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Student Test Scores Drop in Math Since Covid-19 Pandemic

Reading skills are modestly behind in some grades in an analysis of widely used tests for elementary and middle school students



In reading, children in grades one and three were roughly at pre-pandemic levels, while those in grade two were slightly ahead.

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By [Leslie Brody](#) and [Yoree Koh](#)

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American children started school this fall significantly behind expectations in math, and modestly behind in some grades in reading, according to one of the first reports on widely used tests since [the coronavirus pandemic](#) shut schools in March.

It would take students in grades five and six at least 12 weeks on average to catch up to where they were expected to be in the fall in math, compared with pre-pandemic skills, the report found. Children in grades two and three would need four to seven weeks to catch up in math, while those in grades four, seven and eight would need eight to 11 weeks.

The report was released by Renaissance Learning Inc., an online testing program used by thousands of U.S. schools to assess students several times yearly and track their progress.

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Timelines for catching up were calculated based on progress that would be made under normal school circumstances, rather than remote learning, researchers said.

The analysis included more than two million students tested in math and three million in reading in 50 states and the District of Columbia. Schools involved are in suburban, urban and rural areas, serving various income levels, and at least 85% are public.

Previous studies have relied largely on projections. Teachers and parents have worried that academics would suffer as many children went at least five months [without in-person instruction](#). Some researchers have warned continued remote learning will likely increase learning losses, and catching up students will further strain cash-strapped schools struggling to teach safely. Many districts remain remote-only, and more [have gone virtual in recent days](#) as [the coronavirus surges](#).



Gene Kerns is chief academic officer at Renaissance Learning Inc., an online testing program used by thousands of U.S. schools to assess students several times a year.

PHOTO: GENE KERNS

For many students, the amount of learning lost in math equals roughly the amount of time schools were shut in spring, so that period became like a “giant pause button,” said Gene Kerns, chief academic officer at Renaissance Learning. “If we have less than typical growth this year, and these gaps become further exacerbated, then we are facing a very dire academic situation.”

In reading, children in grades one and three were roughly at pre-pandemic levels, while those in grade two were slightly ahead, the analysis said. It cautioned, however, that some young students took the tests at home and might have had help from parents. It estimated students in grades four through seven would typically need four to seven weeks to catch up to pre-pandemic expectations for the beginning of the year.

Educators had predicted the pandemic's effect on math skills would be more severe than on reading. Many parents aren't comfortable helping their children with math skills, which build on each other, so children learning remotely can get stuck if they don't understand a key unit, Mr. Kerns said.



Bree Valla, deputy superintendent at Lompoc Unified School District in California, said the analysis mirrors what is happening at her 10,000-student district, which is still remote-only.

PHOTO: KELLY WEST

“The results actually were a little bit better than we had expected considering the disruptions the students were having in their learning,” specifically in reading, she said. The district's literacy specialists will boost training for teachers on the fundamentals of reading.

John Ewing, president of Math for America, a nonprofit that helps math and science teachers advance, said Americans focus too much on test scores. He said most students are resilient and bounce back after having the wrong teacher or a long absence due to illness, so the real priority should be helping disadvantaged children who lack technology and support to join online classes.

“I worry a lot about the kids that don't have the tools they need to thrive or even survive,” he said. “We ought to be laser-focused on those kids.”

Although the drop in reading performance was less dramatic than math, it should be of greater concern, said Elizabeth City, a senior lecturer at Harvard University's Graduate School of Education.

“Reading is what sets kids up to learn for the rest of school,” Ms. City said. “If they're not on track as strong readers by fourth grade it impacts what happens for their high school learning and for their outcomes beyond that.”

U.S. students have long had lackluster performance in math on international rankings. On an American test known as the Nation's Report Card, only 34% of eighth-graders were proficient in math last year, meaning they showed competence in challenging subject matter, and 34% were proficient in reading.



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PHOTO: JOHN MOORE/GETTY IMAGES

Potential remedial steps such as tutoring, smaller classes and longer school years are expensive, said Morgan Polikoff, associate professor of education at University of Southern California. “We need a lot of leadership at the state and national levels,” he said. “We can't leave this up to 13,000 individual districts and elected school boards to figure out the way forward because they just don't have the capacity.”

Renaissance Learning's analysis involved multiple-choice tests that typically last 20 minutes and are given in fall, winter and spring. The analysis looked at results from more than 7,800 schools for reading and about 4,400 schools for math. Tests were given in August through mid-October.

The analysis was limited to students who tested in fall of both 2019 and 2020. The number of tests taken this fall was lower than in prior years, possibly due to declining enrollments. The report's authors said it is possible that compared with typical years, the pool of testers might have better technology and be more affluent.

The analysis found evidence that Black and Hispanic students had slightly more learning loss than the average overall, but there wasn't a significant change in already wide achievement gaps. Students in schools serving mostly low-income families also fell behind more than the overall average in math and reading.

Students in Catholic and other private schools had smaller declines than average in math performance. In reading, those students performed higher than would be expected given their achievement last year.

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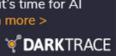
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