The residual impact of educational disruption on primary school attainment by spring 2022

An analysis of attainment in reading, maths and grammar, punctuation and spelling in mainstream state schools in England. This study looks at the differences in performance by year group and region.

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Introduction

This paper analyses attainment tests among primary pupils in England for the Spring term of the 2021-2022 school year. These tests include New Progress in Reading Assessment (New PIRA), New Progress in Understanding Mathematics Assessment (New PUMA) and Progress in Grammar, Punctuation and Spelling Assessment (GAPS), provided by RS Assessment from Hodder Education.

The paper uses aggregate results from more than 700,000 primary school tests taken at more than 1,500 schools during spring 2022 and compares these to the results from the corresponding terms in the previous school year (spring 2021). Encouragingly, these results are now showing trends of improvement after a long period of educational disruption. To provide context for these results and show how pupils performed prior to the pandemic, analysis from the spring 2021 white paper (which compares results from 'old' PIRA tests taken in spring 2021 and spring 2020) is also presented here. Although these tests are similar, and allow for comparisons in overall trends, **New PIRA** and **New PUMA** were both updated and re-standardised to reflect current teaching practices, which means that, in some cases, a direct comparison of results is not appropriate. **GAPS** remains unchanged in this period. Please see appendix (page 19) for a detailed explanation.

To provide increased comparability **effect sizes** are used to compare attainment levels between different groups and across time periods. The larger the negative change in effect size, the larger the attainment gap and effect on learning is likely to be.

The analysis focuses on the continuing impact of school disruption, changes in attainment and the different impact on attainment across regions in England.

The analysis of attainment test results at a national level provides a valuable opportunity to understand broad disparities in learning, and helps to direct the focus of educators and policymakers in their remediation efforts. We acknowledge that attainment tests are only one measure of a child's development and intend this analysis to be considered alongside other research in this area, not least the impact on children's social development, wellbeing and mental health.

This paper is the latest in the series, the last of which was published in August 2021. That paper, "*The effects of educational disruption on primary school attainment in summer 2021*", highlighted the gaps in attainment across all terms in 2020-2021, however by the summer term they were most prominent in maths and grammar, punctuation and spelling (GPS) and among children in Year 1 and Reception.

The work presented in this paper has been funded by the Nuffield Foundation.

Key findings

While the changes to New PIRA and New PUMA tests mean that it is not possible to make exact calculations about children's attainment gains, our analysis shows it is possible to identify trends that are consistent across this period for reading (see appendix on page 19 for further details). As the maths tests saw more changes than reading, the analysis presented for that subject focuses on the post-pandemic changes in attainment only. Further analysis of attainment in maths will be presented in a future paper.

In spring 2021, average attainment across all subjects was lower than pre-pandemic levels, as it followed a national lockdown. Comparing that spring 2021 cohort with the current spring 2022 cohort, across all subjects, average attainment gains from spring 2021 to spring 2022 were substantial, however we now see that:

- There are still sizeable attainment shortfalls across all year groups in **grammar**, **punctuation** and **spelling**.
- Attainment in **reading** for Year 3-6 pupils had returned almost to pre-pandemic levels.
- **Reading in Years 1 and 2** has been particularly negatively impacted by school closures and pupils in these years are still behind pre-pandemic attainment levels.
- The **gaps between disadvantaged pupils and their peers** were smaller in spring 2022 compared to spring 2021. The difference between the attainment of pupils eligible for the Pupil Premium and the attainment of their peers (the disadvantage gap) still appears to be larger than it was pre-pandemic, in reading and GPS.
- All **English regions** showed improved attainment between spring 2021 and spring 2022, but were nevertheless differently affected. For example, Year 1 and 2 pupils attending schools in the North showed the least improvement in reading. Pupils across all primary school years (Years 1-6) in the Midlands showed lower average improvement in maths than their peers in other regions.

How did children's attainment in spring 2022 compare with pre-pandemic attainment levels?

In this paper we have analysed the most recent tests taken in spring 2022 and compared them against spring 2021, however looking at the gains in attainment in just that time period does not show a true reflection of whether children are, on average, back to pre-pandemic attainments levels. For this reason, we have included prior analysis showing the attainment of children in spring 2021 compared to spring 2020, prior to the start of the pandemic, when we reported large drops in attainments across all subjects and year groups. Since these analyses were performed on different tests, it is not appropriate to directly combine them, but trends across the two can be compared (see appendix on page 19 for further details).

Figure 1 compares children's attainment in spring 2021 to the attainment of a pre-pandemic cohort in spring 2020 and shows the effect sizes for reading (PIRA) and grammar, punctuation and spelling (GAPS). At this point in time, children in spring 2021 were behind the pre-pandemic cohort in all year groups and across all subjects.

