



Department
for Education

Understanding Progress in the 2020/21 Academic Year

Complete findings from the spring term

October 2021

Renaissance Learning, Education Policy
Institute

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About the research team

About the Education Policy Institute

The Education Policy Institute is an independent, impartial, and evidence-based research institute that promotes high quality education outcomes, regardless of social background. We achieve this through data-led analysis, innovative research, and high-profile events. Education can have a transformative effect on the life chances of young people, enabling them to fulfil their potential, have successful careers, and grasp opportunities. As well as having a positive impact on the individual, good quality education and child wellbeing also promotes economic productivity and a cohesive society. Through our research, we provide insight, commentary, and a constructive critique of education policy in England – shedding light on what is working and where further progress needs to be made. Our research and analysis spans a young person's journey from the early years through to entry to the labour market. For more information, visit www.epi.org.uk

About Renaissance Learning

Renaissance is a leading provider of assessment and practice solutions that put learning analytics to work for teachers, saving hours of preparation time while making truly personalised learning possible. Almost 7,000 schools nationwide use data-driven Renaissance solutions to analyse students' abilities and guide high-quality instruction to improve academic outcomes. Founded by parents, upheld by educators, and enriched by data scientists, Renaissance knows learning is a continual journey – from year to year, and for a lifetime. For more information, visit www.renlearn.co.uk

The results in this report have been given clearance at a publication level by the Office for National Statistics (ONS) Secure Research Service.¹

¹ This work was produced using statistical data from ONS. The use of the ONS statistical data in this work does not imply the endorsement of the ONS in relation to the interpretation or analysis of the statistical data. This work uses research datasets which may not exactly reproduce National Statistics aggregates.

Summary

This report presents the Education Policy Institute and Renaissance Learning's fourth assessment of the learning loss experienced by pupils in England as a result of the COVID-19 pandemic. It builds on our third report that was published in June 2021. It is based on assessment data from Renaissance Learning's Star Reading and Star Maths. Star Assessments are computer-adaptive in nature and adapt to the individual, providing an assessment that identifies gaps in learning from the entirety of the curriculum independent of their current year group. Star assessments also include a standardised measure which takes account of the pupil's age in years and months.

This data has been linked with data held by the Department for Education in the National Pupil Database which has enabled us to carry out analysis by pupil characteristic. In our previous report we carried out analysis of assessments undertaken in the spring term in 2020/21 which enabled us to carry out an initial assessment of whether pupils lost learning as a result of the second instance of in-person school closures for the majority of pupils. In this report we will, for the first time, breakdown our estimates of learning loss for the spring term by various characteristics to understand how the latest disruptions to in-person learning have impacted certain characteristic groups. We will also, for the first time, provide estimates of learning loss for secondary-aged pupils in reading for the spring term.

Summary table 1 outlines the estimates of learning loss by the first half of the autumn term (what we refer to as 'Autumn 1'), by the second half of the autumn term (what we refer to as 'Autumn 2') and by the spring term using the "all spring term" approach for primary reading and secondary reading for all pupils. Estimates broken down by disadvantage, region and the interaction between area and pupil-level disadvantage are also included. Summary table 2 shows the estimates for primary and secondary reading using an alternative approach which we denote as the "second half of the spring term" approach. Summary tables 3 and 4 present the equivalent estimates of learning loss for primary mathematics. The details of the "all spring term" and "second half of the spring term" approaches can be found in the learning loss methodology section of this report.

In order to ensure that we are comparing the same pupils over time the analysis presented in the tables below is restricted to the pupils that undertook assessments in all three time periods. This allows us to build a consistent picture of how pupils have been affected by the pandemic and then how they were impacted by the re-opening of schools to all pupils. It is important to note that in the main body of the report we also provide estimates of learning loss just for pupils in the spring term and the figures may differ slightly due to the different cohort of pupils included in the analysis.

The summaries in Table 1 and Table 2 highlight that in reading we find:

- evidence of learning loss by the spring term that was similar amongst primary and secondary aged pupils;
- there was notable further learning loss in primary and secondary schools with learning loss by the end of the spring term around a similar level to the estimate of learning loss by the end of autumn 1;
- by the spring term the gap in learning loss between disadvantaged pupils and their more affluent peers remained at over half a month for primary aged pupils and increased from less than half a month by autumn 1 to over a month for secondary aged pupils;
- this implies that by the spring term the disadvantage gap has widened by around 6 percent for primary aged pupils and around 7 percent for secondary aged pupils since before the pandemic;
- the greatest losses were in the North East and in Yorkshire and the Humber, for both primary and secondary, where pupils in these regions experienced greater learning loss than the average for all primary and secondary aged pupils;
- as well as variation by pupil disadvantage we find variation by the level of disadvantage of the area in which pupils live. Learning losses were greater for non-disadvantaged primary aged pupils in areas with a high level of disadvantage than non-disadvantaged pupils in areas with low levels of disadvantage.
- In fact, non-disadvantaged pupils in areas with medium and high levels of disadvantage experienced a similar degree of learning loss to disadvantaged pupils in areas with low levels of disadvantage;

The summaries in Table 3 and Table 4 highlight that in mathematics we find:

- evidence of learning loss by the spring term that was higher in mathematics than in reading;
- primary mathematics learning losses over the academic year 2020/21 have a similar pattern to what we find in primary reading;
- by the spring term, the gap in learning loss between disadvantaged pupils and their more affluent peers remained at around a month for primary aged pupils;
- this implies that by the spring term the disadvantage gap has widened by around 11 percent for primary aged pupils in mathematics compared to before the pandemic;
- there were a number of regional disparities in the level of learning loss. Again it was pupils in the North East and Yorkshire and the Humber, but also the East and West Midlands, who experienced the greatest learning losses;

- as well as variation by pupil disadvantage we find variation by the level of disadvantage of the area in which pupils live. Learning losses are greater for non-disadvantaged primary aged pupils in areas with a high level of disadvantage than non-disadvantaged pupils in areas with low levels of disadvantage.

Table 1: Estimated mean learning loss for the “all spring term” approach, in months, in reading (primary and secondary schools) by autumn 1, autumn 2 and spring by disadvantage, region and area/pupil-level disadvantage

		Primary Reading				Secondary Reading		
		Autumn 1	Autumn 2	Spring	Count	Autumn 1	Spring	Count
All pupils		-1.8	-1.2	-1.9	87,535	-1.3	-1.6	55,214
Disad- vantage	Non-FSM pupils	-1.7	-1.1	-1.7	65,978	-1.2	-1.3	41,291
	FSM pupils	-2.0	-1.5	-2.4	21,557	-1.6	-2.5	13,923
Region	East Midlands	-1.3	-1.3	-2.0	7,185	-1.9	-1.6	5,706
	East of England	-2.0	-1.0	-2.0	10,690	-0.4	-0.3	7,951
	London	-1.2	-0.5	-1.3	6,220	-1.4	-1.1	5,076
	North East	-2.5	-1.9	-2.5	7,542	-1.6	-2.5	3,146
	North West	-2.0	-1.9	-2.3	9,842	-1.2	-2.1	6,942
	South East	-1.8	-1.1	-1.7	17,097	-1.4	-1.4	8,320
	South West	-1.6	-0.8	-1.3	13,009	-1.7	-2.3	7,983
	West Midlands	-1.7	-1.0	-1.9	9,049	-1.1	-1.3	6,412
Low IDACI area	Non-FSM pupils	-1.5	-0.9	-1.3	25,055	-0.8	-0.9	20,013
	FSM pupils	-1.8	-1.3	-1.8	2,983	-1.7	-2.1	2,724
Medium IDACI area	Non-FSM pupils	-1.9	-1.2	-1.9	27,582	-1.7	-1.6	15,074
	FSM pupils	-2.0	-1.4	-2.4	8,456	-1.5	-2.9	5,578
High IDACI area	Non-FSM pupils	-1.8	-1.4	-2.2	13,341	-1.5	-1.7	6,204
	FSM pupils	-2.1	-1.6	-2.6	10,118	-1.7	-2.4	5,621

Note: Asterisks denote the sub-groups where the achieved sample is fewer than 500 pupils and as a result some caution should be taken with interpretation and estimates should be taken as indicative of likely patterns.

Table 2: Estimated mean learning loss for the “second half of the spring term” approach, in months, in reading (primary and secondary schools) by autumn 1, autumn 2 and spring by disadvantage, region and area/pupil-level disadvantage

		Primary Reading				Secondary Reading		
		Autumn 1	Autumn 2	Spring	Count	Autumn 1	Spring	Count
All pupils		-1.8	-1.2	-2.2	83,418	-1.7	-2.4	39,497
Disadvantage	Non-FSM pupils	-1.7	-1.1	-2.1	62,766	-1.6	-2.1	28,912
	FSM pupils	-2.0	-1.5	-2.7	20,652	-1.9	-3.3	10,585
Region	East Midlands	-1.2	-1.3	-2.1	6,957	-2.0	-0.2	4,261
	East of England	-2.0	-1.0	-2.2	10,460	-1.4	-0.3	4,959
	London	-1.3	-0.5	-1.6	5,878	-1.7	-2.6	3,480
	North East	-2.4	-1.9	-2.6	7,295	-2.2	-5.2	2,257
	North West	-2.0	-1.9	-2.4	9,295	-1.5	-3.7	4,828

	South East	-1.8	-1.1	-2.1	16,248	-1.8	-2.9	6,483
	South West	-1.6	-0.8	-1.9	12,219	-1.9	-2.5	5,526
	West Midlands	-1.7	-1.0	-2.6	8,465	-0.9	-2.2	4,843
	Yorkshire and the Humber	-2.3	-1.6	-2.6	6,601	-1.7	-3.3	2,860
Low IDACI area	Non-FSM pupils	-1.5	-0.9	-1.6	23,727	-1.1	-1.6	14,031
	FSM pupils	-1.8	-1.5	-2.3	2,842	-2.0	-2.2	2,039
Medium IDACI area	Non-FSM pupils	-1.9	-1.2	-2.2	26,292	-2.0	-2.2	10,442
	FSM pupils	-2.0	-1.4	-2.7	8,070	-1.8	-3.5	4,204
High IDACI area	Non-FSM pupils	-1.8	-1.4	-2.5	12,747	-2.2	-3.1	4,439
	FSM pupils	-2.1	-1.6	-2.9	9,740	-1.9	-3.5	4,342

Note: Asterisks denote the sub-groups where the achieved sample is fewer than 500 pupils and as a result some caution should be taken with interpretation and estimates should be taken as indicative of likely patterns.

Table 3: Estimated mean learning loss for the “all spring term” approach, in months, in mathematics (primary schools) by autumn 1, autumn 2 and spring by disadvantage, region and area/pupil-level disadvantage

		Primary Mathematics			
		Autumn 1	Autumn 2	Spring	Count
All pupils		-3.7	-2.6	-2.9	7,195
Disadvantage	Non-FSM pupils	-3.5	-2.4	-2.7	5,418
	FSM pupils	-4.4	-3.4	-3.6	1,777
Region	East Midlands	-4.4*	-2.9*	-4.7*	465
	East of England	-4.4	-3.2	-3.7	651
	London	-2.5	-1.0	-2.3	824
	North East	-5.0*	-4.4*	-4.4*	220
	North West	-3.7	-2.3	-1.6	804
	South East	-3.7	-2.9	-3.1	2,033
	South West	-1.6	-0.5	-0.2	973
	West Midlands	-4.8*	-3.8*	-4.8*	425
	Yorkshire and the Humber	-5.6	-5.0	-4.4	800
Low IDACI area	Non-FSM pupils	-3.0	-1.8	-1.7	1,867
	FSM pupils	-5.4*	-2.4*	-2.9*	222
Medium IDACI area	Non-FSM pupils	-3.5	-2.4	-2.9	2,404
	FSM pupils	-3.8	-3.0	-3.6	753
High IDACI area	Non-FSM pupils	-4.1	-3.3	-3.7	1,147
	FSM pupils	-4.7	-4.0	-3.8	802

Note: Asterisks denote the sub-groups where the achieved sample is fewer than 500 pupils and as a result some caution should be taken with interpretation and estimates should be taken as indicative of likely patterns.

Table 4: Estimated mean learning loss for the “second half of the spring term” approach, in months, in mathematics (primary schools) by autumn 1, autumn 2 and spring by disadvantage, region and area/pupil-level disadvantage

		Primary Mathematics			
		Autumn 1	Autumn 2	Spring	Count
All pupils		-3.7	-2.7	-3.5	6,855
Disadvantage	Non-FSM pupils	-3.4	-2.4	-3.2	5,172
	FSM pupils	-4.5	-3.3	-4.2	1,683
Region	East Midlands	-4.3*	-2.9*	-5.0*	463
	East of England	-4.2	-3.3	-4.4	638
	London	-2.5	-1.1	-3.0	797
	North East	-5.0*	-4.4*	-5.9*	218
	North West	-3.9	-2.2	-1.4	676
	South East	-3.6	-2.8	-2.7	2,003
	South West	-1.5	-0.6	-1.6	935
	West Midlands	-4.8*	-3.8*	-7.0*	424

	Yorkshire and the Humber	-5.7	-5.1	-5.7	701
Low IDACI area	Non-FSM pupils	-3.0	-1.7	-2.2	1,785
	FSM pupils	-5.6*	-2.3*	-3.2*	212
Medium IDACI area	Non-FSM pupils	-3.4	-2.5	-3.4	2,300
	FSM pupils	-3.9	-2.9	-3.8	715
High IDACI area	Non-FSM pupils	-4.0	-3.6	-4.5	1,087
	FSM pupils	-4.6	-4.0	-4.8	756

Note: Asterisks denote the sub-groups where the achieved sample is fewer than 500 pupils and as a result some caution should be taken with interpretation and estimates should be taken as indicative of likely patterns.

Background: Star Assessments from Renaissance Learning and estimates of learning loss from previous publications

The data analysed in this report is drawn from assessment data from Renaissance Learning's Star Reading and Star Maths. These provide criterion-based scores that run on a singular scale from Year 1 to Year 13. Star Assessments are computer-adaptive in nature and adapt to the individual, providing an assessment that identifies gaps in learning from the entirety of the curriculum independent of their current year group. Star assessments also include a standardised measure which takes account of the pupil's age in years and months.

The Star Reading assessment measures students' performance on key reading skills via a brief standards-based test of general reading achievement, administering 34 questions that students complete, on average, in less than 20 minutes. The Star Maths assessment similarly comprises a brief assessment of 24 questions that students complete, on average, in less than 25 minutes. Reading draws on item banks of just under 4,000 items and under 2,000 items for mathematics.²

In March 2021, Renaissance Learning provided data to the Education Policy Institute comprising all assessments undertaken in schools in England between August 2017 and March 2021 (the end of the spring term in 2020/21). The data was then subsequently matched by the Department for Education to data held in the National Pupil Database to enable us to take account of contextual pupil information, estimate learning loss by these pupil-level characteristics for the first half of the autumn term and estimate the degree of catch-up in pupil outcomes towards the end of 2020, as well as provide estimates of overall learning loss by the spring term. Those results were published in June 2021 and covered pupils in years 3 to 9.

By the end of the first half of the autumn term in 2020/21:

- learning loss in reading was similar amongst primary and secondary aged pupils and was higher in mathematics than in reading. The average learning loss in reading for primary aged pupils was around 1.8 months, for secondary aged pupils it was around 1.7 months. Learning losses in primary mathematics were greater at around 3.7 months.
- Pupils from disadvantaged backgrounds have experienced greater learning loss as a result of the pandemic. Pupils from disadvantaged backgrounds (eligible for free school meals at any point in the last six years) lost, on average,

² A more detailed discussion of Star assessments is available in '*Research Foundation for Star Adaptive Assessments – Science of Star*', Renaissance White Paper, September 2020.

approximately 2.2 months in reading amongst both primary and secondary aged pupils, and around 4.5 months in mathematics for primary aged pupils. This means that disadvantaged pupils lost about half a month more than non-disadvantaged pupils in reading and around a month more in primary mathematics.

- The analysis suggested regional disparities in the degree of learning loss. For both primary and secondary aged pupils in reading, pupils in the North East and in Yorkshire and the Humber experienced the greatest learning loss (around 2.4 and 2.6 months respectively in primary, and around 2.3 and 2.4 months respectively in secondary). In primary mathematics the differences between regions were larger. Again, it was the North East and Yorkshire and the Humber that experienced the greatest learning loss – around five months; more than double the loss experienced in the South West.

By the end of the second half of the autumn term in 2020/21:

- Primary aged pupils had lost around 1.2 months of learning in reading, implying that primary aged pupils were able to catch-up over half a month of learning lost in one half-term.
- There was even greater catch-up in mathematics, where primary aged pupils caught-up around a month of progress. This catch-up in mathematics is from a lower base than reading, so there was still a notable learning loss by the second half of the autumn term of approximately two and a half months for mathematics.

By the end of the spring term in 2020/21:

- Primary aged pupils had experienced a learning loss in reading equivalent to around 2.3 months of progress, implying losses returned to around their early autumn level as a result of pupils missing out on in-person learning in early 2021.
- In mathematics, primary aged pupils experienced a much greater learning loss in comparison to reading of around 3.6 months.

This report will break down these latest spring term estimates of learning loss by various characteristics to understand how the latest disruptions to in-person learning have impacted certain characteristic groups.

Chapter 1 : Learning loss methodology

Timeline of restrictions to in-person learning

Figure 1.1 shows the timeline of restrictions to in-person learning during the coronavirus (COVID-19) pandemic and how this relates to our estimates of learning loss.

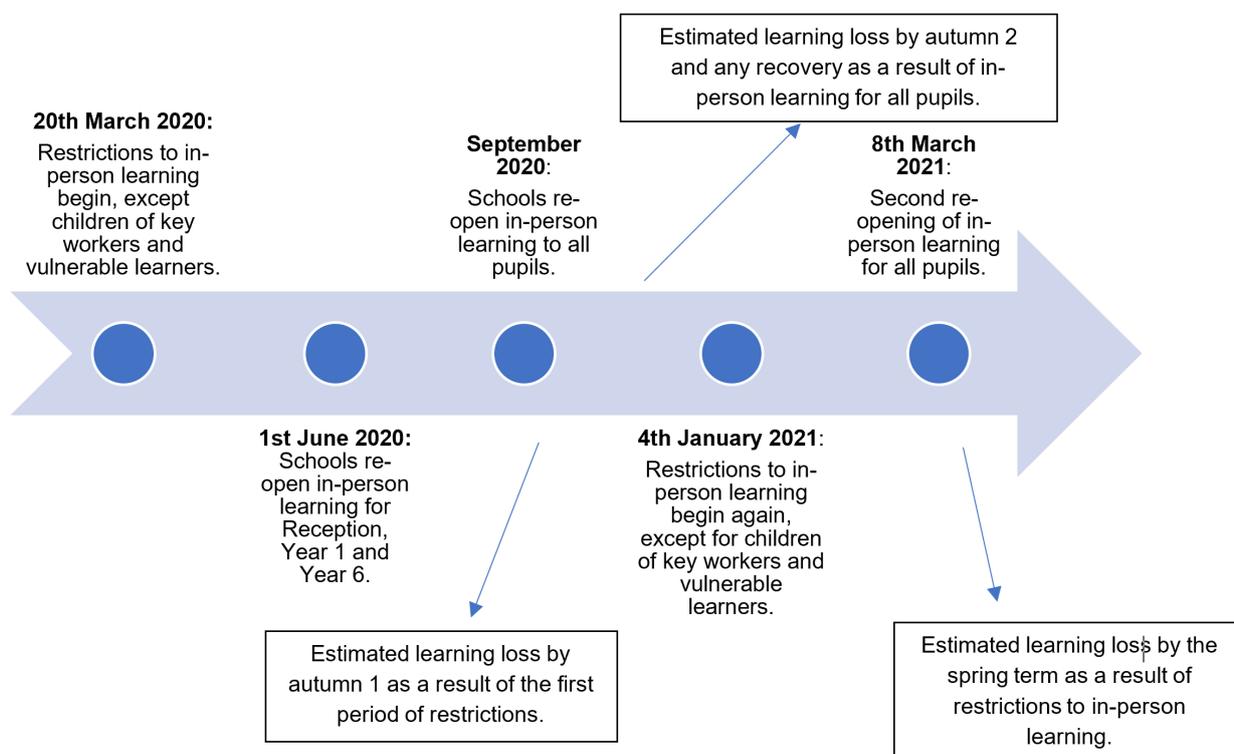
Our first assessment of learning loss was based on assessments in the first half of the autumn term 2020/21 (which we refer to as autumn 1). It looked at the impact of the first period of restrictions on in-person teaching.

Our second assessment of learning loss was based on assessments in the second half of the autumn term 2020/21 (which we refer to as autumn 2). It looked at the extent to which any learning losses were recovered once schools were re-opened to in-person learning for all pupils in September 2020.

Our third assessment of learning loss was based on assessments in the spring term 2020/21. It looked at the overall impact of the second round of restrictions to in-person learning at the start of the spring term 2020/21.

In this report we break down these latest spring term estimates of learning loss by characteristics.

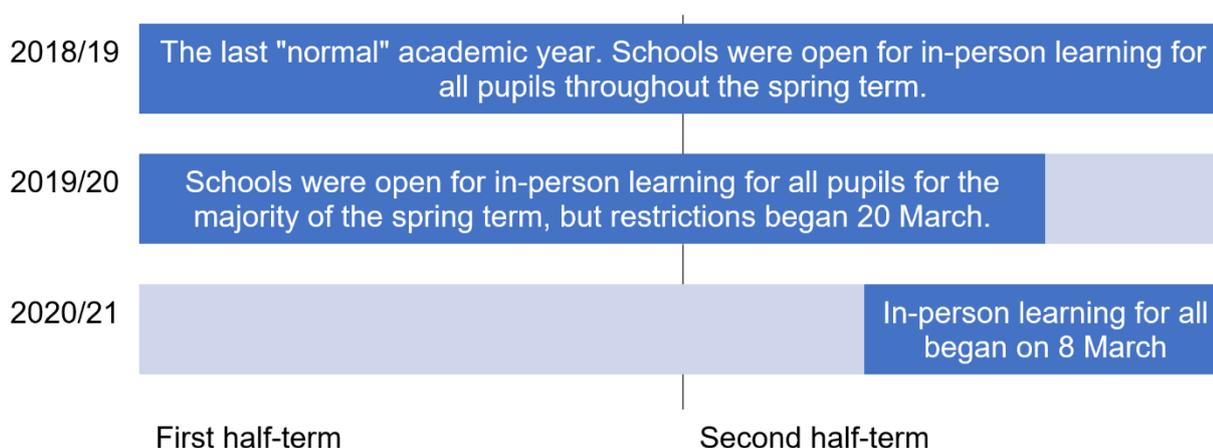
Figure 1.1: Timeline of restrictions to in-person learning during the academic year 2020/21 and where estimates of learning loss fit within the timeline



Method for estimating expected progress and learning loss

In our analysis of Star assessments in the autumn term, we calculated an expected outcome for pupils based on what they had previously achieved (broadly at the same point in the previous academic year) and the historic rates of progress for pupils with similar prior attainment and pupil characteristics. “Learning loss” can loosely be defined as the difference between what pupils achieved in 2020/21 and what pupils would have achieved in 2020/21 if they had progressed at the same rate as pupils in 2019/20. We retain the same principles in this analysis of spring term assessments. However, we are constrained by the effects of the first period of restrictions on in-person teaching on our preferred measure of prior attainment and the model for calculating expected progress. Figure 1.2 shows how restrictions to in-person learning varied in the spring term in each of the last three academic years.

Figure 1.2: Restrictions to in-person learning in the spring term 2018/19 – 2020/21



Whether schools were open for in-person learning for all pupils affected the volume of assessments undertaken. In the 2019/20 academic year, most assessments took place before the middle of March 2020 and the first period of restrictions on in-person teaching. We therefore do not have prior attainment data that covers all of the spring term. Because of this we have used results in the first half of the autumn term in the previous academic year, the academic year 2019/20, to measure prior attainment (i.e. one year and one term previously) to ensure consistent coverage.

When we come to consider learning loss during 2020/21, we are primarily interested in outcomes for pupils after schools opened to in-person learning for all pupils on 8th March 2021. We compare the progress of this group with pupil progress in 2019/20 but, as illustrated above, we do not have consistent time periods in the spring term in each of the two years over which to compare results.

Because there is no single optimal way of comparing outcomes in the spring term, we present:

- estimated learning loss based on all results from any point in the spring term (which we refer to as the ‘all spring term’ approach); and also
- estimated learning loss based on all results in the second half of the spring term (which we refer to as the ‘second half of spring term’ approach).

For the purposes of this analysis, we take 8th March 2021 (i.e. the date of school reopening for in-person learning for all) as the start of the ‘second half term’ of spring 2020/21. While the second half term began at the end of February, we felt that this gave a more directly comparable set of circumstances for pupils sitting assessments.

We present measures of learning loss in terms of a ‘scaled score’ and in terms of months of progress.³

Limitations of estimates of learning loss

The key limitations are:

- The ‘all spring’ approach may *underestimate* learning loss since our data for 2020/21 is largely drawn from the end of the spring term, whereas our data for 2019/20 includes a large number of assessments taken at the beginning of the spring term. In other words, we are looking at assessments that were, on average, taken slightly later in the school year and we would normally expect outcomes to be higher the later assessments are taken in the school year.⁴
- The ‘second half of spring term’ approach may *overestimate* learning loss since we are comparing pupils who had just returned to the classroom after an extended period away with pupils who are over half-way through a term in school. In other words, learning may not have been truly ‘lost’, they may simply be out of practice with the material being assessed in comparison to our control group.

The two estimates should therefore be taken together as indicative of the likely scale of learning loss.

Because of the much smaller sample sizes, estimates for secondary aged pupils are sensitive to the exact model specification. Unfortunately we are unable to present

³ The Star Assessments ‘scaled score’ is a continuous scale where pupil scores increase as they move through the school system. At the start of Key Stage 2, pupils taking an assessment typically achieve around 250 points on this scale. By the final year of primary school (year 6) this increases to around 550 points, and by year 9 to around 750 points on this scale.

⁴ We attempt to control for this to a certain extent by including a factor of days between tests within the model.

estimates of learning loss for secondary aged pupils in mathematics due to sample sizes being too small to derive robust estimates.

Chapter 2 : Estimated learning loss by the end of the spring term 2020/21

Approach 1: Estimates of learning loss in reading and mathematics using the 'all spring term' approach

Figure 2.1 shows our estimates in scaled score terms for assessments taken during the spring term of 2020/21.

In Star Reading:

- primary aged pupils achieved 22.0 scaled score points lower than similar pupils in 2019/20;
- this is equivalent to a shift in the primary attainment distribution of 0.11 standard deviations;
- secondary aged pupils achieved 12.5 scaled score points lower than similar pupils in 2019/20;
- this is equivalent to a shift in the secondary attainment distribution of 0.05 standard deviations.

In Star Maths:

- primary aged pupils achieved 27.8 scaled score points lower than similar pupils in 2019/20;
- this is equivalent to a shift in the primary attainment distribution of 0.23 standard deviations.

Figure 2.2 translates these estimates into months of progress.⁵ By the end of the spring term, primary aged pupils had experienced a learning loss in reading equivalent to around 2.0 months of progress and secondary aged pupils had experienced a learning loss equivalent to around 1.6 months of progress. In mathematics, primary aged pupils experienced a much greater learning loss of around 3.1 months.

⁵ See appendix for details of conversion of estimated learning loss in scaled score points terms to a months of progress measure.

