.048**
	(0.0230)	(0.0222)	(0.0232)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
School, percent speaking EAL	0.998***	0.998***	0.999***
	(0.000310)	(0.000302)	(0.000304)
SEND, School Support	0.143***	0.143***	0.142***
	(0.00161)	(0.00161)	(0.00161)
SEND, EHCP mainstream	0.0556***	0.0556***	0.0555***
	(0.00158)	(0.00158)	(0.00158)
SEND, EHCP special	0.00290***	0.00288***	0.00288***
	(0.000368)	(0.000365)	(0.000365)
Post-pandemic cohorts#School Support	1.375***	1.235***	1.191***
	(0.0201)	(0.0184)	(0.0177)
Post-pandemic cohorts#EHCP mainstream	1.461***	1.141***	0.976
	(0.0531)	(0.0406)	(0.0343)
Post-pandemic cohorts#EHCP special	1.286	1.149	0.813
	(0.213)	(0.175)	(0.131)
July-born	1.088***	1.072***	1.070***
	(0.0121)	(0.0122)	(0.0124)
June-born	1.165***	1.147***	1.166***
	(0.0132)	(0.0132)	(0.0137)
May-born	1.266***	1.254***	1.260***
	(0.0142)	(0.0145)	(0.0149)
April-born	1.378***	1.379***	1.360***
	(0.0161)	(0.0162)	(0.0166)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio	(2023/24) odds ratio
March-born	1.503***	1.495***	1.504***
	(0.0173)	(0.0179)	(0.0185)
February-born	1.636***	1.621***	1.613***
	(0.0196)	(0.0202)	(0.0206)
January-born	1.940***	2.006***	2.068***
	(0.0247)	(0.0261)	(0.0279)
December-born	1.942***	1.954***	2.022***
	(0.0235)	(0.0243)	(0.0260)
November-born	2.212***	2.150***	2.245***
	(0.0276)	(0.0275)	(0.0294)
October-born	2.355***	2.348***	2.378***
	(0.0293)	(0.0298)	(0.0311)
September-born	2.541***	2.518***	2.600***
	(0.0322)	(0.0328)	(0.0348)
London	1.473***	1.450***	1.443***
	(0.0351)	(0.0347)	(0.0345)
Midlands	1.011	1.007	1.006
	(0.0183)	(0.0183)	(0.0182)
North	1.022	1.016	1.016
	(0.0161)	(0.0160)	(0.0161)
Post-pandemic cohorts#London	0.995	1.002	0.992
	(0.0276)	(0.0289)	(0.0291)
Post-pandemic cohorts#Midlands	1.084***	1.093***	1.042*
	(0.0252)	(0.0252)	(0.0242)
Post-pandemic cohorts#North	1.121***	1.124***	1.072***
	(0.0229)	(0.0228)	(0.0221)
Mainstream Academy Converter	1.123***	1.103***	1.123***
	(0.0135)	(0.0128)	(0.0130)
Mainstream Academy Sponsor-Led	1.096***	1.060***	1.069***
	(0.0205)	(0.0195)	(0.0198)
Mainstream Free School	1.383***	1.303***	1.284***
	(0.0740)	(0.0702)	(0.0637)
Constant	5.904***	5.830***	5.708***
	(0.100)	(0.0983)	(0.0977)
Observations	1,268,661	1,263,332	1,253,940
School clusters	18,270	18,604	19,115
Pseudo R-squared	0.1678	0.1779	0.1875
Degrees of freedom	77	77	77

Cluster robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Passing the Year 1 Phonics Screening Check, with Attendance		
Post-pandemic cohorts	0.594***	0.823***
	(0.0115)	(0.0159)
Eligible for FSM for 1 year	0.677***	0.674***
	(0.00997)	(0.00993)
Eligible for FSM for 2 years	0.660***	0.656***
	(0.00803)	(0.00796)
Post-pandemic cohorts#FSM 1 year	0.919***	0.902***
	(0.0202)	(0.0204)
Post-pandemic cohorts#FSM 2 years	0.944***	0.970**
	(0.0140)	(0.0150)
IDACI, 3rd most deprived quarter	0.861***	0.886***
	(0.00823)	(0.00855)
IDACI, 2nd most deprived quarter	0.788***	0.803***
	(0.00840)	(0.00848)
IDACI, most deprived quarter	0.766***	0.785***
	(0.00924)	(0.00943)
Received targeted 2-year-old nursery 15h	0.754***	0.753***
	(0.00566)	(0.00590)
School, percent eligible for FSM	1.003***	1.003***
	(0.000382)	(0.000381)
Received universal 3-year-old nursery 15h	1.095***	1.099***
	(0.0116)	(0.0117)
Post-pandemic cohorts#3-year-old nursery 15h	0.977*	1.059***
	(0.0131)	(0.0144)
Attendance %, Reception	1.024***	1.021***
	(0.000507)	(0.000544)
Attendance %, Year 1	1.056***	1.059***
	(0.000648)	(0.000672)
Male	0.765***	0.765***
	(0.00618)	(0.00618)
Post-pandemic cohorts#Male	1.102***	1.081***
	(0.0118)	(0.0121)
Bangladeshi	1.760***	1.734***
	(0.0834)	(0.0820)
Indian	2.319***	2.302***
	(0.0862)	(0.0857)
Other Asian	1.879***	1.865***
	(0.0702)	(0.0695)
Pakistani	1.648***	1.627***
	(0.0492)	(0.0485)
Black African	1.649***	1.632***
	(0.0473)	(0.0468)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Black Caribbean	0.997	0.989
	(0.0423)	(0.0420)
Other Black	1.337***	1.325***
	(0.0664)	(0.0657)
Chinese	2.497***	2.496***
	(0.190)	(0.190)
Other Mixed	1.493***	1.488***
	(0.0434)	(0.0433)
White & Asian	1.628***	1.623***
	(0.0576)	(0.0573)
White & African	1.334***	1.327***
	(0.0574)	(0.0571)
White & Caribbean	1.006	1.001
	(0.0302)	(0.0301)
Other Ethnicity	1.312***	1.302***
	(0.0458)	(0.0454)
Irish	1.121	1.120
	(0.0853)	(0.0852)
Irish Traveller	0.412***	0.414***
	(0.0414)	(0.0417)
Other White	1.141***	1.139***
	(0.0246)	(0.0245)
Gypsy/Romany	0.304***	0.304***
	(0.0189)	(0.0189)
Post-pandemic cohorts#Bangladeshi	1.051	1.171***
	(0.0583)	(0.0655)
Post-pandemic cohorts#Indian	0.906**	0.913**
	(0.0413)	(0.0410)
Post-pandemic cohorts#Other Asian	0.878***	0.840***
	(0.0413)	(0.0404)
Post-pandemic cohorts#Pakistani	0.961	1.093**
	(0.0362)	(0.0421)
Post-pandemic cohorts#Black African	0.882***	0.850***
	(0.0321)	(0.0311)
Post-pandemic cohorts#Black Caribbean	1.061	1.013
	(0.0610)	(0.0610)
Post-pandemic cohorts#Other Black	0.924	0.918
	(0.0597)	(0.0622)
Post-pandemic cohorts#Chinese	0.919	0.833*
	(0.0933)	(0.0838)
Post-pandemic cohorts#Other Mixed	0.943	0.968
	(0.0356)	(0.0370)
Post-pandemic cohorts#White & Asian	0.947	0.961
	(0.0433)	(0.0460)
Post-pandemic cohorts#White & African	0.962	0.921
	(0.0545)	(0.0538)
Post-pandemic cohorts#White & Caribbean	1.002	1.079*
	(0.0402)	(0.0446)
Post-pandemic cohorts#Other Ethnicity	0.909**	0.927*
	(0.0400)	(0.0408)
Post-pandemic cohorts#Irish	0.982	1.009
	(0.106)	(0.113)
Post-pandemic cohorts#Irish Traveller	1.047	1.294*
	(0.147)	(0.188)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Post-pandemic cohorts#Other White	1.052*	1.075**
	(0.0296)	(0.0307)
Post-pandemic cohorts#Gypsy/Romany	1.332***	1.561***
	(0.111)	(0.127)
English as an additional language (EAL)	0.820***	0.812***
	(0.0142)	(0.0141)
Post-pandemic cohorts#EAL	1.043*	1.030
	(0.0239)	(0.0235)
School, percent speaking EAL	0.998***	0.999***
	(0.000313)	(0.000304)
SEND, School Support	0.147***	0.147***
	(0.00167)	(0.00166)
SEND, EHCP mainstream	0.0645***	0.0645***
	(0.00189)	(0.00189)
SEND, EHCP special	0.00353***	0.00349***
	(0.000467)	(0.000462)
Post-pandemic cohorts#School Support	1.369***	1.221***
	(0.0204)	(0.0186)
Post-pandemic cohorts#EHCP mainstream	1.499***	1.128***
	(0.0562)	(0.0416)
Post-pandemic cohorts#EHCP special	1.413**	1.139
	(0.242)	(0.184)
July-born	1.092***	1.073***
	(0.0124)	(0.0126)
June-born	1.168***	1.147***
	(0.0136)	(0.0137)
May-born	1.264***	1.253***
	(0.0146)	(0.0151)
April-born	1.382***	1.383***
	(0.0166)	(0.0170)
March-born	1.512***	1.499***
	(0.0180)	(0.0186)
February-born	1.649***	1.629***
	(0.0204)	(0.0210)
January-born	1.700***	1.725***
	(0.0223)	(0.0233)
December-born	1.881***	1.874***
	(0.0235)	(0.0242)
November-born	2.156***	2.086***
	(0.0277)	(0.0277)
October-born	2.299***	2.277***
	(0.0296)	(0.0301)
September-born	2.489***	2.469***
	(0.0326)	(0.0336)
London	1.470***	1.452***
	(0.0354)	(0.0351)
Midlands	1.025	1.021
	(0.0189)	(0.0188)
North	1.037**	1.031*