Figure 1: Effect size for reading and GPS (PIRA and GAPS) for spring 2020- 2021

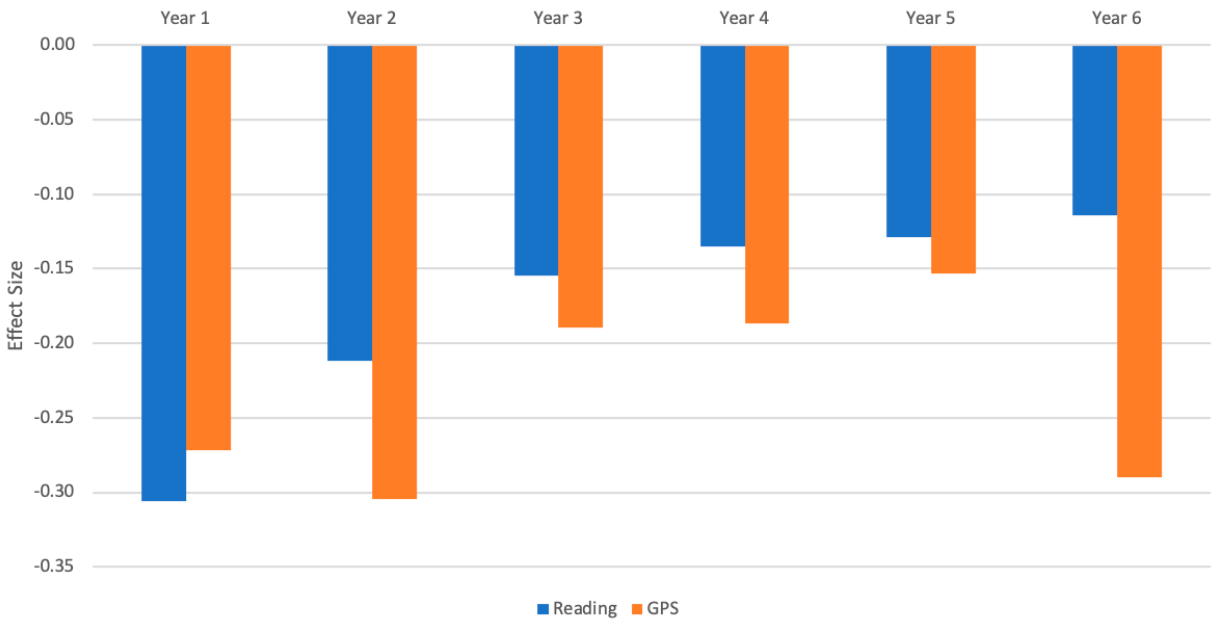
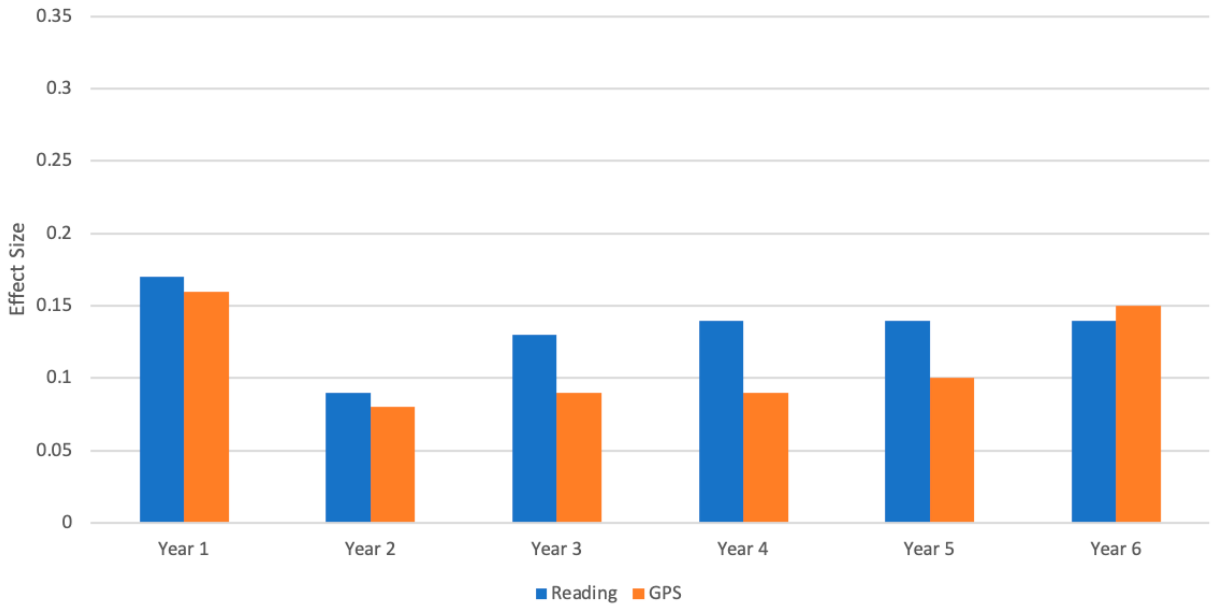


Figure 2 shows the change in effect sizes from spring 2021 and spring 2022 for reading (New PIRA) and GPS (GAPS). This allows us to see which year groups and subjects are still showing attainment deficits. This figure shows that there has been improvement since the previous spring across all subjects and year groups (the effect sizes are positive). This is what we would expect to see given that children were coming out of a national lockdown in the spring 2021 term.

Figure 2: Effect size for reading and GPS (New PIRA and GAPS) for spring 2021- 2022



Reading (blue bars) has been the least affected subject in our papers to date, but, considering Figures 1 and 2 together, we now see Year 1 and 2 children still showed overall shortfalls in attainment. This is a trend that we will investigate further below. The most affected subject is GPS, in orange, which shows children are still, on average, behind in their learning compared to pre-pandemic attainment levels. Analysis of maths attainment will follow in a future paper.

Grammar, Spelling and Punctuation Performance in spring 2022

The content of grammar, spelling and punctuation (GPS) tests, GAPS, remained the same throughout the period of this analysis so it is possible to provide a direct comparison of current attainment compared to pre-pandemic levels.

Progress in grammar, punctuation and spelling (GPS) still lags behind pre-pandemic levels

To help understand how differences in mean Standardised Scores correspond to time spent learning, we can translate effect sizes to months' progress using a method developed by the Education Endowment Foundation (EEF)[1], the results of which are summarised in Figure 3. It is possible to calculate a net effect from spring 2020-2022 for these tests since they have remained the same since before the pandemic. The effect sizes in Figure 3 show that the pupils in this year's cohort taking GPS tests in the spring, across all years, remain on average 2 months behind pre-pandemic levels. This indicates that more work is needed to support children in order to restore prior levels of attainment.

Figure 3: Effect sizes and months' progress for grammar, punctuation and spelling (GAPS) for spring 2020-2022

	Net Effect (Spring 2020-2022)	
Year	**Effect size**	**Months' progress**
Year 1	-0.17	-2
Year 2	-0.23	-3
Year 3	-0.13	-2
Year 4	-0.12	-2
Year 5	-0.09	-1
Year 6	-0.15	-2

[1] Effect sizes were calculated by dividing the difference in Standardised Score points between prior and current cohorts by the standard deviation of the prior cohort. These were converted to months using the EEF table, see: Education Endowment Foundation (EEF), (September 2021), "*Teaching and Learning: Early Years Toolkit Guide*", EEF, London, pp. 6.

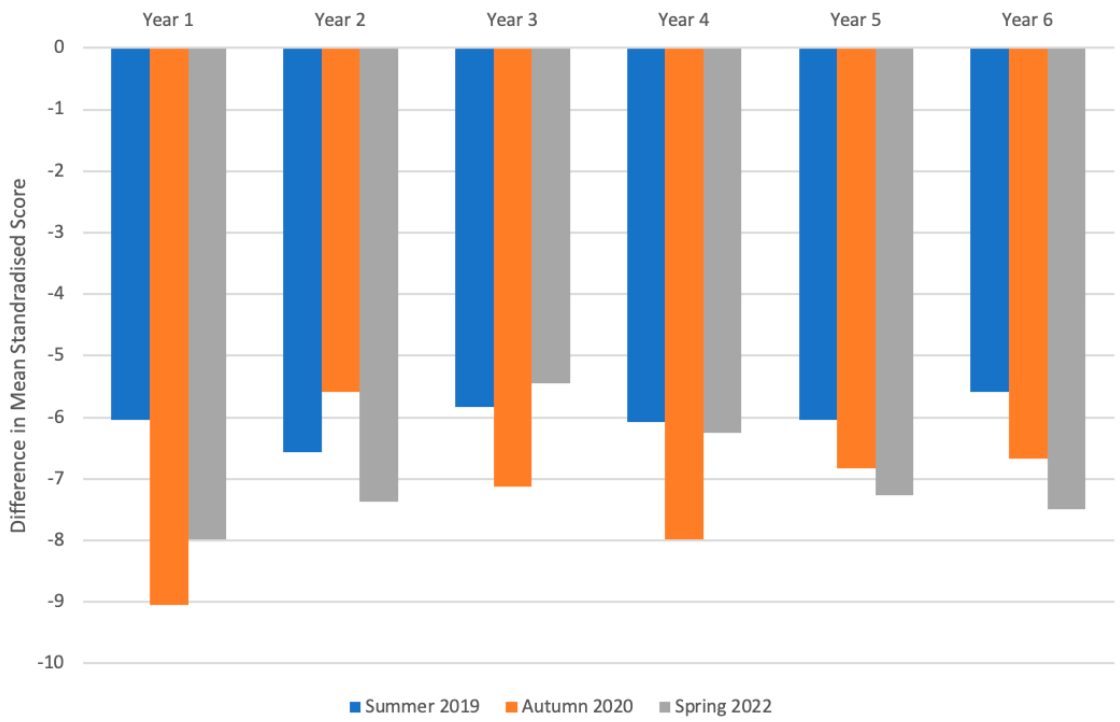
GPS disadvantage gap reduced for most school years

