NEWS RELEASE

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Eighth-Graders in Most U.S. States Perform Above International Average on Mathematics and Science Assessment

Highest Performing U.S. States Still Trail Top Performing Countries

WASHINGTON—Eighth-graders in 36 states performed above the mathematics and science averages on the Trends in International Mathematics and Science Study (TIMSS), according to the new *U.S. States in a Global Context: Results from the 2011 NAEP-TIMSS Linking Study* released today by the National Center for Education Statistics (NCES).

"We conducted this study because it's important to know how students educated in U.S. states are performing against international standards. We found that most eighth-graders in the U.S. are competitive in math and science when their predicted performances were compared to their peers from around the globe," said NCES Commissioner Jack Buckley. "Still, our leading states are behind the highest-performing countries. Even Massachusetts, a top U.S. performer in math and science, struggles to compete with top performing countries."

This is the first report that compares all 50 U.S. states, the District of Columbia, and Department of Defense schools—collectively referred to as "states" in the report—to the 38 participating TIMSS countries and 9 participating subnational education systems—collectively referred to as "education systems" in the report. The study predicted TIMSS mathematics and science scores for eighth-graders in the 43 U.S. states that did not participate in the 2011 TIMSS at the state level, based on their performance on the 2011 National Assessment of Educational Progress (NAEP). These predicted TIMSS scores enable states that participated in the 2011 NAEP to compare their performance to the education systems that participated in TIMSS.

Nineteen percent of Massachusetts eighth-graders reached the TIMSS Advanced benchmark in math and 24 percent reached the Advanced benchmark in science. By comparison, roughly 50 percent of students from Chinese Taipei, the Republic of Korea, and Singapore reached the Advanced benchmark in mathematics, while 40 percent of the students in Singapore did so in science. TIMSS uses four benchmarks—Low, Intermediate, High, and Advanced—to describe student performance.

"These predicted scores show that a larger percentage of our students would reach the higher TIMSS benchmarks in science than in math," Commissioner Buckley noted.

Key findings from the report:

MATHEMATICS

- Average state scores ranged from 466 for Alabama to 561, for Massachusetts. Alabama outperformed 19 education systems and Massachusetts outperformed 42.
- Thirty-six states scored higher than the TIMSS mathematics average of 500; average scores for 6 states were lower; and average scores for 10 states were not significantly different.
- Four education systems scored higher than the highest-performing state, Massachusetts: the Republic of Korea, Singapore, Chinese Taipei, and Hong Kong.
- Among the 36 states that had scores above the TIMSS scale average of 500, there was wide variation in the percentages of students that reached the High benchmark. These percentages ranged from 29 percent in Arkansas to 57 percent in Massachusetts.
- Average scores for 51 states reached the Intermediate benchmark, while Massachusetts was the only state whose average score reached the High benchmark.

SCIENCE

- Average state scores ranged from 453 for the District of Columbia to 567 for Massachusetts. The District of Columbia outperformed 14 education systems and Massachusetts and Vermont outperformed 43.
- Forty-seven states had scores higher than the TIMSS science average set at 500, average scores for three states were lower, and average scores for two states were not significantly different.
- Singapore was the only education system to outperform all 52 states.
- Among the 47 states that had average scores above the TIMSS average, there was wide variation in the percentages of students that reached the High benchmark. These percentages ranged from 31 percent in Hawaii to 61 percent in Massachusetts.
- Average scores for 51 states reached the Intermediate benchmark. Average scores for eight states reached the High benchmark: Massachusetts, Vermont, New Hampshire, North Dakota, Maine, Minnesota, Montana, and Wisconsin.

U.S. States in a Global Context: Results from the 2011 NAEP-TIMSS Linking Study is available at http://nces.ed.gov/nationsreportcard/studies/naep_timss/

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The National Center for Education Statistics (NCES) is the primary federal entity for collecting and analyzing data related to education in the United States. NCES is located within the Institute of Education Sciences, part of the U.S. Department of Education.

The National Assessment of Educational Progress (NAEP) is the largest nationally representative and continuing assessment of what America's students know and can do in various subject areas. Assessments are conducted periodically in mathematics, reading, science, writing, the arts, civics, economics, geography, U.S. history, and beginning in 2014, in Technology and Engineering Literacy (TEL).

For more information on NAEP, please visit http://nces.ed.gov/nationsreportcard/.

The Trends in International Mathematics and Science Study (TIMSS) is an international comparative study of student achievement. TIMSS 2011 represents the fifth such study since TIMSS was first conducted in 1995. TIMSS assesses the mathematics and science knowledge and skills of fourth- and eighth-graders and is designed to align broadly with mathematics and science curricula in the participating education systems.