Figure 2.1: Estimated mean learning loss by spring term, in scaled score points, in reading (primary and secondary schools) and mathematics (primary schools only)⁶

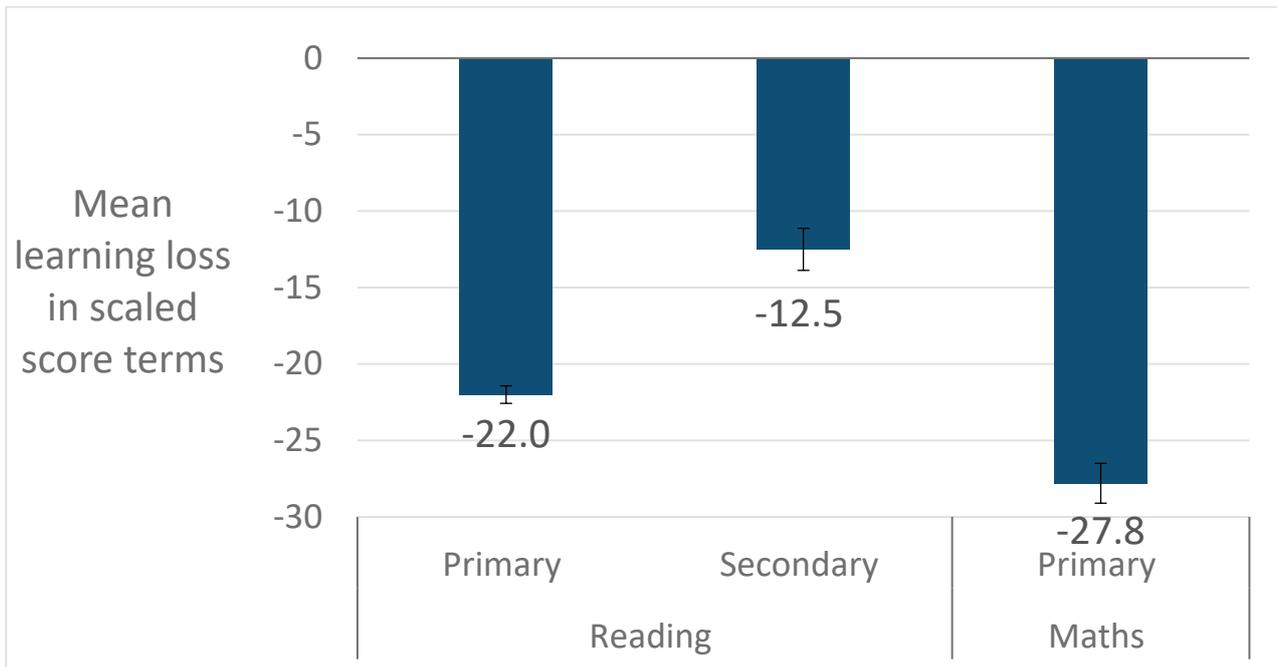
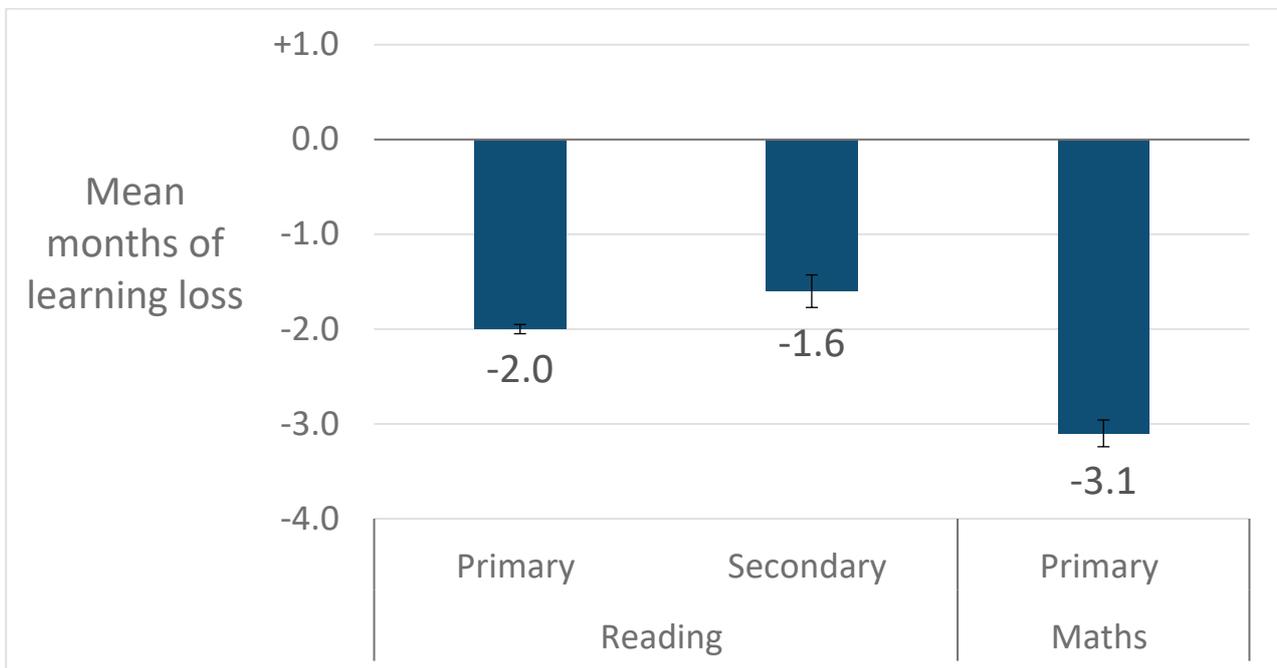


Figure 2.2: Estimated mean learning loss by spring term, in months, in reading (primary and secondary schools) and mathematics (primary schools only)



⁶ The vertical lines on each chart represent the 95% confidence interval for the estimate of learning loss.

Approach 2: Estimates of learning loss in reading and mathematics using the 'second half of spring term' approach

Figure 2.3 shows our estimates in scaled score terms for assessments taken during the second half of the spring term of 2020/21.

In Star Reading:

- primary aged pupils achieved 23.0 scaled score points lower than similar pupils in 2019/20;
- this is equivalent to a shift in the primary attainment distribution of 0.12 standard deviations;
- secondary aged pupils achieved 18.9 scaled score points lower than similar pupils in 2019/20;
- this is equivalent to a shift in the secondary attainment distribution of 0.07 standard deviations.

In Star Maths:

- primary aged pupils achieved 30.7 scaled score points lower than similar pupils in 2019/20;
- this is equivalent to a shift in the primary attainment distribution of 0.26 standard deviations.

Figure 2.4 translates these estimates into months of progress. By the end of the spring term primary aged pupils had experienced a learning loss in reading equivalent to around 2.3 months of progress and secondary aged pupils had experienced a learning loss equivalent to around 2.6 months of progress. In mathematics, primary aged pupils experienced a much greater learning loss of 3.6 months.

Figure 2.3: Estimated mean learning loss by spring 2, in scaled score points, in reading (primary and secondary schools) and mathematics (primary schools only)

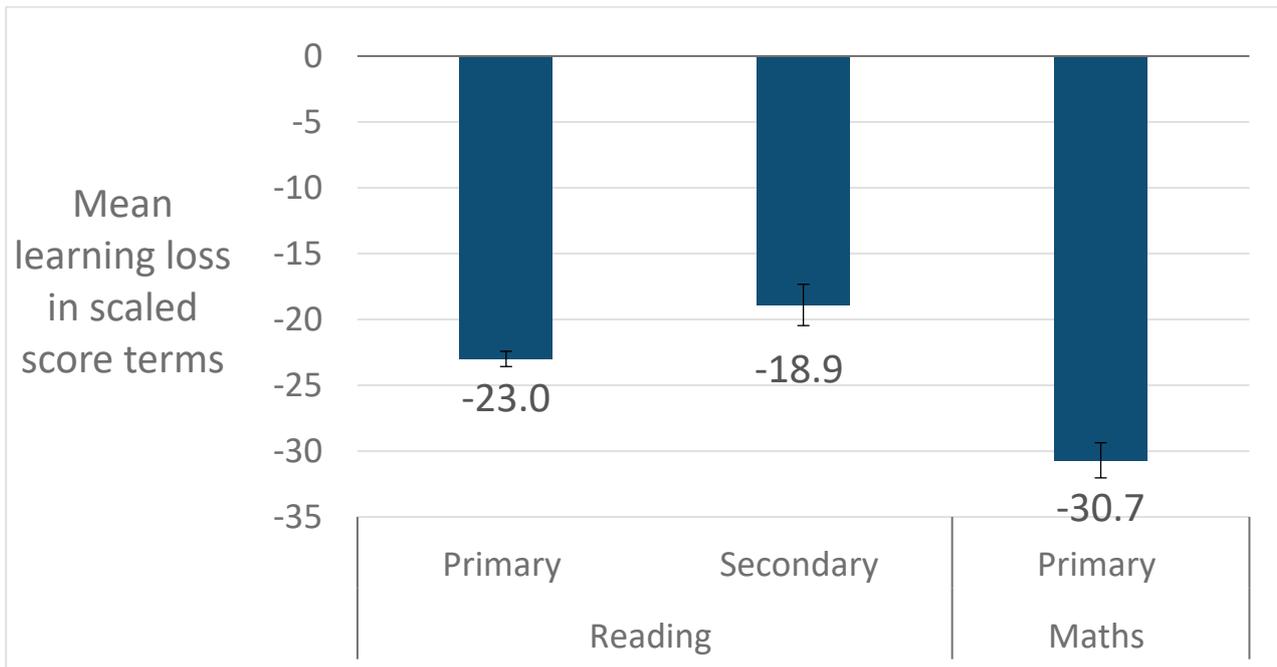
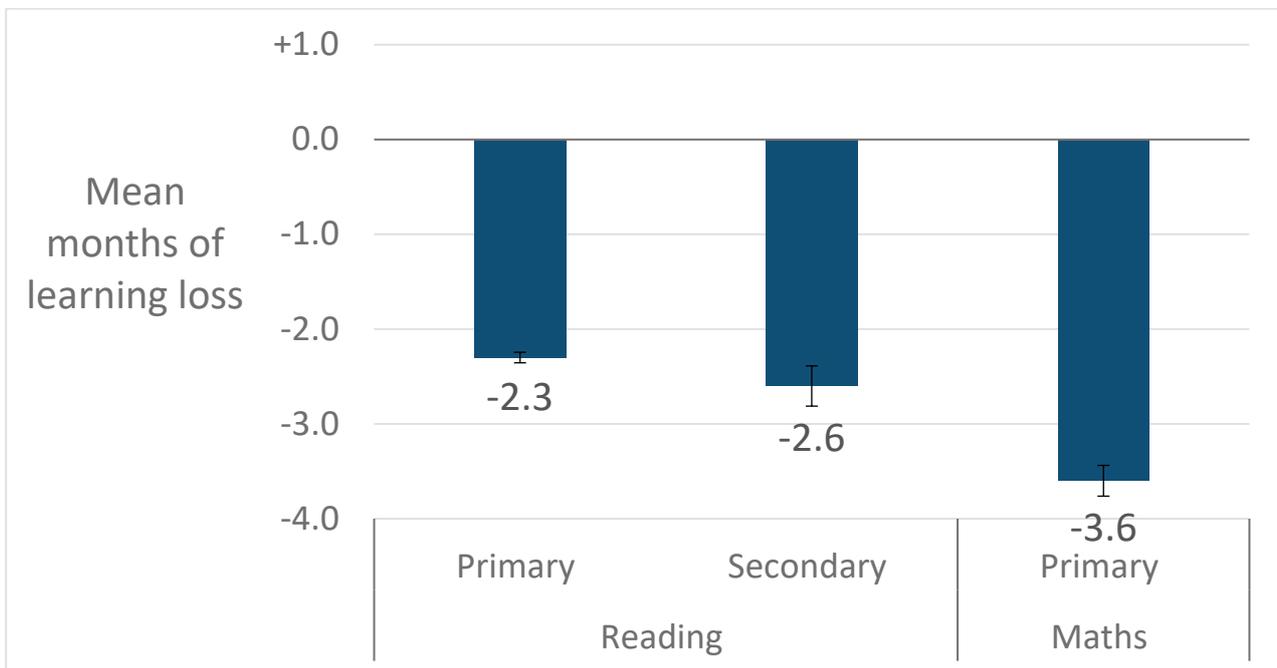


Figure 2.4: Estimated mean learning loss by spring 2, in months, in reading (primary and secondary schools) and mathematics (primary schools only)



Estimates of learning loss by the end of the spring term 2020/21 by pupil characteristics

Approach 1: Estimates of learning loss in reading and mathematics by characteristics using the 'all spring term' approach

Estimates of learning loss in scaled score points terms

Figure 2.5 shows estimates of learning loss in scaled score points terms for reading by pupil characteristics and by region for primary and secondary aged pupils. The grey vertical lines indicate the average learning loss for all primary and secondary aged pupils respectively. As we are breaking results down into various sub-groups, it is important to note that the sample size is smaller within these groups and hence the confidence intervals on these estimates will be wider than for the average learning loss estimates. Any differences that we highlight in this section are statistically significant.

When we look at learning loss in reading by characteristics, amongst primary aged pupils we find:

- pupils from disadvantaged backgrounds (defined as pupils eligible for free school meals at any point in the last six years) experienced, on average, 28.4 scaled score points learning loss, compared with 19.9 points for their more affluent peers;
- differences in learning loss by ethnic group were generally not statistically significant;⁷
- there is evidence of greater learning losses for pupils with a first language other than English. We estimate that pupils with English as an additional language experienced a learning loss of 25.7 scaled score points, this compares with a learning loss amongst all primary aged pupils of 22 points;
- there were a number of regional disparities in the level of learning loss. In particular, pupils in the North East and in Yorkshire and the Humber experienced the greatest learning loss; and
- regions such as the South West and London have fared much better than other regions.

⁷ It is important to note here that the results for Chinese pupils are from a particularly small sample and also affected by the limitations of a model that does not fully reflect the rates of progress that these pupils make in a year not impacted by the pandemic.

Amongst secondary aged pupils in reading we find:

- boys experienced a learning loss of 17.3 scaled score points, this compares with a learning loss of 7.5 points for girls;
- pupils from disadvantaged backgrounds experienced, on average, 16 points learning loss, compared with 11.3 points for their more affluent peers;
- differences in learning loss by ethnic group were generally not statistically significant;⁸
- pupils with an identified SEND experienced, on average, a learning loss of 18.1 scaled score points, compared with 11.6 points for their peers;
- there were a number of regional disparities in the level of learning loss. In particular, pupils in Yorkshire and the Humber experienced greater learning losses than other areas of the country; and
- pupils in regions such as London and the East of England have fared much better than other regions.

Figure 2.6 shows estimates of learning loss in mathematics by pupil characteristics and by region for primary aged pupils. We find that:

- pupils from disadvantaged backgrounds (defined as pupils eligible for free school meals at any point in the last six years), on average, had an estimated learning loss of 33 scaled score points. This is relative to 26.1 points for their more affluent peers;
- similar to the findings for reading, there were no differences by ethnic group that were statistically significant;
- unlike reading, pupils from English as an additional language backgrounds do not appear to have been disproportionately affected by in-person school closures but they still experienced lost learning of 28 scaled score points;
- pupils with an identified SEND experienced, on average, 20.6 scaled score points learning loss, compared with 28.8 scaled score points for their peers;
- there were no statistically significant differences for pupils identified as Children In Need (CIN)⁹ for mathematics; and
- there were a number of regional disparities in the level of learning loss. Again it was pupils in Yorkshire and the Humber, but also the West Midlands, who

⁸ It is important to note here that the results for Chinese pupils are from a particularly small sample and also affected by the limitations of a model that does not fully reflect the rates of progress that these pupils make in a year not impacted by the pandemic.

⁹ Children In Need are a legally defined group of children, assessed by social workers as needing help and protection as a result of risks to their development or health, or who are disabled.

experienced the greatest learning losses (44.9 and 46.1 scaled score points respectively).

Figure 2.5: Estimated mean learning loss by spring term, in scaled score points, in reading (primary and secondary schools) by characteristics

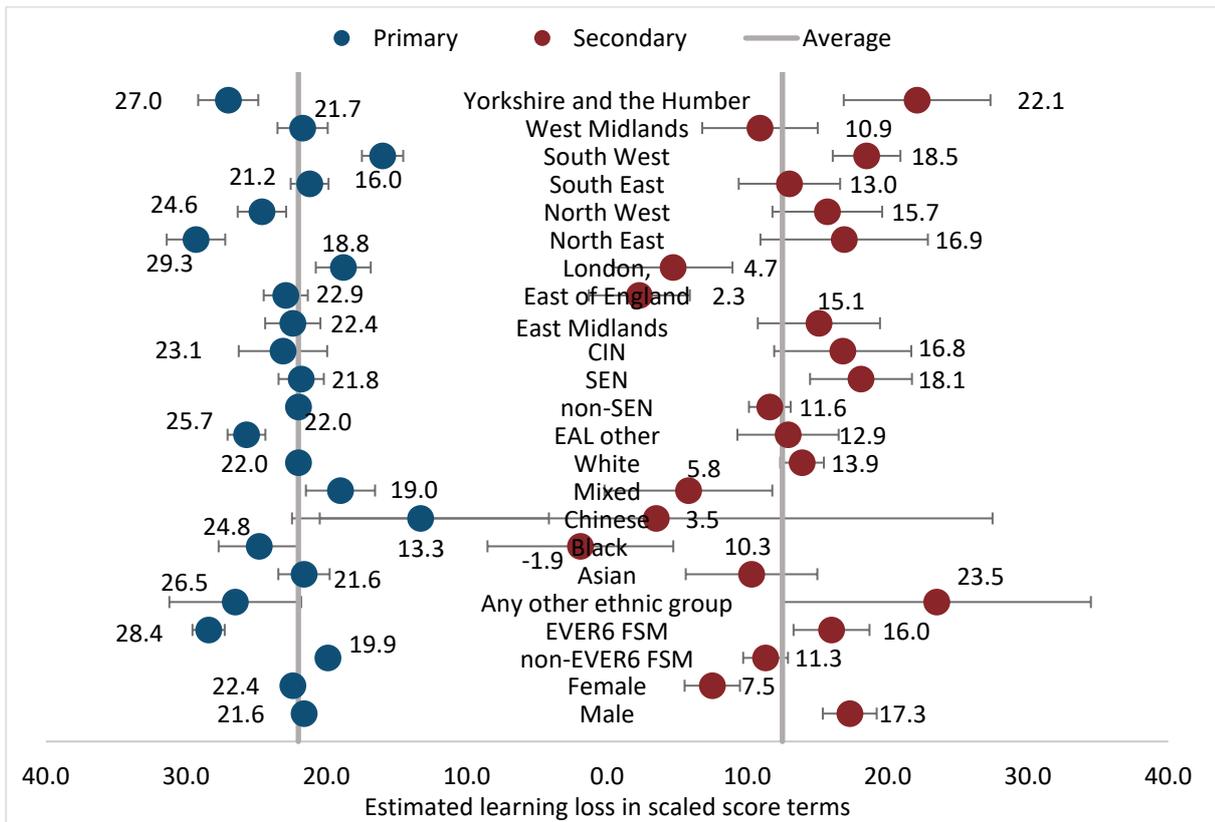


Figure 2.6: Estimated mean learning loss by spring term, in scaled score points, in mathematics (primary schools only) by characteristics

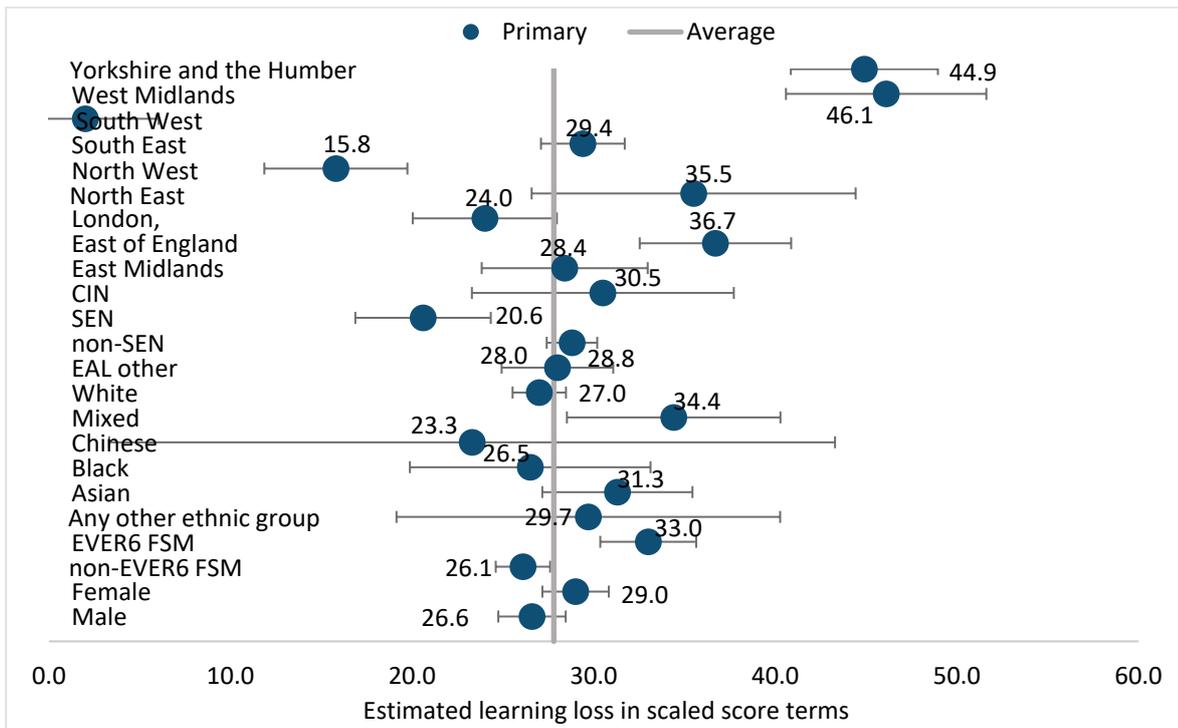


Figure 2.7 presents estimates of learning loss in scaled score terms in reading for both primary and secondary aged pupils from disadvantaged backgrounds (defined as pupils eligible for free school meals at any point in the last six years) and their more affluent peers split by the level of disadvantage within the local area (defined by IDACI score¹⁰). Figure 2.8 presents the equivalent for primary aged pupils in mathematics.

For primary aged pupils in reading, we find:

- Learning losses were greater for non-disadvantaged primary aged pupils in areas with a high level of disadvantage than non-disadvantaged pupils in areas with low levels of disadvantage;
- non-disadvantaged pupils in areas with medium and high levels of disadvantage experienced a similar degree of learning loss to disadvantaged pupils in areas with low levels of disadvantage;
- pupils from disadvantaged backgrounds within areas with a low level of disadvantage experienced, on average, 23 scaled score points learning loss, compared to 13.4 points for their more affluent peers (this is 28.2 and 22.9 points respectively for pupils in areas with a medium level of disadvantage); and
- pupils from disadvantaged backgrounds within areas with a high level of disadvantage experienced, on average, 30.2 scaled score points learning loss, compared to 26 points for their more affluent peers.

For secondary aged pupils in reading, we find:

- non-disadvantaged pupils in areas with medium and high levels of disadvantage experienced a similar degree of learning loss to disadvantaged pupils in areas with low levels of disadvantage.

For primary aged pupils in mathematics, we find:

- non-disadvantaged pupils in areas with medium and high levels of disadvantage experienced a similar degree of learning loss to disadvantaged pupils in areas with low levels of disadvantage;
- similar to reading, pupils from disadvantaged backgrounds within areas with a low level of disadvantage experienced, on average, 29 scaled score points learning loss, compared to 19.6 for their more affluent peers; however
- unlike reading, there was no statistically significant difference between disadvantaged pupils in areas with different levels of disadvantage although this is

¹⁰ IDACI score denotes Income Deprivation Affecting Children Index score, which can be interpreted as the proportion of families in a local area, with children aged under 16, which are income deprived. We define the levels of disadvantage in the area as follows: Low IDACI area (0-12.5%), Medium IDACI area (12.5%-30%) and High IDACI area (30%+).

not the case for their more affluent peers (34.7 points learning loss in areas with a high level of disadvantage, compared to 27.5 and 19.6 in areas with medium and low levels of disadvantage).

This analysis suggests that, particularly for primary aged pupils in reading but also in mathematics, the mixture of disadvantage at the pupil and school level results in greater learning losses for the most disadvantaged pupils. Furthermore, both pupil and area-level disadvantage have an influence on the level of learning loss experienced by pupils as non-disadvantaged pupils in areas with medium and high levels of disadvantage experienced a similar degree of learning loss to disadvantaged pupils in areas with low levels of disadvantage.

Figure 2.7: Estimated mean learning loss by spring term, in scaled score points, in reading (primary and secondary schools) by pupil and area-level disadvantage

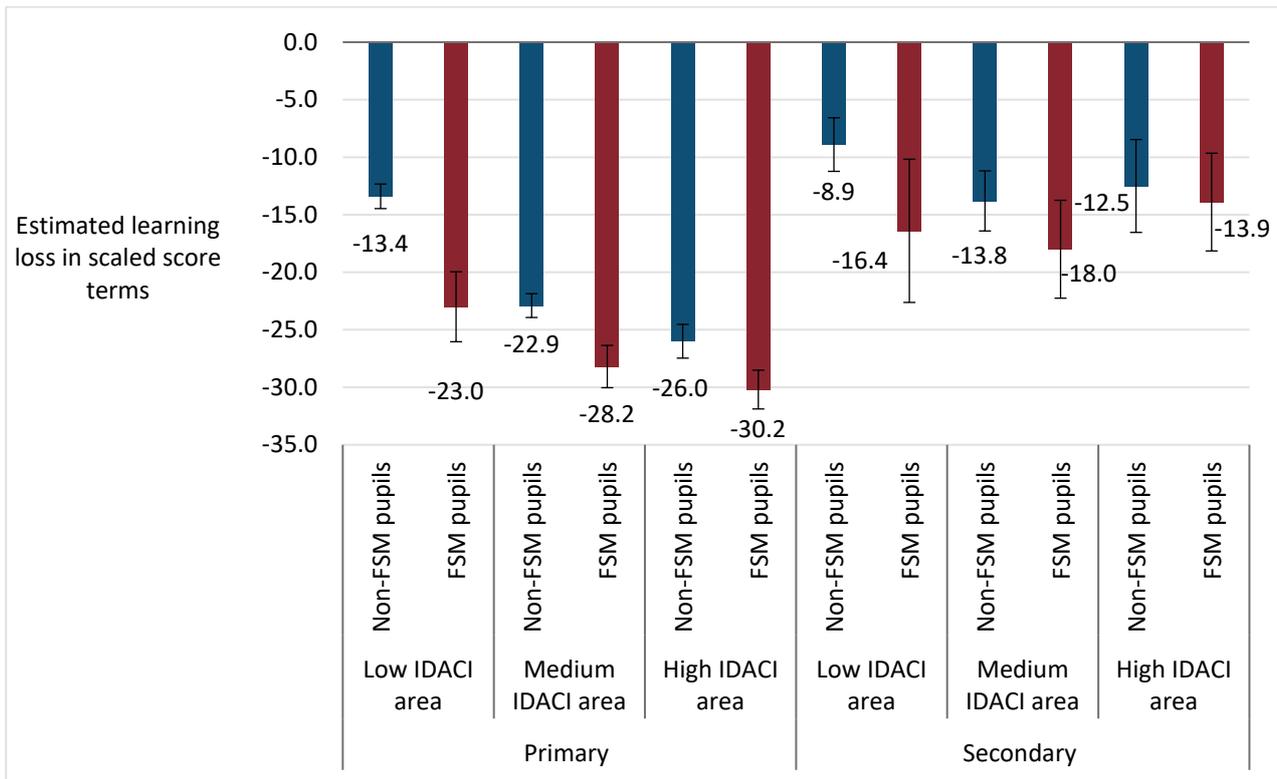
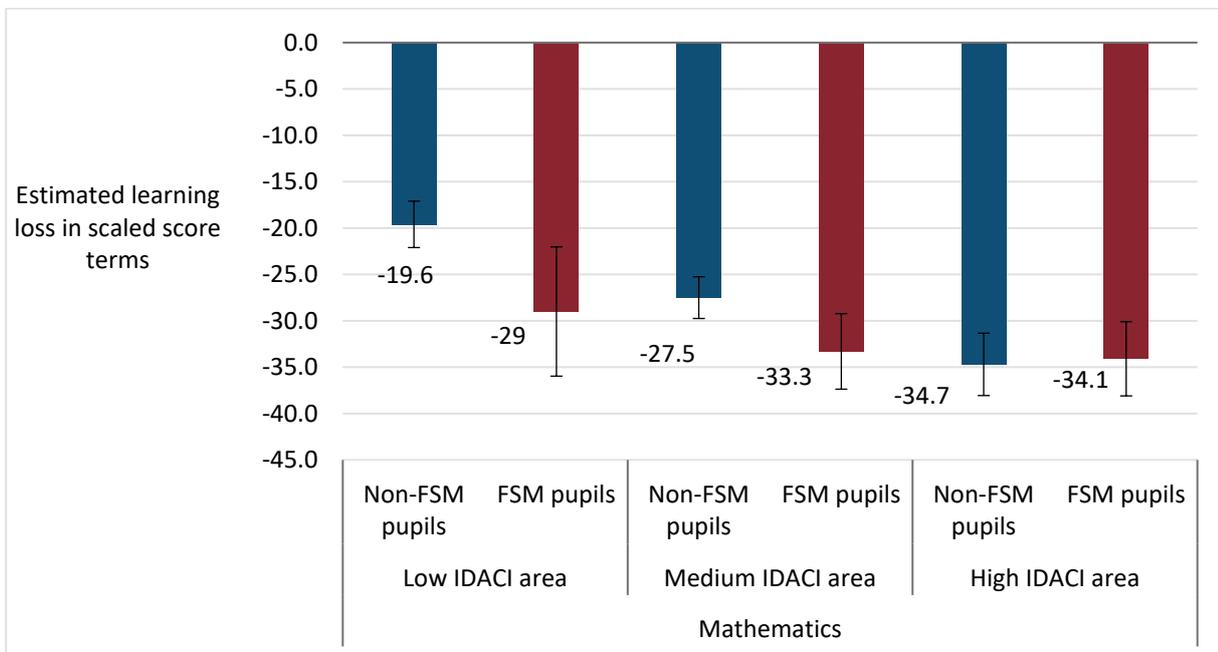


Figure 2.8: Estimated mean learning loss by spring term, in scaled score points, in mathematics (primary schools only) by pupil and area-level disadvantage



Estimates of learning loss in months of learning

Figure 2.9 shows estimates of learning loss in reading by pupil characteristics and by region for primary and secondary aged pupils in terms of months of learning. The grey vertical lines indicate the average learning loss for all primary and secondary pupils respectively. Any differences that we report in this section are statistically significant.

We find that amongst primary aged pupils in reading:

- pupils from disadvantaged backgrounds (defined as pupils eligible for free school meals at any point in the last six years) experienced, on average, approximately 2.7 months of learning loss. This means that disadvantaged pupils have lost about one month more than non-disadvantaged pupils;
- pupils with English as an additional language experienced a learning loss of approximately 2.2 months, this compares to an average learning loss for all primary pupils of around 2 months;
- pupils with an identified SEND experienced, on average, around 2.2 months learning loss, compared with around 1.9 months for their peers;
- pupils identified as Children In Need experienced a learning loss of approximately 2.3 months, this compares to average learning loss in reading of around 2 months;
- pupils in Yorkshire and the Humber and the North East experienced the largest learning losses of around 2.4 and 2.6 months respectively. Although it is important to note here that there is some degree of uncertainty in our estimates of learning loss that must be considered when interpreting these findings.

Amongst secondary aged pupils in reading:

- pupils from disadvantaged backgrounds (defined as pupils eligible for free school meals at any point in the last six years) experienced, on average, approximately 2.3 months of learning loss. This means that disadvantaged pupils have lost about one month more than non-disadvantaged pupils;
- pupils with an identified SEND experienced, on average, around 2.6 months learning loss, compared with around 1.5 months for their peers;
- pupils identified as Children In Need experienced a learning loss of approximately 2.5 months, this compares to average learning loss in reading of around 1.6 months;
- pupils in Yorkshire and the Humber and the North East experienced the largest learning losses of around 2.7 and 2.4 months respectively. Although it is important to note here that there is some degree of uncertainty in our estimates of learning loss that must be considered when interpreting these findings.