A major concern during the pandemic has been that disadvantaged pupils may have been more negatively affected than their peers. As in our previous white papers, we used Pupil Premium status as a proxy for disadvantage. (Individual Pupil Premium status is stored against many of the test results where schools have chosen to add it[2].)

Figure 4 shows the difference in the **mean Standardised Scores** of Pupil Premium children and non-Pupil Premium children across the course of the pandemic. Using mean Standardised Scores rather than effect sizes allows us to more easily compare the differences in attainment between these two groups of children. The blue bars show the differences in summer 2019, the orange bars show the differences in autumn 2020 (after the first national lockdown) and the grey bars show the difference as of the spring 2022 term. Summer 2019 and autumn 2020 have been chosen for comparison to spring 2022 to represent the pre-pandemic and mid-pandemic cohorts because they had large enough sample sizes for all school years to allow for direct comparison.

The gaps between those eligible for the Pupil Premium and their peers has reduced for GPS, compared to 2020-21 (orange bars), for some school years. However, when comparing these differences with the summer 2019 disadvantage gap (blue bars), it can be seen that the latest gap (as of spring 2022, shown by grey bars) is still wider than it was before the pandemic.

Figure 4: Difference in mean Standardised Scores between Pupil Premium and non-Pupil Premium pupils for grammar, punctuation and spelling (GAPS)

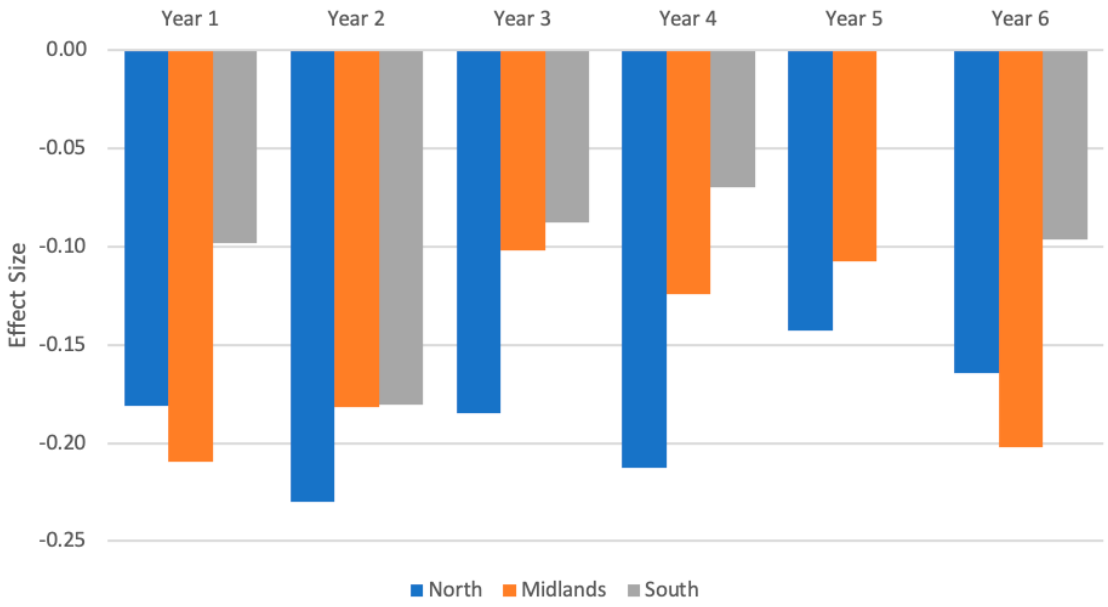


[2] We analysed only those schools with overall Pupil Premium percentages in MARK that were broadly consistent with the proportion reported publicly for that school by the Department for Education, and omitted any pupils with unknown Pupil Premium status, resulting in a smaller number of results for this section.

Children in all years still behind in GPS when compared to pre-pandemic levels across all English regions

There is also regional variation to children's attainment. Figure 5 shows GPS **effect sizes** for regional groups between spring 2020 (pre-pandemic) and spring 2022. The three regional groups are North (North East, North West and Yorkshire and The Humber), Midlands (East Midlands and West Midlands) and South (East of England, London, South East and South West). This chart shows children in Year 5 in the South are at their pre-pandemic attainment level (the effect size is 0). It also indicates that, on average, children in schools in the North remain further behind their peers.

Figure 5: Effect size by region across all primary school years for grammar, punctuation and spelling (GAPS) for spring 2020-22



Reading Performance in spring 2022

As mentioned previously, we have split this analysis into two time periods, going into the pandemic (using PIRA test data) and coming out of it (using New PIRA test data). Figure 6 shows results in spring 2021 compared to the pre-pandemic period (spring 2020), and demonstrates that pupils in all school years, particularly those in Year 1, were behind.

Figure 6: Effect sizes and months' progress for reading (PIRA) for spring 2020-2021

	Spring 2020 – 2021	
Year	Effect size	Months' progress
Year 1	-0.30	-4
Year 2	-0.20	-3
Year 3	-0.13	-2
Year 4	-0.11	-2
Year 5	-0.13	-2
Year 6	-0.17	-2

Using New PIRA, Figure 7 shows that children made attainment gains from spring 2021 to spring 2022. These results in reading indicate a positive picture this spring for children in the Key Stage 2 (KS2) years.

