

engageok

SUMMER EDUCATION EVENT

The logo for the Oklahoma State Department of Education (OSDE) is positioned to the right of the main text. It consists of a yellow horizontal bar, an orange curved shape below it, and a purple shape with a scalloped bottom edge containing the letters 'OSDE' in white.

OSDE

TUESDAY, JULY 7 – THURSDAY, JULY 9, 2015

COX CONVENTION CENTER • OKLAHOMA CITY, OKLAHOMA

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National & International Assessments In Your School

EngageOK 2015 Summer Conference

Rebecca Logan

NAEP State Coordinator

National & International Assessments In Your School

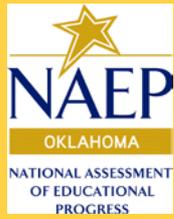
- **NAEP**- National Assessment of Educational Progress
- **NIES** – National Indian Education Study
- **PIRLS** – Progress in International Reading Literacy Study
- **PISA** – Program for International Student Assessment
- **TIMSS** – Trends in International Mathematics & Science Study

National & International Assessments In Your School

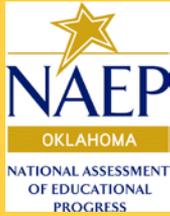
<http://nces.ed.gov/surveys/international/>

The screenshot displays the website for the National Center for Education Statistics (IES). The header includes the IES logo and the text 'NATIONAL CENTER FOR EDUCATION STATISTICS'. A search bar is located in the top right corner. Below the header is a navigation menu with links for 'Publications & Products', 'Surveys & Programs', 'Data & Tools', 'Fast Facts', 'School Search', 'News & Events', and 'About Us'. The main content area is titled 'International Activities Program' and features a sub-menu with links for 'IAP Publications & Products', 'Staff', 'TIMSS', 'PISA', 'PIRLS', 'PIAAC', 'TALIS', 'CivEd', and 'Contact Us'. The central focus is a large blue box titled 'Highlights From TIMSS 2011' with the subtitle 'Mathematics and Science Achievement of U.S. Fourth- and Eighth-Grade Students in an International Context'. Below this, there is a section for the 'TIMSS 2011 report' with a summary: 'Among 45 countries that participated in TIMSS 2011 at grade 4, only 3 outperformed the U.S. average of 541 in mathematics while 5 scored higher than the U.S. average of 544 in science.' To the right of the main content are five vertical panels, each with a logo and a link to a report: 'PIAAC: Program for the International Assessment of Adult Competencies (See 2012 Results)', 'PIRLS: Progress in International Reading Literacy Study (See 2011 Results)', 'PISA USA: Program for International Student Assessment (See 2012 Results)', 'TIMSS USA: Trends in International Mathematics and Science Study (See 2011 Results)', and 'USA TALIS: Teaching and Learning International Survey (See 2013 Results)'. At the bottom of the main content area are five buttons: 'TIMSS 2011 report', 'TIMSS 2011 percentiles', 'PISA 2012 report', 'PIAAC 2012 report', and 'International Data Explorer'. The footer contains four columns of information: 'Read summaries from the International Data Explorer' (with a book icon), 'Make your own tables and charts with the International Data Explorer' (with the IDE logo), 'Dig into our library of ready-made tables' (with a data visualization icon), 'View our bibliography of international education articles' (with a book icon), and 'Training International Data Training' (with a 'BIG DATA' icon).

- At each study's homepage you can access:
 - Survey questionnaires
 - Examples of assessment items
 - Lists of participating countries and subnational education systems
 - Results and reports
 - Schedule and plans
 - Information for participants
 - Data files and related technical publications
 - Frequently asked questions
 - International partner sites for the assessments

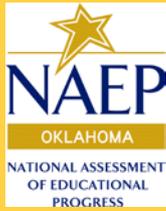


- **The Nation's Report Card** also known as **The National Assessment of Educational Progress (NAEP)** is the largest nationally representative and continuing assessment of what America's students know and can do in various subject areas.