The analysis suggests that in-person school closures in relation to the pandemic have led to a widening of the disadvantage gap in reading. Furthermore, pupils identified as Children In Need, pupils with an identified SEND, and pupils in Yorkshire and the Humber and in the North East, experienced greater learning losses than their peers.

The gap in terms of learning loss between disadvantaged pupils and their peers has grown by around half a month since our estimates of learning loss by the first half of the autumn term. The extent to which disadvantaged pupils lost learning, as a result of the second period of restrictions on in-person teaching at least, appears to be equivalent to undoing two-thirds of the progress made in the last decade on closing the gap in primary schools. This has been calculated using estimates of closing of the disadvantage gap in the last decade in EPI's annual report. ¹¹

¹¹ <https://epi.org.uk/publications-and-research/education-in-england-annual-report-2020/>.

Figure 2.9: Estimated mean learning loss by spring term, in months, in reading (primary and secondary schools) by characteristics

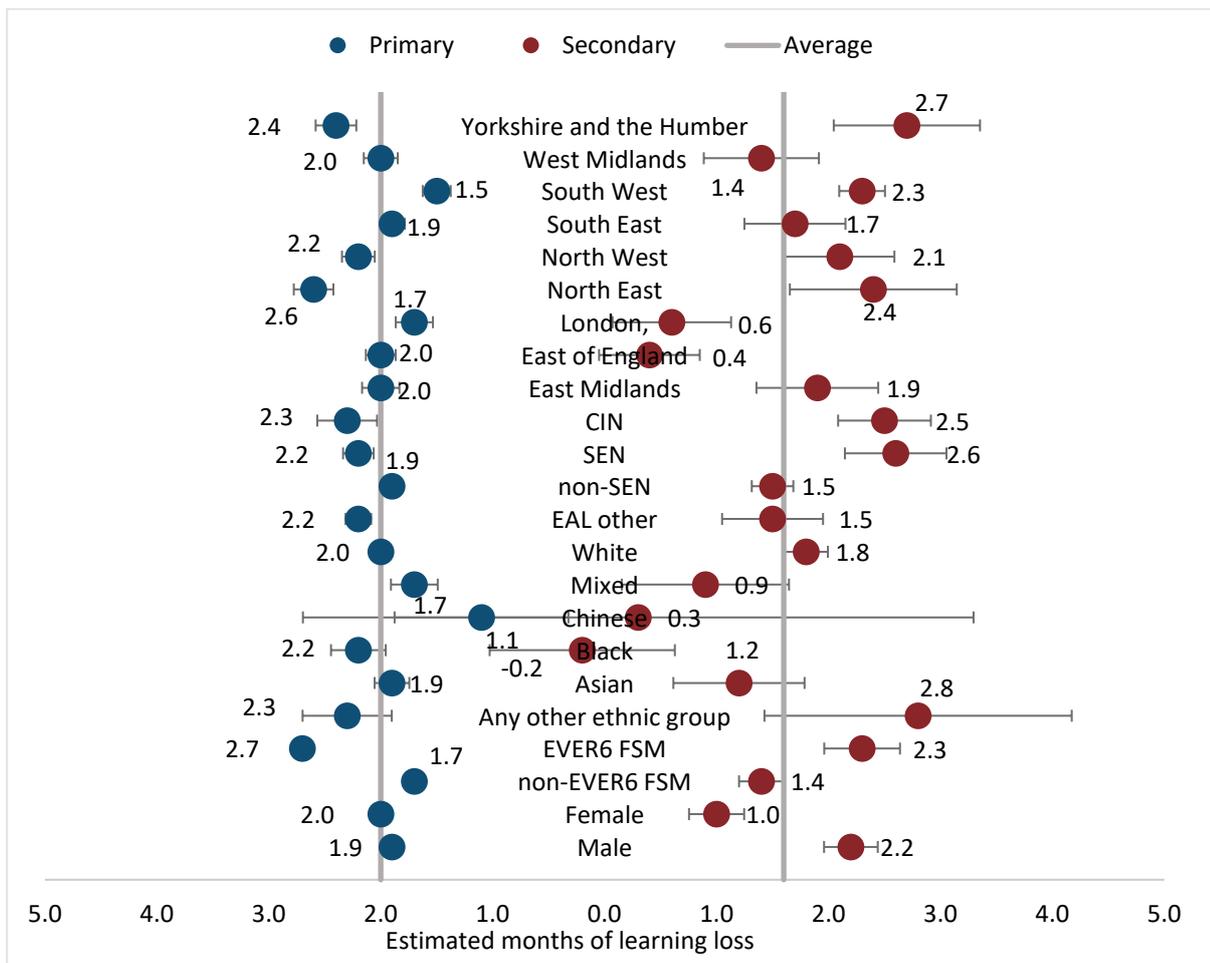


Figure 2.10 shows estimates of learning loss in mathematics by pupil characteristics and by region for primary aged pupils. We find that:

- pupils from disadvantaged backgrounds (defined as pupils eligible for free school meals at any point in the last six years), on average, had an estimated learning loss of approximately 3.8 months. This compares with around 2.8 months for their more affluent peers;
- pupils from English as an additional language backgrounds do not appear to have been disproportionately affected by in-person school closures but they still experienced lost learning of around 2.9 months;
- pupils with an identified SEND experienced, on average, around 2.5 months learning loss, compared with approximately 3.1 months for their peers; and
- there were a number of regional disparities in the level of learning loss. Again it was pupils in the North East and Yorkshire and the Humber, but also the West

Midlands, who experienced the greatest learning losses (around 4.3, 4.4, and 4.7 months respectively).

This analysis provides further evidence that in-person school closures in relation to the pandemic have led to a widening of the disadvantage gap in mathematics compared to the gap before the pandemic. The gap by the spring term is similar to our estimates by the first half of the autumn term. The difference of a month's progress lost relative to other pupils would be equivalent to undoing two-thirds of the progress made over the past decade in closing the disadvantage gap in primary schools. This has been calculated using estimates of closing of the disadvantage gap in the last decade in EPI's annual report.

Figure 2.10: Estimated mean learning loss by spring term, in months, in mathematics (primary schools only) by characteristics

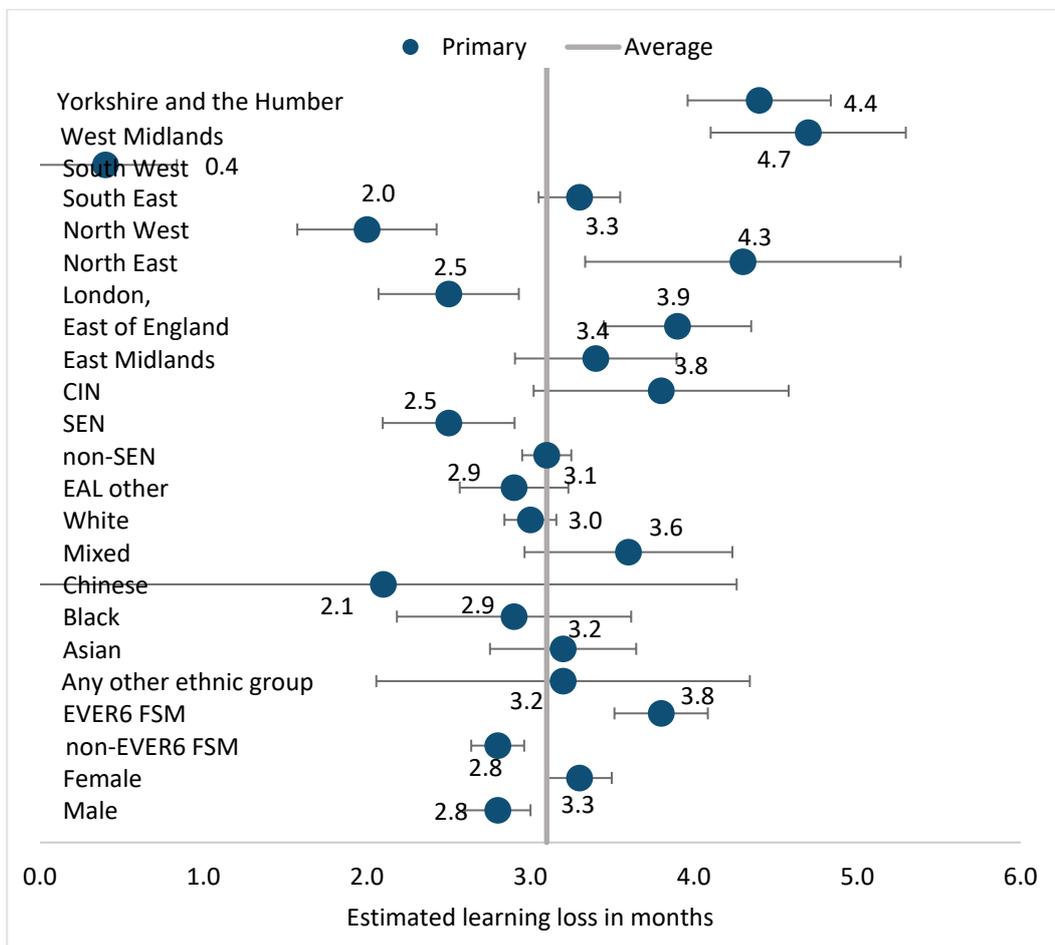


Figure 2.11 presents estimates of learning loss in months of learning in reading for both primary and secondary aged pupils from disadvantaged backgrounds (defined as pupils eligible for free school meals at any point in the last six years) and their more affluent peers split by the level of disadvantage within the local area (defined by IDACI score). Figure 2.12 presents the equivalent for primary aged pupils in mathematics.

For primary aged pupils in reading, we find:

- non-disadvantaged pupils in areas with medium and high levels of disadvantage experienced a similar degree of learning loss to disadvantaged pupils in areas with low levels of disadvantage;
- learning losses were far greater for non-disadvantaged primary aged pupils in areas with a high level of disadvantage than non-disadvantaged pupils in areas with low levels of disadvantage;
- pupils from disadvantaged backgrounds within areas with a low level of disadvantage experienced, on average, around 2.2 months learning loss, compared to 1.2 months for their more affluent peers (this is around 2.7 and 2.2 months respectively for pupils in areas with a medium level of disadvantage);
- pupils from disadvantaged backgrounds within areas with a high level of disadvantage experienced, on average, around 2.9 months learning loss, compared to around 2.3 months for their more affluent peers.

For secondary aged pupils in reading, we find:

- non-disadvantaged pupils in areas with medium and high levels of disadvantage experienced a similar degree of learning loss to disadvantaged pupils in areas with low levels of disadvantage.

For primary aged pupils in mathematics, we find:

- non-disadvantaged pupils in areas with medium and high levels of disadvantage experienced a similar degree of learning loss to disadvantaged pupils in areas with low levels of disadvantage;
- similar to reading, pupils from disadvantaged backgrounds within areas with a low level of disadvantage experienced, on average, around 3.3 months learning loss, compared to around 2.2 months for their more affluent peers (this is around 3.9 and 3 months respectively for pupils in areas with a medium level of disadvantage); however
- unlike reading, there is no statistically significant difference between disadvantaged pupils in areas with different levels of disadvantage although this is not the case for their more affluent peers (around 3.6 months learning loss in

areas with a high level of disadvantage, compared to around 3.0 and 2.2 months in areas with medium and low levels of disadvantage).

This analysis suggests that, particularly for primary aged pupils in reading but also in mathematics, the mixture of disadvantage at the pupil and area level results in greater learning losses for some disadvantaged pupils. Furthermore, both pupil and area-level disadvantage have an influence on the level of learning loss experienced by pupils as non-disadvantaged pupils in areas with medium and high levels of disadvantage experienced a similar degree of learning loss to disadvantaged pupils in areas with low levels of disadvantage.

Figure 2.11: Estimated mean learning loss by spring term, in months, in reading (primary and secondary schools) by pupil and area-level disadvantage

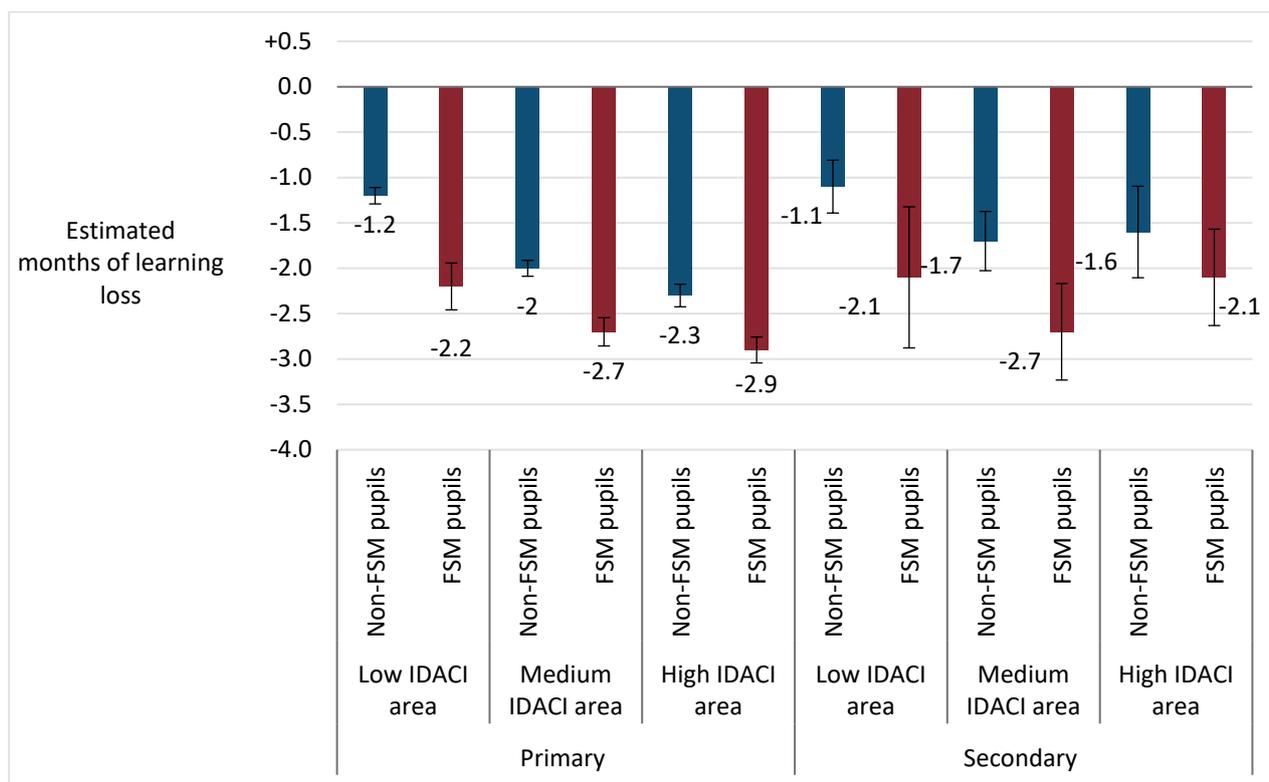
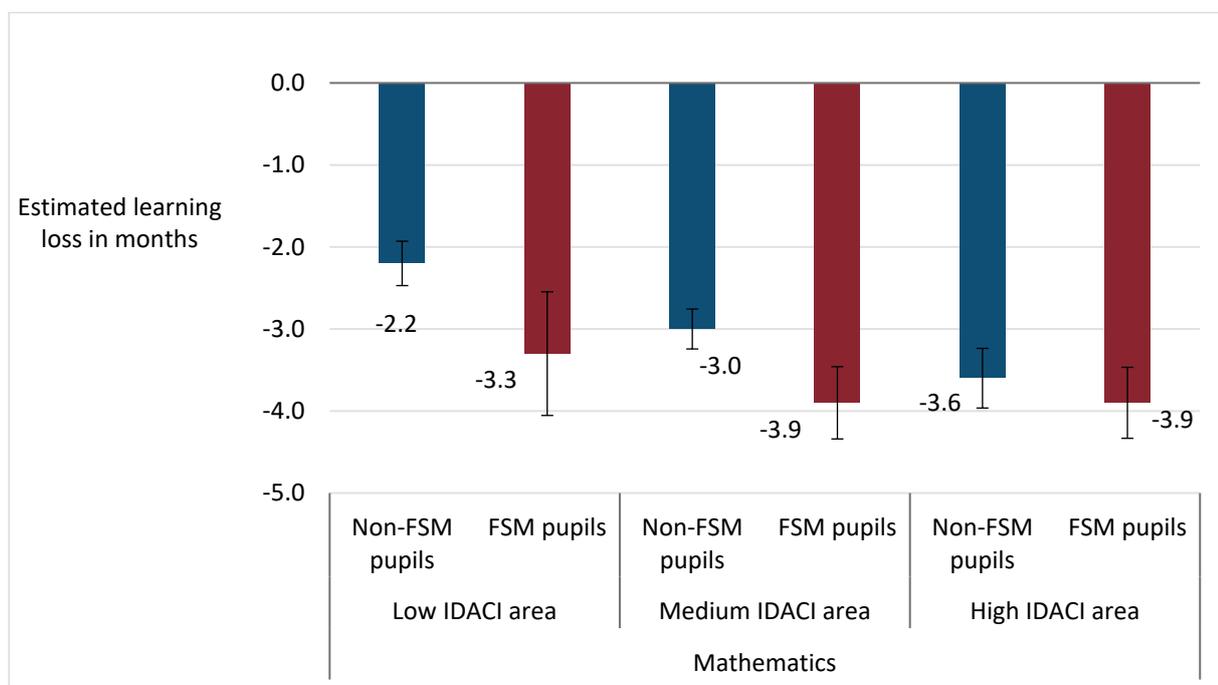


Figure 2.12: Estimated mean learning loss by spring term, in months, in mathematics (primary schools only) by pupil and area-level disadvantage



Approach 2: Estimates of learning loss in reading and mathematics by characteristics using the ‘second half of spring term’ approach

Estimates of learning loss in scaled score points terms

In this section we look at our estimates of learning loss in reading and mathematics broken down by characteristics using the “second half of spring term” approach (what we denote as “spring 2”). Figure 2.13 shows estimates of learning loss in scaled score points terms for reading by pupil characteristics and by region for primary and secondary aged pupils. The grey vertical lines indicate the average learning loss for all primary and secondary aged pupils respectively. As we are breaking results down into various sub-groups it is important to note that the sample size is smaller within these groups and hence the confidence intervals on these estimates will be wider than for the average learning loss estimates. Any differences that we highlight in this section are statistically significant.

When we look at learning loss in reading by characteristics, amongst primary aged pupils we find:

- pupils from disadvantaged backgrounds (defined as pupils eligible for free school meals at any point in the last six years) experienced, on average, 28.1 scaled score points learning loss, compared with 21.3 points for their more affluent peers;
- differences in learning loss by ethnic group were generally not statistically significant;¹²
- there is evidence of greater learning losses for pupils with a first language other than English. We estimate that pupils with English as an additional language experienced a learning loss of 27.1 scaled score points, this compares with a learning loss amongst all primary aged pupils of 23.0 points;
- there were a number of regional disparities in the level of learning loss. In particular, pupils in the North East and in Yorkshire and the Humber experienced the greatest learning loss; and
- pupils in regions such as the South West, the North West, and London have experienced less learning loss than in other regions.

Amongst secondary aged pupils in reading we find:

- boys experienced a learning loss of 21.3 scaled score points, this compares with a learning loss of 16.3 points for girls;

¹² It is important to note here that the results for Chinese pupils are from a particularly small sample and also affected by the limitations of a model that does not fully reflect the rates of progress that these pupils make in a year not impacted by the pandemic.

- differences in learning loss by ethnic group were generally not statistically significant;
- pupils with an identified SEND experienced, on average, a learning loss of 24.8 scaled score points, compared with 17.8 points for their peers;
- there were a number of regional disparities in the level of learning loss. In particular, pupils in the North East experienced greater learning losses than other areas of the country; and
- pupils in regions such as the East of England and East Midlands have experienced less learning loss than in other regions.

Figure 2.14 shows estimates of learning loss in mathematics by pupil characteristics and by region for primary aged pupils. We find that:

- pupils from disadvantaged backgrounds (defined as pupils eligible for free school meals at any point in the last six years), on average, had an estimated learning loss of 35.1 scaled score points. This is relative to 29.2 points for their more affluent peers;
- similar to the findings for reading, there were no differences by ethnic group that were statistically significant;
- similar to reading, pupils from English as an additional language backgrounds appear to have been disproportionately affected by in-person school closures, experiencing lost learning of 35.2 scaled score points, compared to 30.7 scaled score points for all primary aged pupils;
- pupils with an identified SEND experienced, on average, 14.3 scaled score points learning loss, compared with 32.9 scaled score points for their peers;
- there were no statistically significant differences for pupils identified as Children In Need for mathematics; and
- there were a number of regional disparities in the level of learning loss. Again it was pupils in the North East and Yorkshire and the Humber, but also the West Midlands, who experienced the greatest learning losses (46.2, 52.7 and 67.5 scaled score points respectively).

Figure 2.13: Estimated mean learning loss by spring 2, in scaled score points, in reading (primary and secondary schools) by characteristics

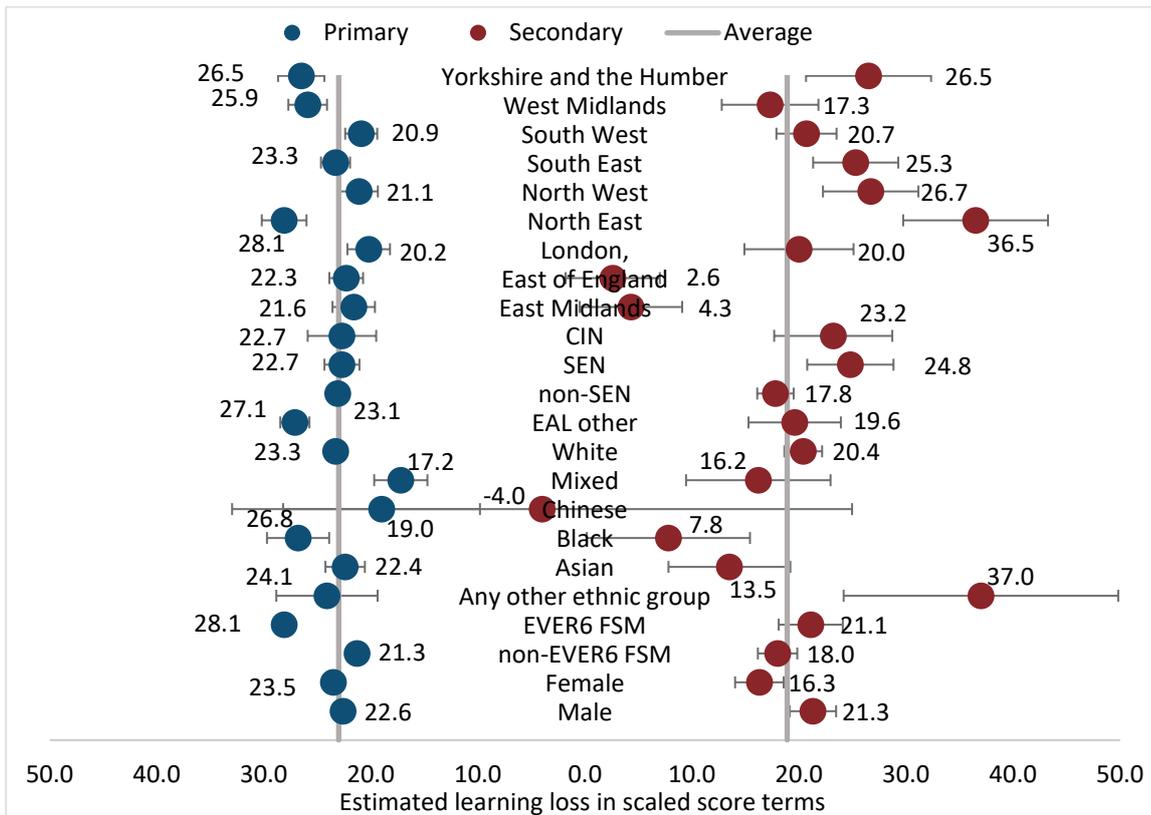


Figure 2.14: Estimated mean learning loss by spring 2, in scaled score points, in mathematics (primary schools only) by characteristics

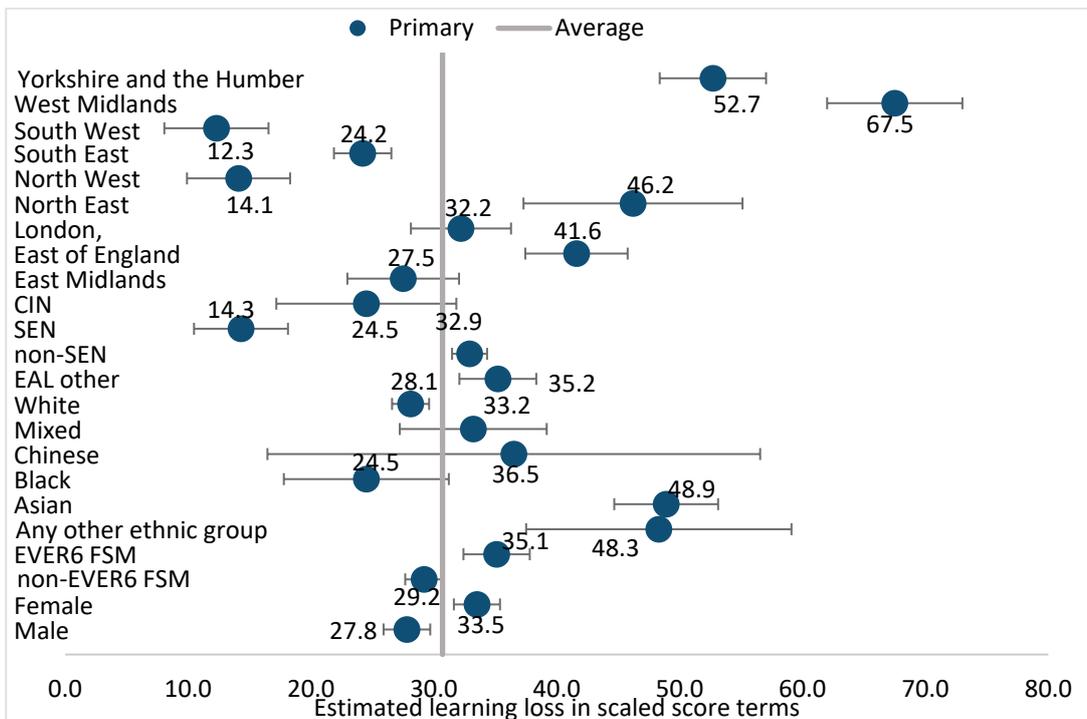


Figure 2.15 presents estimates of learning loss in scaled score points terms in reading for both primary and secondary aged pupils from disadvantaged backgrounds (defined as pupils eligible for free school meals at any point in the last six years) and their more affluent peers split by the level of disadvantage within the local area (defined by IDACI score). Figure 2.16 presents the equivalent for primary aged pupils in mathematics.

For primary aged pupils in reading, we find:

- learning losses were greater for non-disadvantaged primary aged pupils in areas with a high level of disadvantage than non-disadvantaged pupils in areas with low levels of disadvantage;
- non-disadvantaged pupils in areas with medium and high levels of disadvantage experienced a similar degree of learning loss to disadvantaged pupils in areas with low levels of disadvantage;
- pupils from disadvantaged backgrounds within areas with a low level of disadvantage experienced, on average, 23.9 scaled score points learning loss, compared to 15.8 points for their more affluent peers (this is 27.8 and 24.0 points respectively for pupils in areas with a medium level of disadvantage);
- pupils from disadvantaged backgrounds within areas with a high level of disadvantage experienced, on average, 29.6 scaled score points learning loss, compared to 26.3 points for their more affluent peers;

For secondary aged pupils in reading, we find:

- non-disadvantaged pupils in areas with medium and high levels of disadvantage experienced a similar degree of learning loss to disadvantaged pupils in areas with low levels of disadvantage;

For primary aged pupils in mathematics, we find:

- non-disadvantaged pupils in areas with medium and high levels of disadvantage experienced a similar degree of learning loss to disadvantaged pupils in areas with low levels of disadvantage;
- learning losses were far greater for non-disadvantaged primary aged pupils in areas with a high level of disadvantage than non-disadvantaged pupils in areas with low levels of disadvantage.

This analysis suggests that, particularly for primary aged pupils in reading but also in mathematics, the mixture of disadvantage at the pupil and area level results in greater learning losses for some disadvantaged pupils. Furthermore, both pupil and area-level disadvantage have an influence on the level of learning loss experienced by pupils as non-disadvantaged pupils in areas with medium and high levels of disadvantage

experienced a similar degree of learning loss to disadvantaged pupils in areas with low levels of disadvantage.