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
	(0.0166)	(0.0165)
Post-pandemic cohorts#London	0.992	0.996
	(0.0285)	(0.0301)
Post-pandemic cohorts#Midlands	1.088***	1.089***
	(0.0261)	(0.0260)
Post-pandemic cohorts#North	1.131***	1.124***
	(0.0237)	(0.0235)
Mainstream Academy Converter	1.117***	1.097***
	(0.0137)	(0.0130)
Mainstream Academy Sponsor-Led	1.111***	1.073***
	(0.0215)	(0.0206)
Mainstream Free School	1.350***	1.246***
	(0.0718)	(0.0668)
Constant	0.00381***	0.00341***
	(0.000232)	(0.000208)
Observations	1,247,745	1,239,846
School clusters	18,260	18,596
Pseudo R-squared	0.1894	0.2021
Degrees of freedom	79	79

Cluster robust standard errors in parentheses

*** $p<0.01$, ** $p<0.05$, * $p<0.1$

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Achieving the Expected Standard in KS1 Reading		
Post-pandemic cohorts	0.570***	0.595***
	(0.00792)	(0.00828)
Eligible for FSM for 1 year	0.610***	0.604***
	(0.00886)	(0.00876)
Eligible for FSM for 2 years	0.577***	0.571***
	(0.00928)	(0.00920)
Eligible for FSM for 3 years	0.587***	0.579***
	(0.00669)	(0.00661)
Post-pandemic cohorts#FSM 1 year	0.791***	0.732***
	(0.0176)	(0.0164)
Post-pandemic cohorts#FSM 2 years	0.940***	0.944***
	(0.0184)	(0.0202)
Post-pandemic cohorts#FSM 3 years	0.900***	0.974*
	(0.0127)	(0.0134)
IDACI, 3rd most deprived quarter	0.823***	0.836***
	(0.00650)	(0.00656)
IDACI, 2nd most deprived quarter	0.722***	0.735***
	(0.00637)	(0.00646)
IDACI, most deprived quarter	0.679***	0.700***
	(0.00676)	(0.00696)
Received targeted 2-year-old nursery 15h	0.764***	0.780***
	(0.00531)	(0.00546)
School, percent eligible for FSM	1.002***	1.002***
	(0.000303)	(0.000301)
Received universal 3-year-old nursery 15h	1.405***	1.404***
	(0.0129)	(0.0129)
Post-pandemic cohorts#3-year-old nursery 15h	1.008	1.065***
	(0.0110)	(0.0117)
Male	0.806***	0.806***
	(0.00557)	(0.00557)
Post-pandemic cohorts#Male	1.102***	1.122***
	(0.0103)	(0.0105)
Bangladeshi	1.566***	1.548***
	(0.0579)	(0.0572)
Indian	1.807***	1.800***
	(0.0528)	(0.0527)
Other Asian	1.432***	1.425***
	(0.0418)	(0.0414)
Pakistani	1.324***	1.311***
	(0.0330)	(0.0327)
Black African	1.715***	1.698***
	(0.0403)	(0.0398)
Black Caribbean	0.927**	0.916**

