Chapter 8. State Indicators

8-4E Fourth Grade Science Proficiency, Female 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.

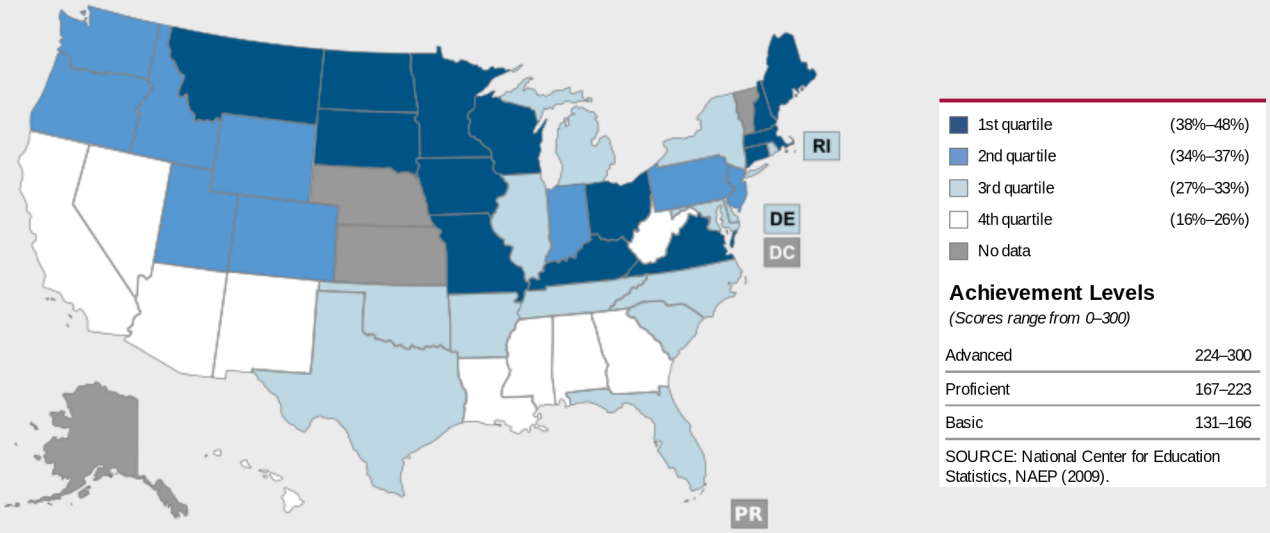
Approximately 151,500 fourth grade students in 8,780 schools participated in the 2009 NAEP science assessment. Students with disabilities or limited English-language proficiency are allowed to use certain accommodations (e.g., extra testing time or individual rather than group administration). All data 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

- In 2009, 31% of fourth grade female students nationwide performed at or above the proficient level in science compared to 32% of fourth grade students nationwide.
- Among the states, there were significant differences in the percentage of fourth grade female students who demonstrated proficiency in science. State values ranged from 16% to 48%.
- Of the 46 states that participated in the 2009 fourth grade science assessment and that had enough data for statistical comparisons, 21 had a percentage of fourth grade female students who demonstrated proficiency in science that was higher than the national average for fourth grade female students, 12 states had a percentage similar to the national average, and 13 states had a percentage that was lower than the national average.

8-4E Fourth Grade Science Proficiency, Female Students

Year: 2009



8-4E Fourth Grade Science Proficiency, Female Students

Year: 2009

Distribution of states across indicator values

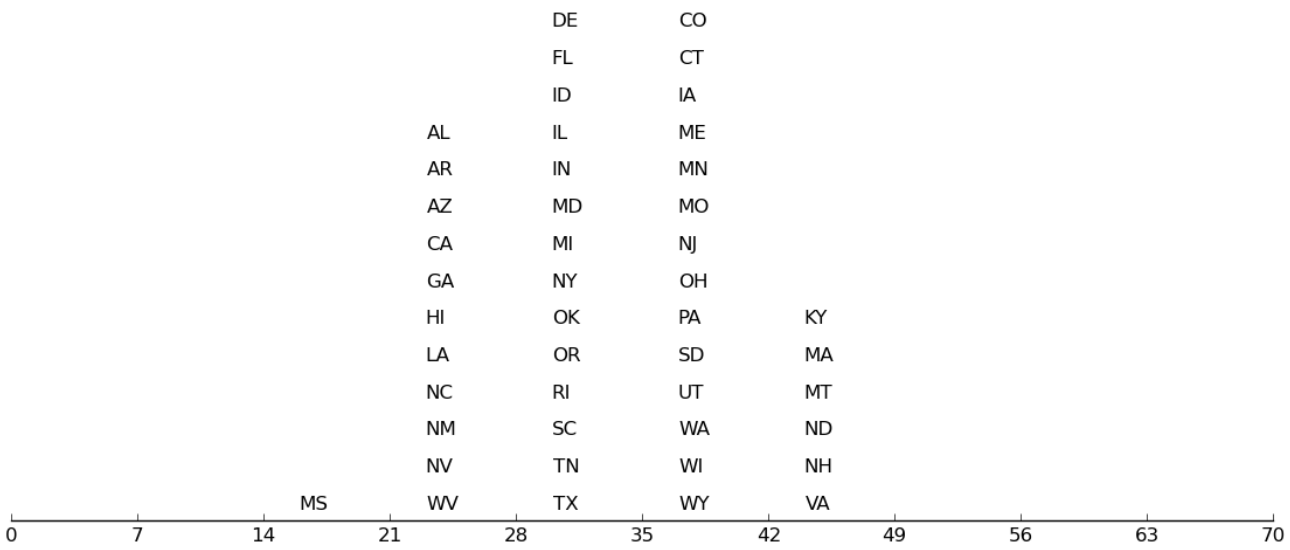


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Table 8-4E Fourth Grade Science Proficiency, Female Students

State	4th grade science proficiency, female students (Percent) 2009
United States	31
Alabama	25
Alaska	NA
Arizona	21
Arkansas	27
California	22
Colorado	37
Connecticut	38
Delaware	32
District of Columbia	NA
Florida	31
Georgia	25
Hawaii	25
Idaho	34
Illinois	30
Indiana	34
Iowa	40
Kansas	NA
Kentucky	43
Louisiana	24
Maine	39
Maryland	32
Massachusetts	43
Michigan	32
Minnesota	41

State	4th grade science proficiency, female students (Percent) 2009
Mississippi	16
Missouri	40
Montana	42
Nebraska	NA
Nevada	21
New Hampshire	48
New Jersey	37
New Mexico	23
New York	29
North Carolina	27
North Dakota	42
Ohio	38
Oklahoma	28
Oregon	34
Pennsylvania	36
Rhode Island	32
South Carolina	33
South Dakota	38
Tennessee	33
Texas	28
Utah	36
Vermont	NA
Virginia	47
Washington	35
West Virginia	26
Wisconsin	40
Wyoming	36
Puerto Rico	NA

	4th grade science proficiency, female 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