Figure 2.15: Estimated mean learning loss by spring 2, in scaled score points, in reading (primary and secondary schools) by pupil and area-level disadvantage

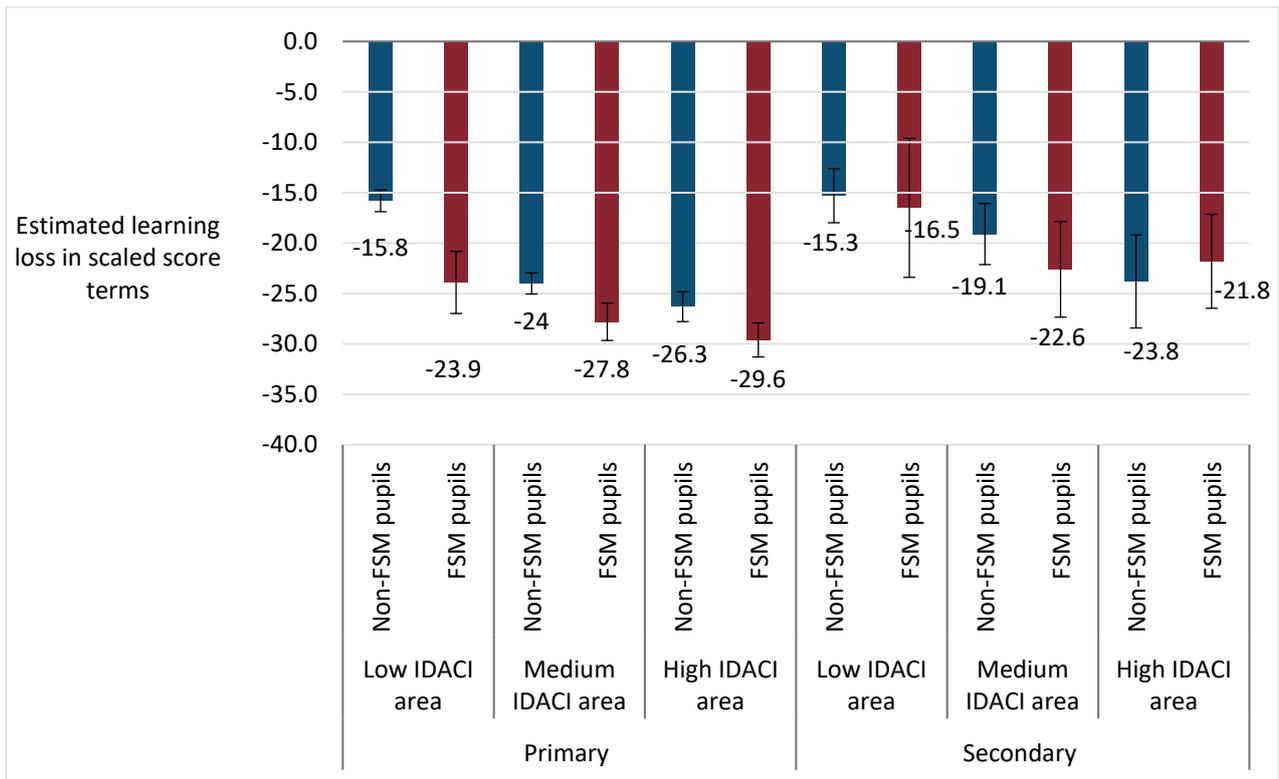
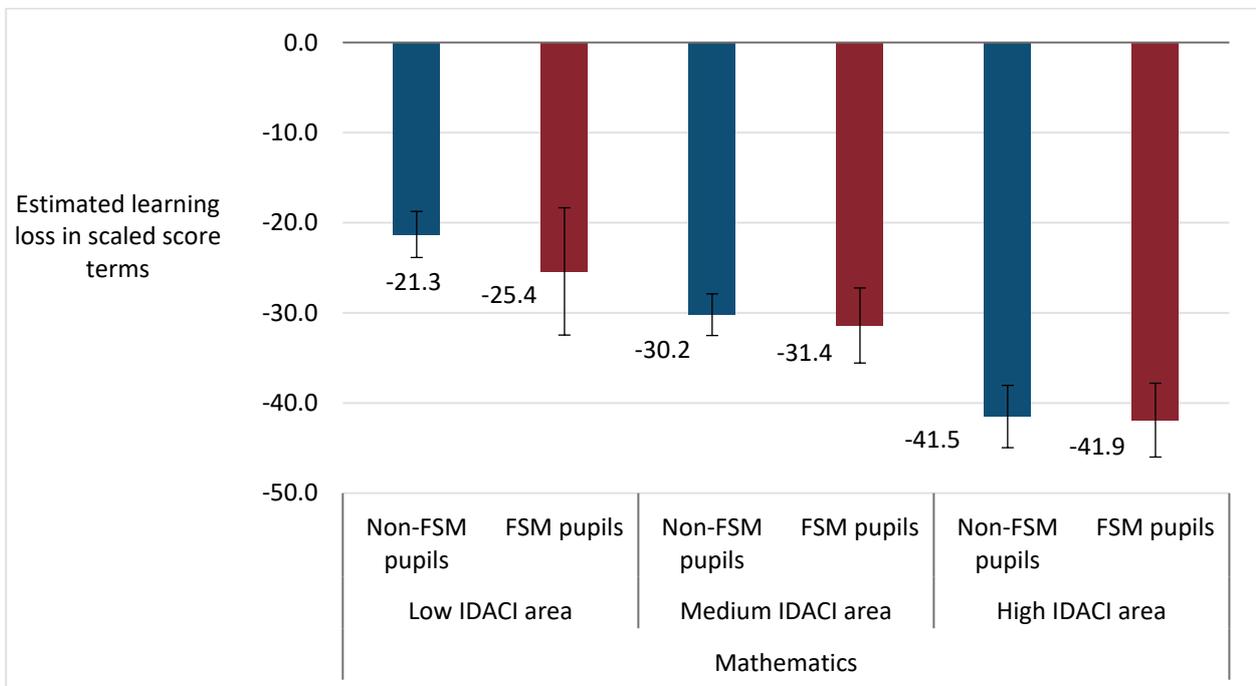


Figure 2.16: Estimated mean learning loss by spring 2, in scaled score points, in mathematics (primary schools only) by pupil and area-level disadvantage



Estimates of learning loss in months of learning

Figure 2.17 shows estimates of learning loss in reading by pupil characteristics and by region for primary and secondary aged pupils in terms of months of learning. The grey vertical lines indicate the average learning loss for all primary and secondary aged pupils respectively. Any differences that we report in this section are statistically significant.

When we look at learning loss in reading by characteristics, amongst primary aged pupils we find:

- pupils from disadvantaged backgrounds (defined as pupils eligible for free school meals at any point in the last six years) experienced, on average, approximately 3.0 months of learning loss. This means that disadvantaged pupils have lost around one month more than non-disadvantaged pupils;
- pupils with English as an additional language experienced a learning loss of approximately 2.6 months, this compares with an average learning loss in reading of around 2.3 months;
- pupils in Yorkshire and the Humber and the North East experienced the largest learning losses of around 2.7 and 2.8 months respectively. Although it is important to note here that there is some degree of uncertainty in our estimates of learning loss that must be considered when interpreting these findings.

Amongst secondary aged pupils in reading we find:

- boys experienced a learning loss of around 2.9 months, this compares with a learning loss of around 2.2 months for girls;
- pupils from disadvantaged backgrounds experienced, on average, approximately 3.3 months of learning loss. This means that disadvantaged pupils have lost around one month more learning than non-disadvantaged pupils;
- pupils with an identified SEND experienced, on average, around 3.8 months learning loss, compared with around 2.4 months for their peers;
- pupils identified as Children In Need experienced a learning loss of approximately 3.6 months, this compares to average learning loss of 2.6 months;
- pupils in the North East experienced the largest learning losses of around 5 months learning loss. Although it is important to note here that there is some degree of uncertainty in our estimates of learning loss that must be considered when interpreting these findings.

The analysis suggests that in-person school closures in relation to the pandemic have led to a widening of the disadvantage gap in reading. Furthermore, pupils from EAL backgrounds, and pupils in Yorkshire and the Humber and in the North East, experienced greater learning losses than their peers.

The gap in terms of learning loss between disadvantaged pupils and their peers has grown by around half a month since our estimates of learning loss by the first half of the autumn term. The extent to which disadvantaged pupils lost learning, as a result of the second period of restrictions on in-person teaching at least, appears to be equivalent to undoing two-thirds of the progress made in the last decade on closing the gap in primary schools. This has been calculated using estimates of closing of the disadvantage gap in the last decade in EPI's annual report.

Figure 2.17: Estimated mean learning loss by spring 2, in months, in reading (primary and secondary schools) by characteristics

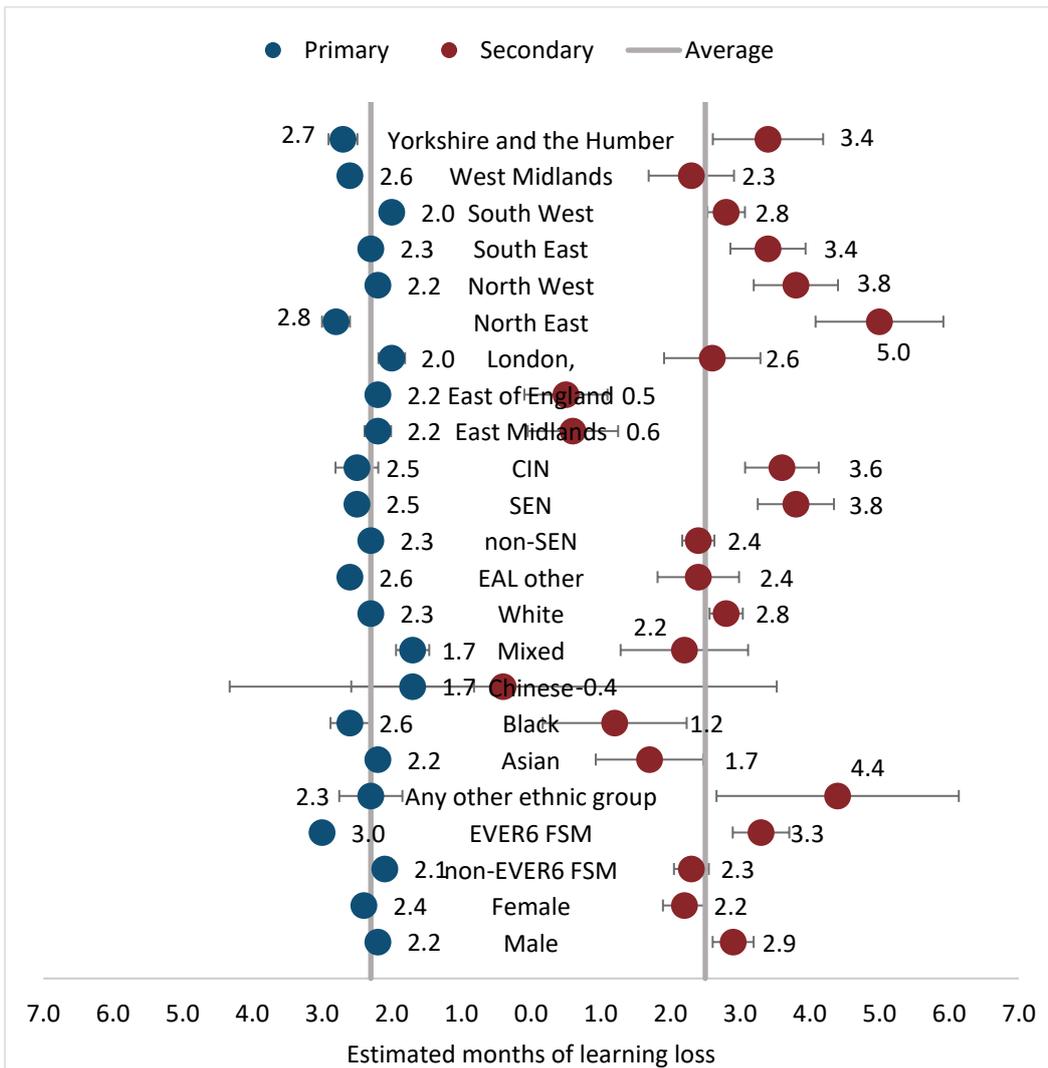


Figure 2.18 shows estimates of learning loss in mathematics by pupil characteristics and by region for primary aged pupils in terms of months of learning. We find that:

- pupils from disadvantaged backgrounds (defined as pupils eligible for free school meals at any point in the last six years), on average, experienced an estimated learning loss of approximately 4.2 months. This is relative to around 3.3 months for their more affluent peers;
- there were no differences by ethnic group that were statistically significant;
- pupils from English as an additional language backgrounds do not appear to have been disproportionately affected by in-person school closures but they still experienced lost learning of around 3.6 months;
- pupils with an identified SEND experienced, on average, around 1.7 months learning loss, compared with approximately 3.8 months for their peers;

- there were no statistically significant differences for pupils identified as Children In Need for mathematics; and
- there were a number of regional disparities in the level of learning loss. Again it was pupils in the North East and Yorkshire and the Humber, but also the West Midlands, who experienced the greatest learning losses (around 5.8, 5.5 and 6.7 months respectively). Although it is important to note here that there is some degree of uncertainty in our estimates of learning loss that must be considered when interpreting these findings.

This analysis provides further evidence that in-person school closures in relation to the pandemic have led to a widening of the disadvantage gap in mathematics. The gap by the spring term is similar to our estimates by the first half of the autumn term. The difference of around a months' progress lost relative to other pupils would be equivalent to undoing two-thirds of the progress made over the past decade in closing the disadvantage gap in primary schools. This has been calculated using estimates of closing of the disadvantage gap in the last decade in EPI's annual report.

Figure 2.18: Estimated mean learning loss by spring 2, in months, in mathematics (primary schools) by characteristics

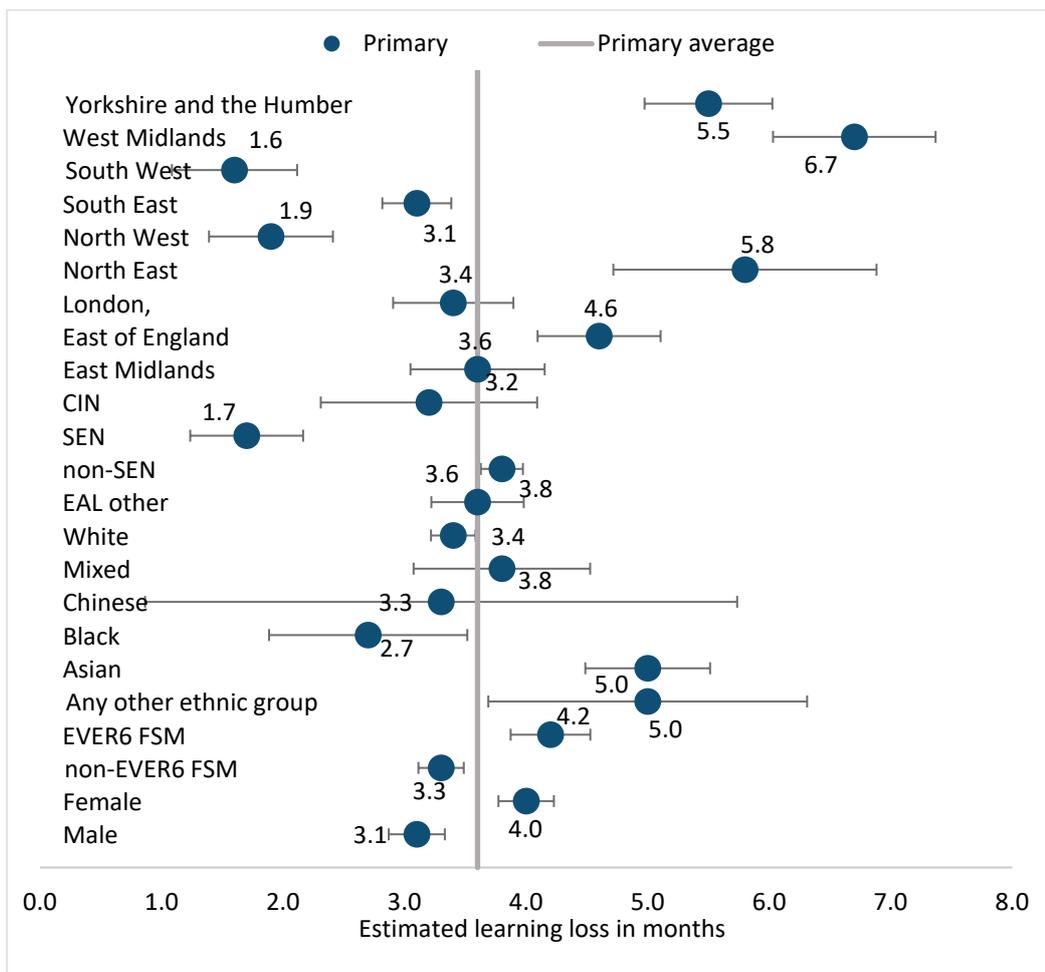


Figure 2.19 presents estimates of learning loss in months of learning in reading for both primary and secondary aged pupils from disadvantaged backgrounds (defined as pupils eligible for free school meals at any point in the last six years) and their more affluent peers split by the level of disadvantage within the local area (defined by IDACI score). Figure 2.20 presents the equivalent for primary aged pupils in mathematics.

For primary aged pupils in reading, we find:

- learning losses were far greater for non-disadvantaged primary aged pupils in areas with a high level of disadvantage than non-disadvantaged pupils in areas with low levels of disadvantage;
- non-disadvantaged pupils in areas with medium and high levels of disadvantage experienced a similar degree of learning loss to disadvantaged pupils in areas with low levels of disadvantage;
- pupils from disadvantaged backgrounds within areas with a low level of disadvantage experienced, on average, around 2.5 months learning loss, compared to 1.5 months for their more affluent peers (this is around 3.0 and 2.3 months respectively for pupils in areas with a medium level of disadvantage);
- pupils from disadvantaged backgrounds within areas with a high level of disadvantage experienced, on average, around 3.2 months learning loss, compared to around 2.6 months for their more affluent peers;

For secondary aged pupils in reading, we find:

- learning losses were far greater for non-disadvantaged primary aged pupils in areas with a high level of disadvantage than non-disadvantaged pupils in areas with low levels of disadvantage.

For primary aged pupils in mathematics, we find:

- learning losses were far greater for non-disadvantaged primary aged pupils in areas with a high level of disadvantage than non-disadvantaged pupils in areas with low levels of disadvantage.

This analysis suggests that, particularly for primary aged pupils in reading but also in mathematics, the mixture of disadvantage at the pupil and area level results in greater learning losses for some disadvantaged pupils.

Figure 2.19: Estimated mean learning loss by spring 2, in months, in reading (primary and secondary schools) by pupil and area-level disadvantage

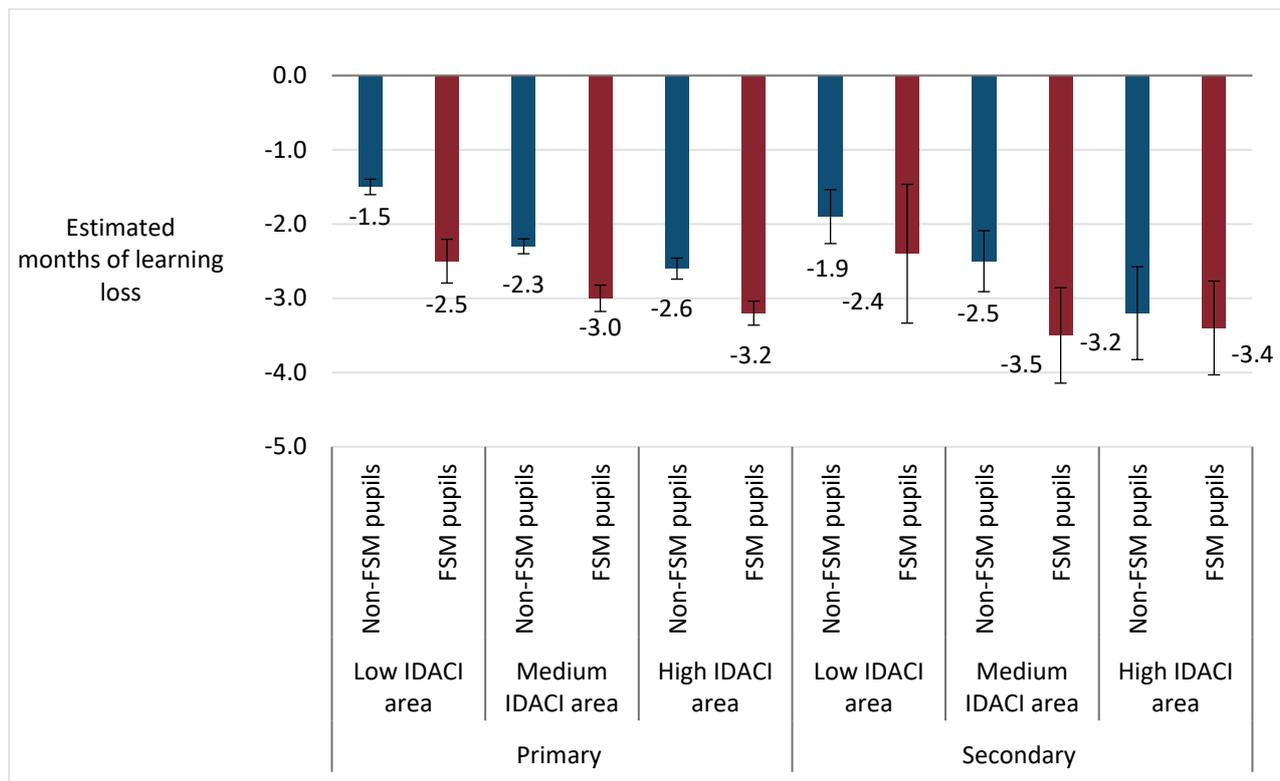
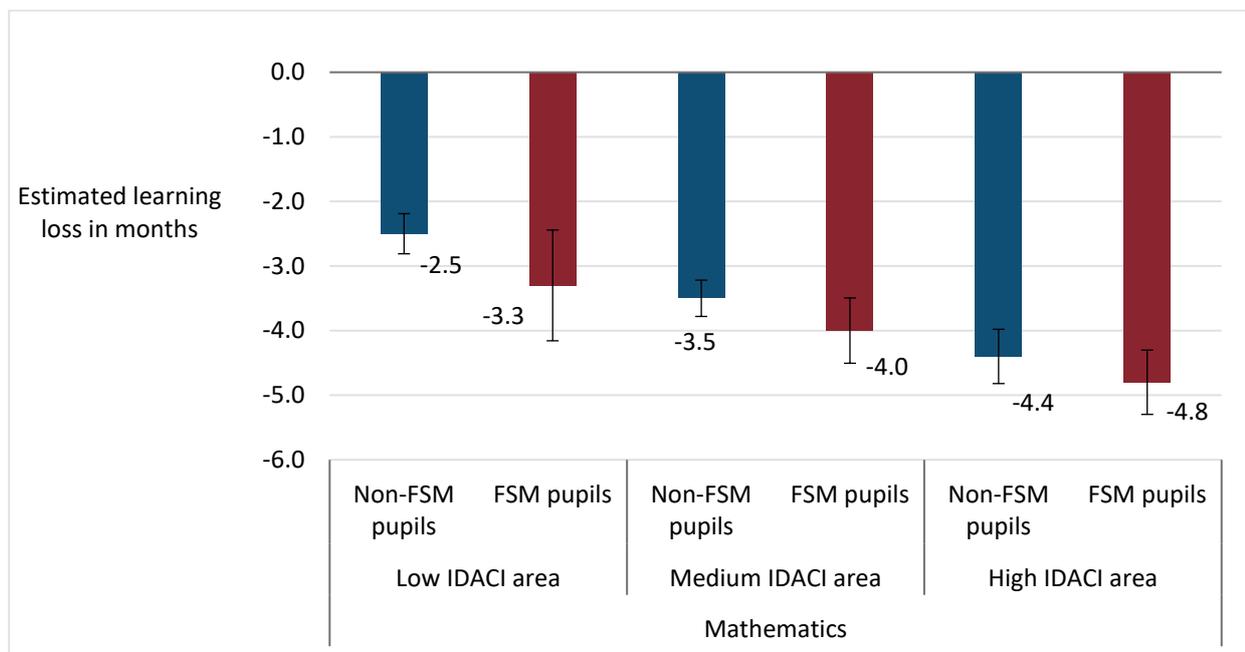


Figure 2.20: Estimated mean learning loss by spring 2, in months, in mathematics (primary schools only) by pupil and area-level disadvantage



Chapter 3 : Trends in estimated learning loss during 2020/21

We now look at how estimates of learning loss by the spring term compare to the first and second half of the autumn term to understand how pupils' learning had changed throughout the 2020/21 academic year.

We separately compare our results using the 'all spring term' and 'second half of spring term' approaches against the estimated learning loss by both the first and second half-terms of autumn. To ensure that we are comparing the same pupils over time we have restricted this analysis to the pupils that undertook assessments in all three time periods (the first and second half of the autumn term, and the spring term/second half of the spring term). This allows us to build a consistent picture of how pupils have been affected by the pandemic and how they were affected by schools re-opening. However, it does mean that estimates of learning loss in this chapter may differ to those that only look at a single time period. For our estimates of learning loss in reading for secondary aged pupils, we are only able to compare the spring term to the first half term of autumn because including the second half of the autumn term estimates in the comparison reduced the sample size too greatly and impacted the robustness of our estimates.

Approach 1: Trends in estimated learning loss in reading and mathematics using the 'all spring term' approach

Figure 3.1 presents the estimated learning loss in months using the 'all spring term' approach for Star Reading and Maths assessments for primary aged pupils, alongside the equivalent estimates of learning loss by autumn 1 and autumn 2. Figure 3.2 presents the estimated learning loss in reading in months using the 'all spring term' approach for secondary aged pupils, we are only able to provide the equivalent estimates of learning loss by autumn 1 for this cohort. We find that:

- there was notable further learning loss in primary reading with the learning loss for this cohort worsening by 0.7 months from our estimate of learning loss by autumn 2, resulting in an estimate of learning loss by the spring term of 1.9 months;
- primary mathematics learning losses over the academic year 2020/21 have a similar pattern to what we find for primary aged pupils in reading – the learning loss estimated by autumn 1 of 3.7 months decreases to 2.6 months by autumn 2 but then increases to 2.9 months by the spring term. The difference between the estimated learning loss by the second half-term of autumn and the estimated learning loss by the spring term was not statistically significant;
- learning loss by the spring term in reading for secondary aged pupils is around a similar level to the estimate of learning loss by autumn 1.

This analysis suggests there was further learning loss in primary schools in England, particularly in reading, following restrictions to in-person learning in early 2021.

Figure 3.1: Estimated mean learning loss by autumn 1, autumn 2 and all spring term, in months, in reading and mathematics (primary aged pupils only)

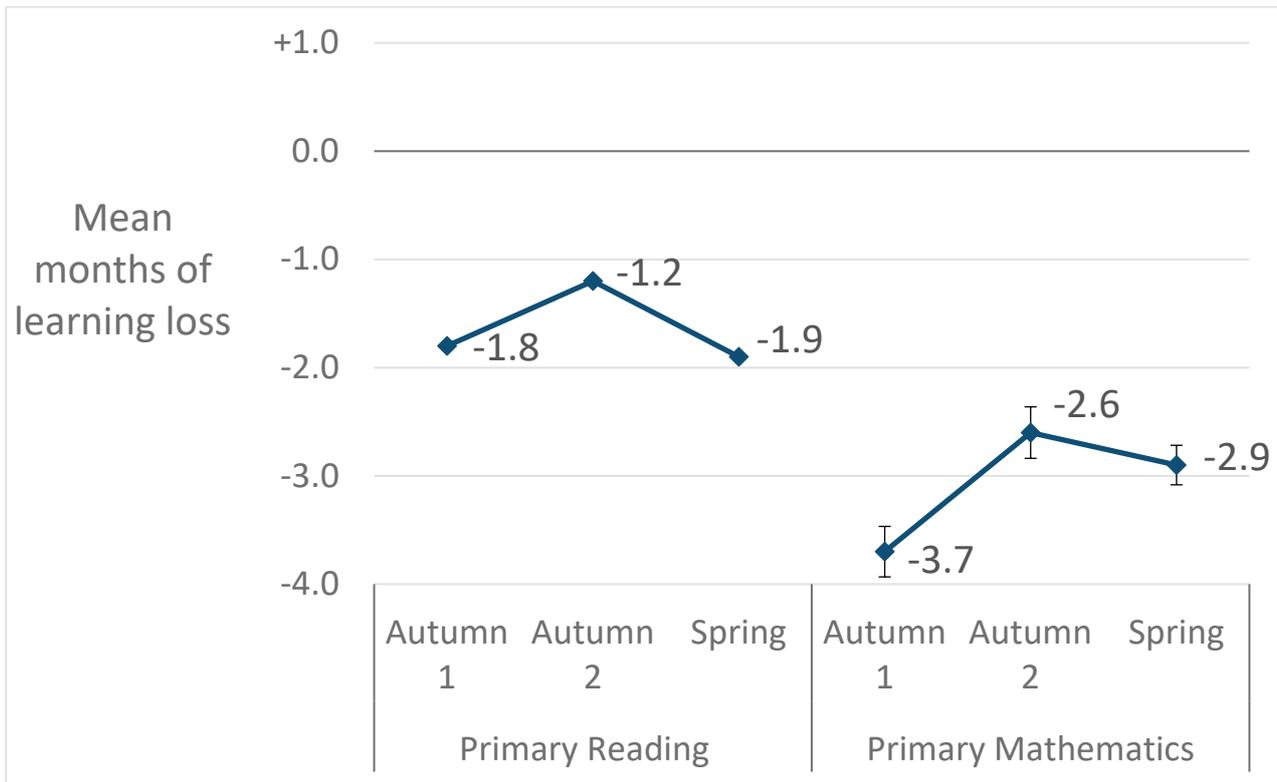
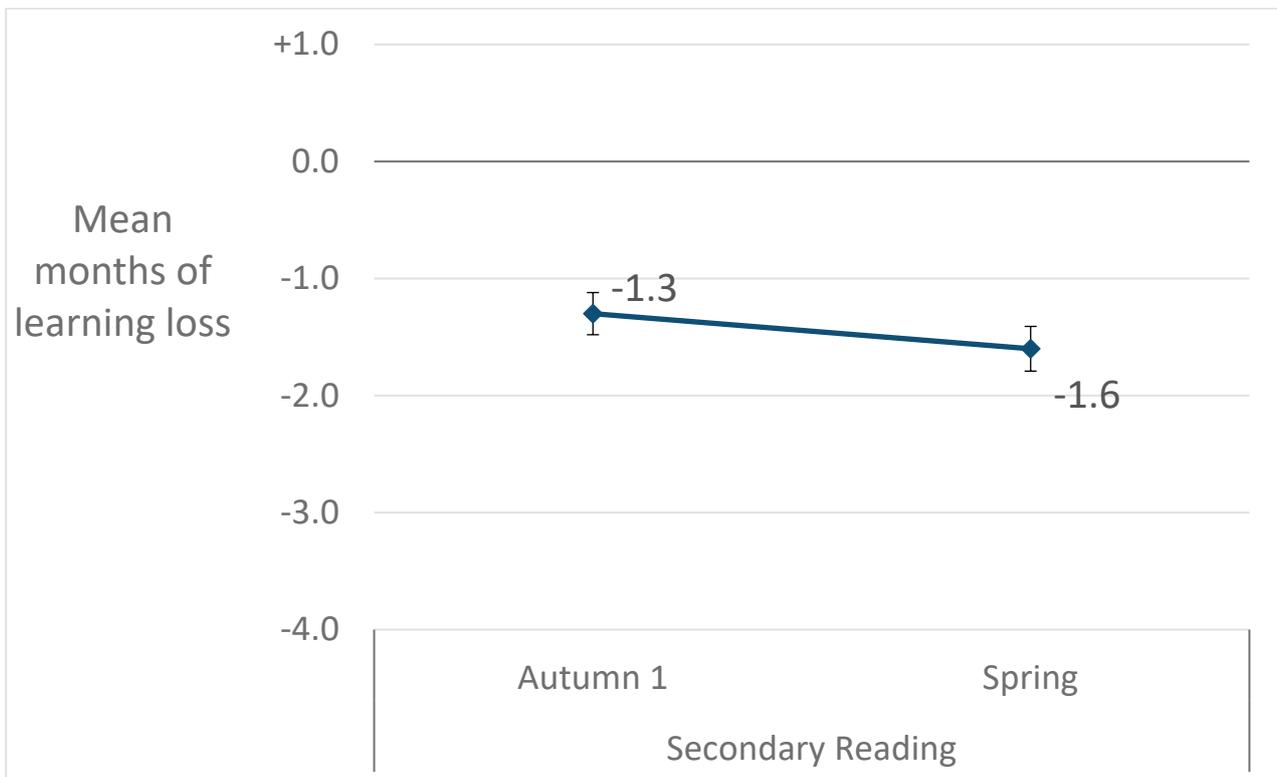


Figure 3.2: Estimated mean learning loss by autumn 1 and all spring term, in months, in reading (secondary aged pupils only)



To aid with visualising and understanding the concept of learning loss, we present in Figure 3.3 our reading learning loss estimates in 2020/21, in months, for the ‘all spring term’ approach, measured against 2019/20 average learning trajectory. This highlights that pupils are still making progress in their learning during the pandemic but at a slower rate than would be expected in a normal year. Effectively we are saying “what would pupils have achieved in 2020/21 if they had progressed at the same rate as pupils in 2019/20”, and the difference is what we call “learning loss”.