	(0.0342)	(0.0337)
Other Black	1.183***	1.171***
	(0.0484)	(0.0479)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Chinese	2.201***	2.199***
	(0.122)	(0.122)
Other Mixed	1.328***	1.322***
	(0.0315)	(0.0313)
White & Asian	1.509***	1.505***
	(0.0448)	(0.0447)
White & African	1.262***	1.254***
	(0.0468)	(0.0465)
White & Caribbean	0.962	0.955*
	(0.0255)	(0.0253)
Other Ethnicity	0.948*	0.943**
	(0.0263)	(0.0260)
Irish	1.203**	1.203**
	(0.0886)	(0.0885)
Irish Traveller	0.234***	0.234***
	(0.0239)	(0.0239)
Other White	0.903***	0.901***
	(0.0160)	(0.0160)
Gypsy/Romany	0.181***	0.180***
	(0.00984)	(0.00981)
Post-pandemic cohorts#Bangladeshi	1.000	1.025
	(0.0442)	(0.0459)
Post-pandemic cohorts#Indian	0.910***	0.757***
	(0.0295)	(0.0250)
Post-pandemic cohorts#Other Asian	0.907***	0.891***
	(0.0336)	(0.0326)
Post-pandemic cohorts#Pakistani	0.893***	0.954*
	(0.0253)	(0.0273)
Post-pandemic cohorts#Black African	0.945*	0.899***
	(0.0280)	(0.0265)
Post-pandemic cohorts#Black Caribbean	1.062	0.972
	(0.0520)	(0.0478)
Post-pandemic cohorts#Other Black	1.088	1.091
	(0.0595)	(0.0605)
Post-pandemic cohorts#Chinese	0.826***	0.770***
	(0.0573)	(0.0540)
Post-pandemic cohorts#Other Mixed	1.030	0.973
	(0.0315)	(0.0299)
Post-pandemic cohorts#White & Asian	1.011	0.965
	(0.0388)	(0.0377)
Post-pandemic cohorts#White & African	1.103**	0.994
	(0.0541)	(0.0484)
Post-pandemic cohorts#White & Caribbean	0.985	0.962
	(0.0355)	(0.0339)
Post-pandemic cohorts#Other Ethnicity	1.030	0.973
	(0.0356)	(0.0334)
Post-pandemic cohorts#Irish	0.875	0.762***
	(0.0873)	(0.0748)
Post-pandemic cohorts#Irish Traveller	1.017	0.960
	(0.134)	(0.130)

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VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Post-pandemic cohorts#Other White	1.161*** (0.0266)	1.064*** (0.0241)
Post-pandemic cohorts#Gypsy/Romany	1.188** (0.0913)	1.253*** (0.0920)
English as an additional language (EAL)	0.646*** (0.00938)	0.643*** (0.00934)
Post-pandemic cohorts#EAL	1.068*** (0.0198)	1.039** (0.0192)
School, percent speaking EAL	0.999*** (0.000253)	0.999*** (0.000248)
SEND, School Support	0.113*** (0.00118)	0.113*** (0.00118)
SEND, EHCP mainstream	0.0504*** (0.00144)	0.0504*** (0.00144)
SEND, EHCP special	0.00141*** (0.000304)	0.00140*** (0.000302)
Post-pandemic cohorts#School Support	1.408*** (0.0188)	1.394*** (0.0187)
Post-pandemic cohorts#EHCP mainstream	1.461*** (0.0540)	1.310*** (0.0469)
Post-pandemic cohorts#EHCP special	1.370 (0.284)	1.336 (0.335)
July-born	1.084*** (0.0110)	1.084*** (0.0110)
June-born	1.171*** (0.0120)	1.162*** (0.0122)
May-born	1.272*** (0.0130)	1.272*** (0.0131)
April-born	1.364*** (0.0145)	1.381*** (0.0147)
March-born	1.497*** (0.0159)	1.483*** (0.0156)
February-born	1.661*** (0.0178)	1.631*** (0.0177)
January-born	2.034*** (0.0234)	2.075*** (0.0238)
December-born	1.998*** (0.0218)	1.989*** (0.0217)
November-born	2.205*** (0.0246)	2.213*** (0.0249)
October-born	2.387*** (0.0265)	2.366*** (0.0265)
September-born	2.559*** (0.0286)	2.576*** (0.0296)
London	1.439*** (0.0280)	1.423*** (0.0277)
Midlands	0.950*** (0.0133)	0.946*** (0.0132)
North	0.955*** 	0.947***

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
	(0.0122)	(0.0120)
Post-pandemic cohorts#London	0.980	1.004
	(0.0201)	(0.0202)
Post-pandemic cohorts#Midlands	1.030*	1.081***
	(0.0166)	(0.0172)
Post-pandemic cohorts#North	1.017	1.048***
	(0.0148)	(0.0150)
Mainstream Academy Converter	1.051***	1.036***
	(0.0100)	(0.00961)
Mainstream Academy Sponsor-Led	0.963***	0.935***
	(0.0140)	(0.0135)
Mainstream Free School	1.110***	1.109***
	(0.0446)	(0.0383)
Constant	3.973***	3.938***
	(0.0593)	(0.0583)
Observations	1,277,365	1,285,682
School clusters	17,532	17,856
Pseudo R-squared	0.1819	0.1834
Degrees of freedom	79	79

