

2013 NAEP: CO Math 4th Grade Results Graphics

2013 Math Grade 4: Average Scale Score (Figure 1)

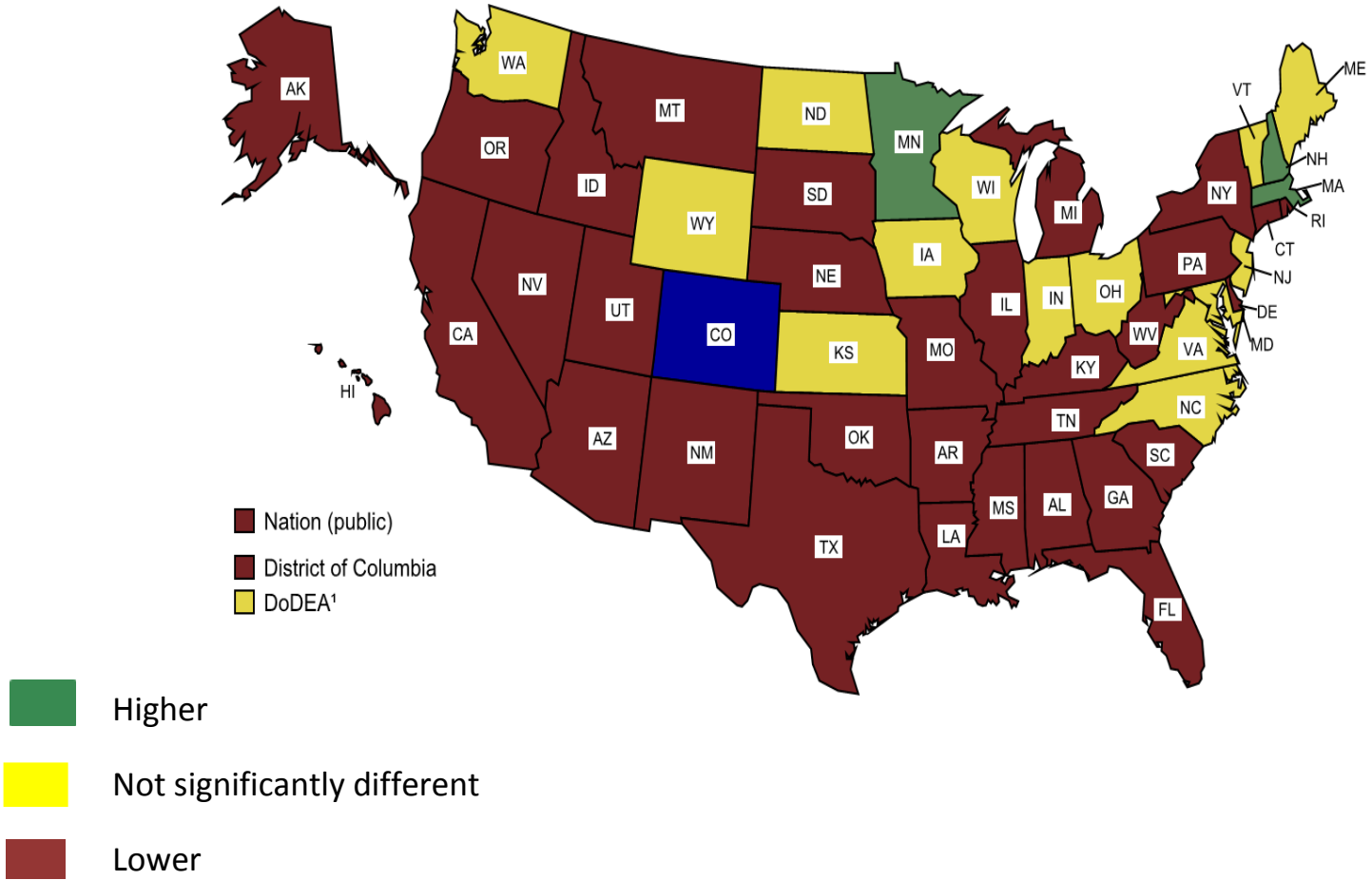


Figure 1 shows how Colorado performed in the 2013 NAEP *Math* assessment in comparison to the other 49 states, the District of Columbia and the Department of Defense schools. This is a comparison using the average scale score for each state. States shaded green scored higher than Colorado. Yellow-shaded states scored the same and red-shaded states scored lower. Because NAEP results are based on samples, there is a margin of error associated with each score or percentage. Therefore, only those differences in scores or percentages that meet NAEP’s standards for statistical significance are reported.