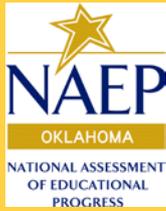
NAEP

- NAEP is a congressionally mandated project administered by the National Center for Educational Statistics (NCES) within the U.S. Department of Education.
- Elected officials, policymakers, and educators all use NAEP to develop ways to improve education.



NAEP

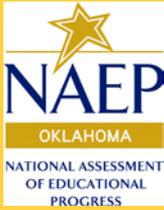
- The results of the NAEP are released as *The Nation's Report Card* which shows the measure of student achievement across the country.
- NAEP reports on results from different demographic groups rather than individual students or schools.



NAEP

- **NAEP Design**

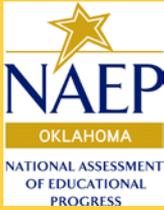
- Schools and students are randomly selected by the U.S. Department of Education.
- The school sample is stratified to represent the geographic diversity, ethnic diversity, and academic achievement of the state and the U.S.



NAEP

- **NAEP Design**

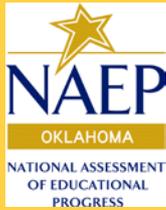
- Larger schools may be selected to participate more frequently than smaller schools.
- In most cases, not all students in the sampled grade will be selected to participate.



NAEP

- **NAEP Design**

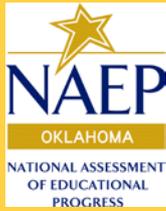
- The NAEP assessments use matrix test design and are based on NAEP frameworks.
- Each participating student is assessed in only one subject, and no student takes the entire test for a subject.



NAEP

- **NAEP Design**

- Results are reported only for the nation, states, and TUDA districts.
- No results are reported for individual schools or students.



NAEP

- If you'd like to learn more about NAEP, please consider attending my next session –

Understanding The Nation's Report Card

2:00-2:45

NIES – National Indian Education Study

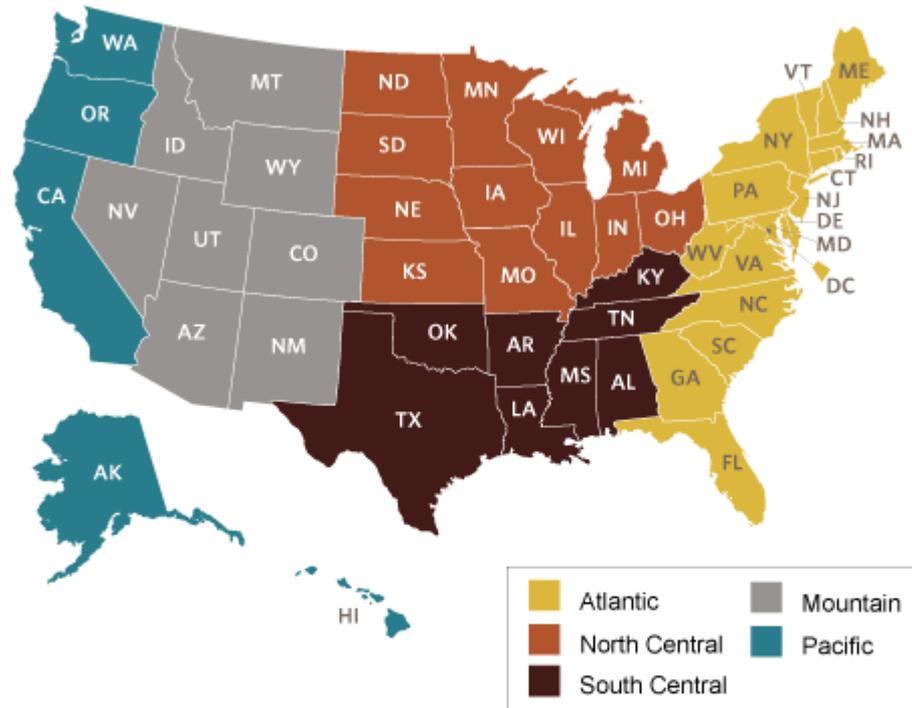
- The National Indian Education Study (NIES) is designed to describe the condition of education for American Indian and Alaska Native (AI/AN) students in the United States. The study provides educators, policymakers, and the public with information about the academic performance in reading and mathematics of AI/AN fourth- and eighth-graders as well as their exposure to Native American culture.