Figure 7: Effect sizes and months' progress for reading (New PIRA) for spring 2021-2022

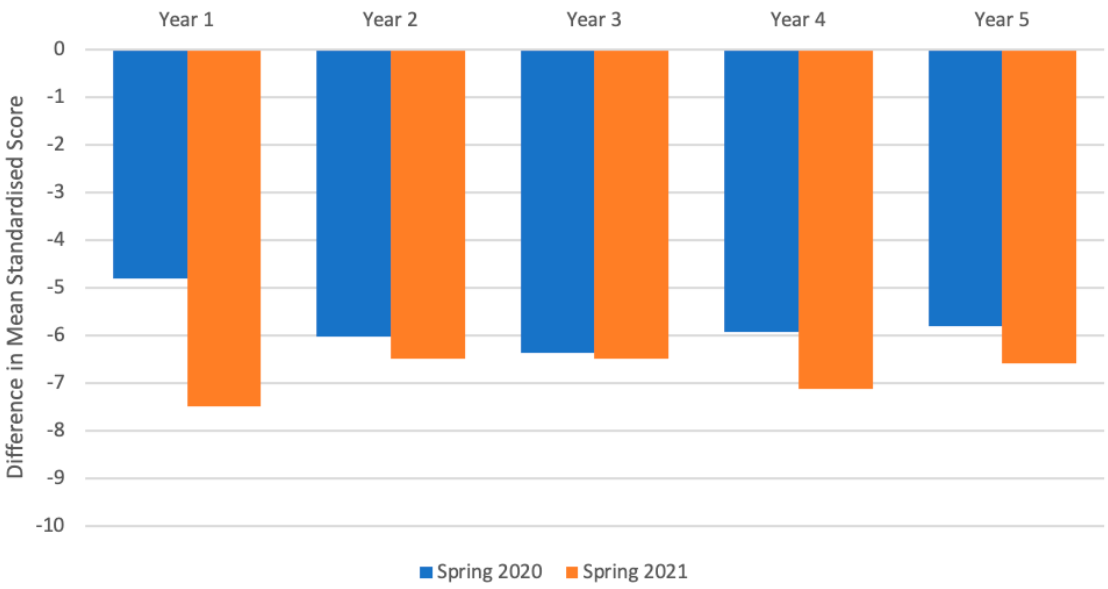
	Spring 2021 – 2022	
Year	Effect size	Months' progress
Year 1	0.17	2
Year 2	0.09	1
Year 3	0.13	2
Year 4	0.14	2
Year 5	0.14	2
Year 6	0.14	2

Although we cannot simply aggregate these two tables, when considering Figure 6 and 7 together, the relatives sizes of the negative effect sizes in spring 2020-2021 compared to the increases in spring 2021-2022 suggest that while most children appear to be back on track, Year 1 and 2 children may still be behind the pre-pandemic cohort.

Reading disadvantage gap reduces for all years except Year 6

Figure 8 shows the differences in **mean Standardised Scores** between children eligible for Pupil Premium and their peers for cohorts who sat reading tests (PIRA) before the pandemic in spring 2020 (blue bars) and spring 2021 (orange bars). It can be seen that the disadvantage gap widened over the course of the pandemic, as the orange bars are larger than the blue bars for all year groups.

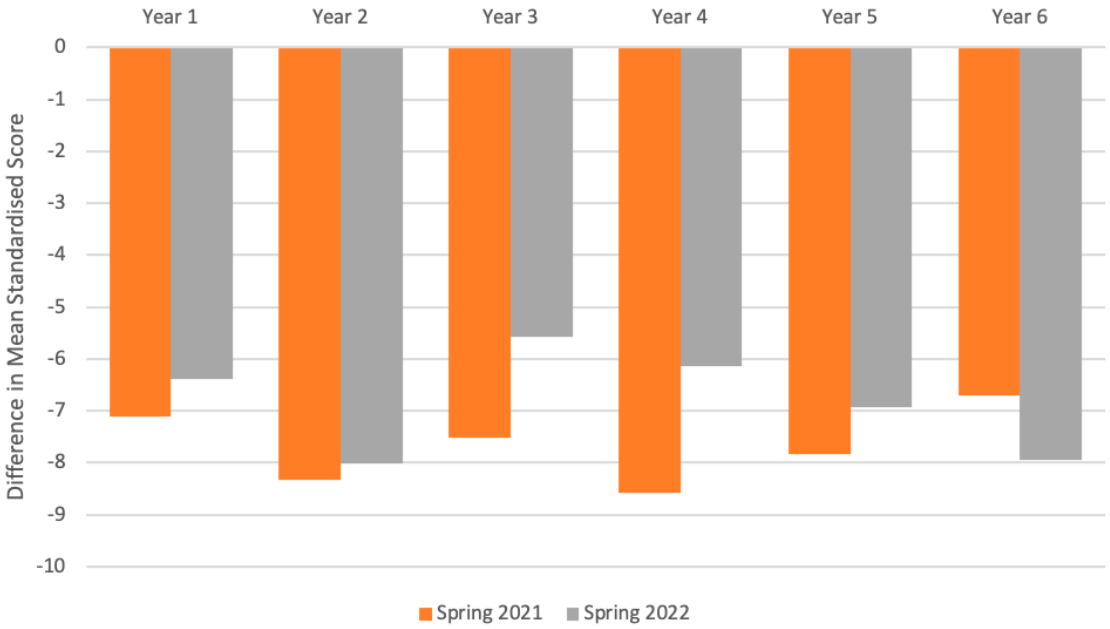
Figure 8: Difference in mean Standardised Scores between Pupil Premium and non-Pupil Premium pupils for reading (PIRA) for spring 2020 -2021



(Please note that Year 6 has not been included because the sample sizes were too low to be representative of children's performance in this school year.)

Figure 9 shows the differences between children eligible for Pupil Premium and their peers for cohorts who sat reading tests (New PIRA) in spring 2021 (orange bars) and most recently in spring 2022 (grey bars). The gap (indicated by the size of the difference in mean Standardised Scores) between these two groups has reduced in spring 2022 compared to spring 2021 in all year groups except Year 6, where it has widened.

Figure 9: Difference in mean Standardised Scores between Pupil Premium and non-Pupil Premium pupils for reading (New PIRA) for spring 2021-2022



Considering the trends in Figures 8 and 9 together, although there has been some reduction in the size of the disadvantage gap over the course of the last school year, it is likely still larger than it was before the pandemic (blue bars in Figure 8).

Pupils in KS2 in the North show highest gains in attainment in reading in the spring term

Although the overall attainment for KS2 reading indicated a likely return to pre-pandemic levels in spring 2022, as seen by comparing Figures 1 and 2, there were regional differences in attainment as shown in Figures 10 and 11. Figure 10 shows the effect sizes for pupils in three English regional groups for spring 2021 compared to the previous year's cohort (spring 2020). Regions were grouped in the same way as for GPS (see page 8 for details). Looking at Figure 10, children in Years 1 and 2 in the North had the largest drops in attainment compared to the pre-pandemic cohort and Year 1 had the largest drops across all regions of the UK.