2013 Math Grade 4: Comparison to other states (Table 1)

Table 1 shows how Colorado performed in comparison to other states in average scale score. CO, the focal state, is shaded blue. States shaded green performed higher than CO. Only Minnesota, Massachusetts and New Hampshire scored higher. States/jurisdictions that are shaded yellow performed about the same as CO. The 15 states that scored the same as CO are shaded yellow and listed below in rank order with their respective scores.

Rank Order	2013 NAEP Grade 4 Math Average Scale Score	2013 Scale Score
1	Minnesota	253.42
2	Massachusetts	253.03
3	New Hampshire	252.99
4	Indiana	248.60
5	Vermont	247.80
6	Colorado	246.98
7	New Jersey	246.87
8	Wyoming	246.52
9	North Dakota	246.42

10	Washington	246.29
11	Kansas	246.19
12	Virginia	246.18
13	Maine	245.85
14	Iowa	245.79
15	Ohio	245.55
16	Maryland	245.17
17	Department of Defense	245.01
18	North Carolina	244.80
19	Wisconsin	244.71

The states that are shaded rose scored lower than Colorado. The 33 states that scored lower than CO are listed below in rank order with respective scores.

Rank Order	2013 NAEP Grade 4 Math Average Scale Score	2013 Scale Score
20	Pennsylvania	244.01
21	Montana	243.70
22	Connecticut	243.44
23	Hawaii	243.31
24	Nebraska	243.16
25	Delaware	243.11
26	Utah	242.82
27	Texas	241.93
28	Florida	241.68
29	Kentucky	241.47
30	Rhode Island	241.42

31	South Dakota	240.98
32	Idaho	240.72
33	New York	240.35
34	Arizona	240.30
35	Oregon	240.10
36	Georgia	240.05
37	Arkansas	239.89
38	Tennessee	239.77
39	Missouri	239.55
40	Illinois	239.00
41	Oklahoma	238.92
42	West Virginia	237.44
43	Michigan	236.82
44	South Carolina	236.63
45	Nevada	236.26
46	Alaska	236.12
47	California	233.65
48	Alabama	232.86
49	New Mexico	232.78
50	Louisiana	231.37
51	Mississippi	231.11
52	District of Columbia	228.57

How Colorado Compares to Other States/Jurisdictions in Average Scale Score (Figure 2)

	4 th Grade
	Math
Number of States Scoring <u>Better</u> than Colorado	3
Number of States/Jurisdictions Scoring the <u>Same</u> as Colorado	15
Number of States/Jurisdictions Scoring <u>Lower</u> than Colorado	33

Figure 2 shows how Colorado performed in comparison to other states/jurisdictions in the grade 4 2013 NAEP *Math* assessment in average scale score. Three states performed higher than CO. Fifteen states/jurisdictions scored the same as CO. Last, thirty-three states scored lower than CO.