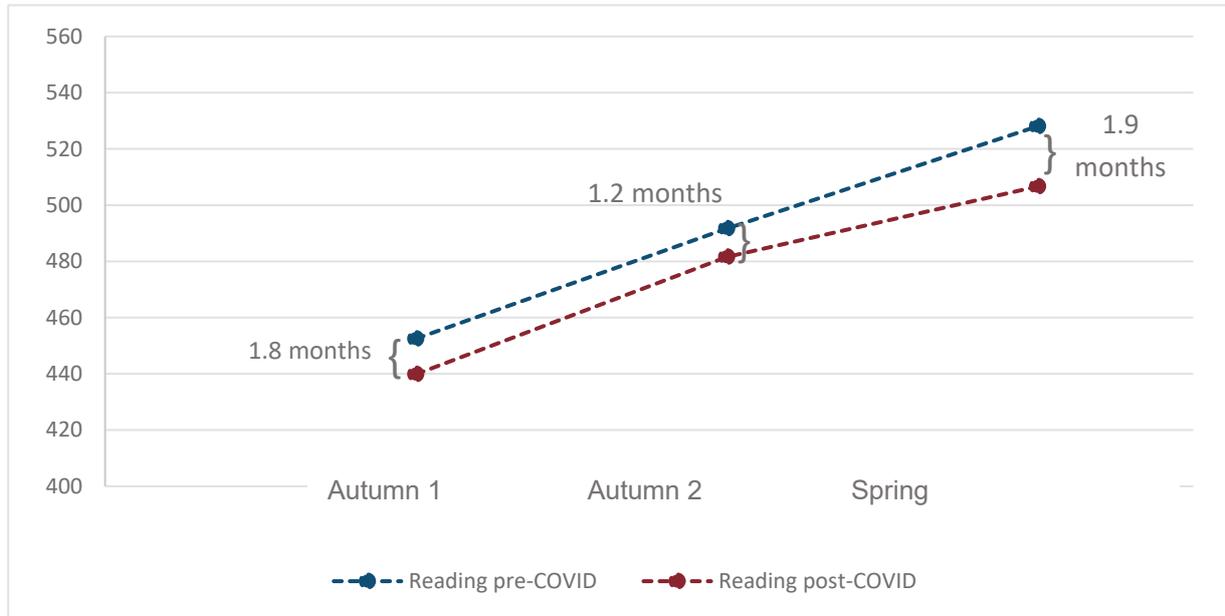


Figure 3.3: Reading learning loss estimates in 2020/21, in months, for primary pupils for the ‘all spring term’ approach measured against 2019/20 average learning trajectory

Approach 2: Trends in estimated learning loss in reading and mathematics using the ‘second half of spring term’ approach

Figure 3.4 presents the estimated learning loss in months using the ‘second half of spring term’ approach for Star Reading and Maths assessments for primary aged pupils, alongside the equivalent estimates of learning loss by autumn 1 and autumn 2. Figure 3.5 presents the estimated learning loss in reading in months using the ‘second half of spring term’ approach for secondary aged pupils, we are only able to provide the equivalent estimates of learning loss by autumn 1 for this cohort. We find that:

- there was notable further learning loss in primary reading with the learning loss for this cohort increasing by 1 month from our estimate of learning loss by autumn 2, resulting in an estimate of learning loss by the second half of spring term of approximately 2.2 months;
- primary mathematics learning losses over the academic year 2020/21 have a similar pattern to what we find for primary aged pupils in reading – the learning loss estimated by autumn 1 of 3.7 months decreases to 2.7 months by autumn 2 but then increases to around 3.5 months by the second half of the spring term;
- there was notable further learning loss in secondary reading with the learning loss for this cohort increasing by over half a month from our estimate of learning loss by autumn 1, resulting in an estimate of learning loss by the second half of spring term of around 2.4 months.

This alternative approach suggests that there were further learning losses in primary schools in England in reading and mathematics, as well as in secondary reading, following the restrictions to in-person learning in early 2021.

Figure 3.4: Estimated mean learning loss by autumn 1, autumn 2 and spring 2, in months, in reading and mathematics (primary aged pupils only)

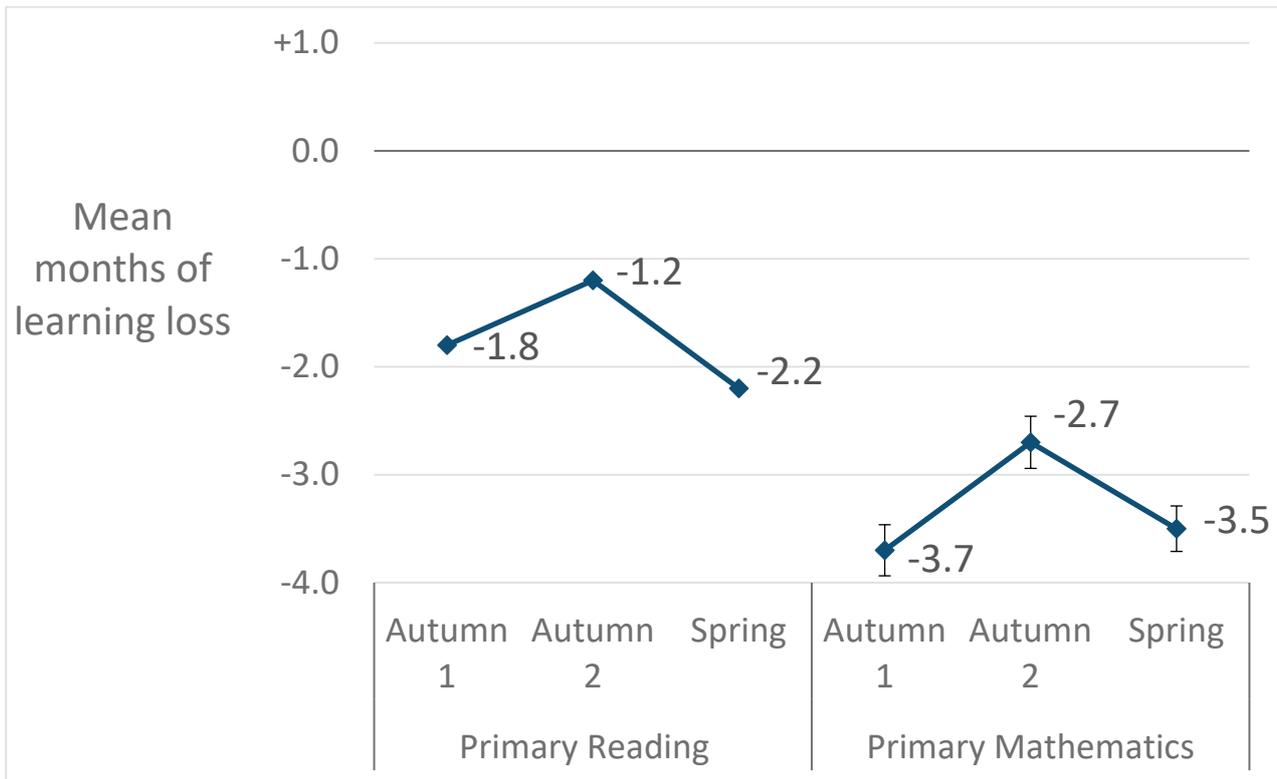
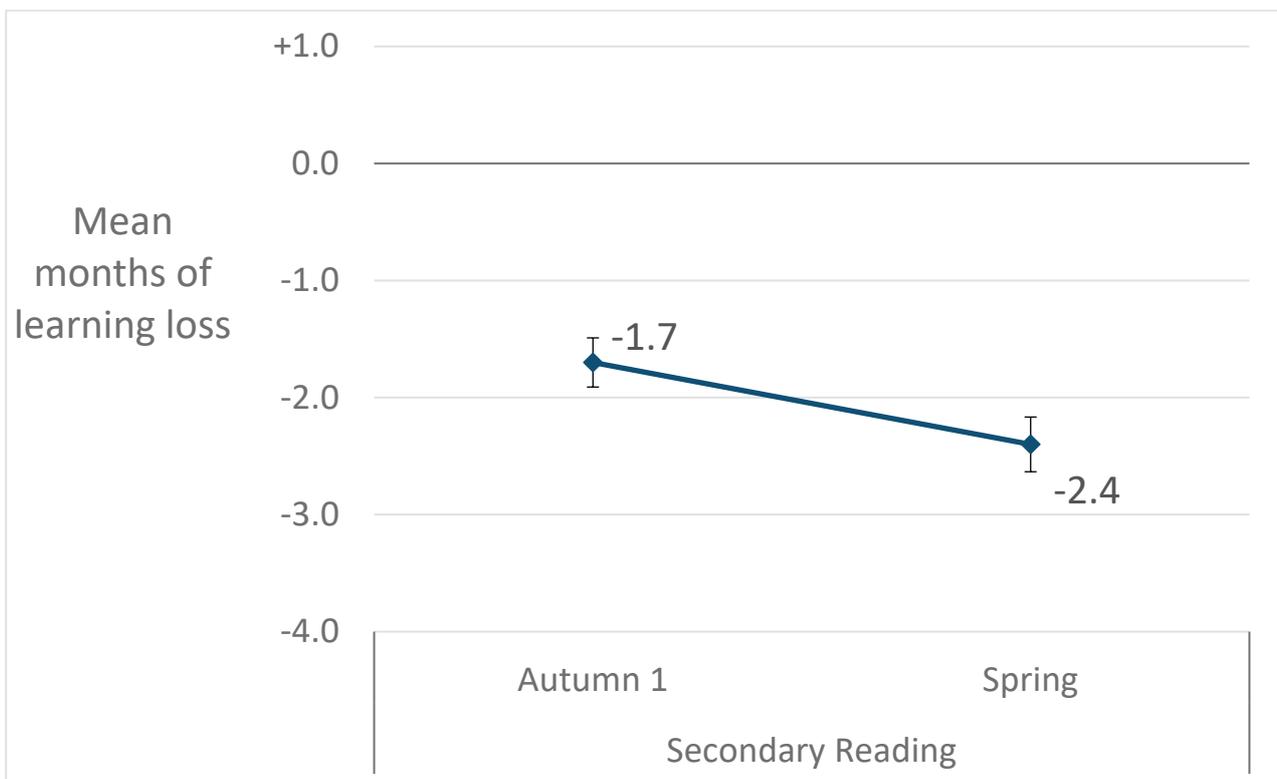


Figure 3.5: Estimated mean learning loss by autumn 1 and spring 2, in months, in reading (secondary aged pupils only)



Trends in estimates of learning loss in 2020/21 for characteristic groups

Approach 1: Trends in estimated learning loss in reading and mathematics using the 'all spring term' approach

Figure 3.6 and Figure 3.7 show the learning loss in months for primary aged pupils in reading in autumn 1, autumn 2 and spring by characteristics and region for the 'all spring term' approach. Figure 3.8 shows the average learning loss in months for the three time periods in primary reading split by pupil and area-level disadvantage. Once more it is important to note that as we are breaking results down into various sub-groups the sample size is smaller within these groups and hence the confidence intervals on these estimates will be wider than for the average learning loss estimates. We find for primary aged pupils in reading that:

- both boys and girls lost further learning by the spring term compared with estimates of learning loss by autumn 2 but girls lost a greater amount of learning than boys. Girls lost a further 0.8 months of learning by spring, compared with 0.5 months for boys;
- pupils from disadvantaged backgrounds (defined as pupils eligible for free school meals at any point in the last six years) lost 0.9 months of learning since autumn 2, compared with non-disadvantaged pupils who lost around 0.6 months of learning. Furthermore, we estimate that by the spring term the gap in learning loss between disadvantaged pupils and their more affluent peers remained at over half a month;
- most ethnic groups appear to have experienced some increase in learning loss, though due to sample sizes these are not necessarily statistically significant;
- pupils classified as Children in Need experienced further learning loss of around 1.6 months since autumn 2, compared with 0.7 months for all primary aged pupils;
- pupils in all regions appear to have shown some degree of further learning loss since autumn 2. The greatest loss was in the East of England and the West Midlands where pupils in these regions experienced greater learning loss than the average for all primary aged pupils (around 1.0 and 0.9 months respectively); and
- all combinations of pupil and area-level disadvantage saw further learning losses by the spring term, except disadvantaged pupils in an area with a low level of disadvantage. Disadvantaged pupils in areas with medium and high levels of disadvantage experienced the greatest learning losses since autumn 2 (both around 1 month respectively).

The analysis suggests that there are inequalities in primary reading stemming from the second round of in-person school closures with certain characteristic groups experiencing greater learning losses than others. Girls, disadvantaged pupils, and Children In Need pupils, experienced more losses by spring than the average for all primary pupils.

Figure 3.6: Estimated mean learning loss by autumn 1, autumn 2 and spring, in months, in reading (primary schools) by characteristics

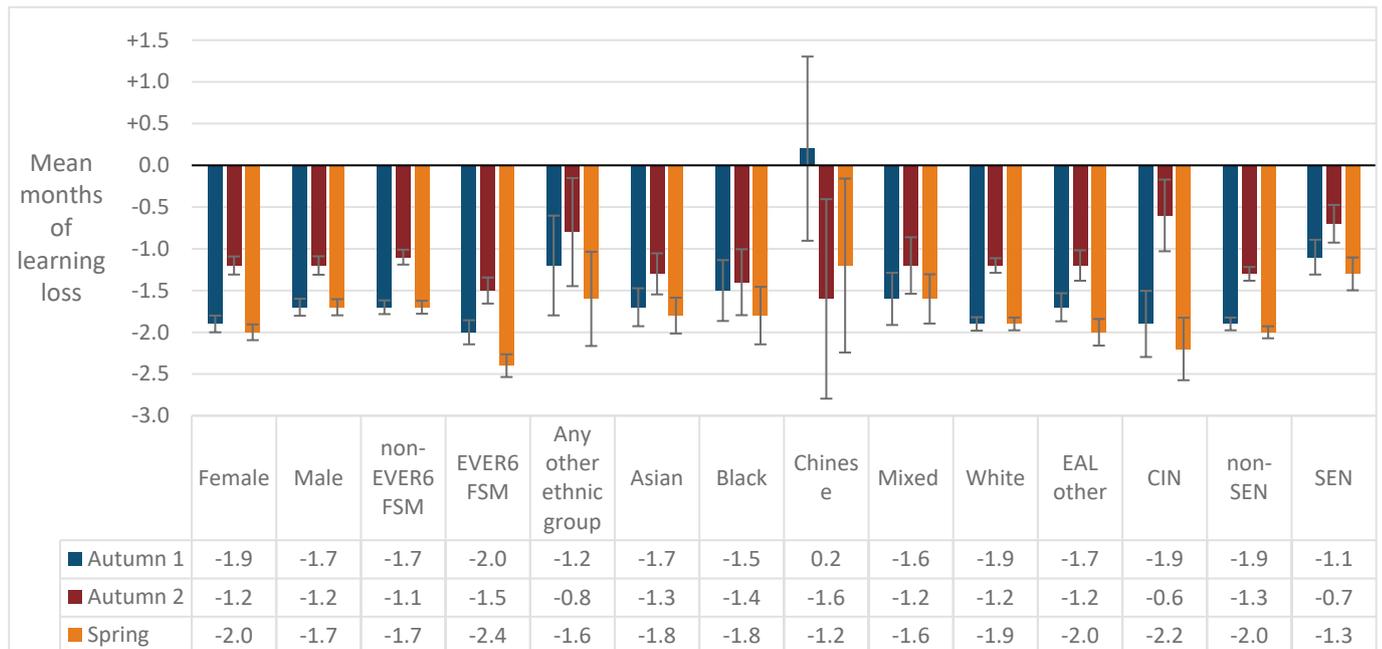


Figure 3.7: Estimated mean learning loss by autumn 1, autumn 2 and spring, in months, in reading (primary schools) by region



Figure 3.8: Estimated mean learning loss by autumn 1, autumn 2 and spring, in months, in reading (primary schools) by pupil and area-level disadvantage

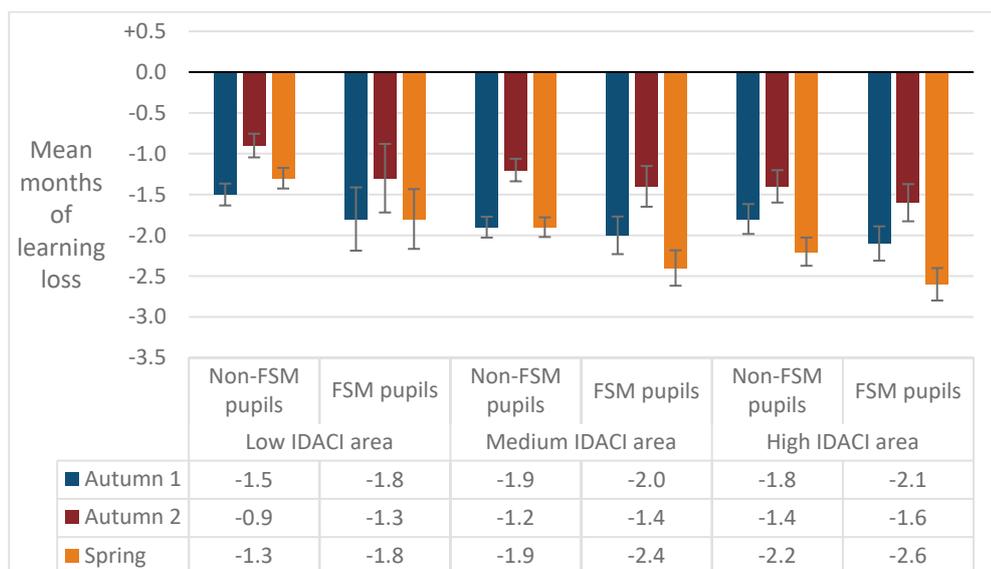


Figure 3.9 and Figure 3.10 show the learning loss in months for secondary aged pupils in reading by autumn 1 and spring by characteristics and region for the ‘all spring term’ approach. Figure 3.11 shows the average learning loss in months for the three equivalent time periods in secondary reading split by pupil and area-level disadvantage. We find for secondary aged pupils in reading that:

- boys lost further learning by the spring term compared with estimates of learning loss by autumn 1, losing a further 0.9 months of learning, compared with 0.7 months for all secondary pupils;
- pupils from disadvantaged backgrounds (defined as pupils eligible for free school meals at any point in the last six years) lost 0.9 months of learning since autumn 1, compared with non-disadvantaged pupils whose level of learning loss remained similar to autumn 1. Furthermore, we estimate that by the spring term the gap in learning loss between disadvantaged pupils and their more affluent peers was over a month;
- most ethnic groups appear to have experienced some increase in learning loss, though due to sample sizes these are not necessarily statistically significant;
- pupils in all regions appear to have shown some degree of further learning loss since autumn 1, though due to sample sizes these are not necessarily statistically significant. The greatest loss was in the North East and Yorkshire and the Humber where pupils in these regions experienced greater learning loss than the average for all secondary aged pupils (both around 0.9 months respectively);

Figure 3.9: Estimated mean learning loss by autumn 1 and spring, in months, in reading (secondary schools) by characteristics

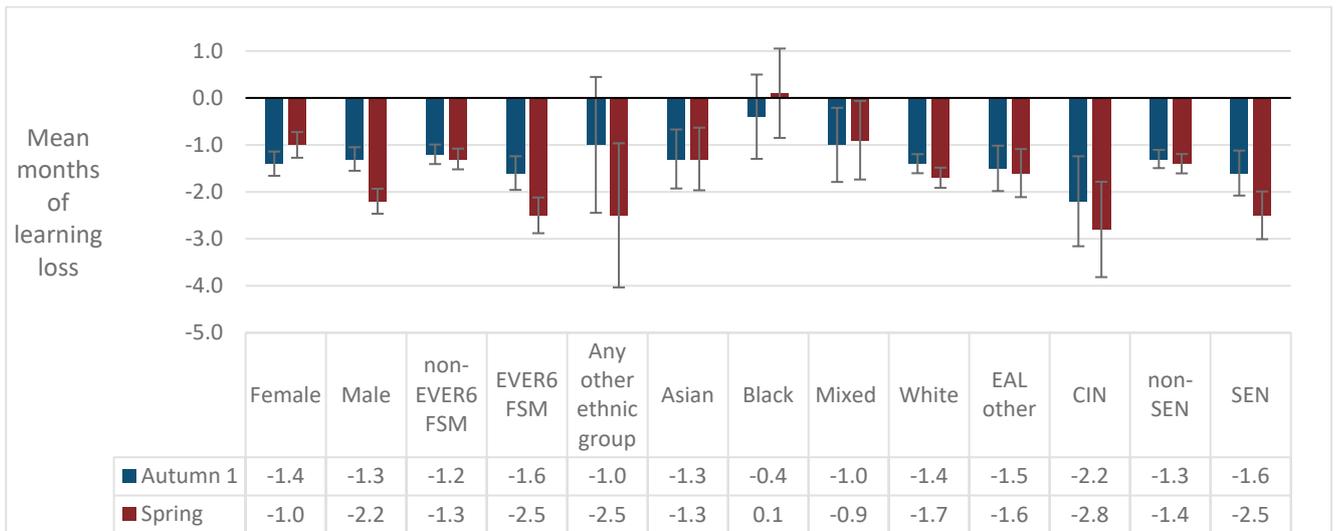


Figure 3.10: Estimated mean learning loss by autumn 1 and spring, in months, in reading (secondary schools) by region

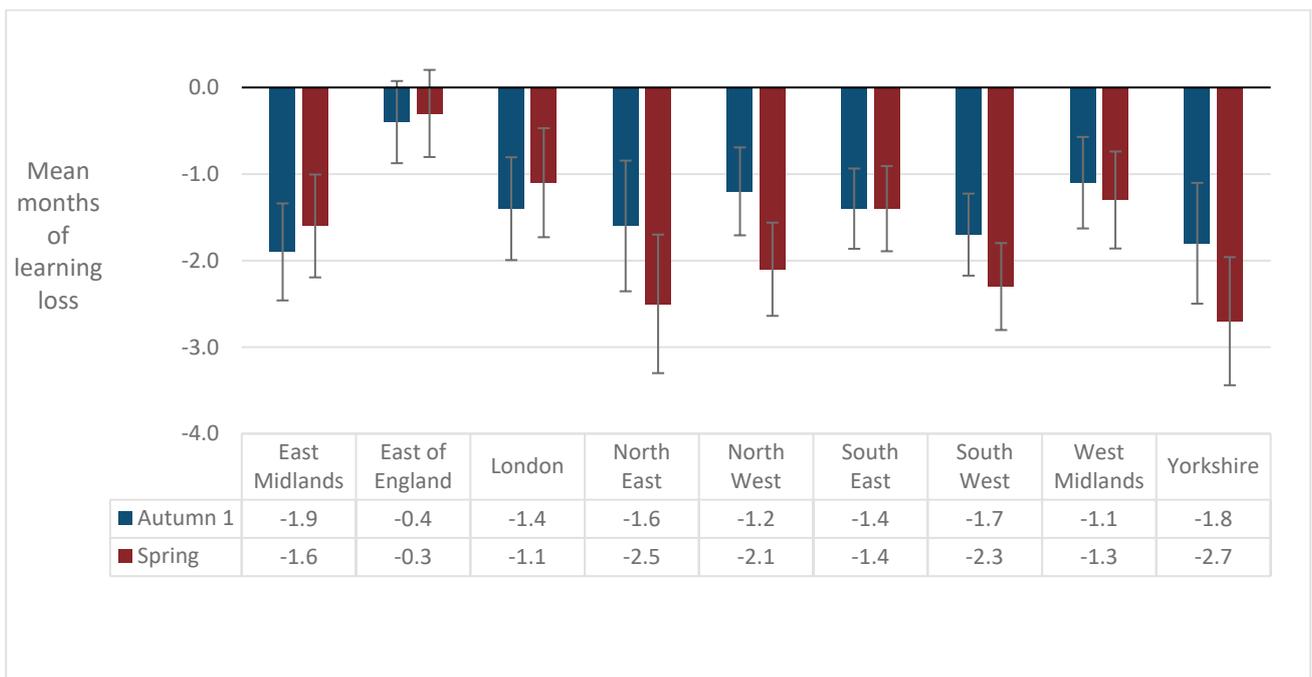
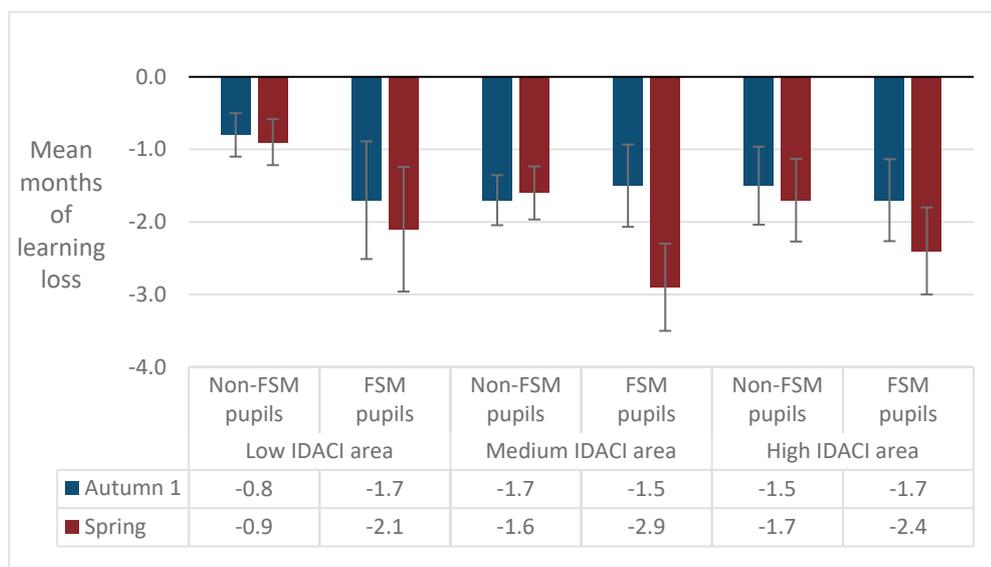


Figure 3.11: Estimated mean learning loss by autumn 1 and spring, in months, in reading (secondary schools) by pupil and area-level disadvantage



Looking at the estimated learning loss in months by autumn 1, autumn 2 and spring for primary aged pupils in mathematics split by characteristics, region and pupil and area-level disadvantage in Figure 3.12, Figure 3.13 and Figure 3.14, we find that:

- all characteristic groups have experienced some degree of further learning loss compared with estimates of learning loss by autumn 2, though due to sample sizes these are not all statistically significant;
- pupils in most regions appear to have shown some degree of further learning loss since autumn 2, though due to sample sizes these are not statistically significant. The greatest loss was for pupils in the East Midlands (around 1.8 months).

