In Geography, Proficiency Overall Remains Low: Lowest Performers Show Greatest Improvement; Grade 8 Remains Flat; Grade 4 Increases, While Grade 12 Declines Since 1994

(Washington, D.C.) – Fewer than one-third of the nation’s students achieve at or above the Proficient level in geography, according to the latest results from the National Assessment of Educational Progress (NAEP.) Although fourth graders made gains in achievement since 2001, The Nation’s Report Card: Geography 2010 shows that performance by eighth graders remained flat, and achievement by twelfth graders declined from 1994.

In fact, on the seemingly easy question shown here, only 33 percent of all eighth-grade students who took the assessment correctly answered “b.”

The geography report card, released on the heels of report cards in civics and U.S. history, adds to a picture of stagnating or declining overall achievement among U.S. students in the social sciences.

“In particular, the pattern of disappointing results for our twelfth graders’ performance across all three social science subjects should be of great concern to everyone,” said David P. Driscoll, chairman of the National Assessment Governing Board, which sets policy for NAEP.

Although there were few increases overall, improvements were made in the percentage of students in the lowest-performing group. Scores for students at the 10th percentile were higher than in 1994 for all grades. Among fourth graders, who posted the largest gains, the score at the 10th percentile increased by 23 points since 1994. In another positive trend, some gaps in achievement narrowed between racial/ethnic groups.

“We are encouraged by the gains being made by our nation’s fourth graders and in the scores of the lowest performers, however, we are concerned that our students are not doing better in geography,” Driscoll said. “Geography is not just about maps. It is a rich and varied discipline that, now more than ever, is vital to understanding the connections between our global economy, environment, and diverse cultures.”

In one timely question, for instance, eighth-grade students were asked to look at a map of tectonic plates near Japan and explain the process that causes earthquakes there. Only 48 percent of students provided a complete and accurate response: earthquakes are caused by the collision of these plates. The responses of 33 percent of eighth graders indicated they had no understanding of the relationship between tectonic plates and earthquakes. To view more 2010 geography assessment questions, visit the NAEP Questions Tool.

The geography framework includes both content and cognitive skills dimensions. The content dimension includes questions about space and place, which measure students’ knowledge of particular places on Earth, spatial patterns on the Earth’s surface and processes that shape spatial patterns; environment and society, which measure students’ knowledge of how people change and are changed by the natural environment; and spatial dynamics and connections, which measures students’ understanding of geography as it relates to spatial variations and the connections among people and places.

Do you know eighth-grade geography?

Which of the following is an accurate statement about the American Southwest?

a. Alternating areas of dense shrubbery and sand dunes often make travel difficult.
b. Arid conditions make access to water an important public issue.
c. Generally fair weather means that most people rely on solar energy in their homes and businesses.
d. Easy access to Mexico has led to a strong manufacturing sector.

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The cognitive dimension includes knowing, understanding, and applying geography content, that is, the importance of learning so students can apply geography to real-world problems. “Knowing” questions ask: Where is it? What is it? “Understanding” questions ask: Why is it there? How did it get there? What is its significance? “Applying” questions ask: How can knowledge and understanding be used to solve geographic problems?

NAEP is administered by the National Center for Education Statistics of the U.S. Department of Education. NAEP Geography assessment was given to a nationally representative sample of 7,000 fourth graders, 9,500 eighth graders and 10,000 twelfth graders. The NAEP results are reported as average scores on a 0 to 500 scale and as percentages of students scoring at or above three achievement levels: Basic, denoting partial mastery of the knowledge and skills fundamental for proficient work; Proficient, representing solid academic performance and competency over challenging subject matter; and Advanced, representing superior performance. The scores can be compared to those from 1994 and 2001 to show how students’ knowledge and skills have progressed.

At grade 4, students who scored at or above the Basic level (79 percent) were likely to be able to recognize the purpose of a building structure shown in a photograph; students scoring at or above the Proficient level (21 percent) were likely to be able to recognize what prevents soil erosion; and students scoring at Advanced (2 percent) were likely to be able to use a map to understand city development.

At grade 8, students who scored at or above the Basic level (74 percent) were likely to be able to identify which of four maps shows the most area; students at or above Proficient (27 percent) were likely to be able to explain the effect of a monsoon in India; and students at Advanced (3 percent) were likely to be able to describe the impact of a highway on a landscape.

At grade 12, students who scored at or above the Basic level (70 percent) were likely to be able to graph elevation on a contour map; students at or above Proficient (20 percent) were likely to be able to explain why Mali is considered overpopulated; and students at Advanced (1 percent) were likely to be able to describe wetland functions.

Further highlights of the geography report card:

- **Male students scored higher than female students at all three grades.** Males scored four points higher at grades 4 and 8, and five points higher at grade 12.
- **Fourth graders’ performance continues to improve.** Fourth graders scored five points higher than in 2001 and seven points higher than in 1994.
- **No significant change in eighth graders’ performance, but gains among lowest performers.** Average scores of eighth graders were not significantly different from 2001, but the score for the lowest-performing students at the 10th percentile increased.
- **Black students’ scores increased at grades 4 and 8, and achievement gaps narrowed.** At grades 4 and 8, average scores for black students were higher than in 1994 and 2001. Black students made larger gains since 1994 than white students at grades 4 and 8, narrowing the gap by 20 points at grade 4 and nine points at grade 8.
- **Hispanic students’ scores increased at grades 4 and 8, and the grade 4 gap narrowed.** Scores for Hispanic students were higher than in previous years for grades 4 and 8, but only in the fourth grade did the gap between Hispanic and white students’ scores narrow.


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*The National Assessment of Educational Progress 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 American students know and can do in various subject areas and compares achievement between states, large urban districts and various student demographic groups.*

*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.*