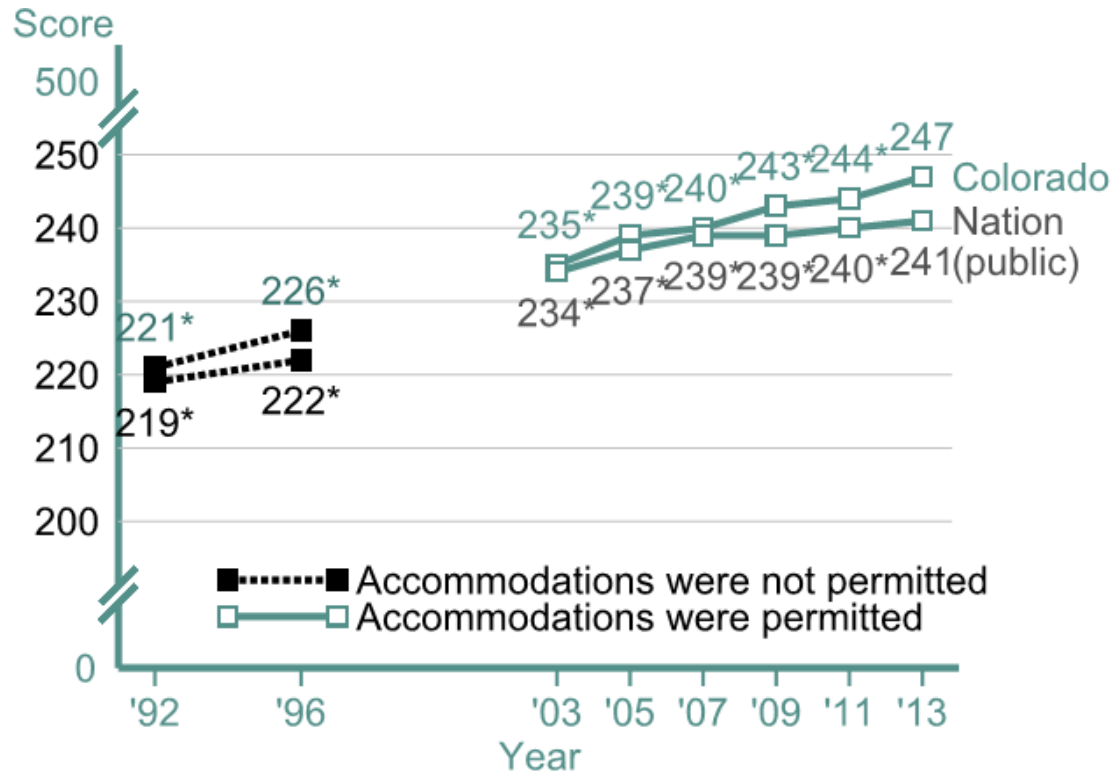
Average Scale Score: CO v. the National Public (Figure 3)

	4 th Grade
	Math
Colorado	* 247 ↑
National Public	* 241 ↑
Did Colorado perform (statistically) significantly higher than the National Public?	Yes

* Significantly higher than 2011

Figure 3 shows how CO compares to the National Public in the 2013 grade 4 NAEP *Math* assessment in average scale score. CO had an average scale score of 247 and the National Public sample had a score of 241. CO performed significantly higher than the National Public in the math assessment. In addition, both CO and the National Public scored significantly higher than they did in the 2011 test.

2013 Math Grade 4: Average Scores Trend for CO and Nation (public): Figure 4



***/*Significantly different than 2013**

Figure 4 shows a comparison of the grade 4 trend results from 1992 to 2013 for CO and the National Public using average scale score. A score with an asterisk means that it is significantly different than the 2013 score. There are no scores between 1996 and 2003 as Colorado did not participate in testing those years.

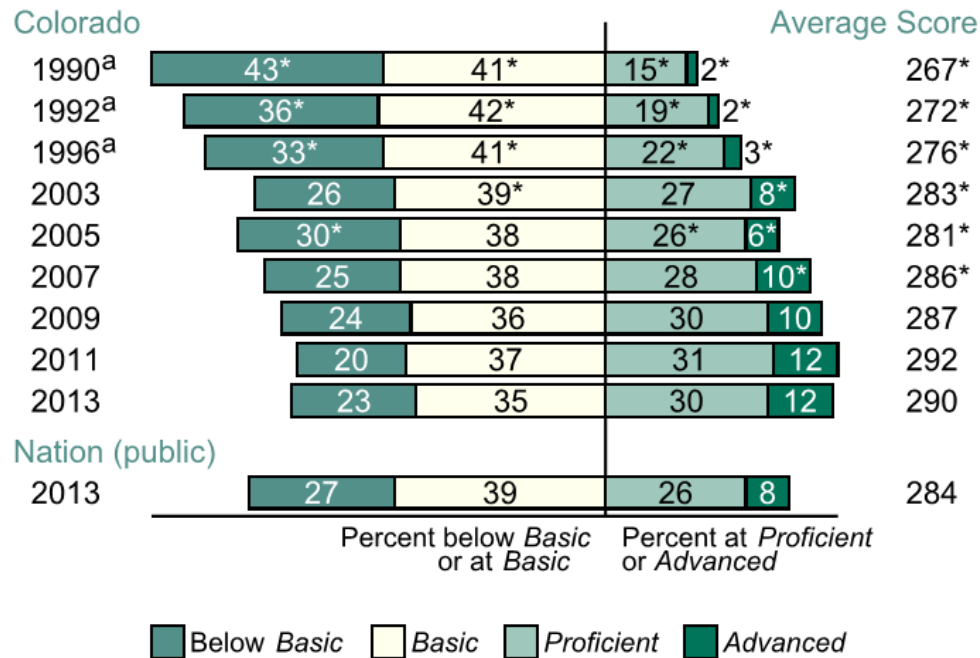
Percent of Students Scoring at *Proficient* or Above (Figure 5)

