



NEWS RELEASE

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The Nation's Report Card Shows Less Than Half of U.S. Students Are Proficient in Science *Assessment Based on New, More Challenging Science Framework*

(WASHINGTON, DC) – According to results from the 2009 National Assessment of Educational Progress (NAEP)—also known as The Nation's Report Card—34 percent of the nation's fourth-graders, 30 percent of eighth-graders, and 21 percent of twelfth-graders are performing at or above the *Proficient* level in science, meaning that less than one-half of students are demonstrating solid academic performance and competency over challenging subject matter.

Partial mastery of the prerequisite knowledge and skills that are fundamental for proficient work was demonstrated by 72 percent of students performing at or above the *Basic* level at grade 4, 63 percent at grade 8, and 60 percent at grade 12.

"These results shed light on the critical need to ensure that all students have a strong foundation in science," said David Driscoll, chairman of the National Assessment Governing Board, which oversees policy for NAEP. "Science helps students further their understanding of our world, enabling them to connect ideas across disciplines and making them better problem solvers."

The assessment, administered by the National Center for Education Statistics (NCES), was given to 156,500 fourth-graders, 151,100 eighth-graders, and 11,100 twelfth-graders. Assessment questions measured students' knowledge and abilities in the areas of physical science, life science, and Earth and space sciences.

National-level results are reported for public and private school students at all three grades, and state-level data are available for public school students in 46 states and Department of Defense (DOD) schools at grades 4 and 8. The results are reported as average scores on a scale of 0 to 300, and as percentages of students performing at or above three achievement levels: *Basic*, *Proficient*, and *Advanced*.

The science framework, which describes the knowledge and skills that should be assessed, was recently updated to incorporate new advances in science, research on science learning, and components from international science assessments. Because of the changes to the assessment, the results from 2009 cannot be compared to those from previous assessment years; however, they provide a current snapshot of what the nation's fourth-, eighth-, and twelfth-graders know and can do in science that will serve as the basis for comparison with future science assessments. The 2009 science results also highlight differences in students' performance based on demographic characteristics (e.g., race/ethnicity, gender, family income, and school location) and how results in participating states/jurisdictions compare to the national results.

Score gaps among racial/ethnic groups were evident at all three grades in 2009. The gap in average scores for White and Black students was 36 points at grades 4 and 8, and 34 points at

grade 12. White students scored 32 points higher on average than Hispanic students at grade 4, 30 points higher at grade 8, and 25 points higher at grade 12.

Scores also differed by gender and school location. Male students scored higher on average than female students in 2009 at all three grades. At grades 4 and 8, students attending schools in city locations scored lower on average than students in schools in suburban, town, or rural locations. At grade 12, the average score for students in city schools was lower than the score for students attending suburban schools but not significantly different from the scores for students in other locations.

Thirty-four percent of twelfth-graders reported that they either completed or were currently taking courses in biology, chemistry, and physics. These students scored higher on average than those who reported taking just biology and chemistry, or taking only biology or other science courses. Fifty-eight percent of Asian/Pacific Islanders reported taking biology, chemistry, and physics, which was higher than the percentages of other racial/ethnic groups taking all three courses.

Of the 47 states/jurisdictions that participated at the state level, average scores for fourth-grade public school students in 23 states and DOD schools were higher than the national average, and scores in 10 states were lower. At eighth grade, average scores for students in 24 states and DOD schools were higher than the average score for the nation, and scores for 15 states were lower.

Results also pointed to some differences between how states performed overall and how students within certain demographic groups within those states performed. For example, some states that scored lower than the nation overall had racial/ethnic groups that scored higher than their peers nationwide.

The *Nation's Report Card: Science 2009 Grades 4, 8, and 12* is available at www.nationsreportcard.gov. More materials are at www.nagb.org/science2009/. Science results for the NAEP Trial Urban District Assessment—highlighting fourth- and eighth-grade performance in 17 districts—will be available in February 2011.

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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 oversee and set policy for NAEP.

The National Assessment of Educational Progress (NAEP) is the only nationally representative, continuing evaluation of the condition of education in the United States. It has served as a national yardstick of student achievement since 1969. Through The Nation's Report Card, NAEP informs the public about what America's students know and can do in various subject areas, and compares achievement between states, large urban districts, and various student demographic groups.