
Achievement Gap Patterns of Grade 8 American Indian and Alaska Native Students in Reading and Mathematics

This project was a collaborative endeavor among eight of the 10 Regional Educational Laboratories¹ across the United States to conduct an analysis of the reading and math achievement gaps between eighth-grade American Indian/Alaska Native (AI/AN) students and all other eighth-grade students in 26 states serving large populations of AI/AN students. It used cross-sectional results to determine the degree and direction that achievement gaps are taking over time. Of REL-NEI's nine jurisdictions, only New York met the inclusion criteria for this project.

— KEVON TUCKER-SEELEY, EDC, PROJECT LEADER

PROJECT OBJECTIVES

- Document the achievement gap in reading and mathematics on New York's math and English language arts academic assessments between eighth-grade AI/AN students and their non-Native counterparts.
- Describe the trends in the direction of these achievement gaps from 2003/04 to 2006/07 in New York.

METHODOLOGY

- Collect publicly available assessment data from State Education Agency (SEA) websites for the four years in question.
- Disaggregate collected data for AI/AN populations and the population as a whole.
- Identify average scores along with standard deviations from the mean for the total distribution of scores and for the AI/AN subgroup.
- Convert assessment data to standardized units of analysis for each academic content area and year.
- Analyze results from the 26 states to determine if a statistically significant proportion of state results show the achievement gap diminishing over time.

AUDIENCE & APPLICATION

- State policymakers.
- Others interested in reducing the achievement gap of AI/AN students.

FINAL PRODUCTS

- Issues & Answers Report published by the Institute of Education Sciences, which may be found at: http://ies.ed.gov/ncee/edlabs/regions/northwest/pdf/REL_2009073.pdf

What Are Fast-Response Projects?

Fast-Response Projects are short-term projects that respond to regional and national needs and priorities and provide research-based knowledge to inform policy and practice. They use methods such as research syntheses, mining of existing data sets, and descriptive studies.



The Regional Educational Laboratory Northeast and Islands (REL-NEI) is run by Education Development Center, Inc. (EDC), the American Institutes for Research (AIR), and WestEd's Learning Innovations program. REL-NEI is one of 10 Regional Educational Laboratories funded by the Institute of Education Sciences at the U.S. Department of Education. REL-NEI provides rigorous research that is relevant to national education priorities, responsive to local needs, and useable for policy and practice.

¹REL Mid-Atlantic and REL Appalachia did not participate in this cross-REL project.

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Two research questions guided this study:

1. What were the achievement gaps in reading and math on the state academic assessment between eighth-grade American Indian and Alaska Native students and all other eighth-grade students in 2003/04 for individual states?
2. What was the direction of the achievement gaps across 2003/04, 2004/05, 2005/06, and 2006/07 in each state?

The results indicate that in most states both American Indian and Alaska Native students and all other students experienced achievement gains across the study period. Although achievement gaps were generally found to persist, the American Indian and Alaska Native students were at least keeping pace by increasing in achievement along with all other students. The majority of states with three or four years of continuous data saw an increase in the proficiency rates of American Indian and Alaska Native students—with either a decrease in their performance deficit or, in states where their performance was above that of other groups, an increase in their performance lead over other students. For reading, they decreased the gap by which they trailed or increased the gap by which they led in 11 of the 19 states with three or four years of continuous data. For math, American Indian and Alaska Native students either decreased the gap by which they trailed other students or increased the gap by which they led in 14 of the 18 states with three or four years of continuous data.

In New York, the achievement gap in reading between American Indian and Alaska Native eighth-graders and all other eighth-graders was 16.9 percentage points in 2003/04, 16.2 percentage points in 2004/05, 15.1 percentage points in 2005/06, and 11.7 percentage points in 2006/07. In math, the achievement gap was 13.2 percentage points in 2003/04, 12.5 percentage points in 2004/05, 12.1 percentage points in 2005/06, and 12.5 percentage points in 2006/07. However, the introduction of new reading and math assessments in New York in 2005/06 prevented analysis of achievement gap changes across the study period.

Contact Information

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