Cluster robust standard errors in parentheses

*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Achieving the Expected Standard in KS1 Reading, model with Attendance		
Year 1 pupil attendance, %	1.028***	1.033***
	(0.000530)	(0.000572)
Year 2 pupil attendance, %	1.038***	1.025***
	(0.000616)	(0.000522)
Post-pandemic cohorts	0.600***	0.700***
	(0.00875)	(0.0104)
Eligible for FSM for 1 year	0.672***	0.660***
	(0.0100)	(0.00976)
Eligible for FSM for 2 years	0.632***	0.617***
	(0.0103)	(0.01000)
Eligible for FSM for 3 years	0.644***	0.626***
	(0.00739)	(0.00719)
Post-pandemic cohorts#FSM 1 year	0.863***	0.934***
	(0.0200)	(0.0227)
Post-pandemic cohorts#FSM 2 years	0.966*	1.001
	(0.0192)	(0.0222)
Post-pandemic cohorts#FSM 3 years	0.938***	0.995
	(0.0134)	(0.0138)
IDACI, 3rd most deprived quarter	0.837***	0.846***
	(0.00674)	(0.00678)
IDACI, 2nd most deprived quarter	0.749***	0.758***
	(0.00672)	(0.00679)
IDACI, most deprived quarter	0.706***	0.721***
	(0.00716)	(0.00731)
Received targeted 2-year-old nursery 15h	0.771***	0.780***
	(0.00538)	(0.00549)
School, percent eligible for FSM	1.003***	1.004***
	(0.000307)	(0.000308)
Received universal 3-year-old nursery 15h	1.185***	1.173***
	(0.0107)	(0.0106)
Post-pandemic cohorts#3-year-old nursery 15h	0.988	0.897***
	(0.0112)	(0.0106)
Male	0.801***	0.803***
	(0.00566)	(0.00566)
Post-pandemic cohorts#Male	1.103***	1.133***
	(0.0106)	(0.0109)
Bangladeshi	1.632***	1.611***
	(0.0630)	(0.0621)
Indian	1.929***	1.924***
	(0.0576)	(0.0574)
Other Asian	1.463***	1.462***
	(0.0443)	(0.0441)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Pakistani	1.364***	1.350***
	(0.0345)	(0.0341)
Black African	1.581***	1.585***
	(0.0378)	(0.0377)
Black Caribbean	0.955	0.943
	(0.0358)	(0.0352)
Other Black	1.143***	1.138***
	(0.0477)	(0.0474)
Chinese	2.151***	2.168***
	(0.124)	(0.125)
Other Mixed	1.367***	1.360***
	(0.0332)	(0.0329)
White & Asian	1.568***	1.563***
	(0.0475)	(0.0472)
White & African	1.258***	1.251***
	(0.0476)	(0.0472)
White & Caribbean	1.015	1.004
	(0.0274)	(0.0269)
Other Ethnicity	1.011	1.008
	(0.0291)	(0.0289)
Irish	1.320***	1.313***
	(0.102)	(0.101)
Irish Traveller	0.420***	0.399***
	(0.0435)	(0.0411)
Other White	0.976	0.971
	(0.0179)	(0.0178)
Gypsy/Romany	0.257***	0.248***
	(0.0151)	(0.0144)
Post-pandemic cohorts#Bangladeshi	1.039	1.095*
	(0.0480)	(0.0518)
Post-pandemic cohorts#Indian	0.976	0.957
	(0.0334)	(0.0336)
Post-pandemic cohorts#Other Asian	0.971	0.992
	(0.0375)	(0.0386)
Post-pandemic cohorts#Pakistani	0.992	1.064**
	(0.0290)	(0.0317)
Post-pandemic cohorts#Black African	0.949*	0.953
	(0.0291)	(0.0296)
Post-pandemic cohorts#Black Caribbean	1.078	1.013
	(0.0543)	(0.0517)
Post-pandemic cohorts#Other Black	1.083	1.141**
	(0.0612)	(0.0657)
Post-pandemic cohorts#Chinese	1.199**	1.180**
	(0.0924)	(0.0984)
Post-pandemic cohorts#Other Mixed	1.043	1.016
	(0.0329)	(0.0324)
Post-pandemic cohorts#White & Asian	1.004	0.969
	(0.0395)	(0.0389)
Post-pandemic cohorts#White & African	1.092*	1.011
	(0.0549)	(0.0510)
Post-pandemic cohorts#White & Caribbean	1.000	0.983
	(0.0369)	(0.0355)
Post-pandemic cohorts#Other Ethnicity	1.064*	1.091**
	(0.0384)	(0.0400)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Post-pandemic cohorts#Irish	0.910	0.750***
	(0.0954)	(0.0774)
Post-pandemic cohorts#Irish Traveller	1.075	0.970
	(0.151)	(0.140)
Post-pandemic cohorts#Other White	1.099***	1.104***
	(0.0260)	(0.0264)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Post-pandemic cohorts#Gypsy/Romany	1.251***	1.384***
	(0.0996)	(0.109)
English as an additional language (EAL)	0.679***	0.678***
	(0.0101)	(0.0101)
Post-pandemic cohorts#EAL	1.055***	1.130***
	(0.0201)	(0.0219)
School, percent speaking EAL	0.999***	0.999**
	(0.000256)	(0.000252)
SEND, School Support	0.116***	0.116***
	(0.00122)	(0.00121)
SEND, EHCP mainstream	0.0559***	0.0555***
	(0.00162)	(0.00161)
SEND, EHCP special	0.00159***	0.00155***
	(0.000362)	(0.000354)
Post-pandemic cohorts#School Support	1.408***	1.371***
	(0.0190)	(0.0186)
Post-pandemic cohorts#EHCP mainstream	1.532***	1.318***
	(0.0580)	(0.0482)
Post-pandemic cohorts#EHCP special	1.516*	1.685*
	(0.334)	(0.456)
July-born	1.084***	1.087***
	(0.0112)	(0.0113)
June-born	1.172***	1.168***
	(0.0123)	(0.0126)
May-born	1.279***	1.278***
	(0.0133)	(0.0136)
April-born	1.376***	1.395***
	(0.0149)	(0.0153)
March-born	1.512***	1.504***
	(0.0164)	(0.0164)
February-born	1.680***	1.658***
	(0.0184)	(0.0186)
January-born	1.853***	1.798***
	(0.0216)	(0.0212)
December-born	1.970***	1.937***
	(0.0220)	(0.0218)
November-born	2.175***	2.157***
	(0.0248)	(0.0249)
October-born	2.368***	2.337***
	(0.0269)	(0.0272)
September-born	2.547***	2.538***
	(0.0291)	(0.0300)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
London	1.449***	1.435***
	(0.0287)	(0.0284)
Midlands	0.960***	0.956***
	(0.0136)	(0.0135)
North	0.971**	0.963***
	(0.0125)	(0.0124)
Post-pandemic cohorts#London	0.973	0.989
	(0.0207)	(0.0211)
Post-pandemic cohorts#Midlands	1.028*	1.085***
	(0.0169)	(0.0177)
Post-pandemic cohorts#North	1.012	1.070***
	(0.0150)	(0.0158)
Mainstream Academy Converter	1.043***	1.029***
	(0.0101)	(0.00966)
Mainstream Academy Sponsor-Led	0.969**	0.941***
	(0.0146)	(0.0141)
Mainstream Free School	1.095**	1.082**
	(0.0429)	(0.0366)
Constant	0.00834***	0.0180***
	(0.000510)	(0.00104)
Observations	1,260,689	1,251,041
School clusters	17,526	17,855
Pseudo R-squared	0.1960	0.1959
Degrees of freedom	81	81

Cluster robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Achieving the Expected Standard in KS1 Writing		
Post-pandemic cohorts	0.495***	0.547***
	(0.00705)	(0.00778)
Eligible for FSM for 1 year	0.606***	0.600***
	(0.00837)	(0.00827)
Eligible for FSM for 2 years	0.559***	0.553***
	(0.00875)	(0.00864)
Eligible for FSM for 3 years	0.576***	0.568***
	(0.00638)	(0.00628)
Post-pandemic cohorts#FSM 1 year	0.791***	0.734***
	(0.0173)	(0.0162)
Post-pandemic cohorts#FSM 2 years	0.945***	0.934***
	(0.0183)	(0.0197)
Post-pandemic cohorts#FSM 3 years	0.893***	0.959***
	(0.0124)	(0.0129)
IDACI, 3rd most deprived quarter	0.840***	0.846***
	(0.00665)	(0.00648)
IDACI, 2nd most deprived quarter	0.742***	0.751***
	(0.00670)	(0.00661)
IDACI, most deprived quarter	0.705***	0.720***
	(0.00716)	(0.00715)
Received targeted 2-year-old nursery 15h	0.741***	0.757***
	(0.00500)	(0.00513)
School, percent eligible for FSM	1.002***	1.003***
	(0.000333)	(0.000321)
Received universal 3-year-old nursery 15h	1.345***	1.342***
	(0.0117)	(0.0117)
Post-pandemic cohorts#3-year-old nursery 15h	1.012	1.065***
	(0.0106)	(0.0113)
Male	0.631***	0.632***
	(0.00410)	(0.00410)
Post-pandemic cohorts#Male	1.105***	1.115***
	(0.00981)	(0.00973)
Bangladeshi	1.769***	1.751***
	(0.0615)	(0.0607)
Indian	2.018***	2.017***
	(0.0570)	(0.0570)
Other Asian	1.596***	1.591***
	(0.0457)	(0.0454)
Pakistani	1.425***	1.416***
	(0.0352)	(0.0350)
Black African	1.789***	1.774***
	(0.0408)	(0.0404)