	4 th Grade
	Math
Colorado	50↑
National Public	*42
Did Colorado perform (statistically) significantly higher than the National Public?	Yes

* Significantly higher than 2011

Figure 5 shows the percent of students for CO and the National Public scoring at the *Proficient* and above achievement levels (*Proficient and Advanced*) on the 2013 grade four math test. CO had 50 percent of its students that scored at the *Proficient* and above achievement levels. The National Public had 42 percent of the students that scored at the *Proficient* and above achievement levels. Colorado had significantly more students score at *Proficient* and above than the National Public. The National Public had a higher percentage of students scoring at *Proficient* or above in 2013 than in 2011. Colorado did not have any significant difference in students scoring at *Proficient* or above in 2013 compared to 2011.

Achievement Level Percentages and Average Score Results (Figure 6)



*** Significantly different from state results in 2013
a Accommodations not permitted**

Figure 6 shows the following:

- In 2013, the average score of fourth-grade students in Colorado was 247. This was higher than the average score of 241 for public school students in the nation.
- The average score for students in Colorado in 2013 (247) was higher than their average score in 2011 (244) and in 1992 (221).
- The percentage of students in Colorado who performed at or above the NAEP Proficient level was 50 percent in 2013. This percentage was not significantly different from that in 2011 (47 percent) and was greater than that in 1992 (17 percent).
- The percentage of students in Colorado who performed at or above the NAEP Basic level was 87 percent in 2013. This percentage was greater than that in 2011 (84 percent) and in 1992 (61 percent).

NOTE: Statistical comparisons are calculated on the basis of unrounded scale scores or percentages.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1996, 2003, 2005, 2007, 2009, 2011 and 2013 Mathematics Assessments.