NIES – National Indian Education Study

- Conducted in 2005, 2007, 2009, 2011, and 2015 by the National Center for Education Statistics
 - Recent switch to administration every 4 years
 - Next administration expected in 2019

NIES – National Indian Education Study

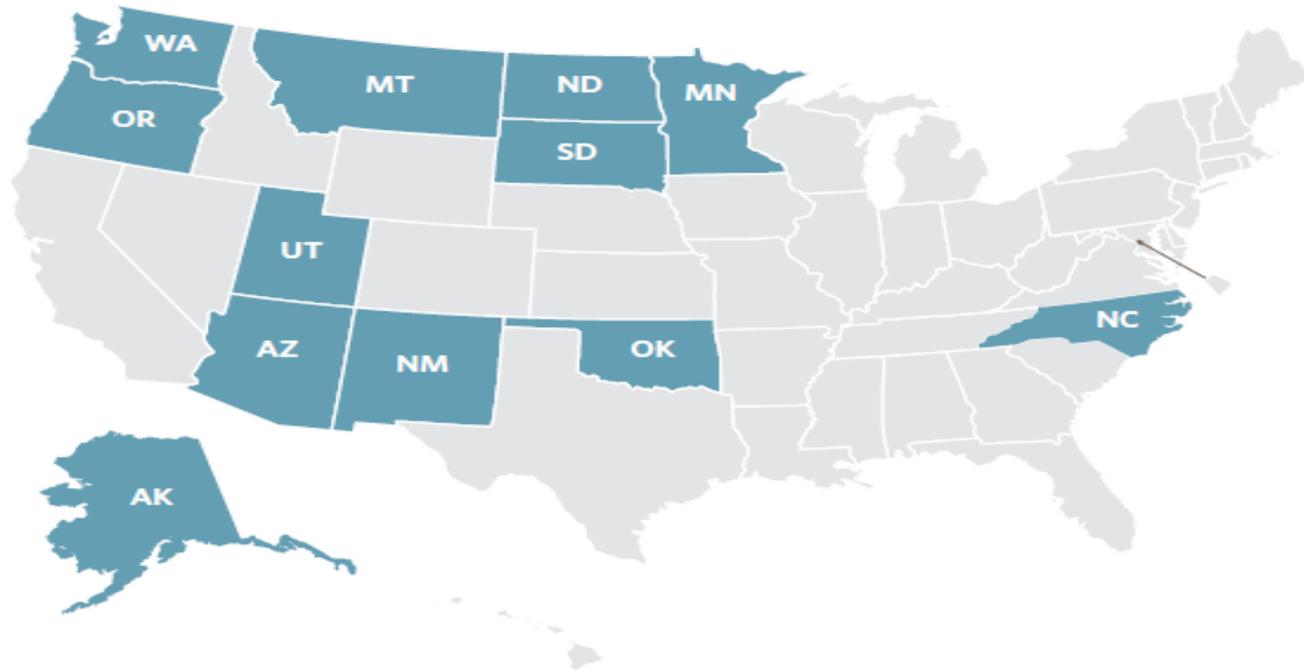
Map of regions for the National Indian Education Study: 2011



NOTE: Regions referenced in this figure were defined by NAEP exclusively for the National Indian Education Study.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2011 National Indian Education Study.

NIES – National Indian Education Study



The combined AI/AN student enrollment in these states represents about 63 percent of the AI/AN enrollment in the nation. (See table TN-1 in the Technical Notes.)