Figure 3.12: Estimated mean learning loss by autumn 1, autumn 2 and spring, in months, in mathematics (primary schools) by characteristics

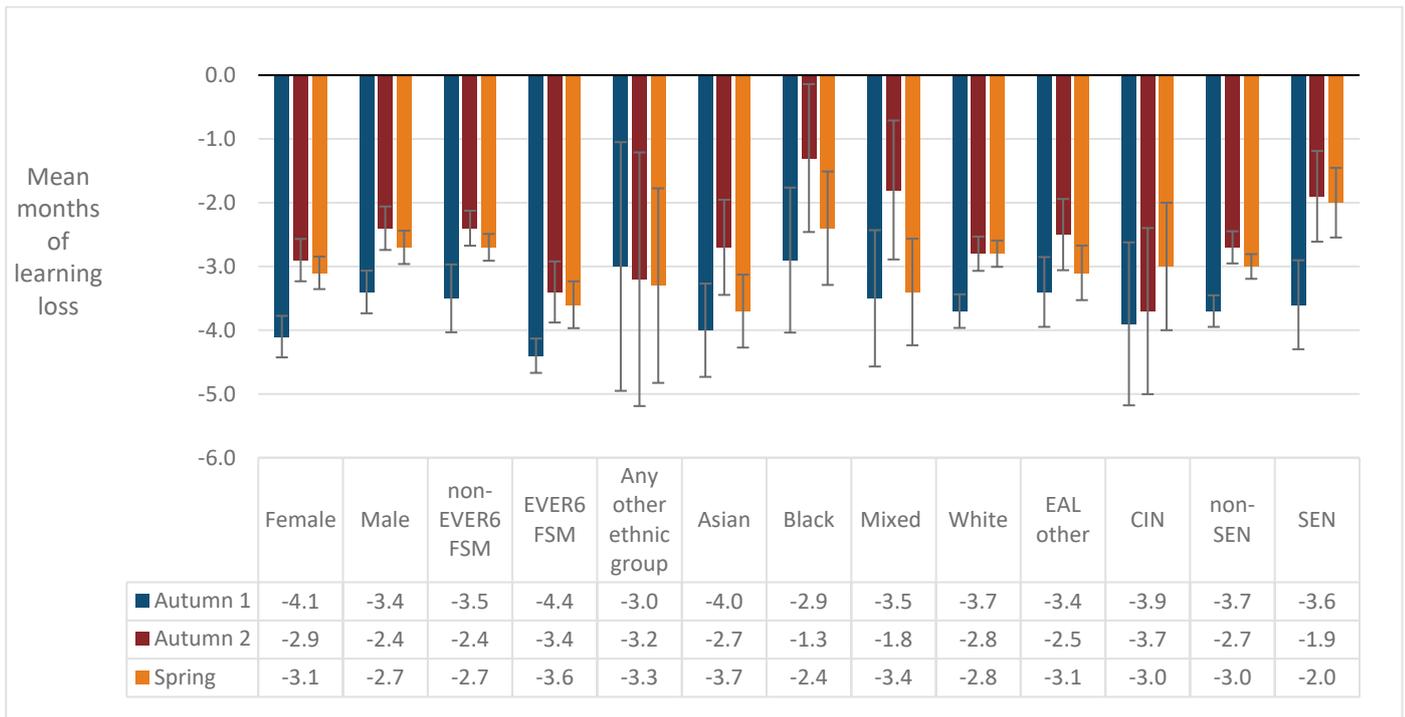


Figure 3.13: Estimated mean learning loss by autumn 1, autumn 2 and spring, in months, in mathematics (primary schools) by region

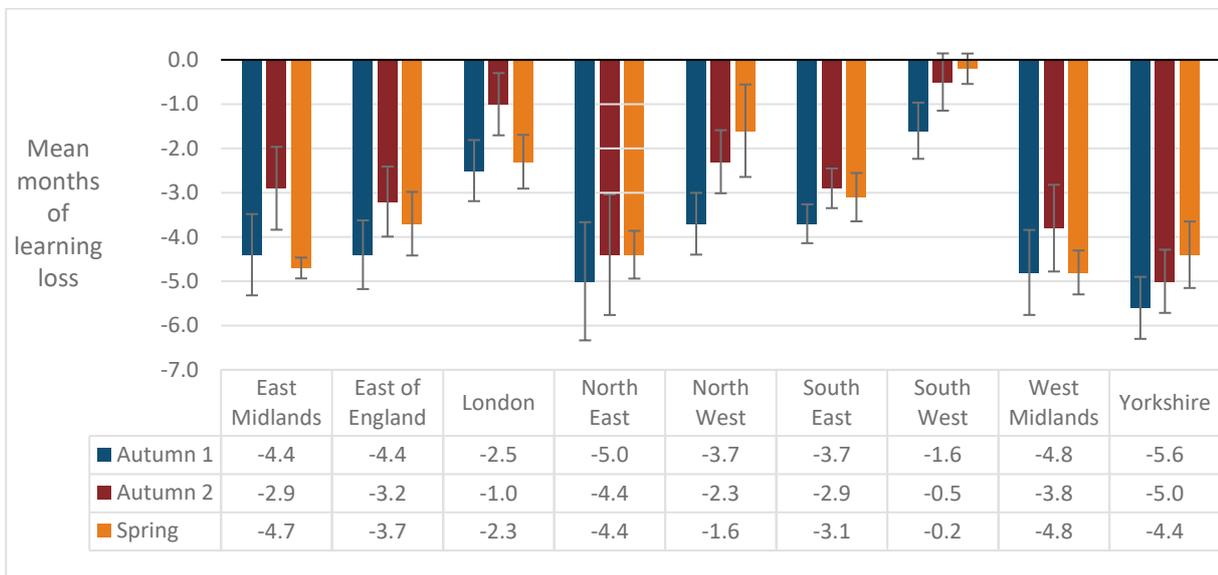
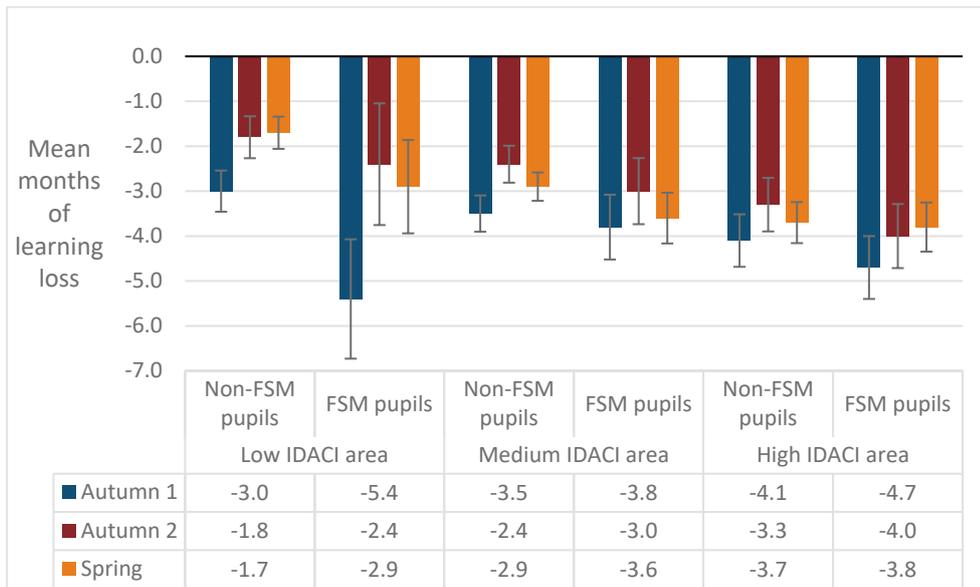


Figure 3.14: Estimated mean learning loss by autumn 1, autumn 2 and spring, in months, in mathematics (primary schools) by pupil and area-level disadvantage



Approach 2: Trends in estimated learning loss in reading and mathematics using the 'second half of spring term' approach

Figure 3.15 and Figure 3.16 show the learning loss in months for primary aged pupils in reading by autumn 1, autumn 2 and spring by characteristics and region for the 'second half of spring term' approach. Figure 3.17 shows the average learning loss in months for the three time periods in primary reading split by pupil and area-level disadvantage. Once more it is important to note that as we are breaking results down into various sub-groups the sample size is smaller within these groups and hence the confidence intervals on these estimates will be wider than for the average learning loss estimates. We find for primary aged pupils in reading that:

- both boys and girls lost further learning by the spring term compared with estimates of learning loss by autumn 2 but girls lost a greater amount of learning than boys. Girls lost a further 1.1 months of learning loss by spring, compared with 0.8 months for boys;
- pupils from disadvantaged backgrounds (defined as pupils eligible for free school meals at any point in the last six years) lost 1.2 months of learning since autumn 2, compared with non-disadvantaged pupils who lost around 1 month of learning. Furthermore, we estimate that by the spring term the gap in learning loss between disadvantaged pupils and their more affluent peers remained at over half a month;
- most ethnic groups appear to have experienced some increase in learning loss, though due to sample sizes these are not necessarily statistically significant;
- pupils classified as Children In Need experienced further learning loss of around 2 months since autumn 2, compared with a month for all primary aged pupils;
- pupils in all regions appear to have shown some degree of further learning loss since autumn 2. The greatest loss was in the East of England and the West Midlands where pupils in these regions experienced greater learning loss than the average for all primary aged pupils (around 1.2 and 1.6 months respectively); and
- all combinations of pupil and area-level disadvantage saw further learning losses by the spring term, except disadvantaged pupils in an area with a low level of disadvantage. Disadvantaged pupils in areas with medium and high levels of disadvantage experienced the greatest learning losses by spring (both around 1.3 months respectively).

This approach also suggests there are inequalities in primary reading stemming from the second round of in-person school closures with certain characteristic groups experiencing greater learning losses than others.

Figure 3.15: Estimated mean learning loss by autumn 1, autumn 2 and spring 2, in months, in reading (primary schools) by characteristics

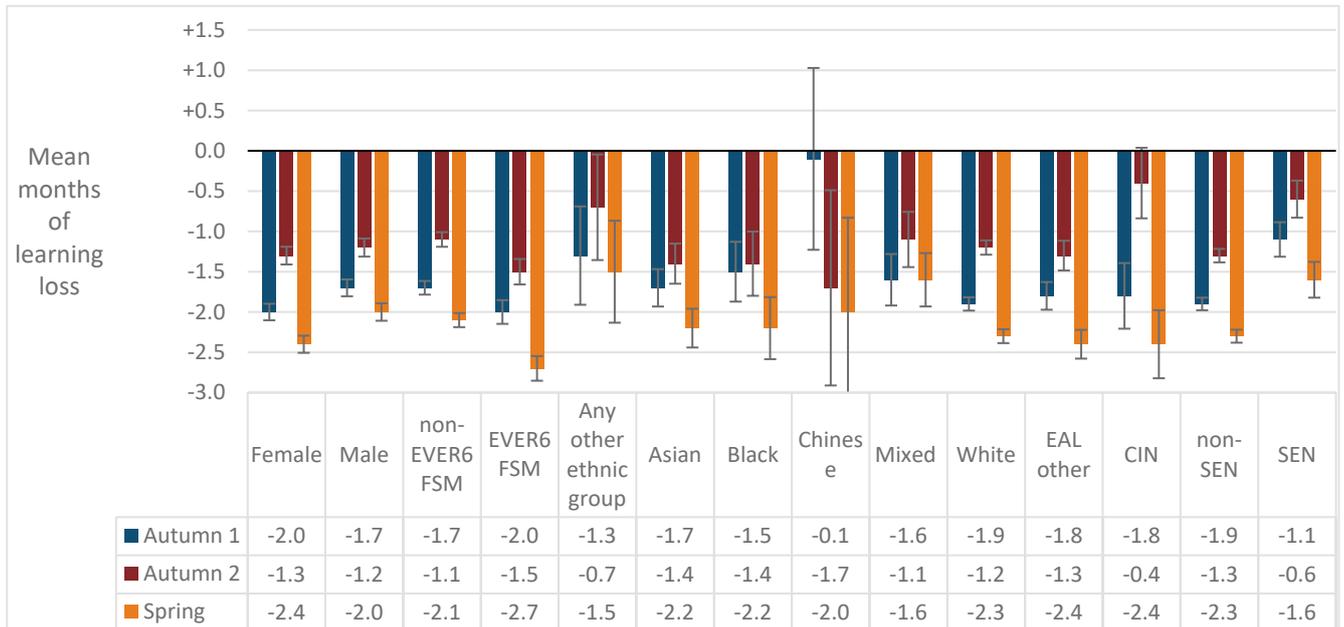


Figure 3.16: Estimated mean learning loss by autumn 1, autumn 2 and spring 2, in months, in reading (primary schools) by region

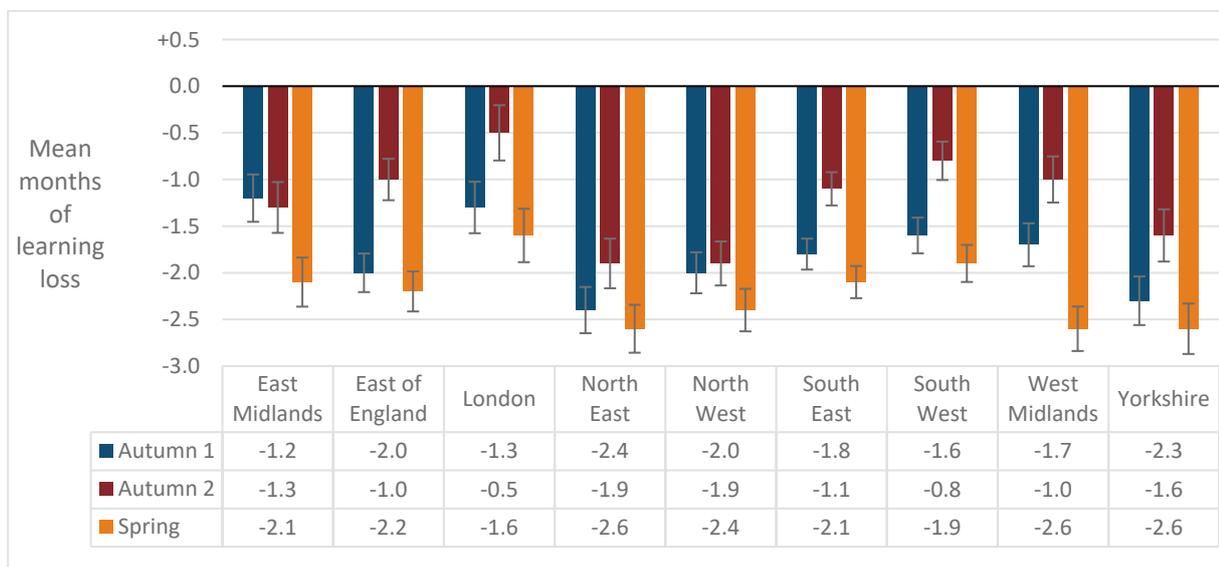


Figure 3.17: Estimated mean learning loss by autumn 1, autumn 2 and spring 2, in months, in reading (primary schools) by pupil and area-level disadvantage

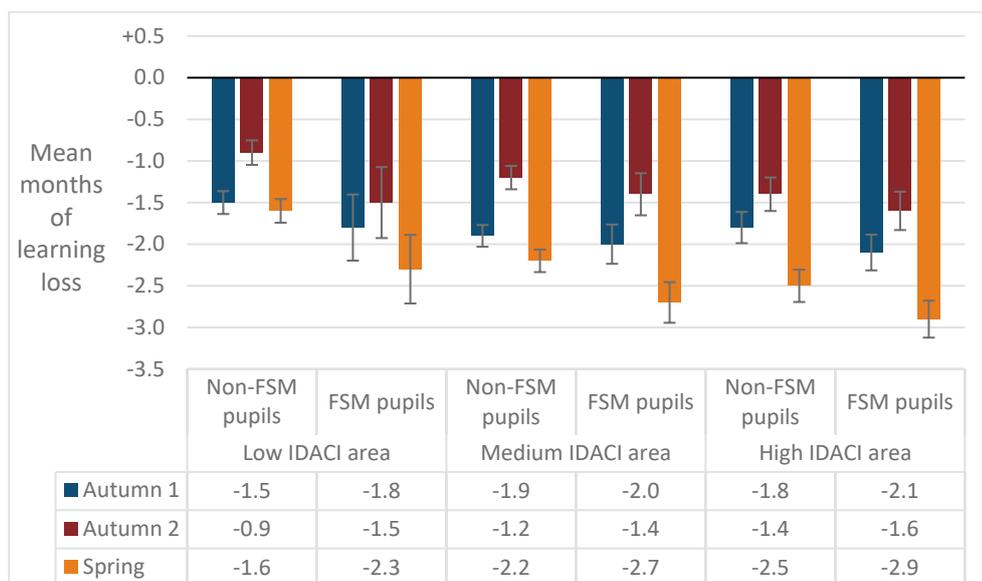


Figure 3.18 and Figure 3.19 show the learning loss in months for secondary aged pupils in reading by autumn 1 and spring by characteristics and region for the ‘second half of the spring term’ approach. Figure 3.20 shows the average learning loss in months for the three equivalent time periods in secondary reading split by pupil and area-level disadvantage. We find for secondary aged pupils in reading that:

- boys lost further learning by the spring term with boys losing a further 1.2 months of learning loss since autumn 1, compared with 0.3 months for girls;
- pupils from disadvantaged backgrounds (defined as pupils eligible for free school meals at any point in the last six years) lost 1.4 months of learning since autumn 1, compared with non-disadvantaged pupils whose level of learning loss remained similar to autumn 1. Furthermore, we estimate that by the spring term the gap in learning loss between disadvantaged pupils and their more affluent peers is over a month;
- most ethnic groups appear to have experienced some increase in learning loss, though due to sample sizes these are not necessarily statistically significant;
- pupils in most regions appear to have shown some degree of further learning loss since autumn 1, though due to sample sizes these are not necessarily statistically significant. The greatest loss was in the North East where pupils in these regions experienced greater learning loss than the average for all secondary aged pupils (around 3 months);
- only disadvantaged pupils in areas with medium and high levels of disadvantage experienced further learning losses by spring compared with estimates of learning loss by autumn 1 (around 1.7 and 1.6 months respectively).

Figure 3.18: Estimated mean learning loss by autumn 1 and spring 2, in months, in reading (secondary schools) by characteristics

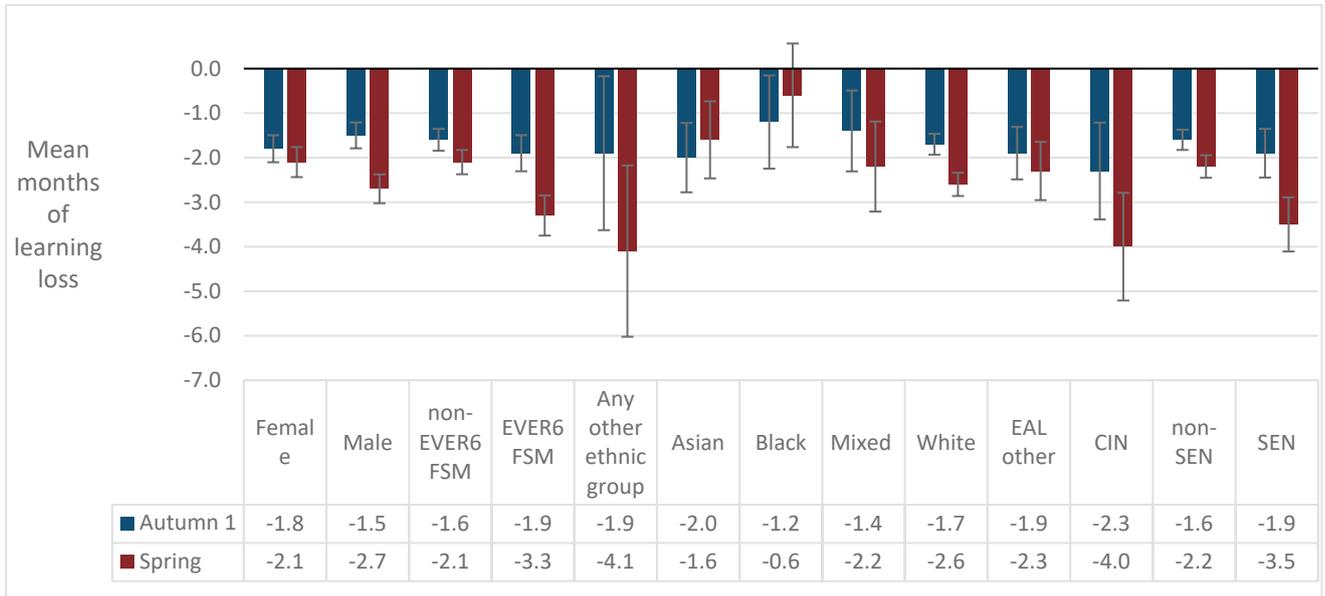


Figure 3.19: Estimated mean learning loss by autumn 1 and spring 2, in months, in reading (secondary schools) by region

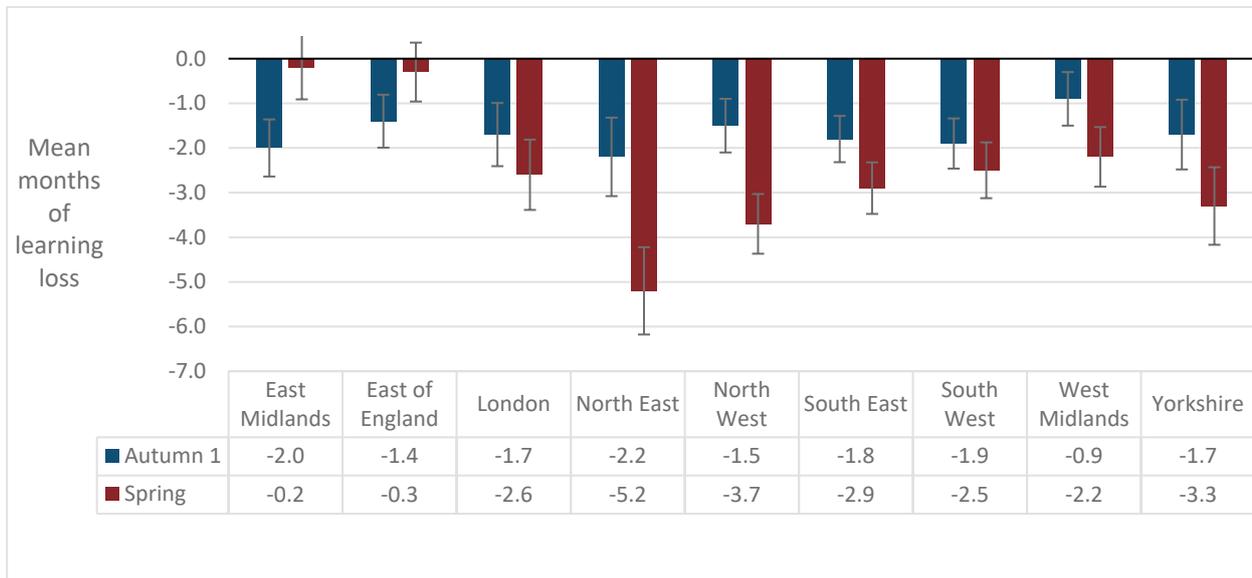
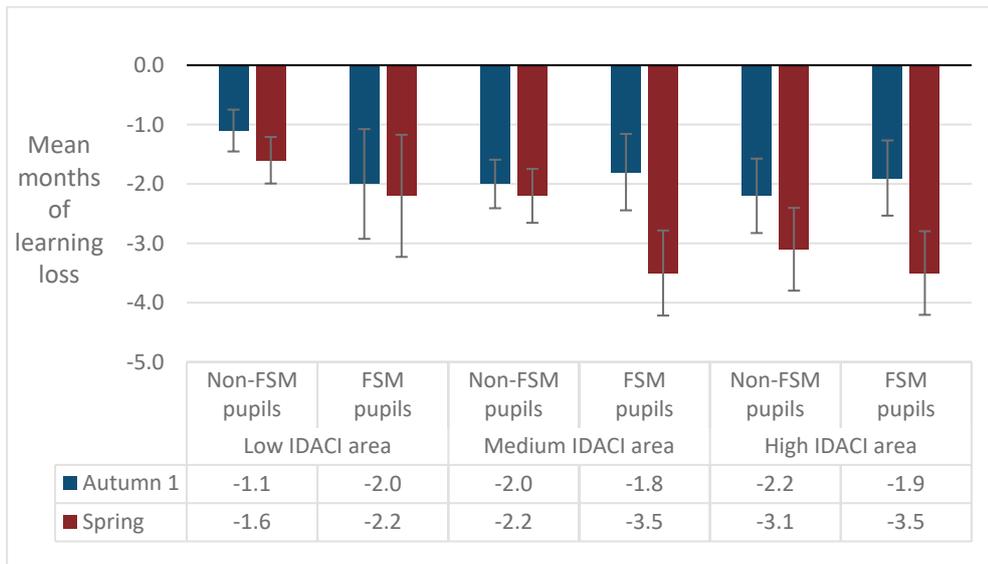


Figure 3.20: Estimated mean learning loss by autumn 1 and spring 2, in months, in reading (secondary schools) by pupil and area-level disadvantage



Looking at the estimated learning loss in months by autumn 1, autumn 2, and spring for primary aged pupils in mathematics split by characteristics, region and pupil and area-level disadvantage in Figure 3.21, Figure 3.22 and Figure 3.23, we find that:

- girls lost further learning by the spring term with girls losing a further 1 month of learning loss since autumn 2, compared with 0.6 months for boys;
- pupils from disadvantaged backgrounds and their more affluent peers lost similar levels of learning between autumn 2 and spring, however we estimate that by the spring term the gap in learning loss between disadvantaged pupils and their more affluent peers is around a month;
- pupils in most regions appear to have shown some degree of further learning loss since autumn 2, though due to sample sizes these are not statistically significant. The greatest loss was for pupils in the West Midlands (around 3.2 months).

Figure 3.21: Estimated mean learning loss by autumn 1, autumn 2 and spring 2, in months, in mathematics (primary schools) by characteristics

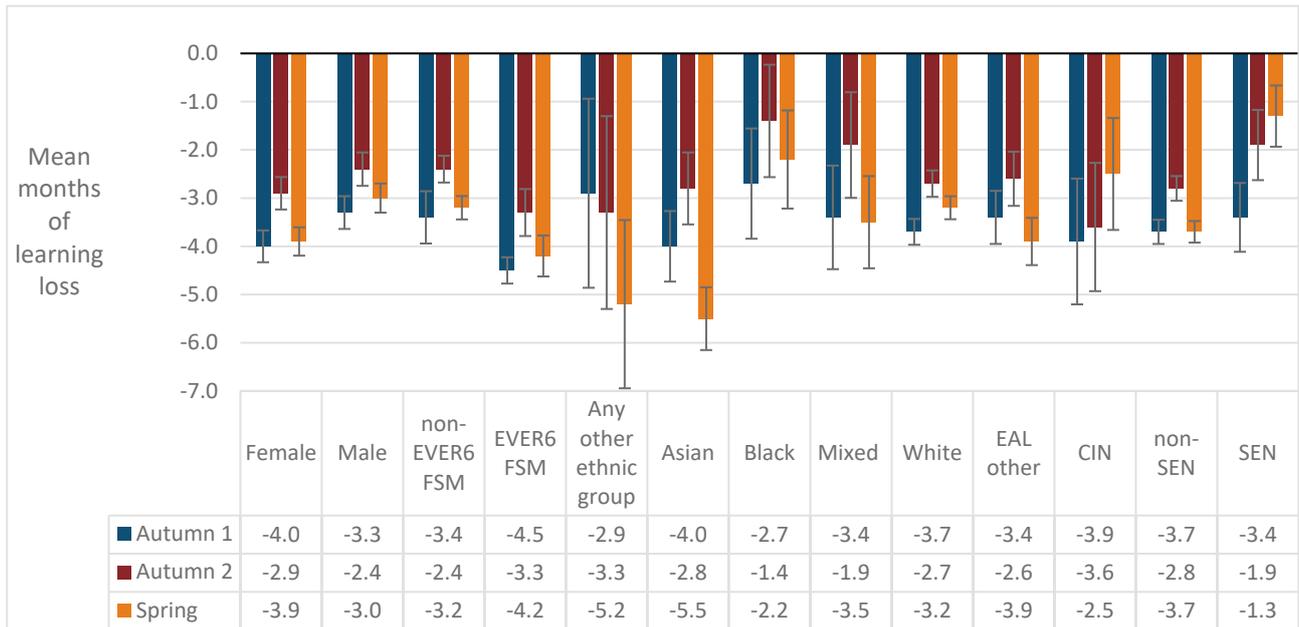


Figure 3.22: Estimated mean learning loss by autumn 1, autumn 2 and spring 2, in months, in mathematics (primary schools) by region

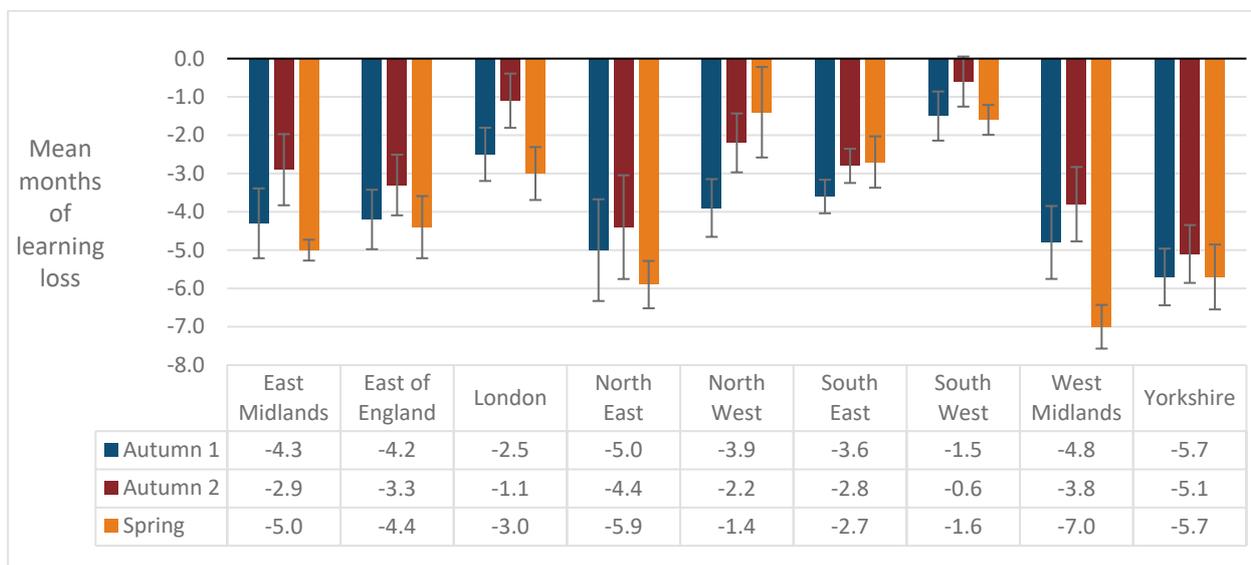
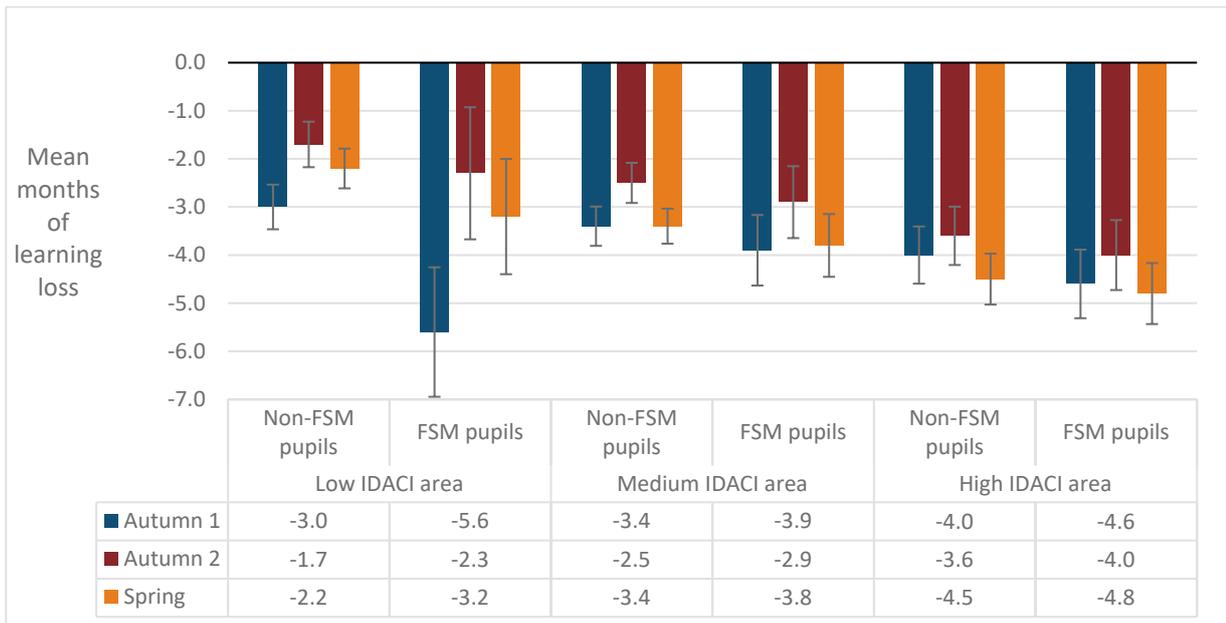


Figure 3.23: Estimated mean learning loss by autumn 1, autumn 2 and spring 2, in months, in mathematics (primary schools) by pupil and area-level disadvantage



Annex

Table 5 presents the mean scaled scores in reading in the second half-term of the spring for 2019/20 and 2020/21 for all year groups in our analysis split by pupil characteristics.

