

## Chapter 8. State Indicators

### 8-2 Fourth Grade Mathematics Proficiency

#### 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 mathematics. 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 214–248) denotes partial mastery of knowledge and skills that are prerequisite for proficient work. The proficient level (249–281) represents solid academic performance and demonstrates competency over challenging subject-matter knowledge. The advanced level (282–500) 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 180,000 fourth grade students in 7,540 schools participated in the 2013 NAEP mathematics assessment. Students with disabilities or limited English-language proficiency were 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.

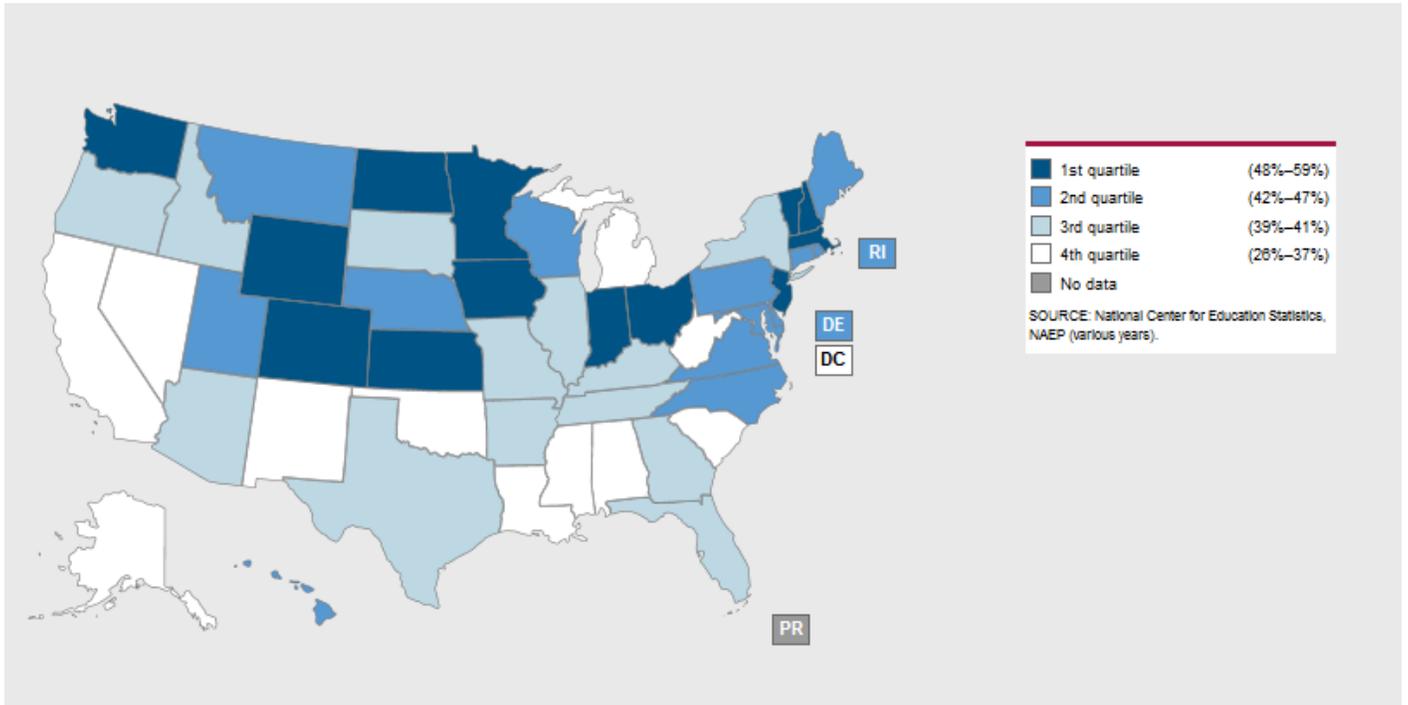
#### Findings

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- In 2013, 41% of fourth grade students nationwide performed at or above the proficient level in mathematics, an increase from 31% in 2003.
- None of the statewide averages were lower in 2013 than in 2003; almost all statewide averages were higher in 2013 than in 2003. Statewide averages for Michigan and South Carolina were virtually the same in 2013 as in 2003.
- Demographic gaps among some racial/ethnic groups are not noticeably shrinking. Nationally, in 2013, the percentage of white students demonstrating proficient performance was 54% compared to 18% for black students, a gap of 36 percentage points, and 26% for Hispanic students, a gap of 28 percentage points, based upon racial classifications provided by the schools. In 2003, these gaps were 32 and 27 percentage points, respectively.
- In 2013, the percentage of Asian and Pacific Islander students demonstrating proficient performance was 64% compared to 54% for white students, a gap of 10 percentage points. This was not a significant change from the gap between the groups of 6 percentage points in 2003.
- In 2013, 42% of male students demonstrated proficient performance in mathematics compared to 40% of female students. The gap between groups shrunk to 2 percentage points in 2013 compared to the 5 percentage points difference in 2003 (34% of males, compared to 29% of females).