Total enrollment, AI/AN enrollment, and AI/AN students as a percentage of total enrollment in public elementary and secondary schools, by selected states: 2009-10

Jurisdiction	Total enrollment (all students)	AI/AN enrollment	AI/AN as percent of total
Nation	49,360,982	597,094	1.2
Total for selected states	7,069,528	374,023	5.3
Alaska	131,661	30,312	23.0
Arizona	1,077,831	58,777	5.5
Minnesota	837,053	18,375	2.2
Montana	141,807	16,724	11.8
New Mexico	334,419	34,907	10.4
North Carolina	1,483,397	20,965	1.4
North Dakota	95,073	8,929	9.4
Oklahoma	654,802	126,078	19.3
Oregon	582,839	10,850	1.9
South Dakota	123,713	14,814	12.0
Utah	571,586	8,180	1.4
Washington	1,035,347	25,112	2.4

NOTE: AI/AN = American Indian/Alaska Native.

SOURCE: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), "State Nonfiscal Survey of Public Elementary/Secondary Education," 2009-10.

NIES – National Indian Education Study

<http://nces.ed.gov/nationsreportcard/nies/>

ies NATIONAL CENTER FOR EDUCATION STATISTICS U.S. Department of Education
Institute of Education Sciences

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 **National Assessment of Educational Progress (NAEP)**
National Indian Education Survey
Publications & Products | Staff

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[About NAEP](#)
[Information for ...](#)
[Main NAEP Assessments](#)
[Long-Term Trend Assessments](#)
[High School Transcript Study](#)

- Study Overview
- About the Assessment
- About the Survey
- Survey Questionnaires
- Technical Review Panel
- Information for the Media
- FAQs



The National Indian Education Study (NIES) is designed to describe the condition of education for American Indian and Alaska Native (AI/AN) students in the United States. The study provides educators, policymakers, and the public with information about the academic performance in reading and mathematics of AI/AN fourth- and eighth-graders as well as their exposure to Native American culture.

Results of the NIES Study

- ◆ [2011 Summary of National Results](#)
- ◆ [2011 Regional and State Summary](#)
- ◆ [2011 Survey Summary](#)



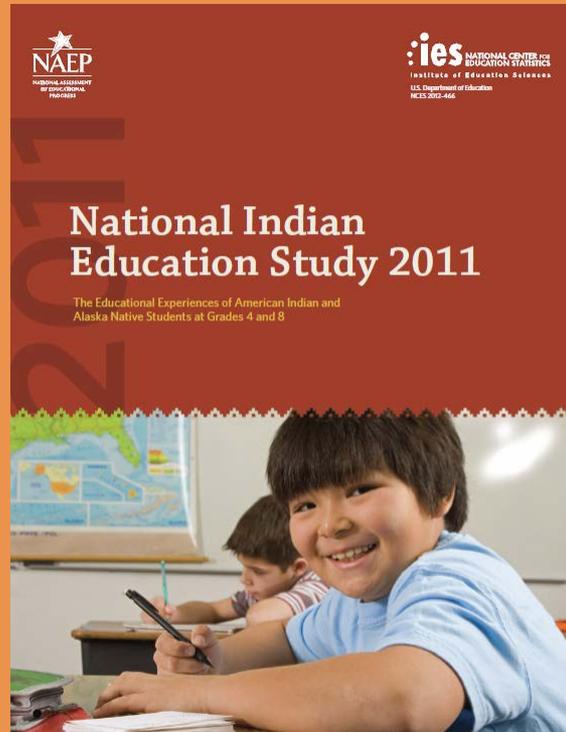
[Download a copy of the 2011 NIES Report Card](#)

How the NIES Study Works

- ◆ Read an [overview of the study](#).
- ◆ Explore [information about the assessment](#).
- ◆ Find out about [the survey](#), and [view the survey questionnaires](#).
- ◆ See who served on the [Technical Review Panel](#).
- ◆ Read [FAQs](#) about NIES.

NIES – National Indian Education Study

- https://youtu.be/14_IV_OjDic





PIRLS – Progress in International Reading Literacy Study

- PIRLS is an international comparative study of the reading literacy of young students. PIRLS studies the reading achievement and reading behaviors and attitudes of fourth-grade students in the United states and students in equivalent of the fourth grade in other participating countries.