Table 6 is the equivalent for mathematics.

**Table 5: Mean scaled scores in reading in the second half of the spring term
2019/20 – 2020/21 for all year groups by characteristics**

	2019/20							2020/21						
	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9
All pupils	377	447	538	634	674	750	810	361	434	522	615	660	747	790
Male	372	440	532	624	661	738	797	355	427	517	608	650	736	779
Female	383	455	544	644	687	762	826	366	440	528	621	670	760	804
Non-FSM Ever 6	386	461	557	658	699	778	841	371	449	542	639	687	775	818
FSM Ever 6	338	399	485	574	612	677	737	317	383	467	552	593	670	718
EAL - other	362	437	536	639	673	734	780	344	418	515	612	659	725	782
EAL – recent arrival	347	414	495	572	605	642	663	343	387	477	534	606	634	671
No identified SEND	385	461	556	655	698	773	841	368	448	540	636	686	772	822
Identified SEND	290	343	419	501	540	610	644	282	325	409	487	526	599	624
Any other ethnic group	361	406	497	616	682	745	831	332	401	485	595	619	716	790
Asian and British Asian	360	446	544	642	664	728	790	349	427	526	623	670	730	795
Black and Black British	385	448	531	646	658	733	783	353	429	524	614	651	743	770
Chinese	394	501	609	747	791	838	901	414	497	601	694	713	857	899
Mixed	377	456	546	642	720	755	820	368	450	542	634	685	763	805

White	380	448	538	631	672	753	815	362	434	521	613	659	748	788
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Table 6: Mean scaled scores in mathematics in the second half of the spring term 2019/20 – 2020/21 for all year groups by characteristics

	2019/20				2020/21			
	Year 3	Year 4	Year 5	Year 6	Year 3	Year 4	Year 5	Year 6
All pupils	538	608	677	733	518	585	653	721
Male	540	606	681	735	523	595	660	727
Female	536	609	673	732	514	577	646	716
Non-FSM Ever 6	546	618	686	744	525	594	665	731
FSM Ever 6	500	573	648	704	495	551	615	694
EAL - other	544	633	702	749	530	590	667	745
No identified SEND	543	621	687	747	525	594	663	733
Identified SEND	480	504	584	635	461	515	584	650
Asian and British Asian	520	652	697	786	526	596	671	743
Black and Black British	519	574	704	714	509	572	659	721
Mixed	551	619	686	748	518	609	665	723
White	538	600	670	731	518	583	649	718

Modelling approach and outputs

We construct a model of the relationship between outcomes, prior attainment and a range of contextual factors using historic data from 2018/19 and 2019/20. We run regression models for both primary and secondary reading, and for primary mathematics. This is to allow for any different rates of progress in different phases of education from otherwise similar starting points.¹³ A full set of regression coefficients for our estimates of learning loss by the whole of the spring term are provided in Table 7 and Table 8 for primary and secondary reading respectively, and in Table 9 for primary mathematics. The equivalent for our other approach, where we estimate learning loss for only pupils who have undertaken an assessment in the second half of the spring term, are in Table 10, Table 11 and Table 12 respectively.

Table 7: Regression coefficients, standard errors, statistical significance tests and 95% confidence intervals for primary reading regression in the spring term

Current attainment	Coef.	Std. Err.	t	P>t	95% Conf. Interval	
Year group						

¹³ Prior to calculating the models, we remove the top and bottom 5 per cent of the prior attainment distribution to minimise the effect of extreme values.

	4	-11.78	2.37	-4.97	0.00	-16.42	-7.14
	5	-26.26	2.54	-10.33	0.00	-31.25	-21.28
	6	-53.13	2.69	-19.74	0.00	-58.41	-47.85
	Interaction between year group and prior attainment						
	3	0.95	0.01	91.75	0.00	0.93	0.97
	4	0.92	0.00	186.31	0.00	0.91	0.93
	5	0.96	0.00	218.32	0.00	0.95	0.97
	6	1.03	0.00	259.94	0.00	1.02	1.03
	Male	3.64	0.61	5.94	0.00	2.44	4.84
	Spring born	-0.31	0.75	-0.41	0.68	-1.77	1.16
	Summer born	-0.81	0.74	-1.08	0.28	-2.27	0.65
	Days between tests	0.43	0.01	39.31	0.00	0.41	0.46
	Ethnicity major						
	AOEG	0.21	2.60	0.08	0.94	-4.89	5.32
	ASIA	-0.90	1.26	-0.72	0.47	-3.37	1.57
	BLAC	0.57	1.63	0.35	0.73	-2.63	3.76
	CHIN	20.24	5.01	4.04	0.00	10.43	30.05
	MIXD	5.18	1.37	3.77	0.00	2.49	7.88
	UNCL	13.11	3.65	3.59	0.00	5.96	20.26
	Ever 6 FSM	-19.01	1.80	-10.58	0.00	-22.53	-15.49
	Persistent FSM	-7.51	1.96	-3.83	0.00	-11.36	-3.67
	SEN	-27.26	0.97	-28.01	0.00	-29.17	-25.36
	EAL - other	7.76	1.03	7.50	0.00	5.73	9.78
	EAL – recent arrival	39.67	4.39	9.04	0.00	31.07	48.27
	East Midlands	-2.71	1.26	-2.14	0.03	-5.18	-0.23
	East of England	-3.96	1.06	-3.73	0.00	-6.04	-1.88
	London	0.68	1.30	0.52	0.60	-1.88	3.24
	North East	1.79	1.38	1.30	0.19	-0.91	4.49
	North West	-2.27	1.18	-1.93	0.05	-4.58	0.03
	South West	-1.96	1.07	-1.82	0.07	-4.06	0.15
	West Midlands	-4.70	1.15	-4.08	0.00	-6.96	-2.44
	Yorkshire and the Humber	-7.15	1.39	-5.13	0.00	-9.88	-4.42
	Reading KS2 progress (school level)	1.10	0.14	8.00	0.00	0.83	1.37
	IDACI score	-53.41	2.88	-18.55	0.00	-59.05	-47.76

Interaction between Ever 6 FSM and IDACI score	29.04	5.11	5.68	0.00	19.02	39.07
Children In Need status	-11.39	1.75	-6.51	0.00	-14.82	-7.96
Children looked after status	3.34	4.88	0.68	0.49	-6.22	12.89
constant	165.63	2.73	60.70	0.00	160.28	170.97

Table 8: Regression coefficients, standard errors, statistical significance tests and 95% confidence intervals for secondary reading regression in the spring term

Current attainment	Coef.	Std. Err.	t	P>t	95% Conf. Interval	
Year group						
8	-11.11	4.58	-2.42	0.02	-20.08	-2.13
9	22.48	5.11	4.40	0.00	12.46	32.51
Interaction between year group and current attainment						
7	0.97	0.01	132.07	0.00	0.96	0.99
8	0.99	0.00	315.57	0.00	0.99	1.00
9	0.93	0.00	218.36	0.00	0.92	0.94
Male	-2.49	0.90	-2.78	0.01	-4.25	-0.74
Spring born	0.83	1.10	0.75	0.45	-1.33	2.99
Summer born	1.59	1.08	1.47	0.14	-0.53	3.72
Days between tests	0.13	0.02	7.46	0.00	0.10	0.16
Ethnicity major						
AOEG	11.64	3.93	2.96	0.00	3.94	19.34
ASIA	6.34	1.71	3.70	0.00	2.99	9.70
BLAC	6.63	2.30	2.88	0.00	2.11	11.14
CHIN	38.49	7.88	4.88	0.00	23.05	53.94
MIXD	10.71	2.04	5.24	0.00	6.71	14.72
UNCL	2.57	3.45	0.74	0.46	-4.19	9.33
Ever 6 FSM	-20.04	2.41	-8.32	0.00	-24.76	-15.32
Persistent FSM	-11.34	2.78	-4.08	0.00	-16.79	-5.90
SEN	-20.86	1.36	-15.37	0.00	-23.52	-18.20
EAL - other	8.49	1.54	5.53	0.00	5.48	11.50
EAL – recent arrival	48.79	6.94	7.03	0.00	35.18	62.39
East Midlands	2.78	1.85	1.51	0.13	-0.84	6.40
East of England	1.62	1.73	0.94	0.35	-1.76	5.00
London	9.70	1.82	5.32	0.00	6.13	13.28
North East	-0.56	2.23	-0.25	0.80	-4.92	3.81
North West	-0.58	1.68	-0.35	0.73	-3.88	2.71
South West	5.20	1.67	3.11	0.00	1.92	8.47
West Midlands	2.34	1.67	1.41	0.16	-0.92	5.61
Yorkshire and the Humber	2.27	1.84	1.23	0.22	-1.35	5.88

IDACI score	-65.57	4.41	-14.88	0.00	-74.21	-56.94
Interaction between Ever 6 FSM and IDACI score	24.88	7.36	3.38	0.00	10.46	39.30
Children In Need status	-14.68	2.54	-5.77	0.00	-19.66	-9.70
Children in looked after status	0.38	6.24	0.06	0.95	-11.86	12.62
constant	141.23	5.06	27.90	0.00	131.31	151.15

Table 9: Regression coefficients, standard errors, statistical significance tests and 95% confidence intervals for primary mathematics regression in the spring term

Current attainment	Coef.	Std. Err.	t	P>t	95% Conf. Interval	
Year group						
4	-47.00	10.96	-4.29	0.00	-68.48	-25.51
5	-98.13	11.98	-8.19	0.00	-121.61	-74.64
6	-45.35	12.51	-3.62	0.00	-69.88	-20.82
Interaction between year group and prior attainment						
3	0.58	0.02	27.05	0.00	0.54	0.62
4	0.71	0.02	43.40	0.00	0.68	0.74
5	0.83	0.02	50.38	0.00	0.79	0.86
6	0.76	0.02	48.09	0.00	0.73	0.79
Male	11.09	1.35	8.22	0.00	8.45	13.73
Spring born	0.46	1.65	0.28	0.78	-2.77	3.70
Summer born	-0.37	1.64	-0.23	0.82	-3.58	2.83
Days between tests	0.28	0.03	10.49	0.00	0.22	0.33
Ethnicity major						
AOEG	-1.72	5.67	-0.30	0.76	-12.84	9.39
ASIA	9.42	3.02	3.12	0.00	3.50	15.34
BLAC	-1.12	3.59	-0.31	0.76	-8.16	5.92
CHIN	44.99	9.90	4.54	0.00	25.59	64.40
MIXD	9.78	2.94	3.32	0.00	4.01	15.54
UNCL	-1.13	8.56	-0.13	0.90	-17.90	15.65
Ever 6 FSM	-3.71	4.08	-0.91	0.36	-11.71	4.29
Persistent FSM	-9.58	4.35	-2.20	0.03	-18.12	-1.05
SEN	-34.94	2.21	-15.79	0.00	-39.28	-30.61
EAL – other	6.66	2.34	2.85	0.00	2.07	11.25
EAL – recent arrival	17.02	9.70	1.75	0.08	-2.00	36.03
East Midlands	-5.37	3.03	-1.77	0.08	-11.31	0.57
East of England	3.08	2.02	1.53	0.13	-0.87	7.03
London	4.42	2.50	1.77	0.08	-0.47	9.32
North East	-3.28	7.97	-0.41	0.68	-18.90	12.34
North West	-6.36	3.08	-2.06	0.04	-12.39	-0.32
South West	-6.88	2.27	-3.03	0.00	-11.33	-2.44

West Midlands	8.11	3.46	2.34	0.02	1.32	14.90
Yorkshire and the Humber	10.64	4.27	2.49	0.01	2.27	19.02
Mathematics KS2 progress (school level)	0.65	0.34	1.89	0.06	-0.02	1.32
IDACI score	-24.36	6.73	-3.62	0.00	-37.55	-11.16
Interaction between Ever 6 FSM and IDACI score	-8.61	12.28	-0.70	0.48	-32.69	15.47
Children In Need status	-7.46	3.89	-1.92	0.06	-15.09	0.17
Children in looked after status	1.59	10.40	0.15	0.88	-18.80	21.98
constant	287.73	9.09	31.67	0.00	269.91	305.54

Table 10: Regression coefficients, standard errors, statistical significance tests and 95% confidence intervals for primary reading regression in spring 2

Current attainment	Coef.	Std. Err.	t	P>t	95% Conf. Interval	
Year group						
4	-15.97	3.59	-4.45	0.00	-23.00	-8.94
5	-35.03	3.83	-9.14	0.00	-42.54	-27.52
6	-63.76	4.19	-15.20	0.00	-71.98	-55.54
Interaction between year group and prior attainment						
3	0.95	0.02	61.13	0.00	0.92	0.98
4	0.94	0.01	124.27	0.00	0.92	0.95
5	0.98	0.01	148.65	0.00	0.97	0.99
6	1.05	0.01	164.25	0.00	1.04	1.06
Male	3.64	0.94	3.87	0.00	1.79	5.48
Spring born	1.53	1.15	1.33	0.18	-0.72	3.78
Summer born	2.08	1.14	1.83	0.07	-0.15	4.32
Days between tests	0.68	0.03	24.20	0.00	0.62	0.73
Ethnicity major						
AOEG	-2.40	3.97	-0.61	0.55	-10.19	5.38
ASIA	-1.21	1.88	-0.64	0.52	-4.89	2.48
BLAC	2.30	2.52	0.91	0.36	-2.64	7.24
CHIN	25.35	7.42	3.42	0.00	10.81	39.89
MIXD	2.79	2.11	1.32	0.19	-1.35	6.93
UNCL	13.53	5.42	2.50	0.01	2.91	24.15
Ever 6 FSM	-21.85	2.76	-7.91	0.00	-27.26	-16.43
Persistent FSM	-4.37	3.04	-1.44	0.15	-10.33	1.58
SEN	-25.54	1.50	-17.01	0.00	-28.48	-22.59
EAL - other	9.88	1.58	6.23	0.00	6.77	12.98
EAL – recent arrival	49.31	6.59	7.48	0.00	36.39	62.24
East Midlands	-5.63	2.04	-2.77	0.01	-9.63	-1.64
East of England	-7.63	1.64	-4.66	0.00	-10.84	-4.42
London	-1.35	1.98	-0.68	0.49	-5.23	2.52
North East	-0.08	2.19	-0.04	0.97	-4.37	4.21
North West	-8.34	1.84	-4.53	0.00	-11.94	-4.73
South West	0.68	1.57	0.43	0.67	-2.40	3.76

West Midlands	-3.50	1.74	-2.01	0.04	-6.90	-0.09
Yorkshire and the Humber	-10.64	2.10	-5.08	0.00	-14.75	-6.53
Reading KS2 progress (school level)	1.28	0.21	6.08	0.00	0.87	1.70
IDACI score	-54.68	4.43	-12.35	0.00	-63.36	-46.00
Interaction between Ever 6 FSM and IDACI score	33.42	7.89	4.24	0.00	17.96	48.88
Children In Need status	-12.19	2.67	-4.57	0.00	-17.41	-6.96
Children in looked after status	4.25	7.42	0.57	0.57	-10.29	18.79
constant	123.06	5.76	21.38	0.00	111.78	134.35

Table 11: Regression coefficients, standard errors, statistical significance tests and 95% confidence intervals for secondary reading regression in spring 2

Current attainment	Coef.	Std. Err.	t	P>t	95% Conf. Interval	
Year group						
8	-3.60	9.02	-0.40	0.69	-21.28	14.07
9	25.23	10.29	2.45	0.01	5.06	45.40
Interaction between year group and prior attainment						
7	0.98	0.01	68.41	0.00	0.95	1.01
8	1.00	0.01	156.16	0.00	0.98	1.01
9	0.94	0.01	105.91	0.00	0.92	0.96
Male	-4.14	1.84	-2.26	0.02	-7.74	-0.54
Spring born	1.80	2.26	0.80	0.43	-2.63	6.23
Summer born	1.79	2.21	0.81	0.42	-2.55	6.13
Days between tests	0.42	0.06	6.92	0.00	0.30	0.54
Ethnicity major						
AOEG	11.68	8.92	1.31	0.19	-5.81	29.17
ASIA	-0.98	3.76	-0.26	0.79	-8.36	6.40
BLAC	2.36	4.72	0.50	0.62	-6.89	11.61
CHIN	53.91	17.81	3.03	0.00	18.99	88.82
MIXD	10.46	4.26	2.45	0.01	2.10	18.82
UNCL	-5.73	7.00	-0.82	0.41	-19.45	7.99
Ever 6 FSM	-18.66	4.90	-3.80	0.00	-28.27	-9.04
Persistent FSM	-16.89	5.72	-2.95	0.00	-28.09	-5.68
SEN	-19.22	2.71	-7.08	0.00	-24.54	-13.90
EAL - other	10.67	3.34	3.20	0.00	4.13	17.21
EAL - recent arrival	54.58	14.93	3.66	0.00	25.32	83.85
East Midlands	-15.06	4.11	-3.66	0.00	-23.12	-7.01
East of England	-12.66	3.66	-3.46	0.00	-19.83	-5.49
London	13.96	4.24	3.29	0.00	5.65	22.28
North East	7.24	4.14	1.75	0.08	-0.88	15.35
North West	-2.93	3.51	-0.84	0.40	-9.80	3.94
South West	-1.40	3.63	-0.38	0.70	-8.50	5.71
West Midlands	1.75	3.40	0.52	0.61	-4.91	8.42
Yorkshire and the Humber	1.97	3.72	0.53	0.60	-5.33	9.26

IDACI score	-57.53	8.84	-6.50	0.00	-74.86	-40.19
Interaction between Ever 6 FSM and IDACI score	31.81	14.79	2.15	0.03	2.82	60.81
Children In Need status	-12.52	5.25	-2.39	0.02	-22.81	-2.24
Children in looked after status	-1.84	12.39	-0.15	0.88	-26.12	22.44
constant	86.08	13.67	6.30	0.00	59.28	112.87

Table 12: Regression coefficients, standard errors, statistical significance tests and 95% confidence intervals for primary mathematics regression in spring 2

Current attainment	Coef.	Std. Err.	t	P>t	95% Conf. Interval	
Year group						
4	-16.43	17.47	-0.94	0.35	-50.68	17.83
5	-85.35	19.02	-4.49	0.00	-122.63	-48.06
6	-27.43	22.43	-1.22	0.22	-71.41	16.55
Interaction between year group and prior attainment						
3	0.60	0.03	17.70	0.00	0.54	0.67
4	0.67	0.03	25.72	0.00	0.62	0.72
5	0.82	0.03	31.61	0.00	0.77	0.87
6	0.74	0.03	24.30	0.00	0.68	0.80
Male	9.27	2.25	4.12	0.00	4.85	13.68
Spring born	2.34	2.74	0.85	0.39	-3.03	7.72
Summer born	2.81	2.72	1.03	0.30	-2.52	8.14
Days between tests	0.62	0.09	6.67	0.00	0.44	0.80
Ethnicity major						
AOEG	13.61	11.24	1.21	0.23	-8.42	35.64
ASIA	23.78	5.43	4.38	0.00	13.12	34.43
BLAC	-5.14	6.31	-0.81	0.42	-17.52	7.24
CHIN	59.04	14.51	4.07	0.00	30.60	87.48
MIXD	8.58	4.88	1.76	0.08	-0.98	18.14
UNCL	2.37	15.51	0.15	0.88	-28.04	32.78
Ever 6 FSM	-14.16	6.76	-2.10	0.04	-27.42	-0.91
Persistent FSM	-6.44	7.27	-0.88	0.38	-20.70	7.83
SEN	-45.69	3.77	-12.13	0.00	-53.08	-38.31
EAL - other	2.31	4.30	0.54	0.59	-6.12	10.74
EAL – recent arrival	45.53	20.47	2.22	0.03	5.39	85.67
East Midlands	3.74	5.69	0.66	0.51	-7.41	14.89
East of England	11.00	3.22	3.41	0.00	4.68	17.32
London	12.32	4.52	2.72	0.01	3.45	21.19
North East	14.09	8.81	1.60	0.11	-3.19	31.37
North West	-7.04	5.85	-1.20	0.23	-18.52	4.43
South West	9.21	3.70	2.49	0.01	1.95	16.46

West Midlands	34.63	5.76	6.02	0.00	23.34	45.92
Yorkshire and the Humber	20.99	8.17	2.57	0.01	4.96	37.01
Mathematics KS2 progress (school level)	2.00	0.51	3.90	0.00	0.99	3.00
IDACI score	-30.49	11.02	-2.77	0.01	-52.11	-8.88
Interaction between Ever 6 FSM and IDACI score	19.42	19.91	0.98	0.33	-19.62	58.45
Children In Need status	-11.51	5.91	-1.95	0.05	-23.09	0.07
Children in looked after status	-17.28	16.56	-1.04	0.30	-49.74	15.18
constant	215.57	20.05	10.75	0.00	176.26	254.88

The regression models give an “expected outcome” for each pupil based on their prior attainment and characteristics, which allows us to calculate an expected progress, which is simply the expected outcome minus the prior attainment score. Our estimates of learning loss in scaled score points terms are the difference between expected progress and actual progress. But we can also convert this into months of learning. For our estimates of learning loss by the first and second half of the autumn term we are considering the progress from one year to the next therefore this is the expected progress over a 12-month period. Hence, the learning loss in months is given by:

$$\text{Learning loss in months} = \frac{\text{actual progress} - \text{expected progress}}{\text{expected progress}} \times 12$$

But for the estimates of learning loss by the spring term the time period is longer, thus we adjust this calculation for the length of the time period over which we are measuring progress. For the “all spring term approach” we multiplied by 16 months and for the “second half of the spring term” approach we multiplied by 18 months. In order to protect our estimates of months of learning loss from extreme cases in our months of lost learning measure we cap predictions at the 1st and 99th percentile for each year group to ensure that extreme values are not overly impacting our months of learning loss estimates.

Table 13 to 40 provide the table format of the figures that present estimates of learning loss by characteristics in chapters 2 and 3.

Table 13: Estimated learning loss in reading, in scaled score points, with pupil numbers and confidence interval by sub-group for figure 2.5

	Primary			Secondary		
	Mean scaled score	Count	Confidence interval	Mean scaled score	Count	Confidence interval
Yorkshire and the Humber	-27.0	11,876	2.14	-22.1	4,436	5.23
West Midlands	-21.7	17,008	1.79	-10.9	7,159	4.12
South West	-16.0	25,174	1.47	-18.5	9,376	2.41
South East	-21.2	30,029	1.35	-13.0	9,289	3.61
North West	-24.6	18,285	1.73	-15.7	7,934	3.91
North East	-29.3	12,529	2.09	-16.9	3,407	5.97
London	-18.8	14,195	1.96	-4.7	6,750	4.24
East of England	-22.9	22,048	1.57	-2.3	9,360	3.60
East Midlands	-22.4	14,063	1.97	-15.1	6,398	4.35
CIN	-23.1	5,486	3.15	-16.8	2,282	4.89
SEN	-21.8	20,943	1.61	-18.1	9,198	3.63
non-SEN	-22.0	144,264	0.61	-11.6	54,911	1.49
EAL other	-25.7	29,943	1.35	-12.9	9,311	3.61
White	-22.0	128,974	0.65	-13.9	50,119	1.56
Mixed	-19.0	8,972	2.46	-5.8	3,394	5.98
Chinese	-13.3	650	9.16	-3.5*	211	23.98
Black	-24.8	6,553	2.88	1.9	2,767	6.62
Asian	-21.6	16,278	1.83	-10.3	5,514	4.69
Any other ethnic group	-26.5	2,469	4.70	-23.5	1,005	10.99
EVER6 FSM	-28.4	41,203	1.15	-16.0	16,545	2.71
non-EVER6 FSM	-19.9	124,004	0.66	-11.3	47,564	1.60
Female	-22.4	83,603	0.81	-7.5	31,218	1.97
Male	-21.6	81,604	0.82	-17.3	32,891	1.92

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 14: Estimated learning loss in mathematics, in scaled score points, with pupil numbers and confidence interval by sub-group for figure 2.6

	Mean scaled score	Count	Confidence interval
Yorkshire and the Humber	-44.9	1,218	4.05
West Midlands	-46.1	656	5.52
South West	-2.0	1,225	4.04
South East	-29.4	3,753	2.31
North West	-15.8	1,287	3.94
North East	-35.5*	251	8.92
London	-24.0	1,269	3.97
East of England	-36.7	1,149	4.17
East Midlands	-28.4	956	4.57
CIN	-30.5*	384	7.21
SEN	-20.6	1,436	3.73
non-SEN	-28.8	10,328	1.39
EAL other	-28.0	2,116	3.07
White	-27.0	9,253	1.47
Mixed	-34.4	578	5.88
Chinese	-23.3*	50	19.99
Black	-26.5*	455	6.62
Asian	-31.3	1,168	4.13
Any other ethnic group	-29.7*	179	10.56
EVER6 FSM	-33.0	2,862	2.64

non-EVER6 FSM	-26.1	8,902	1.50
Female	-29.0	5,970	1.83
Male	-26.6	5,794	1.86

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 15: Estimated learning loss in reading, in scaled score points, and pupil numbers for reading by sub-group for figure 2.7

			Mean scaled score	Count	Confidence Interval
Primary	Low IDACI area	Non-FSM pupils	-13.4	47,824	1.07
		FSM pupils	-23.0	5,886	3.04
	Medium IDACI area	Non-FSM pupils	-22.9	50,892	1.03
		FSM pupils	-28.2	16,115	1.84
	High IDACI area	Non-FSM pupils	-26.0	25,288	1.47
		FSM pupils	-30.2	19,202	1.68
Secondary	Low IDACI area	Non-FSM pupils	-8.9	22,348	2.33
		FSM pupils	-16.4	3,131	6.22
	Medium IDACI area	Non-FSM pupils	-13.8	17,769	2.61
		FSM pupils	-18.0	6,700	4.26
	High IDACI area	Non-FSM pupils	-12.5	7,447	4.04
		FSM pupils	-13.9	6,714	4.25

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 16: Estimated learning loss in mathematics, in scaled score points, and pupil numbers for reading by sub-group for figure 2.8

Mean scaled score	Count	Confidence Interval
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Low IDACI area	Non-FSM pupils	-19.6	3,190	2.50
	FSM pupils	-29.0*	411	6.97
Medium IDACI area	Non-FSM pupils	-27.5	3,945	2.25
	FSM pupils	-33.3	1,203	4.07
High IDACI area	Non-FSM pupils	-34.7	1,767	3.36
	FSM pupils	-34.1	1,248	4.00

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 17: Estimated learning loss in reading, in months, with pupil numbers and confidence interval by sub-group for figure 2.9