## 8-2 Fourth Grade Mathematics Proficiency

Year: 2013

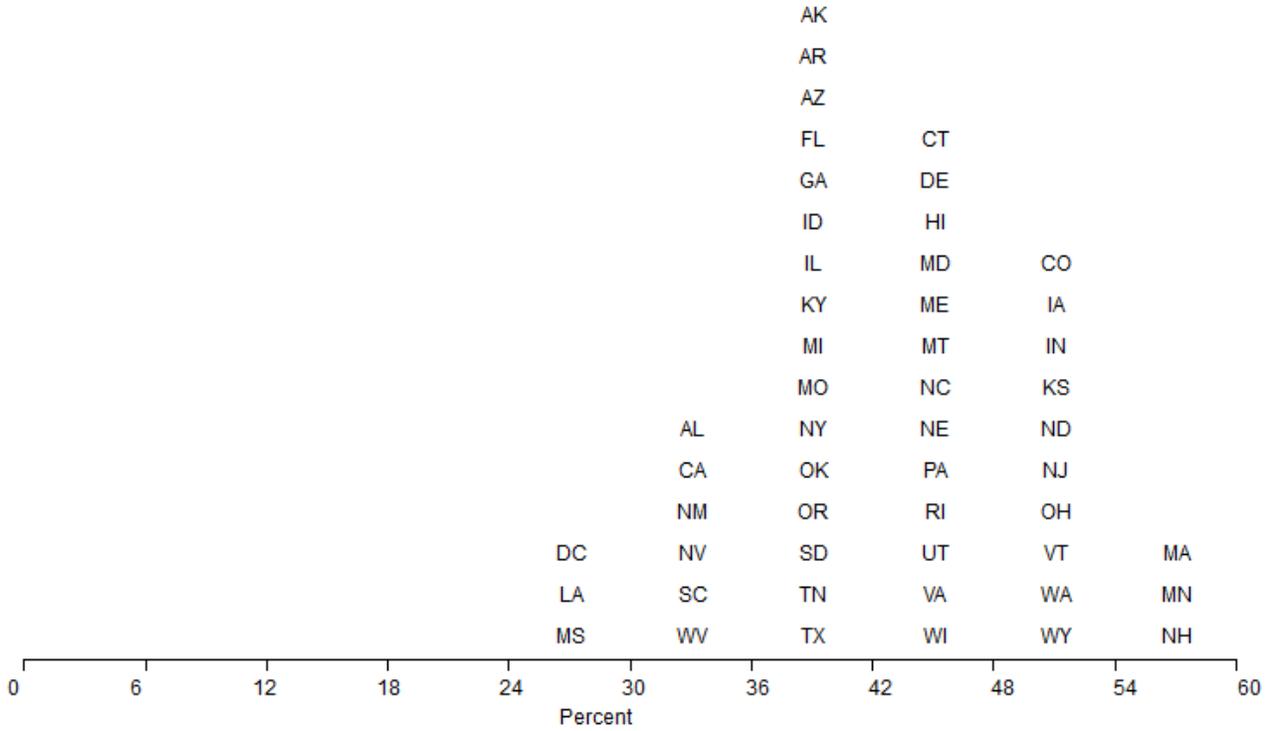


## 8-2 Fourth Grade Mathematics Proficiency

Year: 2013

### Distribution of states across indicator values

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Histograms do not display states with extreme values. Please consult the data tables for exact indicator values for each state.

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**Table 8-2 Fourth Grade Mathematics Proficiency**

State	4th grade math proficiency, all students (Percent)						
	2000	2003	2005	2007	2009	2011	2013
United States	22	31	35	39	38	40	41
Alabama	13	19	21	26	24	27	30
Alaska	NA	30	34	38	38	37	37
Arizona	16	25	28	31	28	34	40
Arkansas	14	26	34	37	36	37	39
California	13	25	28	30	30	34	33
Colorado	NA	34	39	41	45	47	50
Connecticut	31	41	42	45	46	45	45
Delaware	NA	31	36	40	36	39	42
District of Columbia	5	7	10	14	17	22	28
Florida	NA	31	37	40	40	37	41
Georgia	17	27	30	32	34	37	39
Hawaii	14	23	27	33	37	40	46
Idaho	20	31	40	40	41	39	40
Illinois	20	32	32	36	38	38	39
Indiana	30	35	38	46	42	44	52
Iowa	26	36	37	43	41	43	48
Kansas	29	41	47	51	46	48	48
Kentucky	17	22	26	31	37	39	41
Louisiana	14	21	24	24	23	26	26
Maine	23	34	39	42	45	45	47
Maryland	21	31	38	40	44	48	47
Massachusetts	31	41	49	58	57	58	58
Michigan	28	34	38	37	35	35	37
Minnesota	33	42	47	51	54	53	59



State	4th grade math proficiency, all students (Percent)						
	2000	2003	2005	2007	2009	2011	2013
Mississippi	9	17	19	21	22	25	26
Missouri	23	30	31	38	41	41	39
Montana	24	31	38	44	45	45	45
Nebraska	24	34	36	38	38	39	45
Nevada	16	23	26	30	32	36	34
New Hampshire	NA	43	47	52	56	57	59
New Jersey	NA	39	45	52	49	51	49
New Mexico	12	17	19	24	26	30	31
New York	21	33	36	43	40	36	40
North Carolina	25	41	40	41	43	44	45
North Dakota	25	34	40	46	45	46	48
Ohio	25	36	43	46	45	45	48
Oklahoma	16	23	29	33	33	33	36
Oregon	23	33	37	35	37	37	40
Pennsylvania	NA	36	41	47	46	48	44
Rhode Island	22	28	31	34	39	43	42
South Carolina	18	32	36	36	34	36	35
South Dakota	NA	34	41	41	42	40	40
Tennessee	18	24	28	29	28	30	40
Texas	25	33	40	40	38	39	41
Utah	23	31	37	39	41	43	44
Vermont	29	42	44	49	51	49	52
Virginia	24	36	39	42	43	46	47
Washington	NA	36	42	44	43	45	48
West Virginia	17	24	25	33	28	31	35
Wisconsin	S	35	40	47	45	47	47
Wyoming	25	39	43	44	40	44	48
Puerto Rico	NA	NA	NA	NA	NA	NA	NA



4th grade math proficiency, all students (Percent)

State	2000	2003	2005	2007	2009	2011	2013
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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.

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

*Science and Engineering Indicators 2016*