2013 NAEP: CO Math 8th Grade Results Graphics

2013 Math Grade 8: Average Scale Score (Figure 1)

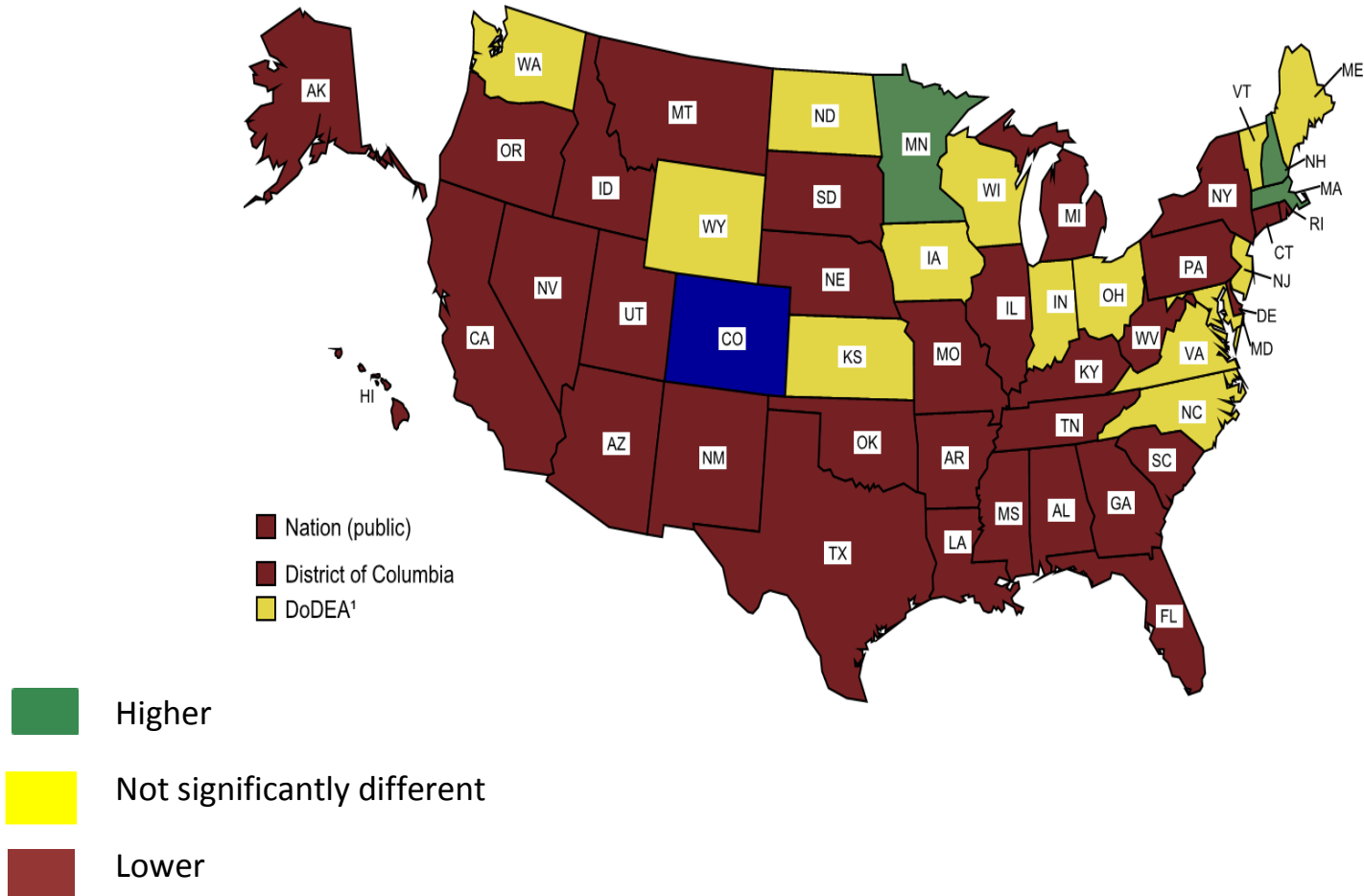


Figure 1 shows how Colorado 8th graders performed in the 2013 NAEP *Math* assessment in comparison to the other 49 states, the District of Columbia and the Department of Defense schools. This is a comparison using the average scale score for each state. States shaded green scored higher than Colorado. Yellow-shaded states scored the same and red-shaded states scored lower. Because NAEP results are based on samples, there is a margin of error associated with each score or percentage. Therefore, only those differences in scores or percentages that meet NAEP’s standards for statistical significance are reported.

2013 Math Grade 8: Comparison to other states (Table 1)

Table 1 shows how Colorado 8th graders performed in comparison to other states in average scale score. CO, the focal state, is shaded blue. States shaded green performed higher than CO. Massachusetts, New Jersey, New Hampshire, Vermont, and Minnesota scored higher. States/jurisdictions that are shaded yellow performed about the same as CO. The 15 states that scored the same as CO are shaded yellow and listed below in rank order with their respective scores. The states that are shaded rose scored lower than Colorado. The 31 states that scored lower than CO are listed below in rank order with respective scores.

Rank Order	2013 NAEP Grade 8 Math Average Scale Score	2013 Scale Score
1	Massachusetts	300.57
2	New Jersey	296.05
3	New Hampshire	295.67
4	Vermont	295.47
5	Minnesota	294.59
6	North Dakota	290.52
7	Department of Defense	290.43

8	Washington	289.96
9	Colorado	289.68
10	Pennsylvania	289.62
11	Ohio	289.53
12	Kansas	289.52
13	Montana	289.23
14	Wisconsin	288.75
15	Maine	288.73
16	Texas	288.20
17	Virginia	288.14
18	Wyoming	288.12
19	Indiana	287.77
20	South Dakota	287.27
21	Maryland	286.64
22	Idaho	286.41
23	North Carolina	285.65
24	Connecticut	285.24
25	Iowa	285.07
26	Nebraska	285.06
27	Illinois	284.90
28	Utah	284.33
29	Rhode Island	284.09
30	Oregon	283.52
31	Missouri	282.99
32	Delaware	282.34
33	New York	281.81
34	Alaska	281.56
35	Hawaii	281.41
36	Florida	280.86
37	Kentucky	280.65
38	Michigan	280.13

39	South Carolina	279.82
40	Arizona	279.72
41	Georgia	279.18
42	Nevada	278.29
43	Arkansas	277.91
44	Tennessee	277.72
45	California	275.90
46	Oklahoma	275.51
47	West Virginia	274.43
48	New Mexico	272.76
49	Louisiana	272.76
50	Mississippi	271.16
51	Alabama	269.19
52	District of Columbia	265.26