PIRLS

- The study is conducted in the U.S. by the [National Center for Educational Statistics](#) or [NCES](#) and implemented by [RTI International](#).
- Internationally, PIRLS is led out of the [International Association for the Evaluation of Educational Achievement](#), or [IEA](#) for short.



PIRLS

- International assessment and research project to measure trends in reading achievement at the 4th grade level
- Examines practices related to instruction
- Administered every five years since 2001
- PIRLS 2016 will involve students from more than 40 countries
- PIRLS 2016 will involve students from 176 U.S. schools in 42 states



PIRLS

- PIRLS paper and pencil reading assessment
 - Administered to one or two classes in each school
- ePIRLS—a new, innovative assessment of online reading
- School-level (administrator) questionnaire
- Reading teacher questionnaire



PIRLS

- Field test conducted Spring 2015 to try out new questions and test data collection procedures
- Recruited 25 schools in five states:
CA, IL, NC, PA, TX
- Tested 993 students for PIRLS
461 students for ePIRLS
- Surveyed 24 school administrators and 42 teachers



PIRLS

- Selected 176 schools in 42 states
 - 164 public schools
 - 12 private schools
- Will avoid overlap with NCES NAEP pilot study schools
- Replacement schools
- Confidentiality of selected schools
- State-level comparisons are not possible



PIRLS

Computers

- ePIRLS to be conducted on school computers if possible
- RTI will provide laptop computers if:
 - school computers are not compatible with ePIRLS,
 - school computers are not available at the school, or
 - if the school computer lab does not have enough computers for each student

Polar Bear Facts

Home

Facts



Here are some facts about polar bears:

- ★ Polar bears are the largest bears in the world.
- ★ Polar bears have white fur to blend in with the snow.
- ★ Polar bears live on sea ice in the Arctic.



ePIRLS Class Project



you will be asked to type your answer. For example, the question below asks, "Where do polar bears live?"

Type your answer in the box below. Don't worry if you aren't sure how to spell a word. Do the best you can.

2.

Where do polar bears live?



Student

sea ice in the Arctic

✓ SAVED



Mr. Webster

Sometimes I will ask you to click on a link to another website. Links are in blue and underlined. Now, click on the following link—["A Polar Bear's Year."](#)

PIRLS



ePIRLS

Class Project



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PIRLS

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PIRLS



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["A Polar Bear's Year."](#)



PIRLS

Incentives

Schools	\$200
School coordinator	\$100
ePIRLS/IT coordinator	\$50
Reading Teachers	\$20 teacher questionnaire
Students	Token incentive - watch



PISA – Program for International Student Assessment

- A system of international assessments that measures 15-year old students' reading, mathematics, and science literacy. PISA also includes measures of general or cross-curricular competencies, such as problem solving. PISA emphasizes functional skills that students have acquired as they near the end of compulsory schooling.



PISA

- Administered every 3 years since 2000
- Coordinated by the Organization for Economic Cooperation and Development (OECD) internationally and managed by the National Center for Education Statistics (NCES) in the United States.
- Completely computer-based in 2015



PISA

- Assesses applied knowledge/literacy in science, mathematics, reading, and acquired in and outside of school. In 2015, collaborative problem solving and financial literacy will also be assessed.
- Assessment window: **October 5-November 13, 2015**



PISA

Assessment Year	2000	2003	2006	2009	2012	2015
Subjects Assessed	READING Mathematics Science	Reading MATHEMATICS Science Problem Solving	Reading Mathematics SCIENCE CBA Science	READING Mathematics Science ERA	Reading MATHEMATICS Science Problem Solving Financial Literacy CBA (R,M,PS)	Reading Mathematics SCIENCE CPS Financial Literacy



PISA

- Assessment: 2 hours (computer-based)
 - Carry-in laptops to schools
 - Delivery system is self-contained set of applications designed to run from a USB flash drive
 - Data securely uploaded daily



PISA

- Background questionnaires: school and student questionnaires, teacher questionnaire
- School and teacher questionnaire online.



