

2015 National Indian Education Study (NIES)

The National Indian Education Study (NIES) is administered as part of the National Assessment of Educational Progress (NAEP) to allow more in-depth reporting on the reading and mathematics achievement and the experiences of American Indian / Alaska Native (AI/AN) students in grades 4 and 8.

The study is funded by the Office of Indian Education (OIE) and was first administered in 2005. NIES began in response to Executive Order 13336 to assist AI/AN students in meeting academic standards. The order also called for a study and report on the current status of AI/AN students, including a compilation of comprehensive data on the academic achievement and progress of AI/AN students.

Historically, statistical agencies have struggled to report AI/AN specific data due to reporting standards. AI/AN students comprise only about one percent of fourth- and eighth-graders nationally. A central aim of NIES is to provide more disaggregated data for this student population. This includes producing results for select states with a relatively high concentration of AI/AN students and analyzing the AI/AN data by contextual variables such as gender or school type (e.g., Bureau of Indian Education schools).

The 2015 NIES report is embargoed; the 2011 NIES report is available via: <http://nces.ed.gov/nationsreportcard/pubs/studies/2012466.asp>. The Executive Summary from the 2011 NIES report accompanies this overview.

During this closed session, NCES will:

1. Provide an overview of the study's history;
2. Review AI/AN sample sizes and the availability of state-level and other disaggregated data with a focus on 2015 reading and mathematics results;
3. Provide information regarding the contextual questionnaires designed specifically for this special study, which were created in collaboration with OIE and a panel of American Indian and Alaska Native educators and researchers from across the country;

National Indian Education Study 2011

The Educational Experiences of American Indian and
Alaska Native Students at Grades 4 and 8



Contents

- 1 Executive Summary
- 6 Introduction
- 12 Reading Results
- 26 Mathematics Results
- 40 Survey Results
- 48 Technical Notes
- 61 Acknowledgments

The National Indian Education Study (NIES) is designed to describe the condition of education for American Indian and Alaska Native students in the United States. NIES is authorized under Executive Order 13592, Improving American Indian and Alaska Native Educational Opportunities and Strengthening Tribal Colleges and Universities, which was issued in 2011 to improve education efforts for American Indian and Alaska Native students nationwide. NIES is conducted under the direction of the National Center for Education Statistics on behalf of the U.S. Department of Education's Office of Indian Education.

NIES is conducted through the National Assessment of Educational Progress (NAEP) and provides information on the academic performance of fourth- and eighth-grade American Indian/Alaska Native students in reading and mathematics, and on their educational experiences.

NAEP is a congressionally authorized project of the National Center for Education Statistics within the Institute of Education Sciences of the U.S. Department of Education. The Commissioner of Education Statistics is responsible for carrying out the NAEP project. The National Assessment Governing Board oversees and sets policy for NAEP.

NAEP is an integral part of our nation's evaluation of the condition and progress of education. Only information related to academic achievement and relevant variables is collected. The privacy of individual students and their families is protected, and the identities of participating schools are not released.

Photo Credits:

© Maria Mishina/iStockphoto #17994706; © Jeff Schultz/AlaskaStock.com #352CH AA0026D004; © John Lund/Sam Diephuis/Blend Images/Getty Images #72541685; © Image Source/Jupiterimages #56181347; © Chris Corrie; © Fernando Delvalle/iStockphoto #11750086; © Jaren Wicklund/Photos.com #144282424; © Karl Kehm/iStockphoto #17313521; © Comstock/Getty Images/Jupiterimages #86525409; Copyright © 2006 Highlights for Children, Inc., Columbus, Ohio; © Jupiterimages/Brand X Pictures/Getty Images #78376831; From *THE NEW YORK TIMES UPFRONT* magazine September 5, 2005 issue. Copyright © 2005 by Scholastic Inc. and The New York Times Company. Reprinted by permission of Scholastic Inc.; © Ventura69/iStockphoto #17838756; © Studio-Annika/Photos.com #139886208; © Stephen H. Begleitner; © Maciej Toporowicz, NYC/Flickr Open/Getty Images #127987621; © Alexander Makarov/iStockphoto #17913449; © Erik Isakson/Tetra Images/Jupiterimages #103923547; © Jeff Shultz/AlaskaStock.com #352GR AA0028D001; © Clark James Mishler/AlaskaStock.com #353ED AN0001D001; © American Images Inc/Digital Vision/Getty Images #72724182; © Jeff Schultz/AlaskaStock.com #352CH AA0026D004; © Jeff Schultz/AlaskaStock.com #352CH AA0047D001

