# 2019 National Assessment of Educational Progress (NAEP)

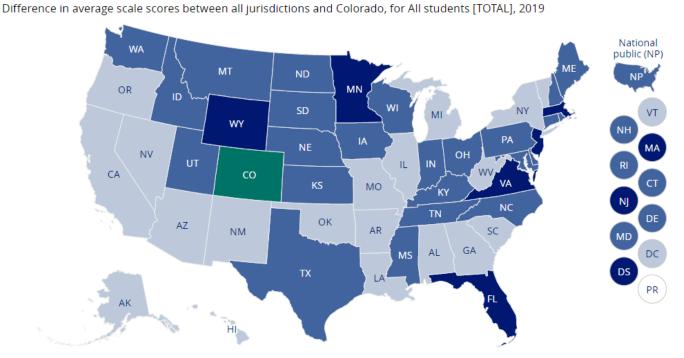


### **Math Grade 4 Results Graphics**

### NAEP 2019 Math Grade 4: Average Scale Score



Mathematics, Grade 4

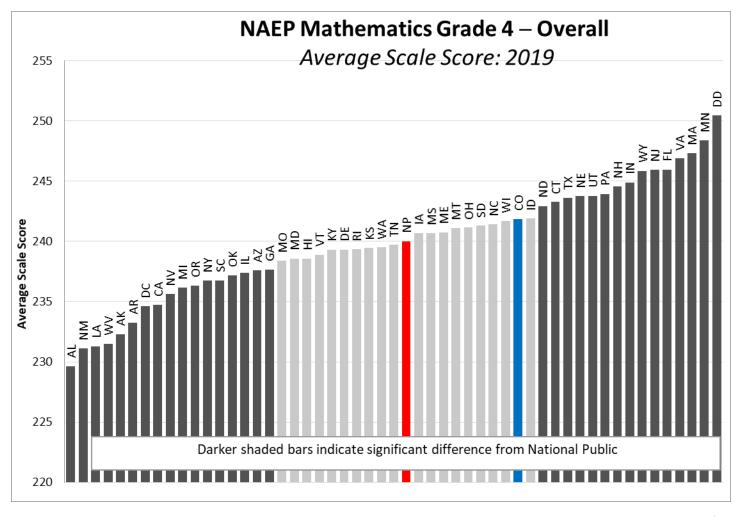


The map compares Colorado 4<sup>th</sup> graders average scale score on the NAEP 2019 Math assessment to the other 49 states, the District of Columbia and the Department of Defense schools. Colorado, which is shaded green, is the focal state. States shaded light blue scored lower than Colorado. Dark-blue 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 4 Average Scale Scores.



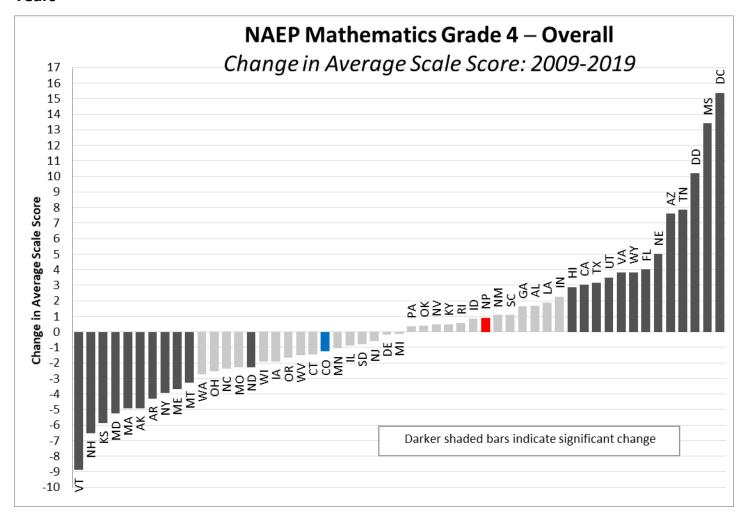
Using the average scale score on the NAEP 2019 Math assessment for each state, this bar graph compares Colorado 4<sup>th</sup> graders with the other 49 states, the District of Columbia and the Department of Defense schools. The red bar indicates the National Public average. The blue bar represents Colorado. Darker shaded bars indicate significant difference from National Public average.

