

Chapter 8. State Indicators

8-4A Fourth Grade Science Proficiency, White Students

Description

This indicator represents the proportion of a state's fourth grade students in public schools that met or exceeded the proficiency standard in science. The National Assessment Governing Board sets performance standards that provide a context for interpreting National Assessment of Educational Progress (NAEP) results. The standards define "proficiency," as well as "advanced" and "basic" accomplishment. For the fourth grade, the basic level (scores 131–166) denotes partial mastery of knowledge and skills that are prerequisite for proficient work. The proficient level (167–223) represents solid academic performance and demonstrates competency over challenging subject-matter knowledge. The advanced level (224–300) signifies superior performance.

The National Center for Education Statistics has determined that achievement levels are to be used on a trial basis and should be interpreted with caution. However, both the Commissioner of Education Statistics and the National Assessment Governing Board state these performance standards are useful for understanding trends in student achievement.

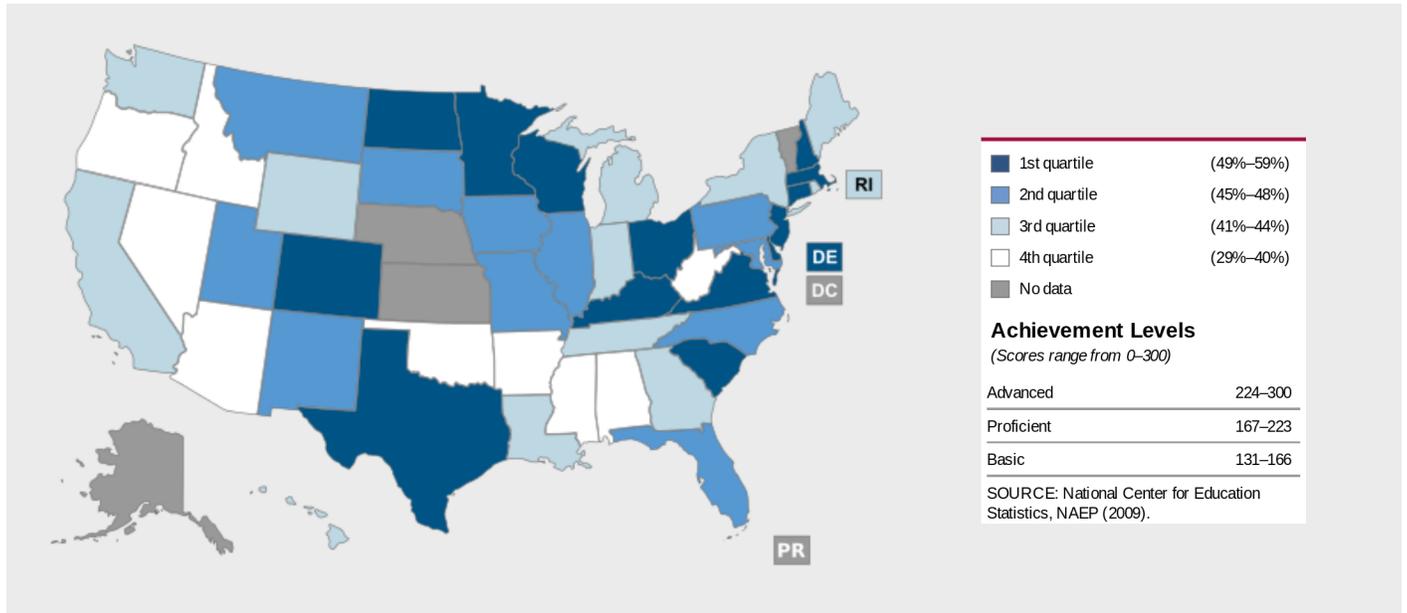
Approximately 151,500 fourth grade students, of whom 82,000 were white, participated in the 2009 NAEP science assessment. Students with disabilities or limited English-language proficiency are allowed to use certain accommodations (e.g., extra testing time or individual rather than group administration). All data presented here represent scores from tests taken with accommodations offered. Demographic percentages of test takers by state are included in this indicator's standard error table. For national data across all demographic groups, see indicator 8-4.

Findings

- Percentages of white test takers varied from 14% to 94% at the state level. Nationally, in 2009, 54% of fourth grade science test takers were white students.
- In 2009, 46% of fourth grade white students nationwide performed at or above the proficient level in science compared to 32% of fourth grade students nationwide.
- Proficiency varied significantly across states, ranging from 29% to 59%.
- Of the 46 states that participated in the 2009 fourth grade science assessment and that had enough data for statistical comparisons, 12 had a percentage of fourth grade white students who demonstrated proficiency in science that was higher than the national average for fourth grade white students, 17 states had a percentage similar to the national average, and 17 states had a percentage that was lower than the national average.