PISA

- School sample
 - 240 schools, non-clustered across 41 states
 - Both public and private schools
 - In most cases, each sampled school has 2 substitute schools in same state as sampled school
 - On average, 5 schools per state



PISA

- Student sample
 - Select 42 “15-year-old” students from a listing of those in grade 7 or higher and born between July 1, 1999 and June 30, 2000
 - Equal probability of being selected
 - Eligibility is defined only by grade and age
 - Subsample of ~12 students for financial literacy



PISA

- Teacher sample
 - Teachers eligible to teach 10th grade students
 - A total of up to 25 teachers (10 science teachers/ 15 non-science teachers)



PISA

- Incentives to schools, school coordinators, participating teachers and students
- Participating students also receive a certificate of volunteer service awarding 4 hours of service time



PISA

- School-level report for schools with adequate student response
- National report with PISA 2015 results
- Summer Conference in Washington D.C.



TIMSS

- <http://nces.ed.gov/timss/>

The screenshot shows the homepage of the National Center for Education Statistics (NCES) Institute of Education Sciences (IES) TIMSS website. The page features a navigation menu with categories like Publications & Products, Surveys & Programs, Data & Tools, Fast Facts, School Search, News & Events, and About Us. The main content area is titled "Trends in International Mathematics and Science Study (TIMSS)" and includes a sidebar with a table of contents for various TIMSS reports and studies. The main text provides an overview of the TIMSS study, its history, and the most recent administration in 2011. It also highlights the International Data Explorer (IDE) tool and the Dare to Compare challenge. A "DATA SNAPSHOT" section features a graphic showing the US average score of 525 in 8th-grade science compared to a TIMSS scale average of 500.

ies INSTITUTE OF EDUCATION SCIENCES

NATIONAL CENTER FOR EDUCATION STATISTICS

Enter search terms here

Publications & Products | Surveys & Programs | Data & Tools | Fast Facts | School Search | News & Events | About Us

Trends in International Mathematics and Science Study (TIMSS)

IAP Home | TIMSS Publications & Products | Staff | Assessments & Surveys | Contact Us

Overview

TIMSS International Data Explorer

TIMSS 2015

TIMSS 2011 Results

TIMSS 2007 Results

TIMSS 2003 Results

TIMSS 1999 Results

TIMSS 1995 Results

FAQs

State/District Participation

2011 NAEP-TIMSS Linking Study

Video Studies

Data Files

Assessment Questions

Questionnaires

Countries

Schedule and Plans

Partners

TIMSS International Site

Join NewsFlash

Overview

The **Trends in International Mathematics and Science Study (TIMSS)** provides reliable and timely data on the mathematics and science achievement of U.S. students compared to that of students in other countries. TIMSS data have been collected from students at grade 4 and 8 since 1995 every 4 years, generally. In addition, TIMSS data have been collected twice from students at grade 12 (in 1995 and 2008), which can be referred to as TIMSS Advanced. The next TIMSS data collection is in 2015 and will include students in grades 4, 8 and 12. Further information on TIMSS 2015 is provided [here](#).

In the most recent administration of TIMSS (2011), more than 60 countries and other education systems, including the United States, participated in TIMSS at grade 4 and 8. More than 20,000 students in more than 1,000 schools across the United States took the assessment in spring 2011, joining almost 500,000 other students around the world who also took part in TIMSS.

Examples of all TIMSS assessment questions can be found [here](#) and TIMSS questionnaires can be downloaded from [here](#). For other information or questions, see the Frequently Asked Questions (FAQs) [here](#) or you can use the "Contact Us" button at the top of the page.

The TIMSS International Data Explorer (IDE) is available for users to create their own tables and charts, and perform statistical tests with data from all years of TIMSS. The TIMSS IDE is modeled after the NAEP Data Explorer and functions the same way. The TIMSS IDE can be [accessed here](#).

