Wyoming Department of Education
PRESS RELEASE

Wyoming International Benchmarking
Results in Mathematics and Science Released

CHEYENNE – The U.S. Department of Education and the National Center for Education Statistics today released a report comparing the mathematics and science scores of Wyoming middle school students with their peers internationally. The report includes Wyoming-specific results and estimate that Wyoming students performed above the international average.

The study, entitled "U.S. States in a Global Context: Results From the 2011 NAEP-TIMSS Linking Study," statistically estimates how well states' students would have scored on the 2011 Trends in International Mathematics and Science Study (TIMSS) based upon their actual performance on the 2011 National Assessment of Educational Progress (NAEP) in science and mathematics. TIMSS is an international student assessment that is administered globally once every four years to students in 47 providences and countries around the world.

Because the NAEP and TIMSS calendars converged during 2011, there was an opportunity to statistically connect or "link" the two assessments in order to compare student achievement around the world.

This study provides an estimate on how well the state's eighth graders compared that year with their peers' skills globally in mathematics and science by using the state's 2011 NAEP scores. In mathematics Wyoming's estimated 2011 TIMSS score was 524 points on the TIMSS scale. Wyoming was one of thirty-six U.S. states with students performing above the TIMSS average (an international average is 500).

TIMSS scores range on a scale from 0 to 1000 points, with the TIMSS international average pegged at 500 points. Wyoming's estimated score on the TIMSS places the state's eighth graders within TIMSS' *Intermediate* benchmark in mathematics. Essentially eighth graders at this level

can "…solve problems involving decimals, fractions, proportions, and percentages. They understand simple algebraic relationships. Students can relate a two-dimensional drawing to a three-dimensional object. They can read, interpret, and construct graphs and tables. They also recognize basic notions of likelihood."

Only one U.S. state, Massachusetts at 561 points, had an average score exceeding 550 or the *High* performance benchmark in the TIMSS mathematics scale. TIMSS scores in the *High* benchmark range indicate that students can "…use information from several sources to solve problems involving different types of numbers and operations. Students can relate fractions, decimals, and percentages to each other. Students at this level show basic procedural knowledge related to algebraic expressions. They can use properties of lines, angles, triangles, rectangles, and rectangular prisms to solve problems. They can analyze data in a variety of graphs."

The top five performing providences and countries in the 2011 TIMSS mathematics at grade eight were Korea (613), Singapore (611), Taipei (609), Hong Kong (586), and Japan (570).

The TIMSS is administered every four years with the next assessment scheduled for 2015. For the complete report, click on: http://edu.wyoming.gov/Programs/statewide_assessment_system/2011-naep-timss.aspx.