NAEP Assessment Shows Long-Term Improvement in Reading and Math, But Short-Term Declines for 13-Year-Olds

WASHINGTON – Average reading and mathematics scores for the nation’s 9- and 13-year-olds have remained flat or declined since 2012, according to results released today from the 2020 National Assessment of Educational Progress (NAEP) Long-Term Trend (LTT) assessment.

Since its debut in the 1970s, the LTT assessment has measured student performance in reading and mathematics, serving as the nation’s only continuous source of data on student achievement through a half-century. The assessment differs from the main NAEP assessments by focusing on fundamental mathematics and reading skills and reporting national-only results by age, not by grade level.

Compared to the first LTT assessments in the 1970s, average scores have improved significantly in both reading and mathematics at ages 9 and 13, with the greatest gains among Black and Hispanic students.

However, since the last administration of the LTT assessment in 2012, scores for 13-year-old students declined in both reading (by 3 points) and mathematics (by 5 points) while scores for 9-year-olds did not change significantly. These declines in reading and mathematics are the first for that age group in the history of the LTT assessment.

“These data show that student progress declined or was stalled even before the COVID-19 pandemic,” said former North Carolina Gov. Beverly Perdue, chair of the National Assessment Governing Board, which sets policy for NAEP. “Clearly, these results raise the alarm at all levels that education policy to change these results must be a top priority.”

The LTT assessment was administered during the 2019-20 school year, just prior to pandemic-related disruptions to schooling. Typically, this assessment includes data for 17-year-olds, however, public health restrictions due to COVID-19 prevented the administration of the assessment to that age cohort.

Scores Decline Among Lower-Performing Students

The latest LTT assessment results show score gaps have widened since the last administration in 2012 between higher- and lower-performing students in most age groups and subjects, with the changes driven by declines among lower-performing students. A similar trend has emerged across main NAEP subject areas and grade levels in recent years, including in mathematics and reading at grades 4 and 8.

Reading scores among the lowest-performing students (10th percentile) declined at ages 9 and 13 compared to 2012. In mathematics, scores declined among 9-year-old students at the 10th and 25th percentiles and among 13-year-olds students at the 10th, 25th, and 50th percentiles. There were no significant changes among higher-performing students (75th and 90th percentiles) in either age group or subject since 2012.
Insights into Students’ Reading Habits

The LTT assessment also collected information about students’ learning experiences in and out of the classroom. Compared to 1984 and 2012, higher percentages of students at both age groups reported never or hardly ever reading for fun. Among 9-year-olds, about 10 percent of students in 1984 and 2012 never or hardly ever read for fun, compared to 16 percent in 2020. For 13-year-olds who rarely read, the comparison is starker: 8 percent in 1984, but 22 percent in 2012, and 29 percent in 2020. And among higher-performing 13-year-olds, 55 percent report reading for fun at least once or twice a week, compared to just 31 percent of lower-performing students.

In mathematics, a higher percentage of 13-year-olds take algebra compared to 1986, but this is lower than in 2012. About 16 percent of students in 1986 took algebra; about a third did in 2012, and just a quarter in 2020. Higher-performing 13-year-old students are more likely to report current enrollment in algebra (46 percent) compared to lower-performing students (12 percent).

Governing Board Approves 2021-22 Assessment for 9-Year-Olds

The Governing Board responded to the COVID-19 crisis by changing the LTT assessment schedule. Rather than administer the postponed 17-year-old LTT assessment in spring 2022, the Board voted to administer the 9-year-old LTT assessment again in the 2021-22 school year.

Assessing 9-year-olds immediately prior to school closures in 2020 and once again when most schools will be open full time will allow NAEP to illuminate how learning compares before and after the pandemic.

“We are still missing critical data about the effects of the pandemic on learning,” said Governing Board member Eric A. Hanushek, who is the Paul and Jean Hanna Senior Fellow at the Hoover Institution of Stanford University. “The Board shifted the schedule of the 2022 long term NAEP to address this dire lack of information. With the 2022 data, we’ll be able to compare performance of 9-year-olds from just before school closures to two years later.”

Background on NAEP Long-Term Trend Assessment

Since its inception, the LTT assessment has undergone just one significant round of changes, in 2004, while maintaining comparability over time. Nationally representative age-based cohorts of students participate in this assessment, which is administered through pencil and paper, as it has since the first administration.

For full results from the 2020 NAEP Long-Term Trend assessment, visit https://www.nationsreportcard.gov/ltt/.

The National Assessment Governing Board is an independent, nonpartisan board whose members include governors, state legislators, local and state school officials, educators, business representatives, and members of the general public. Congress created the 26-member Governing Board in 1988 to set policy for the National Assessment of Educational Progress. For more information, visit www.nagb.gov.