2024 National Assessment of Educational Progress (NAEP)

Colorado Grade 4 Math Results Graphics



NAEP 2024 Math Grade 4: Average Scale Score

COMPARE THE AVERAGE SCORE IN 2024 TO OTHER STATES/JURISDICTIONS



DoDEA = Department of Defense Education Activity (overseas and domestic schools). NOTE: Puerto Rico was not included in the comparison results. Figure 1

The map compares Colorado 4th graders average scale score on the NAEP 2024 Math assessment to the other 49 states, the District of Columbia and the Department of Defense schools. Colorado, which is shaded gold, is the focal state. States shaded dark blue scored lower than Colorado. Light blue shaded states scored higher than Colorado and grey-shaded states scored the same as Colorado. 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 as higher or lower.





National NAEP Math Grade Average Scale Scores



Figure 2

Using the average scale score on the NAEP 2024 Math assessment for each state, this bar graph compares Colorado 4th graders with the other 49 states, the District of Columbia and the Department of Defense schools. The red bar indicates the National Public average. The blue bar represents Colorado. Darker shaded bars indicate significant difference from National Public average.





National Change in NAEP Grade 4 Math Scale Scores Over Ten Years



Figure 3

Using the average scale score on the NAEP 2024 Math assessment for each state, this bar graph compares Colorado 4th graders with the other 49 states, the District of Columbia and the Department of Defense schools. The red bar indicates the National Public average. The blue bar represents Colorado. Darker shaded bars indicate significant difference from National Public average.





Colorado vs National Public Average Scale Score by Percentiles 2011-2024



Trend in percentile scores for Colorado and National public grade 4 Mathematics

★ Significantly different from 2024

Note: the NAEP Grade 4 Mathematics scale ranges from 0 to 500

Figure 4

The line charts above represent average scale score on the 2024 NAEP Grade 4 Math assessment seperated into the 10th, 25th, 50th, 75th, and 90th percentiles for each Colorado and National Public school students extending back to 2011. The dashed lines represents the 2024 NAEP Grade 4 Math NAEP basic, proficient, and advanced achievement levels.

January 2024





Change in NAEP Math Grade 4 Achievement Levels Over Time

Percent of students performing at each NAEP Achievement Level for Colorado and National public

	🛛 % Bel	ow NAEP	Basic	% at NAEP Basic	■% a	t NAEP Proficient	% at NAEP Advanced
Colorado	2003		23	43*		30	4*
	2005		19	42*		33	6*
	2007		18*	41*		35	6*
	2009		16*	39		37*	8
	2011		16*	37		37*	10
	2013		13	* 37		39*	11
	2015		18*	39*		34	8
	2017		20	38		34	9
	2019		20*	36		34	10
	2022		25	39		29	8
	2024		23	35		32	10
National Public	2003		24	45*		28*	4*
	2005		21*	44*		30	5*
	2007		19*	43*		33*	5*
	2009		19*	43*		33*	6*
	2011		18*	42*		33*	6*
	2013		18*	41*		34*	8*
	2015		19*	42*		32*	7*
	2017		21*	39*		32*	8*
	2019		20*	40*		32*	9
	2022		26*	39*		28*	7*
	2024		24	36		31	9

★ Significantly different from 2024

Figure 5

The bar chart above compares the percentages at each NAEP Math achievement level for 4th graders in Colorado and National Public in 2003 through 2024. Navy represents the percent of students scoring in the advanced achievement level. Dark gray represents the percent of students scoring in the proficient achievement level. Light blue represents the percent of students scoring in the basic achievement level. Light gray represents the percent of students that scored below the basic achievement level.





2024 Colorado NAEP Math Grade 4 Math Scale Scores Percentiles by Subgroups



Figure 6

The horizontal box plots above represent average scale score on the 2024 NAEP Grade 4 Math assessment seperated int the 10th, 25th, 50th, 75th, and 90th percentiles for each Colorado subgroup. The dashed orange line represents the 2024 NAEP Grade 4 Math NAEP Proficent achievement level scale score of 249.