Figure 10: Effect size for all primary school years across regions in reading (PIRA) in England for spring 2020 -2021

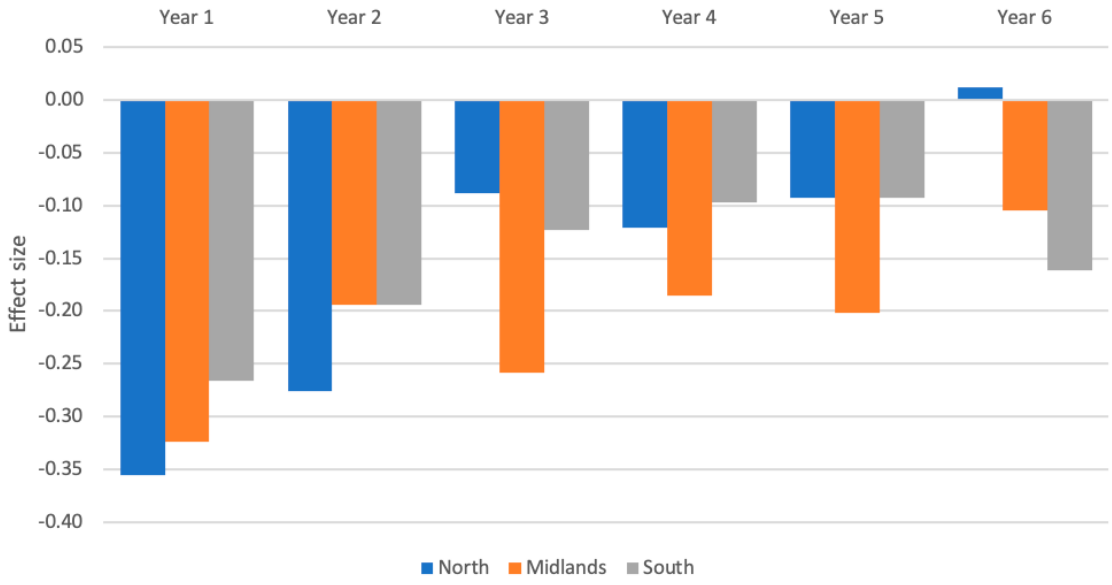
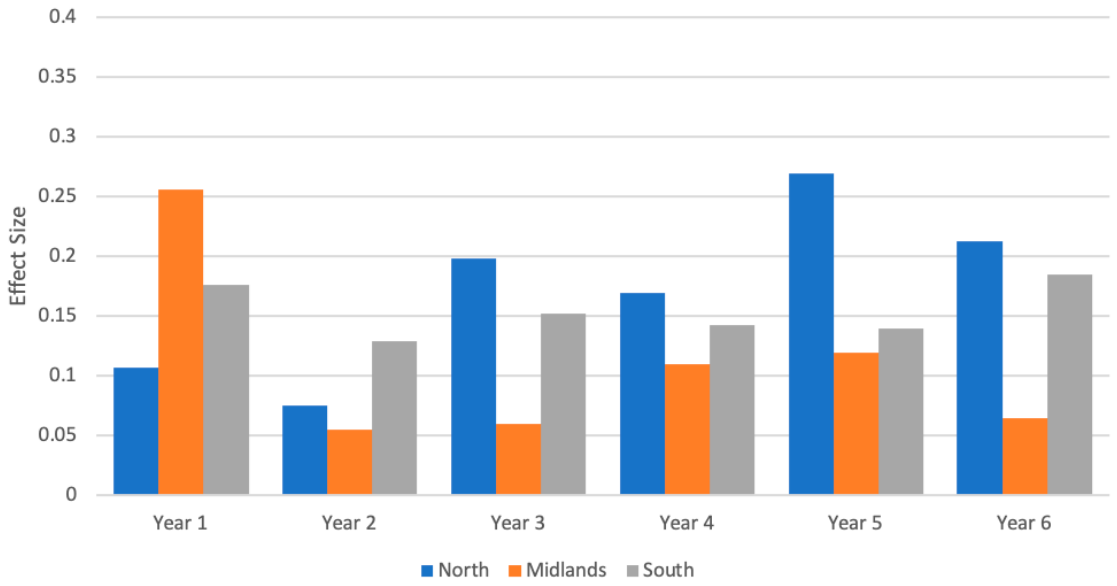


Figure 11 shows the effect sizes for pupils sitting reading tests (New PIRA) in the same three regional groups for spring 2022 compared to spring 2021. All regions in England improved in spring 2022 compared to the previous spring, when pupils had recently experienced prolonged lockdowns, but pupils in the North (blue bars) in Years 3-6 showed higher gains in attainment than students in the Midlands (orange bars) and the South (grey bars).

Figure 11: Effect size for all primary school years across regions in reading (New PIRA) in England for spring 2021-2022



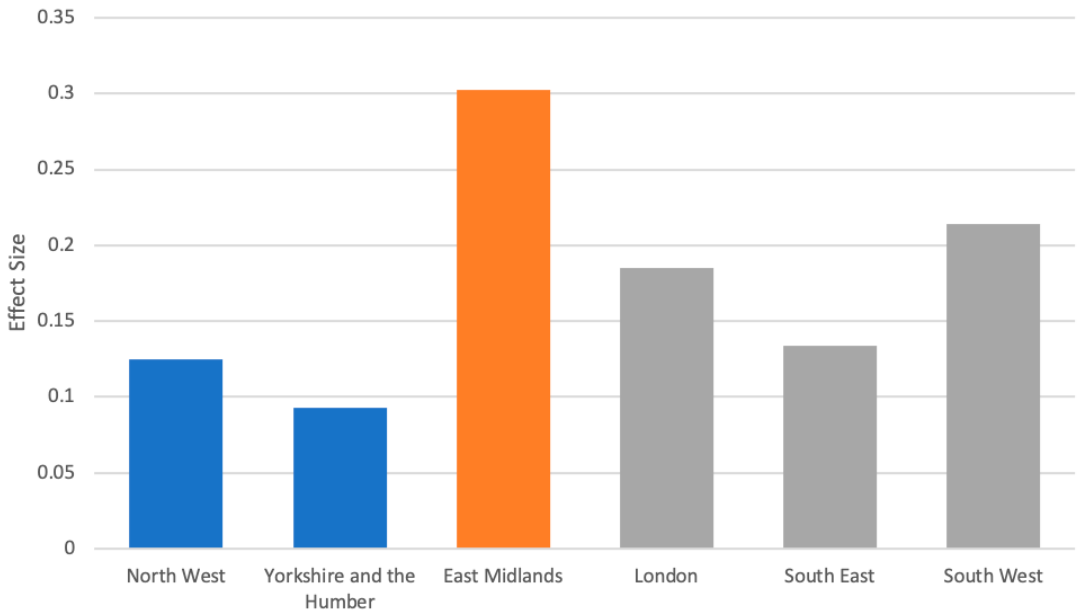
Key Stage 1 (KS1) pupils (those in Years 1 and 2) appear to have been impacted the most by school disruption, as shown in Figure 10, and are likely still behind the pre-pandemic cohort as we saw in Figures 1 and 2. Looking specifically at the effect sizes for KS1 children by region, Years 1 (Figure 12) and 2 (Figure 13) show a wide variation in performance. The bars on the chart are coloured to reflect whether the region is in the North (blue bars), Midlands (orange bars) or South (grey bars). Pupils sitting tests in the North East, North West and Yorkshire and the Humber did not show the same attainment gains as the other regions, indicating additional support may be required in these areas in order to return to pre-pandemic levels. These three areas contain some of the highest proportions of "Education Investment Areas" as identified by the Department of Education for improvement as part of the Government's Levelling-Up initiative[3].