	Primary			Secondary		
	Mean scaled score	Count	Confidence Interval	Mean scaled score	Count	Confidence Interval
Yorkshire and the Humber	-2.4	11,876	0.18	-2.7	4,436	0.65
West Midlands	-2.0	17,008	0.15	-1.4	7,159	0.51
South West	-1.5	25,174	0.12	-2.3	9,376	0.20
South East	-1.9	30,029	0.11	-1.7	9,289	0.45
North West	-2.2	18,285	0.15	-2.1	7,934	0.49
North East	-2.6	12,529	0.18	-2.4	3,407	0.75
London	-1.7	14,195	0.17	-0.6	6,750	0.53
East of England	-2.0	22,048	0.13	-0.4	9,360	0.45
East Midlands	-2.0	14,063	0.17	-1.9	6,398	0.54
CIN	-2.3	5,486	0.27	-2.5	2,282	0.41
SEN	-2.2	20,943	0.14	-2.6	9,198	0.45
non-SEN	-1.9	144,264	0.05	-1.5	54,911	0.19
EAL other	-2.2	29,943	0.11	-1.5	9,311	0.45
White	-2.0	128,974	0.06	-1.8	50,119	0.19

Mixed	-1.7	8,972	0.21	-0.9	3,394	0.75
Chinese	-1.1	650	0.78	-0.3*	211	3.00
Black	-2.2	6,553	0.24	0.2	2,767	0.83
Asian	-1.9	16,278	0.16	-1.2	5,514	0.59
Any other ethnic group	-2.3	2,469	0.40	-2.8	1,005	1.37
EVER6 FSM	-2.7	41,203	0.10	-2.3	16,545	0.34
non-EVER6 FSM	-1.7	124,004	0.06	-1.4	47,564	0.20
Female	-2.0	83,603	0.07	-1.0	31,218	0.25
Male	-1.9	81,604	0.07	-2.2	32,891	0.24

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 18: Estimated learning loss in mathematics, in months, with pupil numbers and confidence interval by sub-group for figure 2.10

	Mean scaled score	Count	Confidence Interval
Yorkshire and the Humber	-4.4	1,218	0.44
West Midlands	-4.7	656	0.60
South West	-0.4	1,225	0.44
South East	-3.3	3,753	0.25
North West	-2.0	1,287	0.43
North East	-4.3*	251	0.96
London	-2.5	1,269	0.43
East of England	-3.9	1,149	0.45
East Midlands	-3.4	956	0.49
CIN	-3.8*	384	0.78
SEN	-2.5	1,436	0.40

non-SEN	-3.1	10,328	0.15
EAL other	-2.9	2,116	0.33
White	-3.0	9,253	0.16
Mixed	-3.6	578	0.64
Chinese	-2.1*	50	2.16
Black	-2.9*	455	0.72
Asian	-3.2	1,168	0.45
Any other ethnic group	-3.2*	179	1.14
EVER6 FSM	-3.8	2,862	0.29
non-EVER6 FSM	-2.8	8,902	0.16
Female	-3.3	5,970	0.20
Male	-2.8	5,794	0.20

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 19: Estimated learning loss in reading, in months, with pupil numbers and confidence interval by sub-group for figure 2.11

			Mean scaled score	Count	Confidence Interval
Primary	Low IDACI area	Non-FSM pupils	-1.2	47,824	0.09
		FSM pupils	-2.2	5,886	0.26
	Medium IDACI area	Non-FSM pupils	-2.0	50,892	0.09
		FSM pupils	-2.7	16,115	0.16
	High IDACI area	Non-FSM pupils	-2.3	25,288	0.12
		FSM pupils	-2.9	19,202	0.14
Secondary	Low IDACI area	Non-FSM pupils	-1.1	22,348	0.29
		FSM pupils	-2.1	3,131	0.78

Medium IDACI area	Non-FSM pupils	-1.7	17,769	0.33
	FSM pupils	-2.7	6,700	0.53
High IDACI area	Non-FSM pupils	-1.6	7,447	0.50
	FSM pupils	-2.1	6,714	0.53

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 20: Estimated learning loss in mathematics, in months, with pupil numbers and confidence interval by sub-group for figure 2.12

		Mean scaled score	Count	Confidence Interval
Low IDACI area	Non-FSM pupils	-2.2	3,190	0.27
	FSM pupils	-3.3*	411	0.75
Medium IDACI area	Non-FSM pupils	-3.0	3,945	0.24
	FSM pupils	-3.9	1,203	0.44
High IDACI area	Non-FSM pupils	-3.6	1,767	0.36
	FSM pupils	-3.9	1,248	0.43

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 21: Estimated learning loss in reading, in scaled score points, with pupil numbers and confidence interval by sub-group for figure 2.13

	Primary			Secondary		
	Mean scaled score	Count	Confidence interval	Mean scaled score	Count	Confidence interval
Yorkshire and the Humber	-26.5	11,229	2.16	-26.5	3,269	5.84
West Midlands	-25.9	16,085	1.81	-17.3	5,468	4.52
South West	-20.9	23,401	1.50	-20.7	6,641	2.81

South East	-23.3	28,382	1.36	-25.3	7,045	3.98
North West	-21.1	16,990	1.76	-26.7	5,610	4.46
North East	-28.1	12,009	2.09	-36.5	2,437	6.77
London	-20.2	13,260	1.99	-20.0	4,287	5.10
East of England	-22.3	21,104	1.58	-2.6	5,756	4.40
East Midlands	-21.6	13,347	1.98	-4.3	4,866	4.79
CIN	-22.7	5,122	3.20	-23.2	1,724	5.52
SEN	-22.7	19,617	1.64	-24.8	6,862	4.03
non-SEN	-23.1	136,190	0.62	-17.8	38,517	1.70
EAL other	-27.1	28,415	1.36	-19.6	5,995	4.31
White	-23.3	121,441	0.66	-20.4	35,983	1.76
Mixed	-17.2	8,490	2.49	-16.2	2,449	6.75
Chinese	-19.0	621	9.19	4.0*	133	28.96
Black	-26.8	6,214	2.91	-7.8	1,920	7.62
Asian	-22.4	15,469	1.84	-13.5	3,443	5.69
Any other ethnic group	-24.1	2,344	4.73	-37.0	678	12.83
EVER6 FSM	-28.1	39,157	1.16	-21.1	12,446	2.99
non-EVER6 FSM	-21.3	116,650	0.67	-18.0	32,933	1.84
Female	-23.5	78,928	0.82	-16.3	21,668	2.27
Male	-22.6	76,879	0.83	-21.3	23,711	2.17

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 22: Estimated learning loss in mathematics, in scaled score points, with pupil numbers and confidence interval by sub-group for figure 2.14

	Mean scaled score	Count	Confidence interval
Yorkshire and the Humber	-52.7	1,052	4.33
West Midlands	-67.5	650	5.50
South West	-12.3	1,096	4.24
South East	-24.2	3,609	2.34
North West	-14.1	1,119	4.20
North East	-46.2*	248	8.91
London	-32.2	1,187	4.07
East of England	-41.6	1,135	4.17
East Midlands	-27.5	954	4.54
CIN	-24.5*	367	7.33
SEN	-14.3	1,348	3.82
non-SEN	-32.9	9,702	1.42
EAL other	-35.2	2,011	3.13
White	-28.1	8,663	1.51
Mixed	-33.2	551	5.98
Chinese	-36.5*	49	20.05
Black	-24.5*	437	6.71
Asian	-48.9	1,103	4.23
Any other ethnic group	-48.3*	169	10.80
EVER6 FSM	-35.1	2,706	2.70
non-EVER6 FSM	-29.2	8,344	1.54
Female	-33.5	5,590	1.88
Male	-27.8	5,460	1.90

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 23: Estimated learning loss in reading, in scaled score points, with pupil numbers and confidence interval by sub-group for figure 2.15

			Mean scaled score	Count	Confidence interval
Primary	Low IDACI area	Non-FSM pupils	-15.8	44,684	1.08
		FSM pupils	-23.9	5,536	3.08
	Medium IDACI area	Non-FSM pupils	-24.0	48,078	1.04
		FSM pupils	-27.8	15,279	1.85
	High IDACI area	Non-FSM pupils	-26.3	23,888	1.48
		FSM pupils	-29.6	18,342	1.69
Secondary	Low IDACI area	Non-FSM pupils	-15.3	15,555	2.68
		FSM pupils	-16.5	2,348	6.89
	Medium IDACI area	Non-FSM pupils	-19.1	12,147	3.03
		FSM pupils	-22.6	4,956	4.74
	High IDACI area	Non-FSM pupils	-23.8	5,231	4.62
		FSM pupils	-21.8	5,142	4.66

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 24: Estimated learning loss in mathematics, in scaled score points, with pupil numbers and confidence interval by sub-group for figure 2.16

		Mean scaled score	Count	Confidence interval
Low IDACI area	Non-FSM pupils	-21.3	3,013	2.56
	FSM pupils	-25.4*	395	7.06
Medium IDACI area	Non-FSM pupils	-30.2	3,684	2.31
	FSM pupils	-31.4	1,136	4.16
High IDACI area	Non-FSM pupils	-41.5	1,647	3.46

	FSM pupils	-41.9	1,175	4.09
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Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 25: Estimated learning loss in reading, in months, with pupil numbers and confidence interval by sub-group for figure 2.17

	Primary			Secondary		
	Mean scaled score	Count	Confidence interval	Mean scaled score	Count	Confidence interval
Yorkshire and the Humber	-2.7	11,229	0.21	-3.4	3,269	0.79
West Midlands	-2.6	16,085	0.17	-2.3	5,468	0.61
South West	-2.0	23,401	0.14	-2.8	6,641	0.27
South East	-2.3	28,382	0.13	-3.4	7,045	0.54
North West	-2.2	16,990	0.17	-3.8	5,610	0.60
North East	-2.8	12,009	0.20	-5.0	2,437	0.92
London	-2.0	13,260	0.19	-2.6	4,287	0.69
East of England	-2.2	21,104	0.15	-0.5	5,756	0.60
East Midlands	-2.2	13,347	0.19	-0.6	4,866	0.65
CIN	-2.5	5,122	0.31	-3.6	1,724	0.53
SEN	-2.5	19,617	0.16	-3.8	6,862	0.55
non-SEN	-2.3	136,190	0.06	-2.4	38,517	0.23
EAL other	-2.6	28,415	0.13	-2.4	5,995	0.58
White	-2.3	121,441	0.06	-2.8	35,983	0.24
Mixed	-1.7	8,490	0.24	-2.2	2,449	0.91
Chinese	-1.7	621	0.88	0.4*	133	3.93
Black	-2.6	6,214	0.28	-1.2	1,920	1.03
Asian	-2.2	15,469	0.18	-1.7	3,443	0.77
Any other ethnic group	-2.3	2,344	0.45	-4.4	678	1.74

EVER6 FSM	-3.0	39,157	0.11	-3.3	12,446	0.41
non-EVER6 FSM	-2.1	116,650	0.06	-2.3	32,933	0.25
Female	-2.4	78,928	0.08	-2.2	21,668	0.31
Male	-2.2	76,879	0.08	-2.9	23,711	0.29

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 26: Estimated learning loss in mathematics, in months, with pupil numbers and confidence interval by sub-group for figure 2.18

	Mean scaled score	Count	Confidence interval
Yorkshire and the Humber	-5.5	1,052	0.53
West Midlands	-6.7	650	0.67
South West	-1.6	1,096	0.52
South East	-3.1	3,609	0.28
North West	-1.9	1,119	0.51
North East	-5.8*	248	1.08
London	-3.4	1,187	0.49
East of England	-4.6	1,135	0.51
East Midlands	-3.6	954	0.55
CIN	-3.2*	367	0.89
SEN	-1.7	1,348	0.46
non-SEN	-3.8	9,702	0.17
EAL other	-3.6	2,011	0.38
White	-3.4	8,663	0.18
Mixed	-3.8	551	0.73
Chinese	-3.3*	49	2.44

Black	-2.7*	437	0.82
Asian	-5.0	1,103	0.51
Any other ethnic group	-5.0*	169	1.31
EVER6 FSM	-4.2	2,706	0.33
non-EVER6 FSM	-3.3	8,344	0.19
Female	-4.0	5,590	0.23
Male	-3.1	5,460	0.23

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 27: Estimated learning loss in reading, in months, with pupil numbers and confidence interval by sub-group for figure 2.19

			Mean scaled score	Count	Confidence interval
Primary	Low IDACI area	Non-FSM pupils	-1.5	44,684	0.10
		FSM pupils	-2.5	5,536	0.30
	Medium IDACI area	Non-FSM pupils	-2.3	48,078	0.10
		FSM pupils	-3.0	15,279	0.18
	High IDACI area	Non-FSM pupils	-2.6	23,888	0.14
		FSM pupils	-3.2	18,342	0.16
Secondary	Low IDACI area	Non-FSM pupils	-1.9	15,555	0.36
		FSM pupils	-2.4	2,348	0.93
	Medium IDACI area	Non-FSM pupils	-2.5	12,147	0.41
		FSM pupils	-3.5	4,956	0.64
	High IDACI area	Non-FSM pupils	-3.2	5,231	0.63
		FSM pupils	-3.4	5,142	0.63

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 28: Estimated learning loss in mathematics, in months, with pupil numbers and confidence interval by sub-group for figure 2.20

		Mean scaled score	Count	Confidence interval
Low IDACI area	Non-FSM pupils	-2.5	3,013	0.31
	FSM pupils	-3.3*	395	0.86
Medium IDACI area	Non-FSM pupils	-3.5	3,684	0.28
	FSM pupils	-4.0	1,136	0.51
High IDACI area	Non-FSM pupils	-4.4	1,647	0.42
	FSM pupils	-4.8	1,175	0.50

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 29: Estimated learning loss in primary reading, in months, with pupil numbers and confidence interval by sub-group for figures 3.6 and 3.7

	Autumn 1		Autumn 2		Spring		Count
	Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	
Female	-1.9	0.10	-1.2	0.11	-2.0	0.09	44,682
Male	-1.7	0.10	-1.2	0.11	-1.7	0.10	42,853
non-EVER6 FSM	-1.7	0.08	-1.1	0.09	-1.7	0.08	65,978
EVER6 FSM	-2.0	0.14	-1.5	0.16	-2.4	0.14	21,557
Any other ethnic group	-1.2	0.60	-0.8	0.65	-1.6	0.56	1,255
Asian	-1.7	0.23	-1.3	0.25	-1.8	0.21	8,670
Black	-1.5	0.36	-1.4	0.40	-1.8	0.34	3,368
Chinese	0.2*	1.10	-1.6*	1.20	-1.2*	1.04	368
Mixed	-1.6	0.31	-1.2	0.34	-1.6	0.30	4,586

White	-1.9	0.08	-1.2	0.09	-1.9	0.08	68,657
EAL other	-1.7	0.17	-1.2	0.18	-2.0	0.16	15,799
CIN	-1.9	0.40	-0.6	0.43	-2.2	0.37	2,853
non-SEN	-1.9	0.08	-1.3	0.08	-2.0	0.07	77,230
SEN	-1.1	0.21	-0.7	0.23	-1.3	0.20	10,305
East Midlands	-1.3	0.25	-1.3	0.27	-2.0	0.24	7,185
East of Eng-land	-2.0	0.20	-1.0	0.22	-2.0	0.19	10,690
London	-1.2	0.27	-0.5	0.29	-1.3	0.25	6,220
North East	-2.5	0.24	-1.9	0.26	-2.5	0.23	7,542
North West	-2.0	0.21	-1.9	0.23	-2.3	0.20	9,842
South East	-1.8	0.16	-1.1	0.18	-1.7	0.15	17,097
South West	-1.6	0.19	-0.8	0.20	-1.3	0.18	13,009
West Mid-lands	-1.7	0.22	-1.0	0.24	-1.9	0.21	9,049
Yorkshire	-2.3	0.25	-1.6	0.28	-2.4	0.24	6,901

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 30: Estimated learning loss in primary reading, in months, with pupil numbers and confidence interval by sub-group for figure 3.8

		Autumn 1		Autumn 2		Spring		Count
		Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	
Low IDACI area	Non-FSM pupils	-1.5	0.13	-0.9	0.14	-1.3	0.13	25,055
	FSM pupils	-1.8	0.39	-1.3	0.42	-1.8	0.37	2,983
Medium IDACI area	Non-FSM pupils	-1.9	0.13	-1.2	0.14	-1.9	0.12	27,582

	FSM pupils	-2.0	0.23	-1.4	0.25	-2.4	0.22	8,456
High IDACI area	Non-FSM pupils	-1.8	0.18	-1.4	0.20	-2.2	0.17	13,341
	FSM pupils	-2.1	0.21	-1.6	0.23	-2.6	0.20	10,118

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 31: Estimated learning loss in secondary reading, in months, with pupil numbers and confidence interval by sub-group for figures 3.9 and 3.10

	Autumn 1		Spring		Count
	Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	
Female	-1.4	0.26	-1.0	0.27	26,821
Male	-1.3	0.25	-2.2	0.27	28,393
non-EVER6 FSM	-1.2	0.21	-1.3	0.22	41,291
EVER6 FSM	-1.6	0.36	-2.5	0.38	13,923
Any other ethnic group	-1.0	1.45	-2.5	1.53	856
Asian	-1.3	0.63	-1.3	0.67	4536
Black	-0.4	0.90	0.1	0.95	2225
Mixed	-1.0	0.79	-0.9	0.84	2877
White	-1.4	0.20	-1.7	0.22	43554
EAL other	-1.5	0.48	-1.6	0.51	7,673
CIN	-2.2	0.96	-2.8	1.02	1,954
non-SEN	-1.3	0.19	-1.4	0.21	47,412
SEN	-1.6	0.48	-2.5	0.51	7,802
East Midlands	-1.9	0.56	-1.6	0.59	5,706
East of England	-0.4	0.47	-0.3	0.50	7,951
London	-1.4	0.59	-1.1	0.63	5,076
North East	-1.6	0.75	-2.5	0.80	3,146
North West	-1.2	0.51	-2.1	0.54	6,942
South East	-1.4	0.46	-1.4	0.49	8,320
South West	-1.7	0.47	-2.3	0.50	7,983
West Midlands	-1.1	0.53	-1.3	0.56	6,412
Yorkshire	-1.8	0.70	-2.7	0.74	3,678

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 32: Estimated learning loss in secondary reading, in months, with pupil numbers and confidence interval by sub-group for figures 3.11

		Autumn 1		Spring		Count
		Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	
Low IDACI area	Non-FSM pupils	-0.8	0.30	-0.9	0.32	20,013
	FSM pupils	-1.7	0.81	-2.1	0.86	2,724
Medium IDACI area	Non-FSM pupils	-1.7	0.34	-1.6	0.37	15,074
	FSM pupils	-1.5	0.57	-2.9	0.60	5,578
High IDACI area	Non-FSM pupils	-1.5	0.54	-1.7	0.57	6,204
	FSM pupils	-1.7	0.56	-2.4	0.60	5,621

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 33: Estimated learning loss in mathematics, in months, with pupil numbers and confidence interval by sub-group for figures 3.12 and 3.13

	Autumn 1		Autumn 2		Spring		Count
	Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	
Female	-4.1	0.33	-2.9	0.33	-3.1	0.25	3,693
Male	-3.4	0.33	-2.4	0.34	-2.7	0.26	3,502
non-EVER6 FSM	-3.5	0.53	-2.4	0.27	-2.7	0.21	5,418
EVER6 FSM	-4.4	0.27	-3.4	0.48	-3.6	0.37	1,777
Any other ethnic group	-3.0*	1.95	-3.2*	1.99	-3.3*	1.53	103
Asian	-4.0	0.73	-2.7	0.75	-3.7	0.57	732
Black	-2.9*	1.14	-1.3*	1.16	-2.4*	0.89	303

Mixed	-3.5*	1.07	-1.8*	1.09	-3.4*	0.84	343
White	-3.7	0.26	-2.8	0.27	-2.8	0.21	5,639
EAL other	-3.4	0.55	-2.5	0.56	-3.1	0.43	1,307
CIN	-3.9*	1.28	-3.7*	1.30	-3.0*	1.00	240
non-SEN	-3.7	0.25	-2.7	0.25	-3.0	0.19	6,390
SEN	-3.6	0.70	-1.9	0.71	-2.0	0.55	805
East Midlands	-4.4*	0.92	-2.9*	0.94	-4.7*	0.24	465
East of England	-4.4	0.78	-3.2	0.79	-3.7	0.72	651
London	-2.5	0.69	-1.0	0.70	-2.3	0.61	824
North East	-5.0*	1.33	-4.4*	1.36	-4.4*	0.54	220
North West	-3.7	0.70	-2.3	0.71	-1.6	1.04	804
South East	-3.7	0.44	-2.9	0.45	-3.1	0.55	2,033
South West	-1.6	0.63	-0.5	0.65	-0.2	0.34	973
West Midlands	-4.8*	0.96	-3.8*	0.98	-4.8*	0.50	425
Yorkshire	-5.6	0.70	-5.0	0.71	-4.4	0.75	800

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 34: Estimated learning loss in mathematics, in months, with pupil numbers and confidence interval by sub-group for figures 3.14

Autumn 1	Autumn 2	Spring	Count
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		Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	
Low IDACI area	Non-FSM pupils	-3.0	0.46	-1.8	0.47	-1.7	0.36	1,867
	FSM pupils	-5.4*	1.33	-2.4*	1.35	-2.9*	1.04	222
Medium IDACI area	Non-FSM pupils	-3.5	0.40	-2.4	0.41	-2.9	0.32	2,404
	FSM pupils	-3.8	0.72	-3.0	0.74	-3.6	0.56	753
High IDACI area	Non-FSM pupils	-4.1	0.58	-3.3	0.60	-3.7	0.46	1,147
	FSM pupils	-4.7	0.70	-4.0	0.71	-3.8	0.55	802

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 35: Estimated learning loss in primary reading, in months, with pupil numbers and confidence interval by sub-group for figures 3.15 and 3.16

	Autumn 1		Autumn 2		Spring 2		Count
	Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	
Female	-2.0	0.10	-1.3	0.11	-2.4	0.11	42,604
Male	-1.7	0.10	-1.2	0.11	-2.0	0.11	40,814
non-EVER6 FSM	-1.7	0.08	-1.1	0.09	-2.1	0.09	62,766
EVER6 FSM	-2.0	0.15	-1.5	0.16	-2.7	0.15	20,652
Any other ethnic group	-1.3	0.61	-0.7	0.66	-1.5	0.63	1,203
Asian	-1.7	0.23	-1.4	0.25	-2.2	0.24	8,331
Black	-1.5	0.37	-1.4	0.40	-2.2	0.39	3,249

Chinese	-0.1*	1.13	-1.7*	1.21	-2.0*	1.17	352
Mixed	-1.6	0.32	-1.1	0.34	-1.6	0.33	4,394
White	-1.9	0.08	-1.2	0.09	-2.3	0.09	65,291
EAL other	-1.8	0.17	-1.3	0.18	-2.4	0.18	15,136
CIN	-1.8	0.41	-0.4	0.44	-2.4	0.42	2,702
non-SEN	-1.9	0.08	-1.3	0.08	-2.3	0.08	73,642
SEN	-1.1	0.21	-0.6	0.23	-1.6	0.22	9,776
East Midlands	-1.2	0.25	-1.3	0.27	-2.1	0.26	6,957
East of England	-2.0	0.21	-1.0	0.22	-2.2	0.21	10,460
London	-1.3	0.28	-0.5	0.30	-1.6	0.29	5,878
North East	-2.4	0.25	-1.9	0.27	-2.6	0.26	7,295
North West	-2.0	0.22	-1.9	0.24	-2.4	0.23	9,295
South East	-1.8	0.17	-1.1	0.18	-2.1	0.17	16,248
South West	-1.6	0.19	-0.8	0.21	-1.9	0.20	12,219
West Midlands	-1.7	0.23	-1.0	0.25	-2.6	0.24	8,465
Yorkshire	-2.3	0.26	-1.6	0.28	-2.6	0.27	6,601

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 36: Estimated learning loss in primary reading, in months, with pupil numbers and confidence interval by sub-group for figures 3.17

		Autumn 1		Autumn 2		Spring 2		Count
		Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	
Low IDACI area	Non-FSM pupils	-1.5	0.14	-0.9	0.15	-1.6	0.14	23,727
	FSM pupils	-1.8	0.40	-1.5	0.43	-2.3	0.41	2,842
Medium IDACI area	Non-FSM pupils	-1.9	0.13	-1.2	0.14	-2.2	0.14	26,292
	FSM pupils	-2.0	0.24	-1.4	0.25	-2.7	0.24	8,070
High IDACI area	Non-FSM pupils	-1.8	0.19	-1.4	0.20	-2.5	0.19	12,747
	FSM pupils	-2.1	0.21	-1.6	0.23	-2.9	0.22	9,740

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 37: Estimated learning loss in secondary reading, in months, with pupil numbers and confidence interval by sub-group for figures 3.18 and 3.19

	Autumn 1		Spring 2		Count
	Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	
Female	-1.8	0.30	-2.1	0.34	18,912
Male	-1.5	0.29	-2.7	0.32	20,585
non-EVER6 FSM	-1.6	0.25	-2.1	0.27	28,912
EVER6 FSM	-1.9	0.41	-3.3	0.45	10,585
Any other ethnic group	-1.9	1.73	-4.1	1.92	583
Asian	-2.0	0.78	-1.6	0.87	2877
Black	-1.2	1.05	-0.6	1.16	1592
Mixed	-1.4	0.91	-2.2	1.01	2111
White	-1.7	0.24	-2.6	0.26	31524
EAL other	-1.9	0.59	-2.3	0.65	5,032
CIN	-2.3	1.09	-4.0	1.21	1,475
non-SEN	-1.6	0.23	-2.2	0.25	33,665
SEN	-1.9	0.55	-3.5	0.61	5,832

East Midlands	-2.0	0.64	-0.2	0.71	4,261
East of England	-1.4	0.59	-0.3	0.66	4,959
London	-1.7	0.71	-2.6	0.79	3,480
North East	-2.2	0.88	-5.2	0.98	2,257
North West	-1.5	0.60	-3.7	0.67	4,828
South East	-1.8	0.52	-2.9	0.58	6,483
South West	-1.9	0.56	-2.5	0.62	5,526
West Midlands	-0.9	0.60	-2.2	0.67	4,843
Yorkshire	-1.7	0.78	-3.3	0.87	2,860

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 38: Estimated learning loss in secondary reading, in months, with pupil numbers and confidence interval by sub-group for figures 3.20

		Autumn 1		Spring 2		Count
		Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	
Low IDACI area	Non-FSM pupils	-1.1	0.35	-1.6	0.39	14,031
	FSM pupils	-2.0	0.92	-2.2	1.03	2,039
Medium IDACI area	Non-FSM pupils	-2.0	0.41	-2.2	0.45	10,442
	FSM pupils	-1.8	0.64	-3.5	0.72	4,204
High IDACI area	Non-FSM pupils	-2.2	0.63	-3.1	0.70	4,439
	FSM pupils	-1.9	0.63	-3.5	0.70	4,342

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 39: Estimated learning loss in mathematics, in months, with pupil numbers and confidence interval by sub-group for figures 3.21 and 3.22

	Autumn 1		Autumn 2		Spring 2		Count
	Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	
Female	-4.0	0.33	-2.9	0.34	-3.9	0.29	3,525

Male	-3.3	0.34	-2.4	0.35	-3.0	0.30	3,330
non-EVER6 FSM	-3.4	0.54	-2.4	0.28	-3.2	0.24	5,172
EVER6 FSM	-4.5	0.27	-3.3	0.49	-4.2	0.43	1,683
Any other ethnic group	-2.9*	1.96	-3.3*	2.00	-5.2*	1.74	100
Asian	-4.0	0.73	-2.8	0.75	-5.5	0.65	718
Black	-2.7*	1.14	-1.4*	1.17	-2.2*	1.02	294
Mixed	-3.4*	1.07	-1.9*	1.10	-3.5*	0.96	333
White	-3.7	0.27	-2.7	0.27	-3.2	0.24	5,337
EAL other	-3.4	0.55	-2.6	0.56	-3.9	0.49	1,268
CIN	-3.9*	1.30	-3.6*	1.33	-2.5*	1.16	226
non-SEN	-3.7	0.25	-2.8	0.26	-3.7	0.22	6,101
SEN	-3.4	0.71	-1.9	0.73	-1.3	0.64	754
East Mid- lands	-4.3*	0.91	-2.9*	0.93	-5.0*	0.27	463
East of England	-4.2	0.78	-3.3	0.79	-4.4	0.81	638
London	-2.5	0.69	-1.1	0.71	-3.0	0.69	797
North East	-5.0*	1.33	-4.4*	1.35	-5.9*	0.62	218
North West	-3.9	0.75	-2.2	0.77	-1.4	1.18	676
South East	-3.6	0.44	-2.8	0.45	-2.7	0.67	2,003
South West	-1.5	0.64	-0.6	0.65	-1.6	0.39	935
West Mid- lands	-4.8*	0.95	-3.8*	0.97	-7.0*	0.57	424
Yorkshire	-5.7	0.74	-5.1	0.76	-5.7	0.85	701

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.

Table 40: Estimated learning loss in mathematics, in months, with pupil numbers and confidence interval by sub-group for figures 3.23

		Autumn 1		Autumn 2		Spring 2		Count
		Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	Mean scaled score	Confidence Interval	
Low IDACI area	Non-FSM pupils	-3.0	0.46	-1.7	0.47	-2.2	0.41	1,785
	FSM pupils	-5.6*	1.35	-2.3*	1.37	-3.2*	1.20	212
Medium IDACI area	Non-FSM pupils	-3.4	0.41	-2.5	0.42	-3.4	0.36	2,300
	FSM pupils	-3.9	0.73	-2.9	0.75	-3.8	0.65	715
High IDACI area	Non-FSM pupils	-4.0	0.59	-3.6	0.61	-4.5	0.53	1,087
	FSM pupils	-4.6	0.71	-4.0	0.73	-4.8	0.63	756

Note: Asterisks indicate sub-groups where the sample is less than 500 pupils and as a result some caution should be taken with interpreting the estimate.



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