



## The Nation's Report Card Grade 12: Reading and Mathematics 2009

### About the 12th-Grade NAEP

The National Assessment of Educational Progress (NAEP) is the only nationally representative measure of what American students know and can do at grades 4, 8, and 12. The 2009 12th-grade NAEP tested representative samples of high school seniors from 1,670 schools nationwide. About 52,000 students were assessed in reading, and 49,000 were assessed in mathematics. The assessment, commonly known as The Nation's Report Card, is administered and analyzed by the National Center for Education Statistics. Policy for the assessment is set by the National Assessment Governing Board, an independent, bipartisan body of governors, state legislators, local and state school officials, educators, business representatives, and members of the general public.

NAEP reading results for grade 12 are reported as average scores on a 0 to 500 scale, and mathematics scores are reported on a 0 to 300 scale. Results are also reported as percentages of students performing at or above three levels: *Basic*, *Proficient*, and *Advanced*. The reading results are compared to results from five previous assessments beginning in 1992; the mathematics results are compared only to results from 2005, when a new framework was created, starting a new trend line.

In addition to the scores of a nationally representative sample of students in 47 participating states, for the first time in NAEP's history the 2009 assessment includes state-specific grade 12 scores. In 2009, 11 states took the opportunity to have their scores reported separately at grade 12: Arkansas, Connecticut, Florida, Idaho, Illinois, Iowa, Massachusetts, New Hampshire, New Jersey, South Dakota, and West Virginia. All states that volunteered for this pilot were allowed to participate; they were not selected based on geography or size.

### Scores Overall

Overall scores for 12th graders in both reading and mathematics are higher than the 2005 scores, but reading scores have decreased compared to 1992. Also, significant achievement gaps among racial/ethnic groups persisted in both subjects.

Higher scores were associated with higher educational aspirations of the students, higher education levels of their parents, higher frequency of writing long answers to questions involving reading, and taking more advanced courses in mathematics.

## Reading Results

Reading results were based on students' responses to questions designed to measure comprehension across both literary and informational texts. The reading framework for 2009 includes more emphasis on complex reading skills, a wider variety of texts, and a new systematic assessment of vocabulary knowledge.

- The average reading score for 12th graders in the nation overall was 2 points higher than in 2005, but 4 points lower than in 1992.
- Thirty-eight percent of students performed at or above the *Proficient* level in reading in 2009—an increase of 3 percentage points from 2005 but not significantly different from assessment years prior to 2005.
- The percentage of students performing at or above the *Basic* level was not significantly different from the percentage in 2005, but it was lower than in 1992.
- There was no change in the percentage of students scoring at the *Advanced* level since 2005, although it was 1 percentage point higher than in 1992.
- White students and Asian/Pacific Islander students made gains since 2005, but no racial/ethnic or gender group showed gains in reading compared to 1992.
- Gaps among racial/ethnic groups and between genders did not change significantly in the 2009 reading assessment since 1992.
- Compared to 1992, there were no significant changes in the reading scores of any of the racial/ethnic groups with samples large enough to report results.

## Mathematics Results

The results of the mathematics assessment were based on students' responses to questions designed to measure their knowledge and abilities across four content areas: number properties and operations; measurement and geometry; data analysis, statistics, and probability; and algebra.

- The average mathematics score for 12th graders overall was 3 points higher than in 2005.

- About one-quarter of students performed at or above the *Proficient* level, and two-thirds performed at or above the *Basic* level.
- Students who took more advanced mathematics courses scored higher on average than students who took lower-level courses, with those taking calculus scoring highest.
- All racial/ethnic groups made gains in mathematics from 2005.
- The average score for Asian/Pacific Islander students was up 13 points from 2005—14 points higher than the average score for White students—and the average score for American Indian/Alaska Native students was up 10 points over the same period.

## State Results

Reading scores in seven states were higher than the national average. Those states are Connecticut, Idaho, Illinois, Iowa, Massachusetts, New Hampshire, and South Dakota. Scores for three states—Arkansas, Florida, and West Virginia—were lower than those for the nation overall. Black students in West Virginia scored higher than Black students in any other state. Among the 11 states participating in the pilot, the percentage of students performing at or above the *Proficient* level ranged from 29 percent in Arkansas and West Virginia to 46 percent in Massachusetts.

In mathematics, students scored higher than the national average in six states: Connecticut, Iowa, Massachusetts, New Hampshire, New Jersey, and South Dakota. Scores for three states—Arkansas, Florida, and West Virginia—were lower than the national average. Among the 11 states participating in the pilot, the percentage of students performing at or above *Proficient* ranged from 13 percent in West Virginia to 36 percent in Massachusetts.

The full *Nation's Report Card: Grade 12 Reading and Mathematics 2009* is available at <http://nationsreportcard.gov>.

*The National Assessment Governing Board is an independent, bipartisan 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 NAEP.*