Executive Summary

The National Indian Education Study (NIES) is administered as part of the National Assessment of Educational Progress (NAEP) to allow more in-depth reporting on the achievement and experiences of American Indian/Alaska Native (AI/AN) students in grades 4 and 8. The results presented in this report highlight some of the findings on the educational experiences of fourth- and eighth-grade AI/AN students based on responses to the NIES student, teacher, and school questionnaires, and on the performance of AI/AN students in the NAEP reading and mathematics assessments.



No significant change in average reading scores for AI/AN students compared to 2009 or 2005

Nationally representative samples of 5,500 AI/AN fourth-graders and 4,100 AI/AN eighth-graders participated in the 2011 NAEP reading assessment. At each grade, students responded to questions designed to measure their reading comprehension across literary and informational texts.

At both grades 4 and 8, average reading scores for AI/AN students in 2011 were not significantly different from the scores in 2009 or 2005 (figure A). AI/AN students scored 19 points lower on average in reading than non-AI/AN students in 2011 at grade 4, and 13 points lower at grade 8.

Forty-seven percent of AI/AN students at grade 4 and 63 percent at grade 8 performed at or above the *Basic* level in reading in 2011, demonstrating at least partial mastery of reading comprehension skills. At both grades 4 and 8, the percentages of AI/AN students performing at *Basic*, at *Proficient*, and at *Advanced* in 2011 were not significantly different from the percentages in previous assessment years.

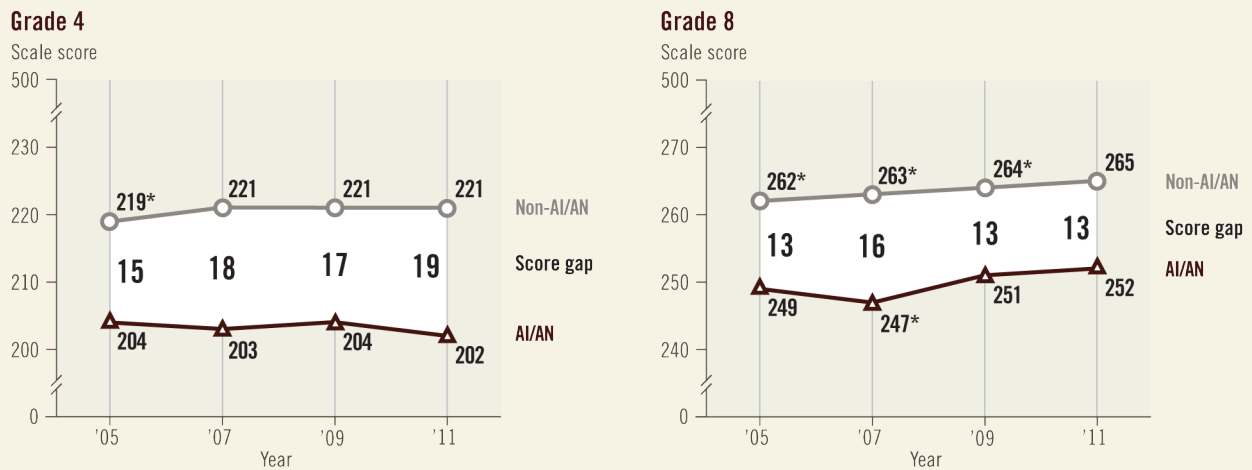
AI/AN students' performance in reading differs by some student characteristics

In 2011, average reading scores for AI/AN students were

- higher for female students than for male students at both grades 4 and 8;
- lower for students eligible for the National School Lunch Program (an indicator of lower family income) than for those who were not eligible at both grades 4 and 8;
- higher for students attending schools in suburban locations than for those in rural locations at both grades 4 and 8; and
- higher for students attending public schools than for those attending Bureau of Indian Education (BIE) schools at both grades 4 and 8.