	(2021/22) odds ratio	(2022/23) odds ratio
Black Caribbean	0.971	0.961
	(0.0348)	(0.0343)
Other Black	1.262***	1.250***
	(0.0496)	(0.0491)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Chinese	2.728***	2.725***
	(0.151)	(0.151)
Other Mixed	1.336***	1.332***
	(0.0302)	(0.0301)
White & Asian	1.542***	1.539***
	(0.0420)	(0.0419)
White & African	1.275***	1.269***
	(0.0435)	(0.0433)
White & Caribbean	0.946**	0.940**
	(0.0234)	(0.0233)
Other Ethnicity	1.040	1.036
	(0.0281)	(0.0279)
Irish	1.026	1.026
	(0.0658)	(0.0658)
Irish Traveller	0.255***	0.255***
	(0.0263)	(0.0262)
Other White	0.981	0.980
	(0.0167)	(0.0167)
Gypsy/Romany	0.196***	0.195***
	(0.0111)	(0.0111)
Post-pandemic cohorts#Bangladeshi	0.979	1.005
	(0.0403)	(0.0434)
Post-pandemic cohorts#Indian	0.905***	0.754***
	(0.0282)	(0.0247)
Post-pandemic cohorts#Other Asian	0.908***	0.902***
	(0.0327)	(0.0320)
Post-pandemic cohorts#Pakistani	0.873***	0.928**
	(0.0252)	(0.0272)
Post-pandemic cohorts#Black African	0.924***	0.888***
	(0.0273)	(0.0252)
Post-pandemic cohorts#Black Caribbean	1.010	0.954
	(0.0478)	(0.0452)
Post-pandemic cohorts#Other Black	1.006	1.062
	(0.0556)	(0.0566)
Post-pandemic cohorts#Chinese	0.727***	0.684***
	(0.0498)	(0.0466)
Post-pandemic cohorts#Other Mixed	1.040	0.988
	(0.0303)	(0.0290)
Post-pandemic cohorts#White & Asian	1.008	0.959
	(0.0355)	(0.0343)
Post-pandemic cohorts#White & African	1.066	1.013
	(0.0483)	(0.0460)
Post-pandemic cohorts#White & Caribbean	1.000	0.984
	(0.0334)	(0.0328)
Post-pandemic cohorts#Other Ethnicity	1.033	0.963
	(0.0349)	(0.0325)
Post-pandemic cohorts#Irish	1.104	0.907
	(0.0990)	(0.0797)
Post-pandemic cohorts#Irish Traveller	0.914	0.830

	(0.126)	(0.120)
Post-pandemic cohorts#Other White	1.125***	1.044**
	(0.0249)	(0.0230)
Post-pandemic cohorts#Gypsy/Romany	1.205**	1.213**
	(0.100)	(0.0969)
English as an additional language (EAL)	0.742***	0.738***
	(0.0103)	(0.0103)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Post-pandemic cohorts#EAL	1.064***	1.028
	(0.0191)	(0.0184)
School, percent speaking EAL	0.998***	0.998***
	(0.000270)	(0.000260)
SEND, School Support	0.108***	0.107***
	(0.00122)	(0.00122)
SEND, EHCP mainstream	0.0467***	0.0467***
	(0.00152)	(0.00152)
SEND, EHCP special	0.000378***	0.000372***
	(0.000212)	(0.000208)
Post-pandemic cohorts#School Support	1.422***	1.371***
	(0.0207)	(0.0199)
Post-pandemic cohorts#EHCP mainstream	1.471***	1.270***
	(0.0634)	(0.0540)
Post-pandemic cohorts#EHCP special	2.164	3.097*
	(1.347)	(1.972)
July-born	1.097***	1.078***
	(0.0106)	(0.0106)
June-born	1.197***	1.185***
	(0.0118)	(0.0119)
May-born	1.309***	1.302***
	(0.0127)	(0.0127)
April-born	1.418***	1.425***
	(0.0143)	(0.0144)
March-born	1.568***	1.563***
	(0.0159)	(0.0159)
February-born	1.747***	1.701***
	(0.0180)	(0.0176)
January-born	2.091***	2.104***
	(0.0230)	(0.0232)
December-born	2.078***	2.048***
	(0.0218)	(0.0215)
November-born	2.299***	2.304***
	(0.0242)	(0.0245)
October-born	2.511***	2.490***
	(0.0262)	(0.0260)
September-born	2.704***	2.718***
	(0.0286)	(0.0292)
London	1.473***	1.459***
	(0.0298)	(0.0294)
Midlands	0.992	0.987
	(0.0142)	(0.0141)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
North	1.019	1.009
	(0.0134)	(0.0132)
Post-pandemic cohorts#London	1.028	1.053**
	(0.0225)	(0.0225)
Post-pandemic cohorts#Midlands	1.042**	1.075***
	(0.0180)	(0.0183)
Post-pandemic cohorts#North	1.019	1.043***
	(0.0159)	(0.0160)
Mainstream Academy Converter	1.086***	1.068***
	(0.0114)	(0.0107)
Mainstream Academy Sponsor-Led	1.032*	0.989
	(0.0170)	(0.0157)
Mainstream Free School	1.107**	1.070*
	(0.0499)	(0.0424)
Constant	2.867***	2.877***
	(0.0425)	(0.0421)
Observations	1,277,360	1,285,665
School clusters	17,532	17,855
Pseudo R-squared	0.1791	0.1804
Degrees of freedom	79	79

Cluster robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Achieving the Expected Standard in KS1 Writing, model with Attendance		
Year 1 pupil attendance, %	1.031***	1.039***
	(0.000568)	(0.000587)
Year 2 pupil attendance, %	1.046***	1.030***
	(0.000638)	(0.000561)
Post-pandemic cohorts	0.521***	0.640***
	(0.00776)	(0.00968)
Eligible for FSM for 1 year	0.676***	0.663***
	(0.00958)	(0.00932)
Eligible for FSM for 2 years	0.624***	0.608***
	(0.00984)	(0.00955)
Eligible for FSM for 3 years	0.644***	0.625***
	(0.00719)	(0.00694)
Post-pandemic cohorts#FSM 1 year	0.855***	0.915***
	(0.0194)	(0.0219)
Post-pandemic cohorts#FSM 2 years	0.966*	0.980
	(0.0190)	(0.0214)
Post-pandemic cohorts#FSM 3 years	0.927***	0.979
	(0.0131)	(0.0135)
IDACI, 3rd most deprived quarter	0.857***	0.859***
	(0.00691)	(0.00672)
IDACI, 2nd most deprived quarter	0.773***	0.779***
	(0.00710)	(0.00698)
IDACI, most deprived quarter	0.737***	0.748***
	(0.00765)	(0.00757)
Received targeted 2-year-old nursery 15h	0.750***	0.757***
	(0.00507)	(0.00516)
School, percent eligible for FSM	1.004***	1.004***
	(0.000339)	(0.000329)
Received universal 3-year-old nursery 15h	1.146***	1.133***
	(0.00988)	(0.00978)
Post-pandemic cohorts#3-year-old nursery 15h	0.995	0.908***
	(0.0108)	(0.0103)
Male	0.622***	0.624***
	(0.00411)	(0.00411)
Post-pandemic cohorts#Male	1.107***	1.118***
	(0.0100)	(0.00999)
Bangladeshi	1.887***	1.864***
	(0.0685)	(0.0676)
Indian	2.170***	2.170***
	(0.0629)	(0.0629)
Other Asian	1.648***	1.650***