More information about TIMSS and related resources, including the TIMSS International reports, TIMSS assessment frameworks, and international data files, are available at the [TIMSS International site](#).

Download TIMSS data in ready-made tables at the [Table Library](#)

Test your mathematics and science knowledge by completing TIMSS items in the Dare to Compare challenge!

NEWS AND HIGHLIGHTS

IDE

You can explore the TIMSS data directly through NCES's online data tool — the [International Data Explorer \(IDE\)](#).

- **Highlights From TIMSS 2011: Mathematics and Science Achievement of U.S. Fourth- and Eighth-Grade Students in an International Context**
 - [View the NCES statement on the TIMSS and PIRLS 2011 results](#)
 - [View the Commissioner's presentation of the TIMSS and PIRLS 2011 results](#) (10 MB)
- A new web feature, **Snapshots From the International Data Explorer**, provides analytic summaries of U.S. results compared with international peers produced by the [International Data Explorer](#). The first Snapshot summarizes Average Performance of U.S. Students Relative to International Peers on the Most Recent International Assessments in Mathematics, Reading, and Science: [Results from PIRLS 2006, TIMSS 2007, and PISA 2009](#)
- Find out about U.S. student performance on international assessments in the supplement to the 2009 Condition of Education, [U.S. Performance Across International Assessments of Student Achievement: Special Supplement to The Condition of Education 2009](#).

DATA SNAPSHOT

TIMSS (International) 2011 Assessment

8th Grade Science Score

US AVG 525

TIMSS Scale AVG 500

TIMSS (International) 2011 Assessment
© 2011 IES/NCES/EDUCATION SCIENCE



TIMSS – Trends in International Mathematics & Science Study

- TIMSS provides reliable and timely data on the mathematics and science achievement of U.S. fourth- and eighth-grade students compared to that of students in other countries and jurisdictions.
- In 2015, the U.S. also participated in TIMSS Advanced, assessing the achievement of twelfth-grades, who had taken advanced mathematics or physics.



TIMSS

- Trends in International Mathematics and Science Study (TIMSS)
- Mathematics and Science
- Grades 4 and 8
- Every 4 years since 1995
- 2015 is the 6th study
- 50 countries will participate



TIMSS

- Regular TIMSS: Mathematics and science assessment at grades 4 and 8
- Special in 2015: “TIMSS Advanced” – Calculus and Physics for those in grade 12 who have taken advanced math and physics courses



TIMSS

- Grades 4 and 8
 - Mathematics
 - Science
- Grade 12
 - Advanced mathematics
 - Algebra
 - Geometry
 - Calculus
 - Physics
 - Mechanics and thermodynamics
 - Electricity and magnetism
 - Wave phenomena and atomic/nuclear physics



TIMSS

- Grades 4 and 8 sample
 - 300 schools per grade, including private schools
 - 2 intact classes per school
 - Mathematics and science spiraled in classroom
- Assessment about 2 ½ hours, end-to-end
- Online teacher and school questionnaires
- New in 2015: Accommodations will be allowed.



TIMSS Advanced

- Eligible students in the United States
 - Have taken or are taking calculus
 - Have taken or are taking “advanced physics”, such as AP physics
- Grade 12 sample
 - 350 schools to obtain 300 eligible
 - Student sample
 - Typical school with 500 students, estimate sample size of 40 students (based on High School Transcript Study)
 - Larger high school with many students eligible, sample size can go higher, up to 100



TIMSS Advanced

- Students take advanced mathematics *or* physics
- Assessment about 2 ½ hours, end-to-end
- Online teacher and school questionnaires
- Accommodations will be allowed



TIMSS

- \$200 for school and \$100 for school coordinator
- Professional development web seminar series
- Principal receives a confidential report on how students selected performed on TIMSS assessment questions that are made public



International Activities Program

IAP Publications & Products | Staff | TIMSS | PISA | PIRLS | PIAAC | TALIS | CivEd [Contact Us](#)

Highlights From TIMSS 2011
Mathematics and Science Achievement of U.S. Fourth- and Eighth-Grade Students in an International Context

TIMSS 2011 report
Among 45 countries that participated in TIMSS 2011 at grade 4, only 3 outperformed the U.S. average of 541 in mathematics while 5 scored higher than the U.S. average of 544 in science.