The low attainment relative to the previous cohort in Yorkshire and the Humber seen in Figures 12 and 13 has also been reported by schools in a separate recent NFER study about children's progress in that region in the autumn 2021 term. In that study, schools reported that the residual impact of the lockdowns in 2020 and 2021 has meant that more children are behind age-related attainment levels in reading[4].

[3] Media Officer, (1st February 2022), "*How we are levelling up education all over the country*", UK Government, https://educationhub.blog.gov.uk/2022/02/01/how-we-are-levelling-up-education-all-over-the-country/.

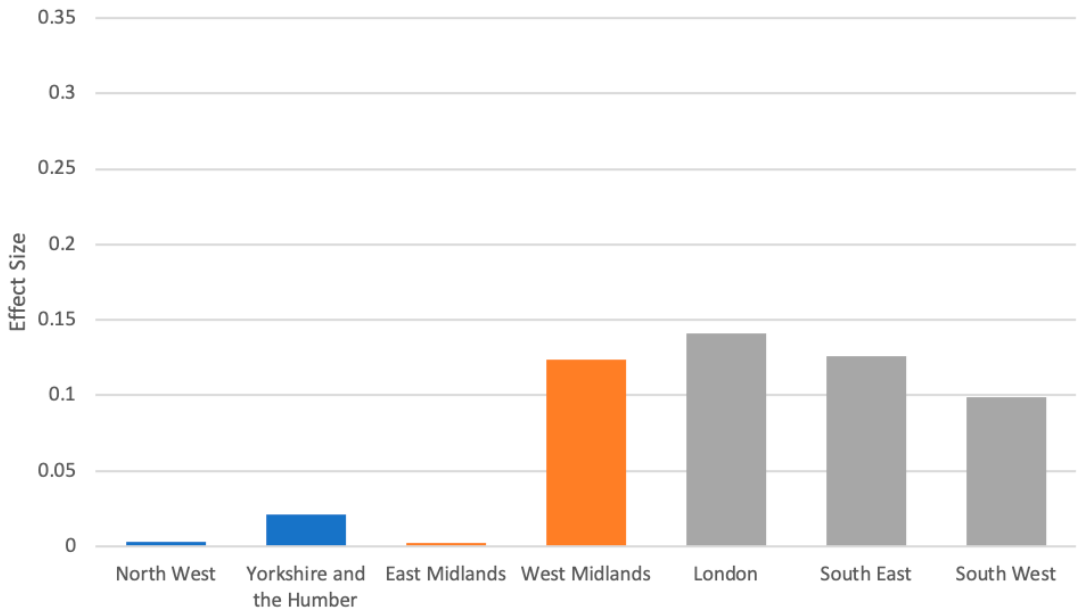
[4] J. Harland, L. Fletcher, C. Morton, P. Lord, & B. Styles, (2022), "*Learning recovery in Yorkshire and the Humber*", National Foundation for Educational Research (NFER), Slough, pp 7.

Figure 12: Effect size by region for Year 1 reading (New PIRA) for spring 2021-2022



(Please note that the North East, West Midlands and East of England have not been included because the sample sizes were too low to be representative of children's performance in those regions.)

Figure 13: Effect size by region for Year 2 reading (New PIRA) for spring 2021-2022



(Please note that the North East and East of England have not been included because the sample sizes were too low to be representative of children's performance in those regions.)

Maths Performance in spring 2022

The change to New PUMA tests means it is not possible to make exact calculations about changes in children's maths attainment from before the pandemic without additional analysis (which will be addressed in a future paper). The analysis presented here therefore focuses on the post-pandemic changes in attainment only.

Over the course of the 2021-2022 school year, pupils showed greater attainment gains in maths than in reading or GPS. This can be seen in Figure 14, which translates the mean Standardised Score changes into effect sizes and months' progress (see page 6 for explanation).

Figure 14: Effect sizes and months' progress for maths (New PUMA) for spring 2021-2022

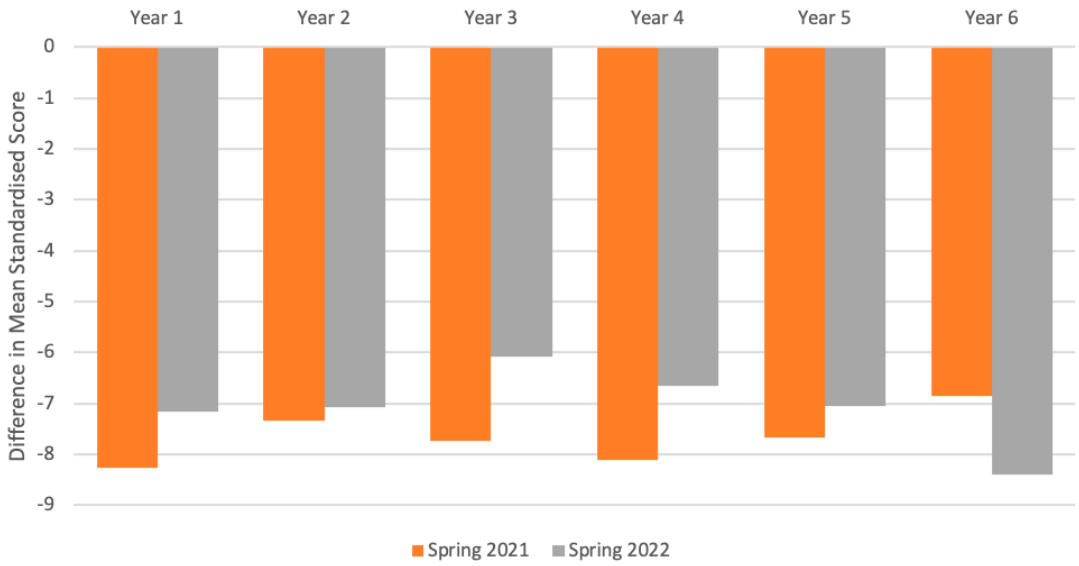
	Spring 2021 – 2022	
Year	**Effect size**	**Months' progress**
Year 1	0.22	3
Year 2	0.16	2
Year 3	0.19	3
Year 4	0.20	3
Year 5	0.19	3
Year 6	0.25	3

All year groups improved in spring 2022 compared to spring 2021. Looking specifically at months' progress in Figure 14, children show on average 3 months improvement compared to the previous cohort in the spring term. However, further analysis of the differences between pupil groups and schools indicates that these changes in mean attainment hide wide variations in performance. We remain cautious about children's attainment in maths, in particular for Key Stage 1 (Years 1 and 2), where the variations are most apparent and where other research[4] shows additional support is still required to keep up with the demands of the curriculum. We will further analyse the change from pre-pandemic attainment in a future paper.

