**NEWS RELEASE**

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# **9-Year-Olds’ Reading and Mathematics Scores Drop Since Start of Pandemic**

*First ever drop in mathematics, largest drop in reading in 30 years*

WASHINGTON (September 1, 2022)—The reading and mathematics scores of 9-year-old students fell between 2020 and 2022, according to results from the National Assessment of Educational Progress (NAEP) long-term trend (LTT) assessment released today by the National Center for Education Statistics (NCES).

“These are some of the largest declines we have observed in a single assessment cycle in 50 years of the NAEP program,” said Acting NCES Associate Commissioner Daniel McGrath. “Students in 2022 are performing at a level last seen two decades ago.”

The new results represent the first report with a nationally representative sample of students comparing achievement from before the pandemic to now. NCES conducted a special data collection of the long-term trend assessments in early 2022 to measure changes in 9-year-olds’ achievement over the first two years of the disruptions to learning caused by the COVID-19 pandemic. The prior LTT reading and mathematics assessments were administered in 2020, shortly before the World Health Organization declared COVID-19 a worldwide pandemic. NCES is releasing these data on an accelerated schedule, just months after the data collection concluded.

Overall, the average mathematics score declined seven points since 2020. The mathematics scores for lower-performing 9-year-old students (students at the 10th and 25th percentiles) declined 12 points and 11 points, respectively, over that period. Mathematics scores also declined for students at the 50th (eight points), 75th (five points), and 90th (three points) percentiles.

The average reading score for 9-year-olds declined five points between 2020 and 2022. The reading scores for lower-performing 9-year-old students (students at the 10th and 25th percentiles) declined 10 points and 8 points, respectively, over that period. Reading scores also declined for students at the 50th (four points), 75th (three points), and 90th (two points) percentiles.

“During the pandemic, NCES continued and enhanced other data collections on education challenges, and they paint a sobering picture,” said NCES Commissioner Peggy G. Carr. “School shootings, violence, and classroom disruptions are up, as are teacher and staff vacancies, absenteeism, cyberbullying, and students’ use of mental health services. This information provides some important context for the results we're seeing from the long-term trend assessment.”

The 2022 LTT results for 9-year-olds are the only nationally representative data available to measure student achievement pre-pandemic to early 2022, when students returned to in-person learning on a more consistent basis. There will be a deeper and more comprehensive look at student achievement with the release of main NAEP results later this year. Then, NCES will report on mathematics and reading student achievement at grades 4 and 8 for the nation, states, and for 26 urban school districts.

**Student group performance and score gap changes since 2020**

Scores declined for White, Black, and Hispanic 9-year-olds in both mathematics and reading between 2020 and 2022.

Mathematics scores declined five points for White students, 13 points for Black students, and eight points for Hispanic students. The larger decline for Black students compared to White students increased the score gap by eight points. White, Black, and Hispanic students also showed declines in the 10th, 25th, 50th, and 75th percentiles. Black students also showed declines at the 90th percentile in mathematics while Asian students showed a decline at the 10th percentile.

Reading scores declined six points for White, Black, and Hispanic students. In reading, both Black and White lower-performing students declined, while higher-performing students across all racial and ethnic groups showed no change in scores.

The changes in mathematics and reading scores for Asian/Pacific Islander students, American Indian/Alaska Native students, or students who were two or more races were not statistically significant, compared to 2020.

Geographically, mathematics scores declined for students in every region of the country, compared to 2020. Scores fell eight points in the Northeast, nine points in the Midwest, seven points in the South, and five points in the West. Mathematics scores declined nine points for schools located in suburbs, seven points for schools located in towns and cities, and five points for rural schools.

In reading, scores fell seven points in the Northeast, seven points in the Midwest, and six points in the South; the average score was not measurably different in the West when compared to 2020. Reading scores declined eight points for schools located in suburbs and nine points for schools located in towns; scores were not measurably different for city and rural schools. During this time, the score gap between city and suburban schools grew smaller by eight points.

**Learning Opportunities During the Pandemic**

As part of the special data collection, NCES collected information on how the pandemic affected student learning experiences and opportunities.

* Seventy percent of students recalled learning remotely at some point during the 2020-2021 school year.
	+ More students in suburban schools (73 percent) reported learning remotely compared to students in town (60 percent) and rural schools (66 percent).
	+ Sixty-seven percent of students eligible for the National School Lunch Program recalled learning remotely, which was lower than the percentage of students not eligible for NSLP (75 percent).
* Eighty-two percent of Asian students recalled learning remotely at some point during the 2020-2021 school year. This was higher than the percentage of Black students (72 percent), Hispanic students (67 percent), White students (69 percent), and the percentage of students who are two or more races (72 percent).
* Of those learning remotely:
	+ 83 percent of higher-performing students in both reading and mathematics (students performing at or above the 75th percentile) had access to a desktop computer, laptop, or tablet all the time, compared to 61 percent of lower-performing students (those performing below the 25th percentile);
	+ 60 percent of higher-performing students in mathematics said their teacher was available to help with schoolwork at least 1-2 times per week, compared to 39 percent of lower-performing students.