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



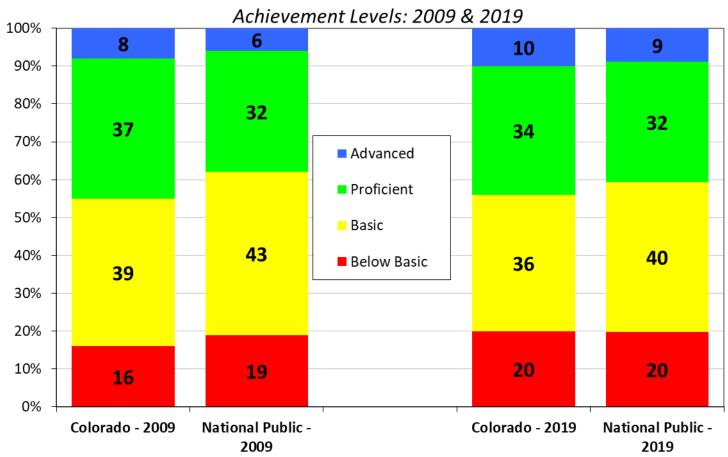
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# **Change in NAEP Math Grade 4 Achievement Levels Over Ten Years**

### NAEP Mathematics - Grade 4

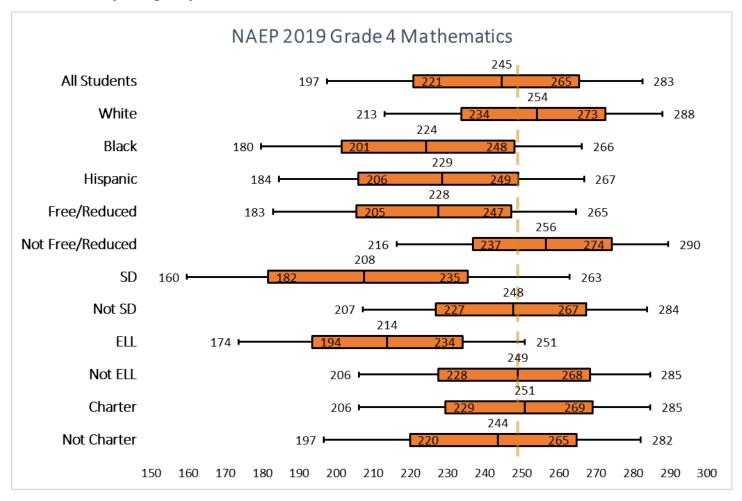


The bar chart on the far left compares the percentages at each NAEP Math achievement level for 4<sup>th</sup> graders in Colorado and National Public in 2009. The bar chart on the right compares the percentages at each NAEP Math achievement level for 4<sup>th</sup> grade in Colorado and National Public in 2019. Blue represents the percent of students scoring in the advanced achievement level. Green represents the percent of students scoring in the proficient achievement level. Yellow represents the percent of students scoring in the basic achievement level. Red represents the percent of students that scored below the basic achievement level.





