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News Release

"Nation's Report Card" Shows Colorado Fourth-Grade and Eighth-Grade Students Outpace Most Other States in Mathematics

Colorado students in grades four and eight perform higher than the national average on mathematics assessments, according to results released today from the National Assessment of Educational Progress (NAEP).

In 2009 the percentage of Colorado students who performed at or above the NAEP Basic level was 84 percent for fourth grade math and 76 percent for eighth grade math. Nationally, 81 percent of fourth grade students and 71 percent of eighth grade students performed at the NAEP Basic level.

Basic is defined by the National Assessment Governing Board as demonstrating "prerequisite knowledge and skills that are fundamental for proficient work" at each grade assessed.

"We are pleased with the strong performance on mathematics—and give credit to outstanding math teachers statewide," said Colorado Commissioner of Education Dwight D. Jones. "At the same time, the focus on improving math instruction, especially at the elementary level, must continue."

Commissioner Jones noted the department has formed two partnerships to assist in the effort to improve achievement in math—the first with Compass Learning to provide a three-year secondary math intervention pilot using online instructional tools and the second

with Edison Learning to deliver tutoring services to 1,400 students in 26 rural school districts in southeast, east and northeast parts of Colorado.

NAEP, established in 1969, is the only federally mandated and nationally representative assessment of what young students know and can do in key subject areas. Commonly referred to as the "Nation's Report Card," it is used to provide a point of reference for comparisons between states and to provide an accurate and representative picture of student performance over time.

NAEP provides national and state results in eight subject areas, including mathematics, reading, writing and science. Results have been produced for the nation and participating states for over 30 years.

The NAEP 2009 Mathematics Assessment was administered to a representative sample of fourth and eighth-graders at the national level and at the state level. In addition, twelfth-graders were assessed at the national level in all states and at the state level in eleven states. The twelfth-grade results are expected to be released in 2010.

Fifty-three jurisdictions participated, including the 50 states, the Bureau of Indian Education (BIE), the District of Columbia, and the Department of Defense Schools (domestic and overseas). In addition, eighteen urban districts voluntarily participated in the NAEP Trial Urban District Assessment (TUDA).

Nationally, 162,963 students in 9,004 public schools in grade four and 156,178 students in 6,589 public schools in grade eight took the tests.

In Colorado, approximately 2,600 students in 154 public schools in grade four participated. In grade eight, approximately 2,700 students in 121 schools participated. Students across the nation participated in the same assessment for each grade and subject.

The NAEP mathematics assessment measures students' knowledge and skills in mathematics and students' ability to apply their knowledge in problem-solving situations. The test also collects information on students' performance in five areas: number properties and operations; measurement; geometry; data analysis, statistics, and probability; and algebra. Each student received two 25-minute math tests, in addition to general background questions and math-specific background questions. The test requires a little more than an hour per

student to administer—about 50 minutes on the math test questions, and about 10 to 15 more minutes on background questions.

The results are reported in average scale scores in which the range is zero to 500. The results are also reported in achievement levels defined by the National Assessment Governing Board which oversees NAEP, <http://www.nagb.org/>.

Colorado fourth grade students received an average scale score of 243. There were five states that outperformed Colorado fourth grade students in scale score (Massachusetts, Minnesota, New Hampshire, New Jersey and Vermont), 21 states that were not significantly different than Colorado and 25 states significantly lower than Colorado.

Colorado is one of only eight states or jurisdictions in which fourth grade students significantly improved their math scale score since the 2007 administration of the test. The other states to gain this honor are the District of Columbia, Kentucky, Maryland, Nevada, New Hampshire, Rhode Island and Vermont.

In the scale score, the fourth grade students in Colorado outscored the public school students across the nation in all of the math areas assessed—number properties and operations; measurement; geometry; data analysis, statistics, and probability; and algebra.

Since the administration of the 2003 test, the fourth grade Colorado English language learners have demonstrated an increase of 10 points in the scale score, escalating from a score of 206 to 216.

Additionally, fourth grade students with disabilities made a 14 percent gain for overall performance at and above the NAEP Basic Level from 2003 to 2009, rising from a score of 43 percent to 57 percent.

The average scale score for Colorado eighth grade students was 287. There were eight states that outperformed Colorado eighth grade students in scale score (Massachusetts, Minnesota, Montana, New Hampshire, New Jersey, North Dakota, South Dakota and Vermont), 20 states that were not significantly different than Colorado and 23 states significantly lower than Colorado.

The Colorado grade eight average scale score has remained stable since the 2007 administration of the test but has significantly improved since the 2005 and 2003 administrations.

Eighth grade students in Colorado outscored the public school students across the nation in four of the math areas—number properties and operations; measurement; geometry; data analysis, statistics and probability.

Only three states outperformed Colorado's eighth grade English language learners in scale score. South Carolina had an average score of 267 for English language learners, Virginia scored 264, Department of Defense scored 264 and Colorado scored 248. Also, only one state outscored Colorado's eighth grade group of former English language learners. Wisconsin scored 292 and Colorado scored 276 for this group of students.

Colorado students in grades four and eight showed no significant change in closing achievement gaps between white and black students and between white and Hispanic students since 2007. A similar gap pattern was seen for all of the states. Gaps persist despite gains for some student groups.

The President and Congress use NAEP results in setting education policy. States are neither rewarded nor sanctioned based on their results. The Nation's Report Card is produced by the U.S. Department of Education and has generated more than 600 reports in its history.

For more information about the 2009 NAEP mathematics results go to the initial release site: <http://nces.ed.gov/nationsreportcard/> or the CDE Web site, http://www.cde.state.co.us/cdeassess/documents/NAEP/index_naep.html

Results from the 2009 NAEP science and reading assessments are expected to be released in 2010.

For more information, contact Pam A. Sandoval in the CDE Unit of Student Assessment, 303-866-6643; or Mark Stevens, 303-866-3898, or Megan McDermott, 303-866-2334, in the CDE Office of Communications. To sign up for the CDE e-mail news service, please visit <http://www.cde.state.co.us/Communications/index.html>.

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