How Colorado Compares to Other States/Jurisdictions in Average Scale Score (Figure 2)

	8 th Grade
	Math
Number of States Scoring <u>Better</u> than Colorado	5
Number of States/Jurisdictions Scoring the <u>Same</u> as Colorado	15
Number of States/Jurisdictions Scoring <u>Lower</u> than Colorado	31

Figure 2 shows how Colorado performed in comparison to other states/jurisdictions in the grade 8 2013 NAEP *Math* assessment in average scale score. Five states performed higher than CO. Fifteen states/jurisdictions scored the same as CO. Last, thirty-one states scored lower than CO.

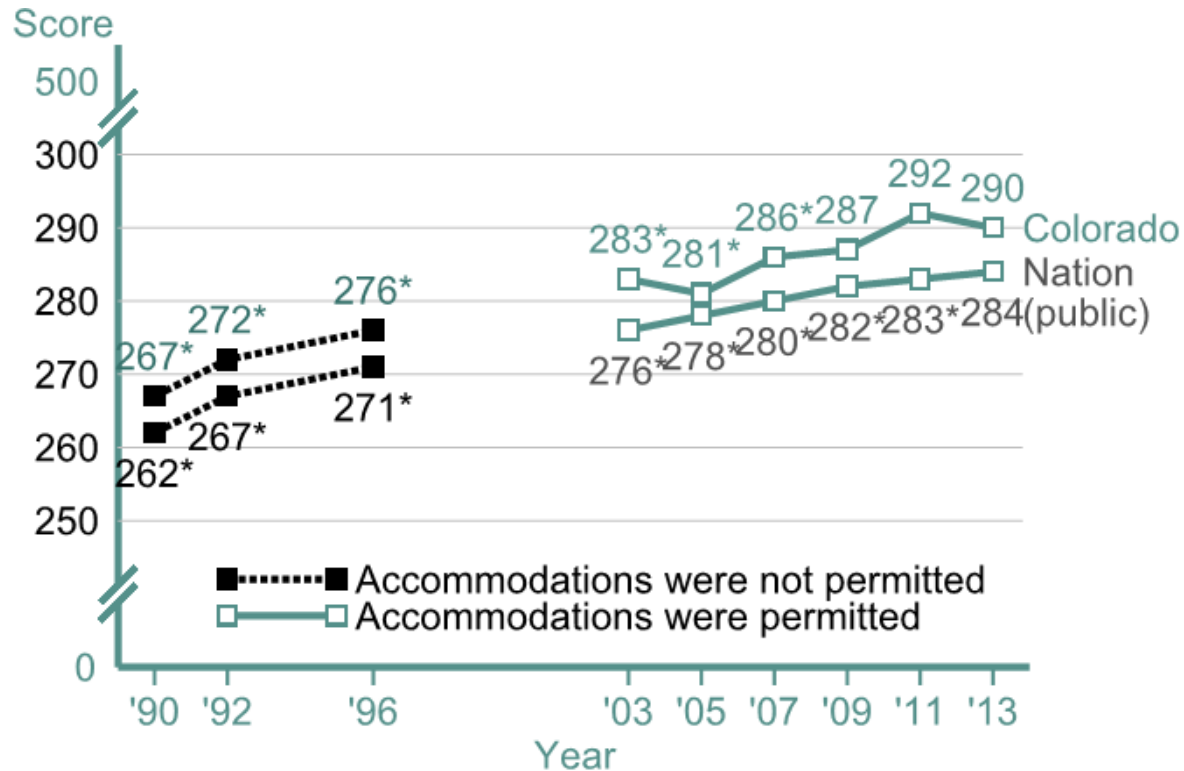
Average Scale Score: CO v. the National Public (Figure 3)

	8 th Grade
	Math
Colorado	290↑
National Public	* 284
Did Colorado perform (statistically) significantly higher than the National Public?	Yes

* Significantly higher than 2011

Figure 3 shows how CO compares to the National Public in the 2013 grade 8 NAEP *Math* assessment in average scale score. CO had an average scale score of 290 and the National Public sample had a score of 284. CO performed significantly higher than the National Public in the math assessment. The National Public scored significantly higher than it did in the 2011 test. Colorado did not score significantly different than it did in the 2011 test.