Disadvantage gap in maths remains for all school years

As with other subjects, Figure 15 shows the difference between spring 2021 and spring 2022 for the New PUMA tests. From Figure 15 it can be seen that the disadvantage gap has reduced for all years between spring 2021 (orange bars) and 2022 (grey bars) apart from Year 6. Given these results, it will be especially important to provide support for disadvantaged Year 6 children transitioning to secondary schools.

Figure 15: Difference in mean Standardised Scores between Pupil Premium and non-Pupil Premium pupils for maths (New PUMA) for spring 2021-2022

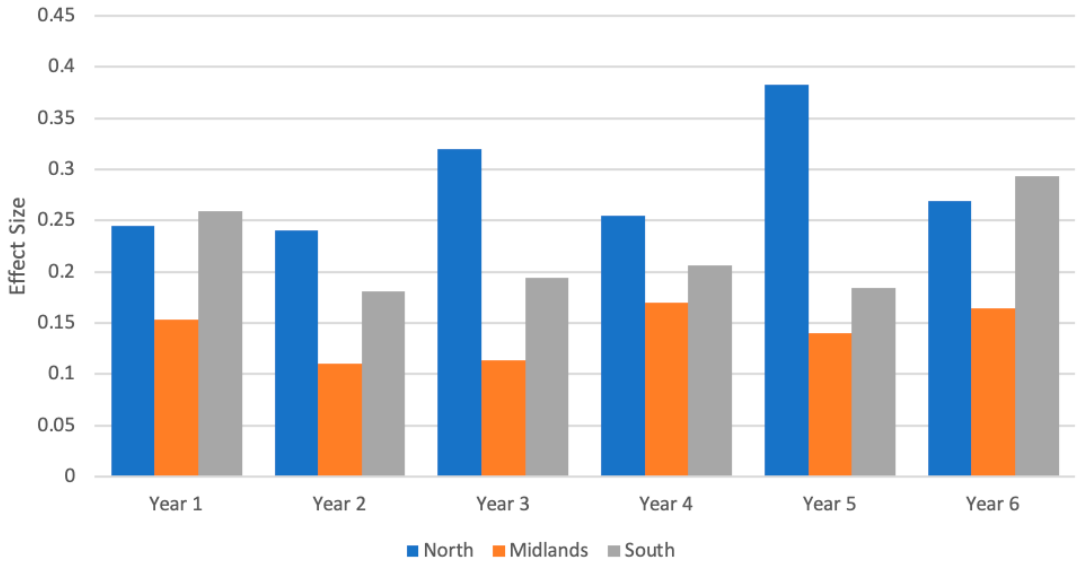


Pupils in the Midlands show smallest attainment gains in maths compared to other regions

Figure 16 breaks down the attainment seen in the spring term by regional group, as explained on page 8 and compares the performance of the current cohort with last year's cohort (spring 2021-spring 2022).

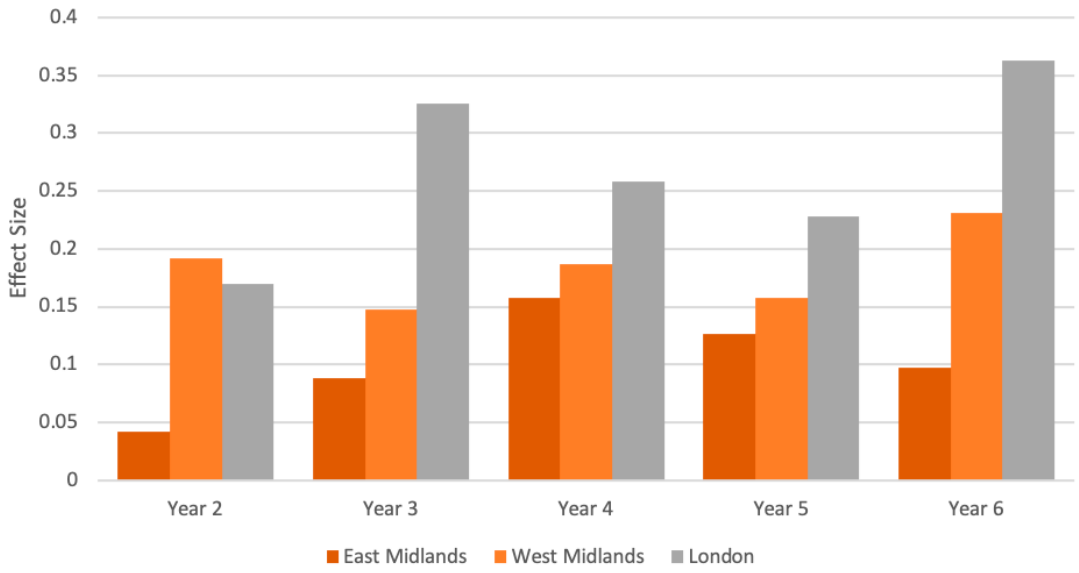
Although all regions in Figure 16 showed gains compared to last year, pupils in the Midlands showed smaller gains than other regions.

Figure 16: Effect size across all school years by region for maths (New PUMA) for spring 2021- 2022



Drilling down into the Midlands further and comparing the performance of these pupils to those in London, Figure 17 shows that the attainment gains of children in both the East (dark orange bars) and West (light orange bars) Midlands for almost all years is lower than for children in London. Figure 17 also shows that children in the East Midlands showed less improvement than those in the West Midlands.

Figure 17: Effect size by for the East and West Midlands and London for maths (New PUMA) for spring 2021- 2022



(Please note that the change in effect size for Year 1 has not been included as the sample size was too small to be representative of the region.)

The size of the difference between the East and West Midlands may be due to the pupil, school and neighbourhood variability that is present in each group[5] , however the fact that there are differences, and that on the whole the positive effect sizes (which show attainment gains) are smaller than in London, would indicate that there are still large gaps between the English regions and the schools within them.

[5] T. Hannay, (28th April 2022), "*Do Education Investment Areas make sense?*", SchoolDash, https://www.schooldash.com/blog-2204.html#20220428.

