

## Chapter 8. State Indicators

### 8-4B Fourth Grade Science Proficiency, Black Students

#### Description

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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 24,000 were black, 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.

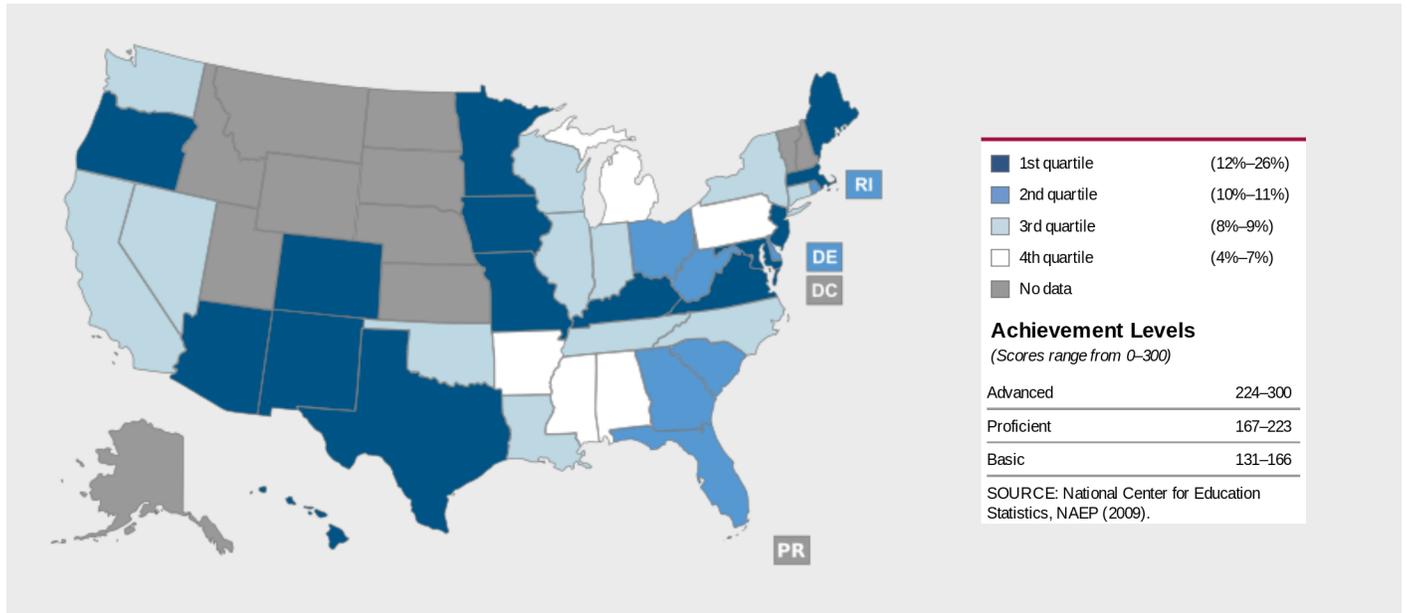
#### Findings

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- Percentages of black test takers varied from 1% to 52% at the state level. Nationally, in 2009, 16% of fourth grade science test takers were black students.
- In 2009, 10% of fourth grade black 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 4% to 26%.
- Of the 39 states that participated in the 2009 fourth grade science assessment and that had enough data for statistical comparisons, 5 had a percentage of fourth grade black students who demonstrated proficiency in science that was higher than the national average for fourth grade black students, 27 states had a percentage similar to the national average, and 7 states had a percentage lower than the national average.