[TIMSS 2011 report](#) | [TIMSS 2011 percentiles](#) | [PISA 2012 report](#) | [PIAAC 2012 report](#) | [International Data Explorer](#)

- [Program for the International Assessment of Adult Competencies](#) | [See 2012 Results](#)
- [Progress in International Reading Literacy Study](#) | [See 2011 Results](#)
- [Program for International Student Assessment](#) | [See 2012 Results](#)
- [Trends in International Mathematics and Science Study](#) | [See 2011 Results](#)
- [Teaching and Learning International Survey](#) | [See 2013 Results](#)

- Read** summaries from the International Data Explorer
- Make** your own tables and charts with the International Data Explorer
- Dig** into our library of ready-made tables
- View** our bibliography of international education articles
- Training** International Data Training

<http://nces.ed.gov/surveys/international/>

National & International Assessments In Your School

Cross-study comparison reports are available online which compare NAEP to PIRLS, PISA, and TIMSS

(<http://nces.ed.gov/surveys/international/cross-study-comparisons.asp>)

- Provide information on the purposes, target populations, reporting levels, and content assessed through PIRLS, PISA, and TIMSS in comparison to NAEP.
 - comparison of frameworks and assessment items, with content-area experts having spent time reviewing and classifying assessment items, both released and secure.

National & International Assessments In Your School

- NCES
- <http://nces.ed.gov/>
- NCES International Activities Program
- <http://nces.ed.gov/surveys/international/>
- International Table Library
- <http://nces.ed.gov/surveys/international/table-library.asp>
- International Data Explorer
- <http://nces.ed.gov/surveys/international/ide/>

Questions Tools

PIRLS, PISA and TIMSS have released items from mathematics, reading, and science:

<http://nces.ed.gov/surveys/international/>

The screenshot shows the homepage of the International Data Explorer (IDE). At the top, it features the IAP logo and navigation links for Publications & Products, Staff, TIMSS, PISA, PIRLS, PIAAC, TALIS, and CivEd. A central banner displays a child holding a globe with the IDE logo overlaid. Below this, a grid of links provides access to various international assessment reports and studies, including PIAAC, PIRLS, PISA, and TIMSS. A section titled 'International Data Explorer' explains the tool's purpose. At the bottom, there are four main action buttons: 'Read' (summaries), 'Make' (custom tables), 'Dig' (ready-made tables), and 'View' (bibliography), along with a 'Training' link for international data training.

International Data Explorer

Analyzes PIRLS, PISAS and TIMSS data and can create statistical tables, graphics and maps:

<http://nces.ed.gov/surveys/international/ide/>

This screenshot shows the main content area of the IDE website. It features the IDE logo and a header with navigation links. A large banner image shows children looking at a globe. Below the banner, the text asks, 'Do you have questions about U.S. students' knowledge and skills in comparison to their international peers?' and explains that the IDE can create statistical tables and charts. Three logos for PISA USA, PIRLS, and TIMSS USA are displayed. At the bottom, a detailed paragraph describes the data provided by the IDE, including mathematics and science achievement for 40th-graders (TIMSS), 8th-graders (TIMSS), and 15-year-olds (PISA), reading achievement for 40th-graders (PIRLS) and 15-year-olds (PISA), and financial literacy achievement for 15-year-olds (PISA). It also mentions the inclusion of a student questionnaire about background, beliefs, and attitudes, and a teacher questionnaire about instructional practices and school characteristics.

National & International Assessments In Your School

Thank you for your time
and participation.

Please contact me
anytime:

Rebecca Logan

(405) 522-8728

Rebecca.Logan@sde.ok.gov