	(0.0485)	(0.0484)
Pakistani	1.499***	1.488***
	(0.0378)	(0.0374)
Black African	1.625***	1.633***
	(0.0378)	(0.0379)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Black Caribbean	1.000	0.990
	(0.0363)	(0.0357)
Other Black	1.225***	1.221***
	(0.0494)	(0.0491)
Chinese	2.681***	2.702***
	(0.154)	(0.155)
Other Mixed	1.379***	1.374***
	(0.0318)	(0.0315)
White & Asian	1.603***	1.600***
	(0.0447)	(0.0444)
White & African	1.274***	1.269***
	(0.0444)	(0.0440)
White & Caribbean	1.001	0.992
	(0.0251)	(0.0247)
Other Ethnicity	1.111***	1.110***
	(0.0311)	(0.0309)
Irish	1.119*	1.115
	(0.0750)	(0.0743)
Irish Traveller	0.478***	0.455***
	(0.0512)	(0.0483)
Other White	1.070***	1.065***
	(0.0188)	(0.0187)
Gypsy/Romany	0.292***	0.281***
	(0.0176)	(0.0169)
Post-pandemic cohorts#Bangladeshi	1.019	1.101**
	(0.0439)	(0.0507)
Post-pandemic cohorts#Indian	0.968	0.944
	(0.0320)	(0.0333)
Post-pandemic cohorts#Other Asian	0.964	1.018
	(0.0359)	(0.0384)
Post-pandemic cohorts#Pakistani	0.973	1.054*
	(0.0291)	(0.0320)
Post-pandemic cohorts#Black African	0.928**	0.960
	(0.0283)	(0.0289)
Post-pandemic cohorts#Black Caribbean	1.025	1.000
	(0.0497)	(0.0492)
Post-pandemic cohorts#Other Black	0.984	1.110*
	(0.0565)	(0.0616)
Post-pandemic cohorts#Chinese	1.026	1.006
	(0.0769)	(0.0810)
Post-pandemic cohorts#Other Mixed	1.057*	1.030
	(0.0316)	(0.0313)
Post-pandemic cohorts#White & Asian	1.003	0.969
	(0.0363)	(0.0357)
Post-pandemic cohorts#White & African	1.051	1.031
	(0.0489)	(0.0484)
Post-pandemic cohorts#White & Caribbean	1.011	1.001
	(0.0344)	(0.0342)
Post-pandemic cohorts#Other Ethnicity	1.065*	1.080**

	(0.0375)	(0.0393)
Post-pandemic cohorts#Irish	1.131	0.906
	(0.107)	(0.0835)
Post-pandemic cohorts#Irish Traveller	0.931	0.828
	(0.136)	(0.127)
Post-pandemic cohorts#Other White	1.058**	1.071***
	(0.0243)	(0.0248)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Post-pandemic cohorts#Gypsy/Romany	1.258***	1.323***
	(0.109)	(0.114)
English as an additional language (EAL)	0.776***	0.775***
	(0.0110)	(0.0110)
Post-pandemic cohorts#EAL	1.056***	1.110***
	(0.0195)	(0.0208)
School, percent speaking EAL	0.998***	0.998***
	(0.000274)	(0.000264)
SEND, School Support	0.111***	0.110***
	(0.00126)	(0.00125)
SEND, EHCP mainstream	0.0522***	0.0518***
	(0.00172)	(0.00171)
SEND, EHCP special	0.000473***	0.000457***
	(0.000265)	(0.000256)
Post-pandemic cohorts#School Support	1.424***	1.353***
	(0.0210)	(0.0199)
Post-pandemic cohorts#EHCP mainstream	1.554***	1.285***
	(0.0683)	(0.0557)
Post-pandemic cohorts#EHCP special	2.216	3.786**
	(1.395)	(2.412)
July-born	1.098***	1.081***
	(0.0108)	(0.0108)
June-born	1.200***	1.191***
	(0.0120)	(0.0123)
May-born	1.317***	1.308***
	(0.0130)	(0.0132)
April-born	1.432***	1.439***
	(0.0147)	(0.0149)
March-born	1.586***	1.588***
	(0.0164)	(0.0166)
February-born	1.770***	1.729***
	(0.0185)	(0.0184)
January-born	1.920***	1.836***
	(0.0214)	(0.0207)
December-born	2.061***	2.005***
	(0.0220)	(0.0216)
November-born	2.280***	2.260***
	(0.0245)	(0.0247)
October-born	2.502***	2.465***
	(0.0267)	(0.0266)
September-born	2.706***	2.692***
	(0.0291)	(0.0297)

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VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
London	1.487***	1.474***
	(0.0308)	(0.0302)
Midlands	1.002	0.997
	(0.0145)	(0.0144)
North	1.036***	1.026*
	(0.0138)	(0.0136)
Post-pandemic cohorts#London	1.021	1.040*
	(0.0233)	(0.0236)
Post-pandemic cohorts#Midlands	1.043**	1.082***
	(0.0185)	(0.0191)
Post-pandemic cohorts#North	1.012	1.066***
	(0.0162)	(0.0168)
Mainstream Academy Converter	1.080***	1.061***
	(0.0115)	(0.0108)
Mainstream Academy Sponsor-Led	1.040**	0.995
	(0.0177)	(0.0165)
Mainstream Free School	1.089*	1.039
	(0.0480)	(0.0408)
Constant	0.00201***	0.00496***
	(0.000130)	(0.000302)
Observations	1,260,682	1,251,025
School clusters	17,526	17,854
Pseudo R-squared	0.1955	0.1954
Degrees of freedom	81	81

Cluster robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Achieving the Expected Standard in KS1 Maths		
Post-pandemic cohorts	0.564***	0.663***
	(0.00804)	(0.00941)
Eligible for FSM for 1 year	0.614***	0.610***
	(0.00888)	(0.00883)
Eligible for FSM for 2 years	0.566***	0.562***
	(0.00906)	(0.00901)
Eligible for FSM for 3 years	0.574***	0.568***
	(0.00642)	(0.00637)
Post-pandemic cohorts#FSM 1 year	0.770***	0.755***
	(0.0170)	(0.0169)
Post-pandemic cohorts#FSM 2 years	0.938***	0.918***
	(0.0186)	(0.0198)
Post-pandemic cohorts#FSM 3 years	0.897***	0.949***
	(0.0125)	(0.0129)
IDACI, 3rd most deprived quarter	0.833***	0.831***
	(0.00676)	(0.00665)
IDACI, 2nd most deprived quarter	0.743***	0.744***
	(0.00668)	(0.00665)
IDACI, most deprived quarter	0.709***	0.713***
	(0.00718)	(0.00717)
Received targeted 2-year-old nursery 15h	0.752***	0.764***
	(0.00517)	(0.00527)
School, percent eligible for FSM	1.002***	1.003***
	(0.000312)	(0.000306)
Received universal 3-year-old nursery 15h	1.334***	1.336***
	(0.0121)	(0.0122)
Post-pandemic cohorts#3-year-old nursery 15h	1.027**	1.071***
	(0.0113)	(0.0120)
Male	1.233***	1.233***
	(0.00882)	(0.00882)
Post-pandemic cohorts#Male	1.135***	1.142***
	(0.0109)	(0.0111)
Bangladeshi	1.360***	1.356***
	(0.0506)	(0.0504)
Indian	1.785***	1.790***
	(0.0510)	(0.0513)
Other Asian	1.401***	1.401***
	(0.0414)	(0.0414)
Pakistani	1.151***	1.152***
	(0.0283)	(0.0282)
Black African	1.316***	1.312***
	(0.0298)	(0.0297)
Black Caribbean	0.704***	0.701***