In comparison to 2009, average reading scores were higher in 2011 for AI/AN eighth-graders who attended schools in city locations and for those in BIE schools.

Figure A. Trend in NAEP reading average scores and score gaps for fourth- and eighth-grade AI/AN and non-AI/AN students



* Significantly different ($p < .05$) from 2011.
 NOTE: AI/AN = American Indian/Alaska Native. Score gaps are calculated based on differences between unrounded average scores.

No significant change in reading scores from 2009 for 12 reported states

Average reading scores for AI/AN fourth- and eighth-graders did not change significantly from 2009 to 2011 in any of the 12 states with samples large enough to report results for AI/AN students in both years. Among the seven states with samples large enough to report results in both 2005 and 2011, the average reading score for AI/AN eighth-graders in Montana was higher in 2011.

Mathematics score gap between non-AI/AN and AI/AN students larger than in 2005

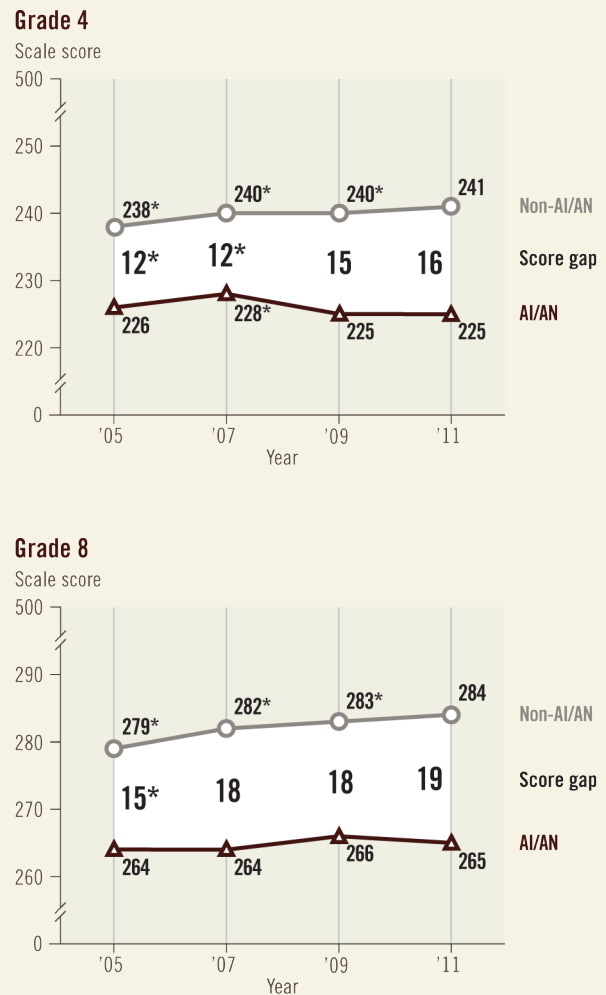
Nationally representative samples of 5,400 AI/AN fourth-graders and 4,200 AI/AN eighth-graders participated in the 2011 NAEP mathematics assessment designed to measure what they know and can do across five mathematics content areas: number properties and operations; measurement; geometry; data analysis, statistics, and probability; and algebra.

In 2011, AI/AN students scored 16 points lower on average in mathematics than non-AI/AN students at grade 4, and 19 points lower at grade 8 (figure B).

The score gaps for both grades in 2011 were not significantly different from the gaps in 2009, but were larger than the gaps in 2005. In comparison to 2009 and 2005, average scores for fourth- and eighth-grade AI/AN students did not change significantly in 2011 and scores for non-AI/AN students were higher in 2011.