Summary

We are encouraged to see attainment gains in the spring 2022 term compared to spring 2021. We had hoped that this would be the case, since in spring 2021 children were just coming out of the second national lockdown. Despite this, notable attainment gaps remain compared to pre-pandemic attainment levels in GPS.

Additionally, children in different regions of England showed varying levels of recovery in attainment – children in some regions appear to have caught up on pre-pandemic levels faster than others who are still behind, for example the North West and the East Midlands.

More work is needed to return GPS to pre-pandemic levels as children in all years are still behind pre-pandemic cohorts. By contrast, reading analysis appears to show that Key Stage 2 children are, on the whole, performing at similar levels to those before the pandemic (maths attainment from pre-pandemic to date will be analysed in a future paper). In particular, there was encouraging improvement in attainment in all subjects during the most recent period to spring 2022.

However, regional and age-related disparities remain, indicating that selective approaches may be needed to reduce attainment gaps between different regions and school years. Particular attention needs to be paid to Years 1 and 2, where pupils still appear to be behind compared to pre-pandemic cohorts. Across all subjects, disadvantage gaps still appear to be at higher levels than before the pandemic, necessitating focused effort to ensure no child is left even further behind than usual.

Appendix

About us

RS Assessment from Hodder Education is a leading provider of assessments for Early Years through to KS3 and beyond, its standardised termly tests – GAPS, PIRA, PUMA and NTS Assessments – are trusted by more than 6,000 primary schools to accurately measure and predict pupil progress. SchoolDash is an education data analytics company, providing dashboards, maps, analysis and other statistics about schools in England. RS Assessment and SchoolDash have collaborated to prepare these papers to help understand what impact school disruption may have had on attainment across the country.

About the paper

In considering differences between groups of schools or pupils it is important to bear in mind that the variation within each group is invariably much greater than any differences between groups. As a result, simply knowing (for example) the region in which a pupil attends school, or their Pupil Premium status, provides little indication about his or her likely performance. Nevertheless, these aggregate trends are important in assessing the overall effectiveness and equity of our education system, and we hope that they prove useful in informing priorities and policies.

We have previously analysed aggregate, anonymous data to reveal national attainment trends across schools in England, including variations by pupil age, season of birth and gender, as well as by subject

and even individual topics within each subject. See risingstars-uk.com/whitepaper for these previous analyses. In order to protect the confidentiality of the institutions and individuals concerned, results have been analysed and presented in an anonymised, aggregate form.

All data has been processed in line with MARK terms and conditions, which can be found at **risingstars-uk.com/markterms**.

Coverage and representativeness

This analysis is limited to mainstream state primary schools in England. In order for us to have confidence in our statistical analysis it is vital we have a large and representative enough sample. For this reason, Reception in the spring term has been excluded. For the period spring 2021-2022, the smallest sample size considered during subject level analysis was for Year 1 GPS tests with more than 7,000 pupils, there was an average of 16,000 test results in all other GPS year groups and in all maths and reading year groups. In all cases the 2022 sample was larger. For any other analysis of pupil, regional or school groups the minimum number of test results in any group was 1000.

An analysis of the coverage of types of schools included in both cohorts was broadly similar in that all regions and major school types were included. However, in both years we had an over-representation of schools in the lowest attainment bands. That is to say more schools than average with lower proportions of children achieving the expected standard in reading, maths and writing in KS2 in 2019. However, the similar levels of over-representation in both groups mean that this bias is unlikely to account for year-on-year differences in attainment.

For the period spring 2020-2021, the same data was used as in our earlier white paper, the details on coverage and representativeness can therefore be found in the spring 2021 white paper on: **risingstars-uk.com/whitepaper**.

Data

The data used in this report comes from standardised, termly tests PIRA, PUMA, New PiRA, New PUMA and GAPS. The tests were taken in 2020-2022 and entered into MARK, a free marksheet and reporting service. The termly tests are marked by teachers using a robust mark scheme, and raw scores are converted to Standardised Scores automatically in MARK. We have analysed only results from fully completed tests, with non-zero scores sat by a pupil within the correct age range. Tests sat at the wrong time of year have been omitted. For academics and researchers, additional data, including all analysis for the autumn term, and topic analysis for both autumn and spring terms can be accessed online via direct requests to Kristina.Milanovic@rsassessment.com.

New PUMA and New PIRA tests

The ‘old’ PUMA tests for maths and PIRA tests for reading used in prior white papers were updated and revised to adapt to changes in teaching that had occurred since their initial standardisation and publication.

The spring papers for the New PUMA and PIRA tests were standardised on a nationally representative sample in spring 2020 prior to the first national lockdown and were used in schools in spring 2021. Before this time, only ‘old’ PUMA and PIRA were available for analysis of pupils’ attainment. From autumn 2022 only New PUMA and PIRA will be available for testing in schools.

Differences in the maths tests, between the 'old' PUMA and New PUMA, include additional questions and changes in the order of the topics that are tested throughout the year, meaning many questions moved between terms. For this reason, further analysis is needed before drawing conclusions about children's attainment in maths from pre-pandemic to now across the two different test suites.

By contrast, for reading there were far more 'old' PIRA questions in the same termly New PIRA tests (approximately 80% of questions were unchanged), along with some new questions added. Since the content is not the same each term, this means that it is not advisable to **directly compare** results of children across the 'old' and new versions of PIRA, but we can compare trends.

During the transition period where data is available for both the 'old' PIRA tests and New PIRA tests, we have compared pupils' performance and the sample representativeness across all primary school years between the two versions of the tests for the period spring 2020 to spring 2022. Representativeness was checked against national levels of in school deprivation (pupil premium percentage), Key Stage 2 attainment (from the last publicly available data in 2019) and regional spread. The trends that can be seen in the 'old' PIRA tests were also seen in the New PIRA tests, giving us reassurance in the comparability of the trends seen in both old and new tests. For reference, the net effect sizes for the 'old' PIRA tests are shown in Figure 18 from pre-pandemic 2020 to this spring. Please note Year 6 has not been included as the sample size was too small to be representative.

Figure 18: Effect sizes and months' progress for reading (PIRA) for spring 2020-2022

	Spring 2020-2022	
Year	**Effect size**	**Months' progress**
Year 1	-0.16	-2
Year 2	-0.10	-2
Year 3	0.00	0
Year 4	-0.01	0
Year 5	0.07	1

In this paper therefore, the data shown for reading is split into analysis of attainment going into the pandemic (spring 2020-spring 2021) from our previous white paper based on 'old' PIRA data and analysis of attainment coming out of the pandemic (spring 2021-spring 2022) based on New PIRA data. While it is not possible to aggregate this data, analysis of both versions of the paper were conducted on large nationally representative sample sizes and the overarching trends can be considered together.

Previous papers can be found on: **risingstars-uk.com/whitepaper**.

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