Colorado NAEP Math Grade 4 Black / White Gap

Trend in NAEP average scores and Black/White score gaps for students in Colorado



Note: The NAEP Grade 4 Mathematics scale is from 0 to 500

Figure 7

This is a comparison of Colorado 4th grade student subgroups using the average scale scores on the NAEP Math assessment extending back to 2011. The gold line represents White student 4th grade average scale scores while the blue line represents Black student 4th grade average scale scores. The green dots represent the score gaps between the student subgroups.

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Colorado NAEP Math Grade 4 Hispanic / White Gap

Trend in NAEP average scores and Hispanic/White score gaps for students in Colorado



Note: The NAEP Grade 4 Mathematics scale is from 0 to 500

Figure 8

This is a comparison of Colorado 4th grade student subgroups using the average scale scores on the NAEP Math assessment extending back to 2011. The gold line represents White student 4th grade average scale scores while the blue line represents Hispanic student 4th grade average scale scores. The green dots represent the score gaps between the student subgroups.



Colorado NAEP Math Grade 4 Free and Reduced Lunch / Non- Free and Reduced Lunch Gap

Trend in NAEP average scores and score gaps for students in Colorado, by reduced price lunch status



Note: The NAEP Grade 4 Mathematics scale is from 0 to 500

Figure 9

This is a comparison of Colorado Public 4th grade student subgroups using the average scale scores on the NAEP Math assessment extending back to 2003. The gold line represents 4th grade students not eligible for free and reduced lunch average scale scores while the blue line represents 4th grade students eligible for free and reduced lunch average scale scores. The green dots represent the score gaps between the student subgroups.





Colorado NAEP Math Grade 4 Non-Disabled Students / Students with Disabilities Gap

Trend in NAEP average scores and score gaps for students in Colorado, by disability status



Note: The NAEP Grade 4 Mathematics scale is from 0 to 500

Figure 10

This is a comparison of Colorado 4th grade student subgroups using the average scale scores on the NAEP Math assessment extending back to 2003. The gold line represents 4th grade average scale scores of non disabled students while the blue line represents 4th grade average scale scores of students with disabilities. The green dots represent the score gaps between the student subgroups.





Colorado NAEP Math Grade 4 Non-Multilingual Learners / Multilingual Learners Gap

Trend in NAEP average scores and score gaps for students in Colorado, by Multilingual Learners status



Note: The NAEP Grade 4 Mathematics scale is from 0 to 500

Figure 11

This is a comparison of Colorado 4th grade student subgroups using the average scale scores on the NAEP Math assessment extending back to 2003. The gold line represents 4th grade average scale scores of students who are not Multilingual learners while the blue line represents 4th grade average scale scores of students who are Multilingual learners. The green dots represent the score gaps between the student subgroups.





NAEP 2024 Math Grade 4: National Comparison of White Hispanic Gaps



NAEP Mathematics Grade 4 – White - Hispanic

Gap - Average Scale Score: 2024

Figure 12

Using the average scale score on the NAEP 2024 Reading assessment for each state, this bar graph compares the Hispanic/White gaps of Colorado 4th graders with the other 49 states, the District of Columbia and the Department of Defense schools. The bars represent the score gaps between the student subgroups. The red bar indicates the National Public average. The blue bar represents Colorado.



NAEP 2024 Math Grade 4: National Comparison of Economically Disadvantaged to Not Economically Disadvantaged gaps



Figure 13

Using the average scale score on the NAEP 2024 Reading assessment for each state, this bar graph compares the Economically Disadvantaged/Not Economically Disadvantaged gaps of Colorado 4th graders with the other 49 states, the District of Columbia and the Department of Defense schools. The bars represent the score gaps between the student subgroups. The red bar indicates the National Public average. The blue bar represents Colorado.

WHERE CAN I LEARN MORE?

- <u>Colorado National Assessment of Educational Progress</u>
- The Nation's Report Card