	(0.0257)	(0.0255)
Other Black	0.972	0.968
	(0.0380)	(0.0378)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Chinese	4.107***	4.100***
	(0.287)	(0.286)
Other Mixed	1.133***	1.132***
	(0.0264)	(0.0264)
White & Asian	1.391***	1.391***
	(0.0408)	(0.0408)
White & African	1.098***	1.096**
	(0.0396)	(0.0396)
White & Caribbean	0.868***	0.865***
	(0.0226)	(0.0226)
Other Ethnicity	0.976	0.975
	(0.0277)	(0.0276)
Irish	1.121	1.123
	(0.0808)	(0.0808)
Irish Traveller	0.257***	0.257***
	(0.0262)	(0.0262)
Other White	1.000	1.001
	(0.0181)	(0.0181)
Gypsy/Romany	0.196***	0.197***
	(0.0112)	(0.0112)
Post-pandemic cohorts#Bangladeshi	1.012	1.024
	(0.0441)	(0.0476)
Post-pandemic cohorts#Indian	0.898***	0.751***
	(0.0301)	(0.0249)
Post-pandemic cohorts#Other Asian	0.917**	0.900***
	(0.0350)	(0.0336)
Post-pandemic cohorts#Pakistani	0.883***	0.910***
	(0.0256)	(0.0265)
Post-pandemic cohorts#Black African	0.926***	0.914***
	(0.0273)	(0.0262)
Post-pandemic cohorts#Black Caribbean	1.025	0.984
	(0.0484)	(0.0489)
Post-pandemic cohorts#Other Black	0.987	1.044
	(0.0534)	(0.0566)
Post-pandemic cohorts#Chinese	0.885	0.860*
	(0.0785)	(0.0754)
Post-pandemic cohorts#Other Mixed	1.096***	1.022
	(0.0334)	(0.0315)
Post-pandemic cohorts#White & Asian	0.986	0.986
	(0.0377)	(0.0385)
Post-pandemic cohorts#White & African	1.011	1.041
	(0.0488)	(0.0503)
Post-pandemic cohorts#White & Caribbean	1.004	0.940*
	(0.0348)	(0.0328)
Post-pandemic cohorts#Other Ethnicity	1.004	0.958
	(0.0361)	(0.0340)
Post-pandemic cohorts#Irish	0.930	0.817**
	(0.0911)	(0.0800)
Post-pandemic cohorts#Irish Traveller	1.034	1.016
	(0.132)	(0.134)

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VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Post-pandemic cohorts#Other White	1.087***	1.034
	(0.0256)	(0.0237)
Post-pandemic cohorts#Gypsy/Romany	1.078	1.196**
	(0.0805)	(0.0879)
English as an additional language (EAL)	0.768***	0.768***
	(0.0112)	(0.0112)
Post-pandemic cohorts#EAL	1.044**	1.008
	(0.0197)	(0.0188)
School, percent speaking EAL	0.999***	0.999***
	(0.000262)	(0.000251)
SEND, School Support	0.120***	0.120***
	(0.00125)	(0.00125)
SEND, EHCP mainstream	0.0512***	0.0512***
	(0.00142)	(0.00142)
SEND, EHCP special	0.00102***	0.00100***
	(0.000225)	(0.000221)
Post-pandemic cohorts#School Support	1.423***	1.363***
	(0.0190)	(0.0181)
Post-pandemic cohorts#EHCP mainstream	1.489***	1.262***
	(0.0531)	(0.0436)
Post-pandemic cohorts#EHCP special	1.573*	1.668**
	(0.397)	(0.427)
July-born	1.107***	1.103***
	(0.0111)	(0.0113)
June-born	1.226***	1.222***
	(0.0126)	(0.0127)
May-born	1.351***	1.334***
	(0.0136)	(0.0136)
April-born	1.461***	1.457***
	(0.0153)	(0.0154)
March-born	1.628***	1.607***
	(0.0173)	(0.0172)
February-born	1.791***	1.777***
	(0.0194)	(0.0194)
January-born	2.157***	2.191***
	(0.0246)	(0.0253)
December-born	2.175***	2.173***
	(0.0236)	(0.0241)
November-born	2.443***	2.466***
	(0.0276)	(0.0281)
October-born	2.688***	2.668***
	(0.0299)	(0.0303)
September-born	2.930***	2.929***
	(0.0329)	(0.0342)
London	1.482***	1.475***
	(0.0287)	(0.0284)
Midlands	1.011	1.008
	(0.0144)	(0.0144)
North	1.016	1.007

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
	(0.0132)	(0.0130)
Post-pandemic cohorts#London	0.971	0.974
	(0.0205)	(0.0205)
Post-pandemic cohorts#Midlands	1.022	1.034**
	(0.0174)	(0.0175)
Post-pandemic cohorts#North	1.020	1.031**
	(0.0155)	(0.0154)
Mainstream Academy Converter	1.076***	1.053***
	(0.0106)	(0.00987)
Mainstream Academy Sponsor-Led	1.013	0.971*
	(0.0153)	(0.0144)
Mainstream Free School	1.135***	1.100***
	(0.0485)	(0.0385)
Constant	2.909***	2.927***
	(0.0424)	(0.0425)
Observations	1,277,350	1,285,666
School clusters	17,532	17,856
Pseudo R-squared	0.1747	0.1780
Degrees of freedom	79	79