**Results by Subject**

*Reading*

* The average reading score (215) for 9-year-old students was five points lower in 2022 than in 2020, but seven points higher than the average score in 1971.
* Reading scores declined for students at all five selected performance percentiles, compared to 2020.
* Reading scores also declined for several student reporting groups broken down by race/ethnicity compared to 2020:
	+ Scores for White, Black, and Hispanic students all declined six points;
	+ Scores for Asian students, American Indian/Alaska Native students, and students of two or more races were not measurably different.
* Both male and female 9-year-old students scored lower in reading compared to 2020, but scored higher compared to 1971. Reading scores declined by five points for both males and females since 2020.
* Reading scores fell five points for students attending public schools compared to 2020.
* Reading scores fell seven points in the Northeast, seven points in the Midwest, and six points in the South since 2020; scores were not measurably different in the West.
* Reading scores declined eight points for schools located in suburbs and nine points for schools located in towns; scores were not measurably different for city and rural schools.
* Reading scores for all major student groups with reportable results have improved since 1971.

*Mathematics*

* The average mathematics score (234) for 9-year-old students was seven points lower in 2022 than in 2020, but 15 points higher than the average score in 1978.
* Mathematics scores declined for students at all five selected performance percentiles, compared to 2020.
* Mathematics scores also declined for several student reporting groups broken down by race/ethnicity compared to 2020:
	+ Scores for White students declined five points;
	+ Scores for Black students declined 13 points; and
	+ Scores for Hispanic students declined eight points.
	+ Scores for Asian students, American Indian/Alaska Native students, and students of two or more races were not measurably different.
* Both male and female 9-year-old students scored lower in mathematics compared to 2020 but scored higher compared to 1978. Mathematics scores declined eight points for females and seven points for males since 2020.
* Mathematics scores declined eight points for students attending public schools compared to 2020.
* Mathematics scores declined for students in every region of the country. Scores fell eight points in the Northeast, nine points in the Midwest, seven points in the South, and five points in the West since 2020.
* Mathematics scores declined nine points for schools located in suburbs, seven points for schools located in towns and cities, and five points for rural schools.
* Mathematics scores for all major student groups with reportable results have improved since 1978.

**How Results Are Reported**

Student performance on the LTT assessments is reported in several ways: scale scores, percentile scores, performance levels, student group scores, and score gaps.

Scale scores represent the average performance of students on a scale of 0 to 500. Scores are reported at the national level and for groups of students based on race/ethnicity, gender, and other demographic characteristics.

[Performance levels](https://nces.ed.gov/nationsreportcard/ltt/performance-levels.aspx) provide another perspective for interpreting LTT results. Changes in the percentages at or above each performance level reflect changes in the proportion of students who demonstrated the knowledge and skills associated with that level in responding to assessment questions. The performance-level descriptions used on the NAEP LTT assessment are different from the [achievement-level](https://nces.ed.gov/nationsreportcard/glossary.aspx#achieve) descriptions in the main NAEP reports.

**About the Assessment**

Since the 1970s, the National Assessment of Educational Progress (NAEP) has monitored student performance in reading and mathematics through the long-term trend (LTT) assessments. These assessments measure students' educational progress over long time periods to look for and monitor trends in performance. The LTT assessment is age-based, rather than grade-based, and assesses 9-year-old, 13-year-old, and 17-year-old students.

The LTT measures basic reading and mathematics skills to gauge how the performance of U.S. students has changed over time. At age 9, reading was first assessed in 1971 and mathematics in 1973. The LTT reading assessment asks students to read short texts and answer mostly multiple-choice questions, though there are a few questions requiring short or extended answers. For mathematics, students are given three 15-minute sections of mostly multiple-choice questions related to basic math facts, computations, formulas, and real-life applications.

The 2022 long-term trend assessments were administered between January and March of 2022. The National Assessment Governing Board amended the long-term trend assessment schedule so NCES could collect, analyze and report on 9-year-old students during the 2021-22 school year, in a special data collection, to begin assessing student achievement since the COVID-19 pandemic began.

Visit <https://www.nationsreportcard.gov/> to view the report.