In 2011, sixty-six percent of AI/AN students at grade 4 and 55 percent at grade 8 performed at or above the *Basic* level in mathematics. The percentages of AI/AN fourth- and eighth-graders performing at *Basic* and at *Proficient* in 2011 were not significantly different from the percentages in previous assessment years. At grade 8, the percentage of students at *Advanced* increased from 2 percent in 2005 to 3 percent in 2011.

Figure B. Trend in NAEP mathematics average scores and score gaps for fourth- and eighth-grade AI/AN and non-AI/AN students



* Significantly different ($p < .05$) from 2011.

NOTE: AI/AN = American Indian/Alaska Native. Score gaps are calculated based on differences between unrounded average scores.

AI/AN students' performance in mathematics differs by some student characteristics

In 2011, average mathematics scores for AI/AN students were

- lower for students eligible for the National School Lunch Program than for those who were not eligible at both grades 4 and 8;
- higher for students attending schools in suburban locations than for those in towns and rural locations at grade 4; and
- higher for students attending public schools than for those attending BIE schools at both grades 4 and 8.

In comparison to 2009, the average mathematics score for AI/AN fourth-graders in BIE schools was higher in 2011.

Mathematics scores lower than in 2009 in one state at grade 4 and in two states at grade 8

Among the 12 states with samples large enough to report results for AI/AN students in both 2009 and 2011, average mathematics scores were lower in 2011 in Montana at grade 4 and in Minnesota and Utah at grade 8. Among the seven states with samples large enough to report results in both 2005 and 2011, average mathematics scores were lower in 2011 in Alaska at grades 4 and 8, and higher in 2011 in Oklahoma at grades 4 and 8 and in South Dakota at grade 8.



Results from the NIES survey describe AI/AN students, their teachers and schools, and the integration of AI/AN culture in their education

About 10,200 AI/AN students at grade 4 and 10,300 AI/AN students at grade 8 participated in the 2011 NIES survey. Also responding to the survey were about 3,000 teachers and 1,900 school administrators at grade 4, and about 4,600 teachers and 2,000 school administrators at grade 8. Data collected from the NIES student, teacher, and school questionnaires provide information about the students themselves, their communities, teachers' background and instructional practices, and how schools address the needs of AI/AN students.

Overall survey results reported for the nation include AI/AN students attending public, private, BIES and and Department of Defense schools. Results are also reported separately for three mutually exclusive categories based on the type of school and proportion of AI/AN students: low density public schools where less than 25 percent of the student body is AI/AN; high density public schools where 25 percent or more of the students are AI/AN; and BIE schools that serve AI/AN students almost exclusively. In summarizing the NIES survey results by school type/density, data for response categories were sometimes collapsed to better illustrate how response patterns differed for students attending different schools.

Selected survey topics	Percentage of students	
	Grade 4	Grade 8
Students report knowing some or a lot about their AI/AN history		
Overall	56	63
Low density public schools	53	58
High density public schools	57	69
BIE schools	62	82
Students' teachers report acquiring information about their AI/AN students to at least a small extent from living and working in an AI/AN community		
Overall	60	54
Low density public schools	29	28
High density public schools	84	85
BIE schools	97	97
Students attend school where administrators report members of the AI/AN community visit to discuss education issues one or more times a year		
Overall	63	58
Low density public schools	40	42
High density public schools	86	81
BIE schools	78	81

NOTE: Results are not shown separately for Department of Defense and private schools.

Higher percentages of AI/AN students in BIE schools than in low density public schools reported having some or a lot of knowledge about their AI/AN history.

Higher percentages of students in BIE schools than in high or low density public schools had teachers who learned about AI/AN students to at least a small extent from living and working in an AI/AN community.

Higher percentages of students in BIE and high density public schools than in low density public schools had members of the AI/AN community visit the school to discuss education issues at least one time during the year.