

## NAEP-TIMSS Linking Study

Comparing state academic performance against international benchmarks

### • What is NAEP?

The National Assessment of Educational Progress (NAEP) is the largest nationally representative assessment of what students across the United States know and can do in various subjects, and has been administered since 1969. The results of NAEP are released for a variety of subjects as The Nation's Report Card, and they are available for the nation and states. Results are also available for selected urban districts as part of the Trial Urban District Assessment (TUDA).

### • What is TIMSS?

The Trends in International Mathematics and Science Study (TIMSS) is an international assessment that measures student learning in mathematics and science. Since 1995, it has provided reliable and timely data on the achievement of United States fourth- and eighth-grade students in these subjects compared to that of students in other countries.

### • What is the NAEP-TIMSS Linking Study?

The National Center for Education Statistics (NCES) initiated this study in an effort to link national and international assessments at grade 8 so that states and selected districts can compare their own students' performance against international benchmarks. The linking study was conducted in 2011 at grade 8 in mathematics and science. NCES will link, or "project," state-level scores on TIMSS in both subjects using data from NAEP. NCES will also project district-level scores on TIMSS in mathematics for districts that were selected to participate in TUDA.

## TIMSS Participation in 2011 at Grade 8

In spring 2011, more than 50 countries and jurisdictions participated in TIMSS. More than 20,000 students in more than 1,000 schools across the United States took the assessment, joining almost 500,000 other students around the world who took part in TIMSS.



■ Countries that participated in 2011 TIMSS

For a complete list of countries, visit: <http://nces.ed.gov/timss/countries.asp>



## First Time International Results

In 2011, every state and selected districts participated in the NAEP mathematics and science assessments. States' NAEP results for eighth-grade students will be projected onto the TIMSS scoring scales for both assessments; districts' NAEP results will be projected onto the TIMSS scoring scale for mathematics. Each state and district will receive a projected TIMSS score which will allow them to compare their students' performance with students of other nations. Nine states were oversampled to be state representative. The actual TIMSS scores from these nine states will be compared to the projected TIMSS scores to ensure the validity of the linking study. The nine states that participated included Alabama, California, Colorado, Connecticut, Florida, Indiana, Massachusetts, Minnesota, and North Carolina.

## NAEP and TIMSS are Similar Assessments

There are similarities between NAEP and TIMSS that help the assessments to be compared. The assessments:

- are administered by NCES,
- are sample-based assessments,
- assess fourth- and eighth-graders (the linking study will only provide results at grade 8),
- have similar types of questions, and
- assess mathematics and science across a similar range of content areas.

NAEP and TIMSS differ in:

- sampling processes and sizes,
- specifications for questions, and
- the emphasis and distribution of questions across content areas.

**January - March 2011:**  
States and districts participated in NAEP

**Spring 2011:**  
Countries and jurisdictions participated in TIMSS

**Fall 2011:**  
NAEP mathematics results released

## NAEP-TIMSS Linking Study Provides Important Additional Data

NAEP helps educators and the public to know how well students are doing in a variety of subjects and at different grades compared to other students nationally or in their own state or district. International assessments, on the other hand, offer a unique opportunity to compare student performance in the United States to the performance of students in other countries. It is important to know how students in this country fare in an internationally competitive environment. The NAEP-TIMSS Linking Study provides states and participating urban districts the opportunity to compare the performance of their students with that of students from other nations around the world and to view their curriculum in an international context.

## Release of Results

NAEP mathematics results will be released about six months after the assessment, with science results following about six months later. TIMSS results for the nine validation states will be released at the same time as the international and national results in late 2012. The results of the linking study—with projected TIMSS scores—will be released in late 2012 to early 2013.

### Spring - Summer 2012:

NAEP science results released

### December 2012:

TIMSS results, and TIMSS results for nine validation states released

### Late 2012 - Early 2013:

Results of NAEP-TIMSS Linking Study released

If you have questions about the NAEP-TIMSS Linking Study, contact NCES at:

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<http://nces.ed.gov/nationsreportcard/contactus.asp>

To order copies of The Nation's Report Card, TIMSS reports, or other NCES publications, contact ED Pubs at:

ED Pubs  
U.S. Department of Education  
P.O. Box 22207  
Alexandria, VA 22304  
[www.EDPubs.gov](http://www.EDPubs.gov)

For more information about NAEP, visit: <http://nces.ed.gov/nationsreportcard>.

For more information about TIMSS, visit: <http://nces.ed.gov/timss>.

Test yourself using NAEP and TIMSS items at: <http://nces.ed.gov/nceskids/eyk>.

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