# **2019 Colorado NAEP Math Grade 4 Math Scale Scores Percentiles by Subgroups**



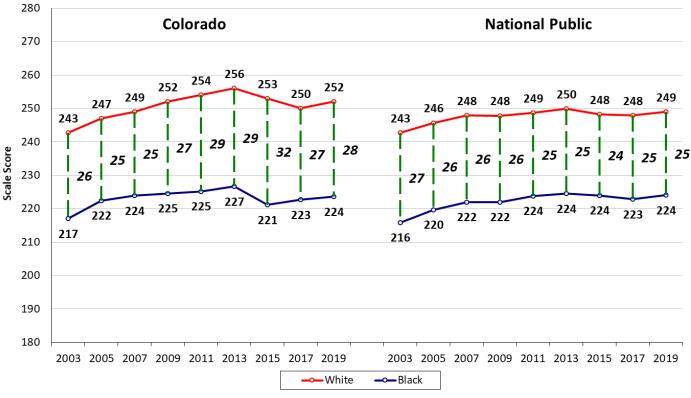
The horizontal box plots above represent average scale score on the 2019 NAEP Grade 4 Math assessment seperated into the 10<sup>th</sup>, 25<sup>th</sup>, 50<sup>th</sup>, 75<sup>th</sup>, and 90<sup>th</sup> percentiles for each Colorado subgroup. The dashed orange line represents the 2019 NAEP Grade 4 Math NAEP Proficent achievement level scale score of 249.



#### Colorado NAEP Math Grade 4 Black / White Gap

#### NAEP Mathematics Grade 4 - Black / White

Gap - Average Scale Score: 2003-2019



NOTE: The NAEP Mathematics scale ranges from 0 to 500. Observed differences are not necessarily statistically significant. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP)

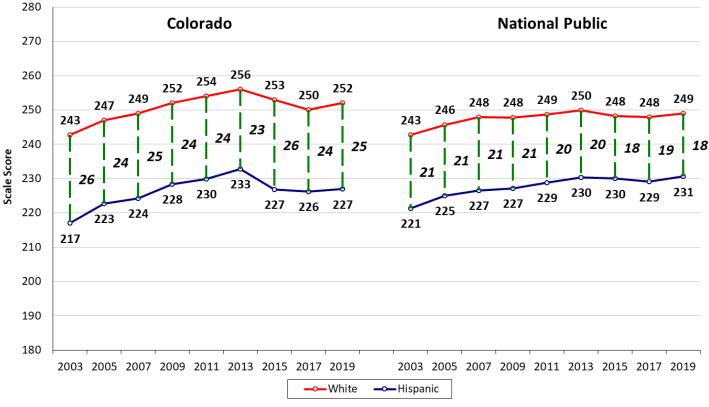
This is a comparison of Colorado and National Public 4<sup>th</sup> grade student subgroups using the average scale scores on the NAEP Math assessment extending back to 2003. The red line represents White student 4<sup>th</sup> grade average scale scores while the blue line represents Black student 4<sup>th</sup> grade average scale scores. The dotted green vertical lines represent the score gaps between the student subgroups.



### Colorado NAEP Math Grade 4 Hispanic / White Gap

### NAEP Mathematics Grade 4 – Hispanic / White

Gap - Average Scale Score: 2003-2019



NOTE: The NAEP Mathematics scale ranges from 0 to 500. Observed differences are not necessarily statistically significant. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP)

This is a comparison of Colorado and National Public 4<sup>th</sup> grade student subgroups using the average scale scores on the NAEP Math assessment extending back to 2003. The red line represents White student 4<sup>th</sup> grade average scale scores while the blue line represents Hispanic student 4<sup>th</sup> grade average scale scores. The dotted green vertical lines represent the score gaps between the student subgroups.

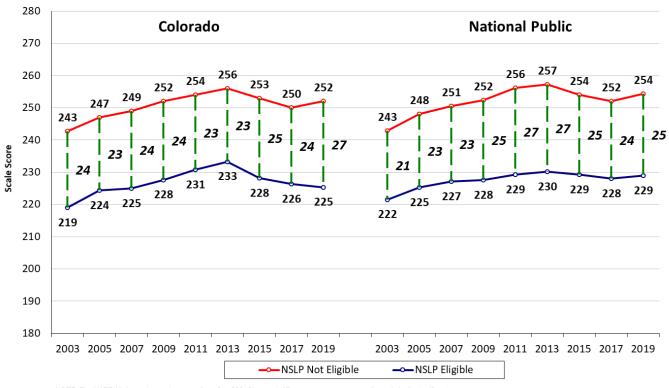




## Colorado NAEP Math Grade 4 Free and Reduced Lunch / Non-Free and Reduced Lunch Gap

#### NAEP Mathematics Grade 4 – National School Lunch Program Eligiblity

Gap - Average Scale Score: 2003-2019



NOTE: The NAEP Mathematics scale ranges from 0 to 500. Observed differences are not necessarily statistically significant. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP)