## 8-4B Fourth Grade Science Proficiency, Black Students

Year: 2009

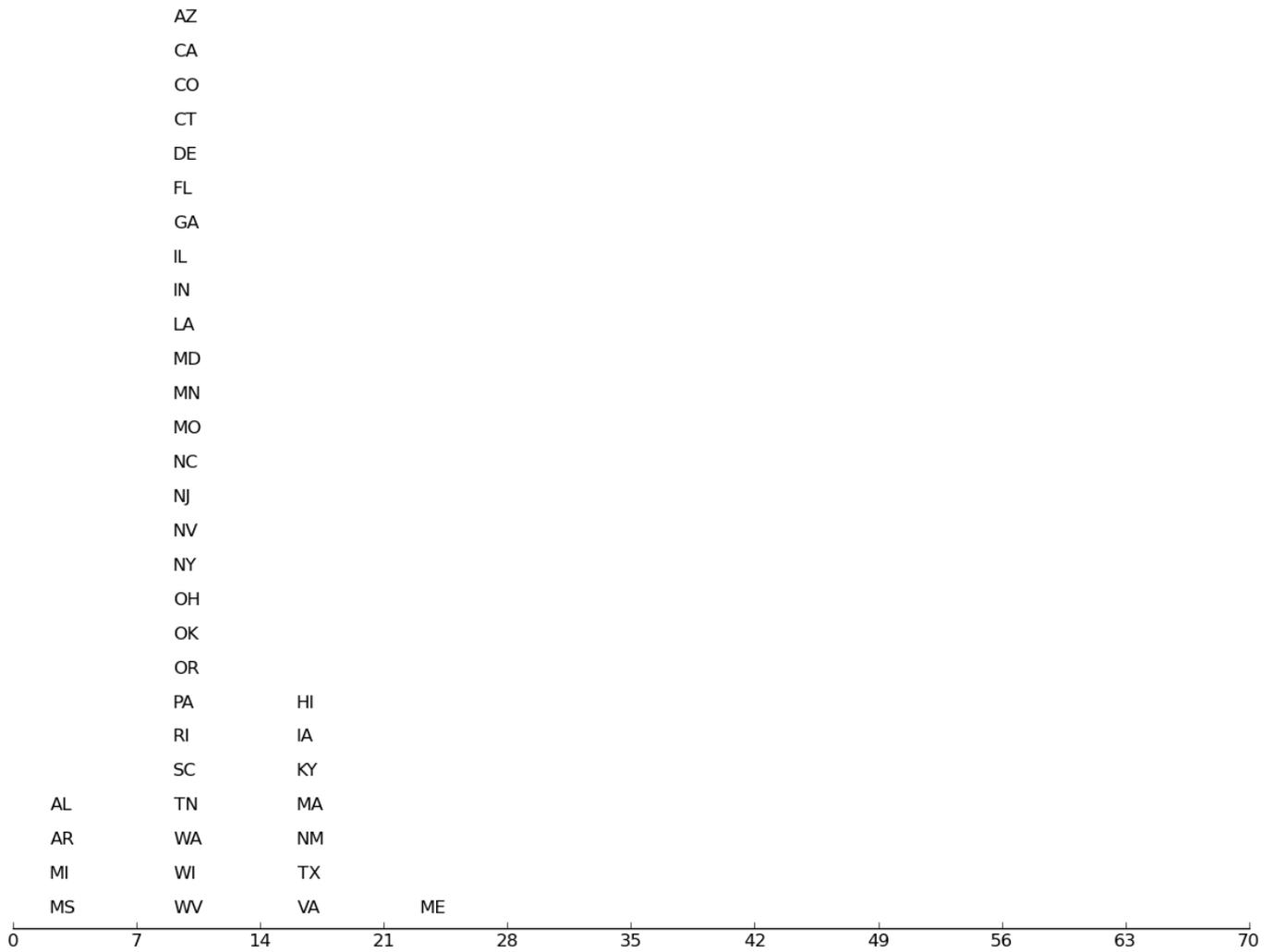


## 8-4B Fourth Grade Science Proficiency, Black Students

Year: 2009

Distribution of states across indicator values

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**Table 8-4B** Fourth Grade Science Proficiency, Black Students

| State                | 4th grade science proficiency, black students (Percent) |    |
|----------------------|---|----|
|                      | 2009  |    |
| United States        |   | 10 |
| Alabama              |   | 6  |
| Alaska               |   | NA |
| Arizona              |   | 13 |
| Arkansas             |   | 6  |
| California           |   | 9  |
| Colorado             |   | 12 |
| Connecticut          |   | 9  |
| Delaware             |   | 11 |
| District of Columbia |   | NA |
| Florida              |   | 10 |
| Georgia              |   | 10 |
| Hawaii               |   | 16 |
| Idaho                |   | S  |
| Illinois             |   | 9  |
| Indiana              |   | 9  |
| Iowa                 |   | 14 |
| Kansas               |   | NA |
| Kentucky             |   | 15 |
| Louisiana            |   | 8  |
| Maine                |   | 26 |
| Maryland             |   | 12 |
| Massachusetts        |   | 17 |
| Michigan             |   | 6  |
| Minnesota            |   | 12 |

| 4th grade science proficiency, black students (Percent) |      |
|---|------|
| State   | 2009 |
| Mississippi   | 4    |
| Missouri  | 12   |
| Montana   | S    |
| Nebraska  | NA   |
| Nevada  | 8    |
| New Hampshire   | S    |
| New Jersey  | 12   |
| New Mexico  | 16   |
| New York  | 9    |
| North Carolina  | 9    |
| North Dakota  | S    |
| Ohio  | 10   |
| Oklahoma  | 8    |
| Oregon  | 12   |
| Pennsylvania  | 7    |
| Rhode Island  | 10   |
| South Carolina  | 10   |
| South Dakota  | S    |
| Tennessee   | 8    |
| Texas   | 18   |
| Utah  | S    |
| Vermont   | NA   |
| Virginia  | 18   |
| Washington  | 8    |
| West Virginia   | 11   |
| Wisconsin   | 8    |
| Wyoming   | S    |
| Puerto Rico   | NA   |



4th grade science proficiency, black students (Percent)

State

2009

NA = not available; S = data are suppressed because reporting standards were not met.

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. Black includes African American.

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

*Science and Engineering Indicators 2016*