engage ok

SUMMER EDUCATION EVENT

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/
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 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 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
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

  - 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.

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

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

NOTE: AI/AN = American Indian/Alaska Native.
NIES – National Indian Education Study

http://nces.ed.gov/nationsreportcard/nies/
NIES – National Indian Education Study

• [https://youtu.be/14_IV_OjDic](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
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

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.
PIRLS

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.”
<table>
<thead>
<tr>
<th>Role</th>
<th>Incentive</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schools</td>
<td>$200</td>
</tr>
<tr>
<td>School coordinator</td>
<td>$100</td>
</tr>
<tr>
<td>ePIRLS/IT coordinator</td>
<td>$50</td>
</tr>
<tr>
<td>Reading Teachers</td>
<td>$20 teacher questionnaire</td>
</tr>
<tr>
<td>Students</td>
<td>Token incentive - watch</td>
</tr>
</tbody>
</table>
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**
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 10\textsuperscript{th} 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/
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-graders, 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
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

- NCES International Activities Program
  - [http://nces.ed.gov/surveys/international/](http://nces.ed.gov/surveys/international/)

- International Table Library
  - [http://nces.ed.gov/surveys/international/table-library.asp](http://nces.ed.gov/surveys/international/table-library.asp)

- International Data Explorer
  - [http://nces.ed.gov/surveys/international/ide/](http://nces.ed.gov/surveys/international/ide/)
PIRLS, PISA and TIMSS have released items from mathematics, reading, and science: http://nces.ed.gov/surveys/international/

Analyzes PIRLS, PISAS and TIMSS data and can create statistical tables, graphics and maps: http://nces.ed.gov/surveys/international/ide/
National & International Assessments
In Your School

Thank you for your time and participation.
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