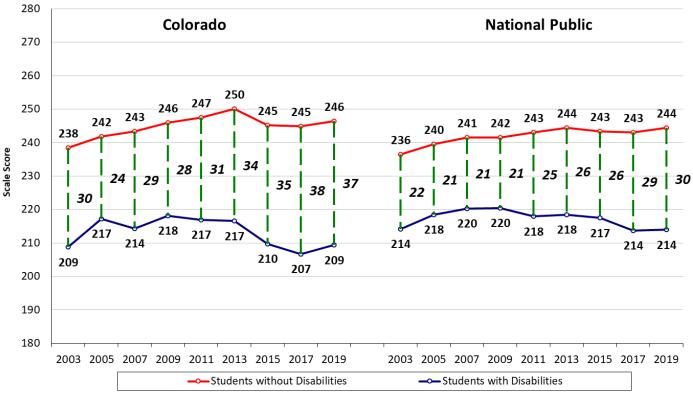
This is a comparison of Colorado and National Public 4<sup>th</sup> grade student subgroups using the average scale scores on the NAEP Math assessment extending back to 2003. The red line represents 4<sup>th</sup> grade average scale scores of students not eligible for free and reduced lunch while the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



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

#### NAEP Mathematics Grade 4 – Students with Disabilities

Gap - Average Scale Score: 2003-2019



NOTE: The NAEP Mathematics scale ranges from 0 to 500. Observed differences are not necessarily statistically significant. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP).

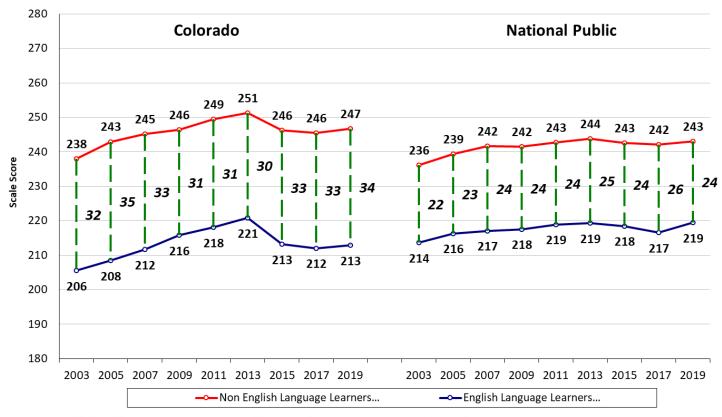
This is a comparison of Colorado and National Public 4<sup>th</sup> grade student subgroups using the average scale scores on the NAEP Math assessment extending back to 2003. The red line represents 4<sup>th</sup> grade average scale scores of students with out disabilities while the blue line represents 4<sup>th</sup> grade average scale scores of students with disabilities. The dotted green vertical lines represent the score gaps between the student subgroups.



# Colorado NAEP Math Grade 4 Non-English Language Learners / English Language Learners Gap

#### NAEP Mathematics Grade 4 – English Language Learners

Gap - Average Scale Score: 2003-2019



NOTE: The NAEP Mathematics scale ranges from 0 to 500. Observed differences are not necessarily statistically significant. SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP)

This is a comparison of Colorado and National Public 4th grade student subgroups using the average scale scores on the NAEP Math assessment extending back to 2003. The red line represents 4th grade average scale scores of students who are not english language learners while the blue line represents 4th grade average scale scores of students who are english language learners. The dotted green vertical lines represent the score gaps between the student subgroups.

#### WHERE CAN I LEARN MORE?

http://www.cde.state.co.us/assessment/conaep

https://www.nationsreportcard.gov