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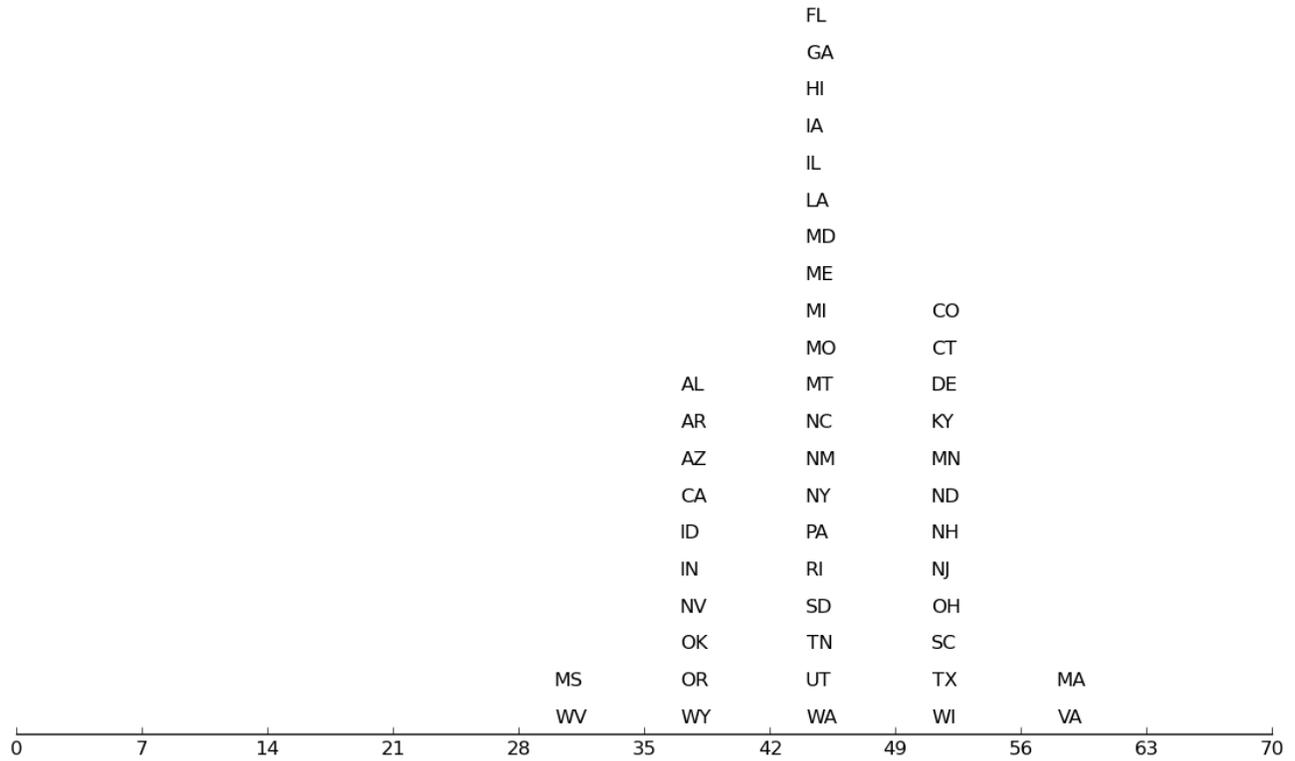
Year: 2009



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Distribution of states across indicator values



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Table 8-4A Fourth Grade Science Proficiency, White Students

State	4th grade science proficiency, white students (Percent)	
	2009	
United States		46
Alabama		39
Alaska		NA
Arizona		37
Arkansas		38
California		41
Colorado		53
Connecticut		53
Delaware		50
District of Columbia		NA
Florida		46
Georgia		42
Hawaii		43
Idaho		40
Illinois		48
Indiana		41
Iowa		45
Kansas		NA
Kentucky		49
Louisiana		42
Maine		43
Maryland		48
Massachusetts		56
Michigan		43
Minnesota		51

State	4th grade science proficiency, white students (Percent)	
	2009	
Mississippi		31
Missouri		47
Montana		47
Nebraska		NA
Nevada		37
New Hampshire		49
New Jersey		52
New Mexico		48
New York		44
North Carolina		45
North Dakota		49
Ohio		50
Oklahoma		37
Oregon		40
Pennsylvania		48
Rhode Island		44
South Carolina		49
South Dakota		46
Tennessee		43
Texas		53
Utah		45
Vermont		NA
Virginia		59
Washington		44
West Virginia		29
Wisconsin		49
Wyoming		41
Puerto Rico		NA



4th grade science proficiency, white students (Percent)

State

2009

NA = not available.

NOTES: The National Assessment of Educational Progress (NAEP) scores are for public schools only. The national value for the United States is the reported value in the NAEP reports.

SOURCE: National Center for Education Statistics, NAEP (2009).

Science and Engineering Indicators 2016