2013 Math Grade 8: Average Scores Trend for CO and Nation (public): Figure 4



***/* Significantly different than 2013**

Figure 4 shows a comparison of the grade 4 trend results from 1990 to 2013 for CO and the National Public using average scale score. A score with an asterisk means that it is significantly different than the 2013 score. There are no scores between 1996 and 2003 as Colorado did not participate in testing those years.

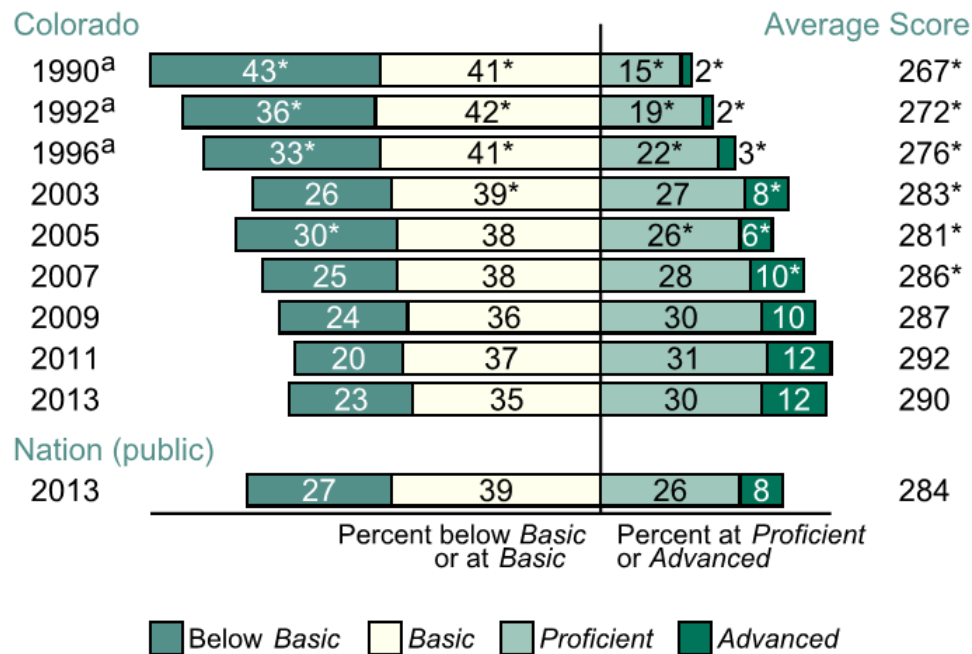
Percent of Students Scoring at *Proficient* or Above (Figure 5)

	8 th Grade
	Math
Colorado	42↑
National Public	* 34
Did Colorado perform (statistically) significantly higher than the National Public?	Yes

* Significantly higher than 2011

Figure 5 shows the percent of students for CO and the National Public scoring at the *Proficient* and above achievement levels (*Proficient and Advanced*) on the 2013 grade eight math test. CO had 42 percent of its students that scored at the *Proficient* and above achievement levels. The National Public had 34 percent of the students that scored at the *Proficient* and above achievement levels. Colorado had significantly more students score at *Proficient* and above than the National Public in the 2013 NAEP 8th grade math test. The National Public had a higher percentage of students scoring at *Proficient* or above in 2013 than in 2011. Colorado did not have any significant difference in students scoring at *Proficient* or above in 2013 compared to 2011.

Achievement Level Percentages and Average Score Results (Figure 6)



* Significantly different from state results in 2013
 a Accommodations not permitted

Figure 6 shows the following:

- In 2013, the average score of eighth-grade students in Colorado was 290. This was higher than the average score of 284 for public school students in the nation.
- The average score for students in Colorado in 2013 (290) was not significantly different from their average score in 2011 (292) and was higher than their average score in 1990 (267).
- The percentage of students in Colorado who performed at or above the NAEP Proficient level was 42 percent in 2013. This percentage was not significantly different from that in 2011 (43 percent) and was greater than that in 1990 (17 percent).
- The percentage of students in Colorado who performed at or above the NAEP Basic level was 77 percent in 2013. This percentage was not significantly different from that in 2011 (80 percent) and was greater than that in 1990 (57 percent).

NOTE: Statistical comparisons are calculated on the basis of unrounded scale scores or percentages.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1990, 1992, 1996, 2003, 2005, 2007, 2009, 2011 and 2013 Mathematics Assessments.