Cluster robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Achieving the Expected Standard in KS1 Maths, model with Attendance		
Year 1 pupil attendance, %	1.026***	1.035***
	(0.000529)	(0.000580)
Year 2 pupil attendance, %	1.047***	1.028***
	(0.000630)	(0.000535)
Post-pandemic cohorts	0.602***	0.761***
	(0.00902)	(0.0115)
Eligible for FSM for 1 year	0.684***	0.672***
	(0.0101)	(0.00993)
Eligible for FSM for 2 years	0.628***	0.614***
	(0.0102)	(0.00992)
Eligible for FSM for 3 years	0.638***	0.621***
	(0.00720)	(0.00700)
Post-pandemic cohorts#FSM 1 year	0.840***	0.906***
	(0.0194)	(0.0221)
Post-pandemic cohorts#FSM 2 years	0.967*	0.986
	(0.0195)	(0.0220)
Post-pandemic cohorts#FSM 3 years	0.936***	0.977*
	(0.0133)	(0.0136)
IDACI, 3rd most deprived quarter	0.851***	0.846***
	(0.00701)	(0.00690)
IDACI, 2nd most deprived quarter	0.775***	0.774***
	(0.00709)	(0.00703)
IDACI, most deprived quarter	0.746***	0.746***
	(0.00769)	(0.00764)
Received targeted 2-year-old nursery 15h	0.759***	0.762***
	(0.00523)	(0.00529)
School, percent eligible for FSM	1.004***	1.005***
	(0.000317)	(0.000313)
Received universal 3-year-old nursery 15h	1.151***	1.145***
	(0.0104)	(0.0104)
Post-pandemic cohorts#3-year-old nursery 15h	1.004	0.930***
	(0.0115)	(0.0112)
Male	1.241***	1.241***
	(0.00905)	(0.00902)
Post-pandemic cohorts#Male	1.141***	1.167***
	(0.0112)	(0.0117)
Bangladeshi	1.407***	1.397***
	(0.0542)	(0.0537)
Indian	1.866***	1.868***
	(0.0542)	(0.0542)
Other Asian	1.411***	1.416***
	(0.0426)	(0.0427)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Pakistani	1.190***	1.186***
	(0.0296)	(0.0293)
Black African	1.195***	1.206***
	(0.0275)	(0.0277)
Black Caribbean	0.718***	0.714***
	(0.0265)	(0.0262)
Other Black	0.935*	0.936*
	(0.0370)	(0.0369)
Chinese	3.872***	3.908***
	(0.278)	(0.280)
Other Mixed	1.156***	1.154***
	(0.0276)	(0.0274)
White & Asian	1.427***	1.426***
	(0.0427)	(0.0425)
White & African	1.086**	1.084**
	(0.0398)	(0.0396)
White & Caribbean	0.913***	0.905***
	(0.0242)	(0.0239)
Other Ethnicity	1.028	1.030
	(0.0304)	(0.0303)
Irish	1.246***	1.241***
	(0.0931)	(0.0925)
Irish Traveller	0.489***	0.463***
	(0.0516)	(0.0484)
Other White	1.089***	1.085***
	(0.0204)	(0.0202)
Gypsy/Romany	0.292***	0.281***
	(0.0182)	(0.0173)
Post-pandemic cohorts#Bangladeshi	1.061	1.126**
	(0.0479)	(0.0547)
Post-pandemic cohorts#Indian	0.978	0.950
	(0.0349)	(0.0334)
Post-pandemic cohorts#Other Asian	0.969	1.009
	(0.0380)	(0.0400)
Post-pandemic cohorts#Pakistani	0.977	1.035
	(0.0291)	(0.0313)
Post-pandemic cohorts#Black African	0.917***	0.978
	(0.0278)	(0.0297)
Post-pandemic cohorts#Black Caribbean	1.025	1.015
	(0.0494)	(0.0518)
Post-pandemic cohorts#Other Black	0.965	1.071
	(0.0538)	(0.0600)
Post-pandemic cohorts#Chinese	1.016	0.946
	(0.0984)	(0.0955)
Post-pandemic cohorts#Other Mixed	1.107***	1.063*
	(0.0348)	(0.0339)
Post-pandemic cohorts#White & Asian	0.991	1.009
	(0.0387)	(0.0404)
Post-pandemic cohorts#White & African	0.994	1.060
	(0.0488)	(0.0529)
Post-pandemic cohorts#White & Caribbean	1.019	0.958
	(0.0363)	(0.0343)
Post-pandemic cohorts#Other Ethnicity	1.032	1.080**
	(0.0389)	(0.0410)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Post-pandemic cohorts#Irish	0.956	0.803**
	(0.0984)	(0.0823)
Post-pandemic cohorts#Irish Traveller	1.081	1.027
	(0.150)	(0.147)
Post-pandemic cohorts#Other White	1.028	1.058**
	(0.0250)	(0.0256)

VARIABLES	(2021/22) odds ratio	(2022/23) odds ratio
Post-pandemic cohorts#Gypsy/Romany	1.122	1.345***
	(0.0883)	(0.109)
English as an additional language (EAL)	0.797***	0.797***
	(0.0119)	(0.0120)
Post-pandemic cohorts#EAL	1.037*	1.071***
	(0.0201)	(0.0210)
School, percent speaking EAL	1.000*	1.000*
	(0.000264)	(0.000253)
SEND, School Support	0.124***	0.123***
	(0.00129)	(0.00129)
SEND, EHCP mainstream	0.0573***	0.0569***
	(0.00163)	(0.00161)
SEND, EHCP special	0.00121***	0.00117***
	(0.000271)	(0.000263)
Post-pandemic cohorts#School Support	1.424***	1.344***
	(0.0194)	(0.0182)
Post-pandemic cohorts#EHCP mainstream	1.564***	1.278***
	(0.0574)	(0.0454)
Post-pandemic cohorts#EHCP special	1.651*	1.916**
	(0.442)	(0.517)
July-born	1.108***	1.108***
	(0.0113)	(0.0116)
June-born	1.230***	1.229***
	(0.0128)	(0.0131)
May-born	1.360***	1.341***
	(0.0139)	(0.0141)
April-born	1.476***	1.473***
	(0.0158)	(0.0160)
March-born	1.649***	1.628***
	(0.0178)	(0.0180)
February-born	1.815***	1.807***
	(0.0200)	(0.0203)
January-born	1.994***	1.944***
	(0.0231)	(0.0230)
December-born	2.156***	2.127***
	(0.0239)	(0.0243)
November-born	2.424***	2.417***
	(0.0279)	(0.0283)
October-born	2.685***	2.643***
	(0.0306)	(0.0311)
September-born	2.938***	2.904***
	(0.0337)	(0.0349)

London	1.492***	1.480***
	(0.0293)	(0.0289)
Midlands	1.022	1.018
	(0.0148)	(0.0147)
North	1.031**	1.022*
	(0.0135)	(0.0133)
Post-pandemic cohorts#London	0.964*	0.966
	(0.0211)	(0.0213)
Post-pandemic cohorts#Midlands	1.021	1.036**
	(0.0178)	(0.0180)
Post-pandemic cohorts#North	1.014	1.047***
	(0.0158)	(0.0161)
Mainstream Academy Converter	1.069***	1.048***
	(0.0106)	(0.00992)
Mainstream Academy Sponsor-Led	1.022	0.982
	(0.0160)	(0.0150)
Mainstream Free School	1.117***	1.064*
	(0.0471)	(0.0370)
Constant	0.00321***	0.00789***
	(0.000200)	(0.000464)
Observations	1,260,662	1,251,010
School clusters	17,526	17,855
Pseudo R-squared	0.1908	0.1924
Degrees of freedom	81	81

Cluster robust standard errors in parentheses
*** p<0.01, ** p<0.05, * p<0.1