

2019 National Assessment of Educational Progress (NAEP)

Math Grade 8 Results Graphics



COLORADO
Department of Education



National Assessment of Educational Progress

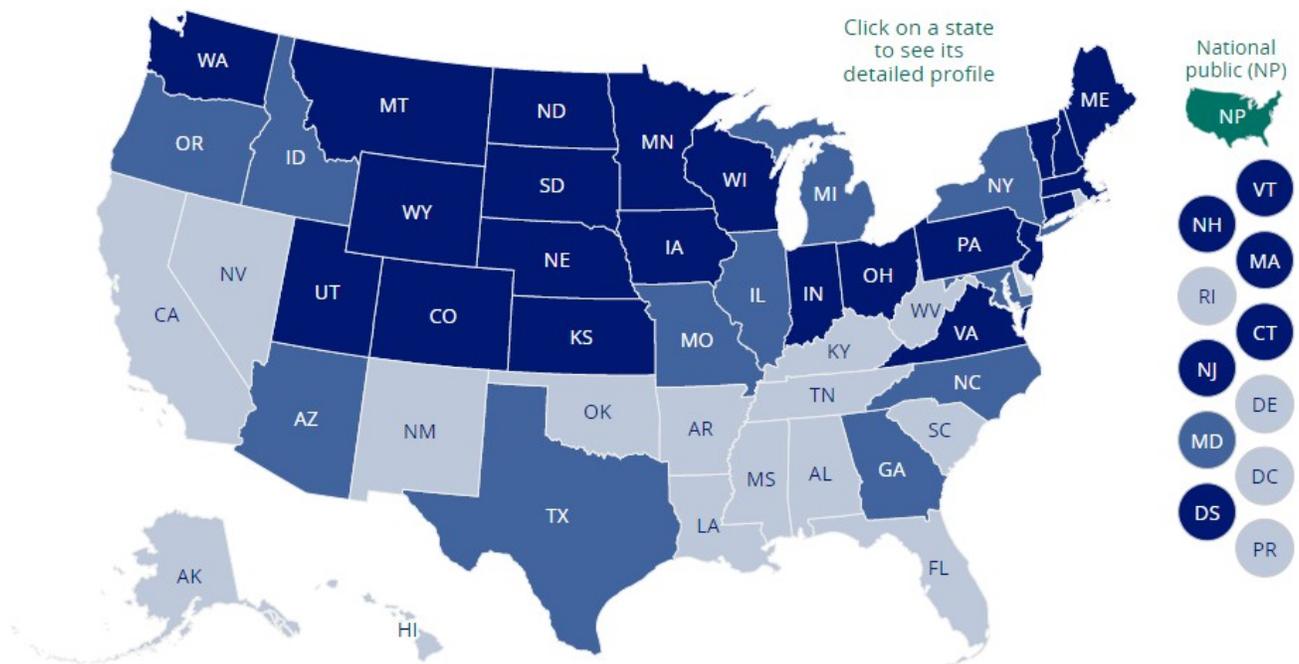
NAEP 2019 Math Grade 8: Average Scale Score

2017 National public average scale score (0-500)

NP 282



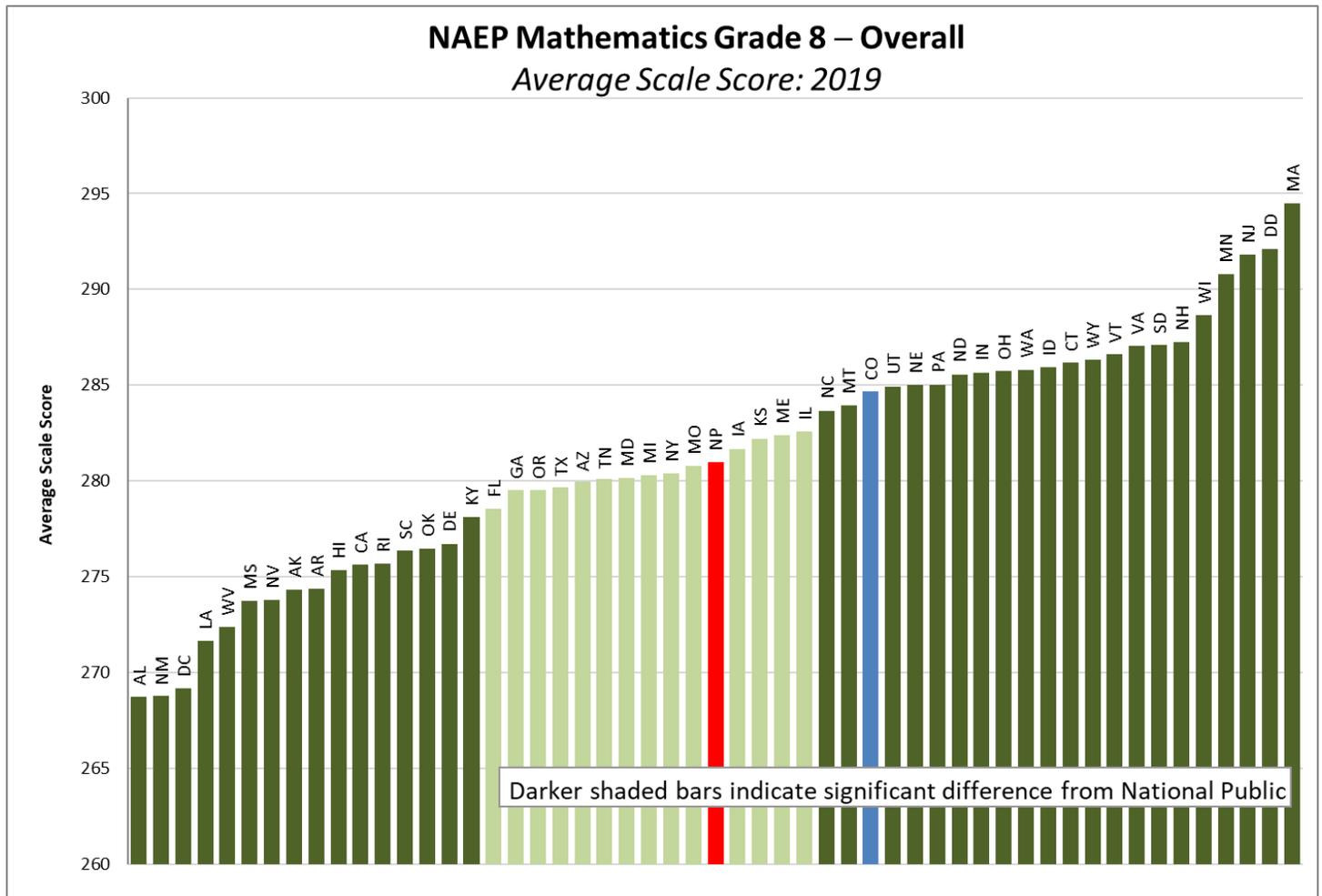
Mathematics, grade 8, Difference in average scale scores between jurisdictions, for all students [TOTAL] = All students, 2017



The map compares Colorado 8th 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.



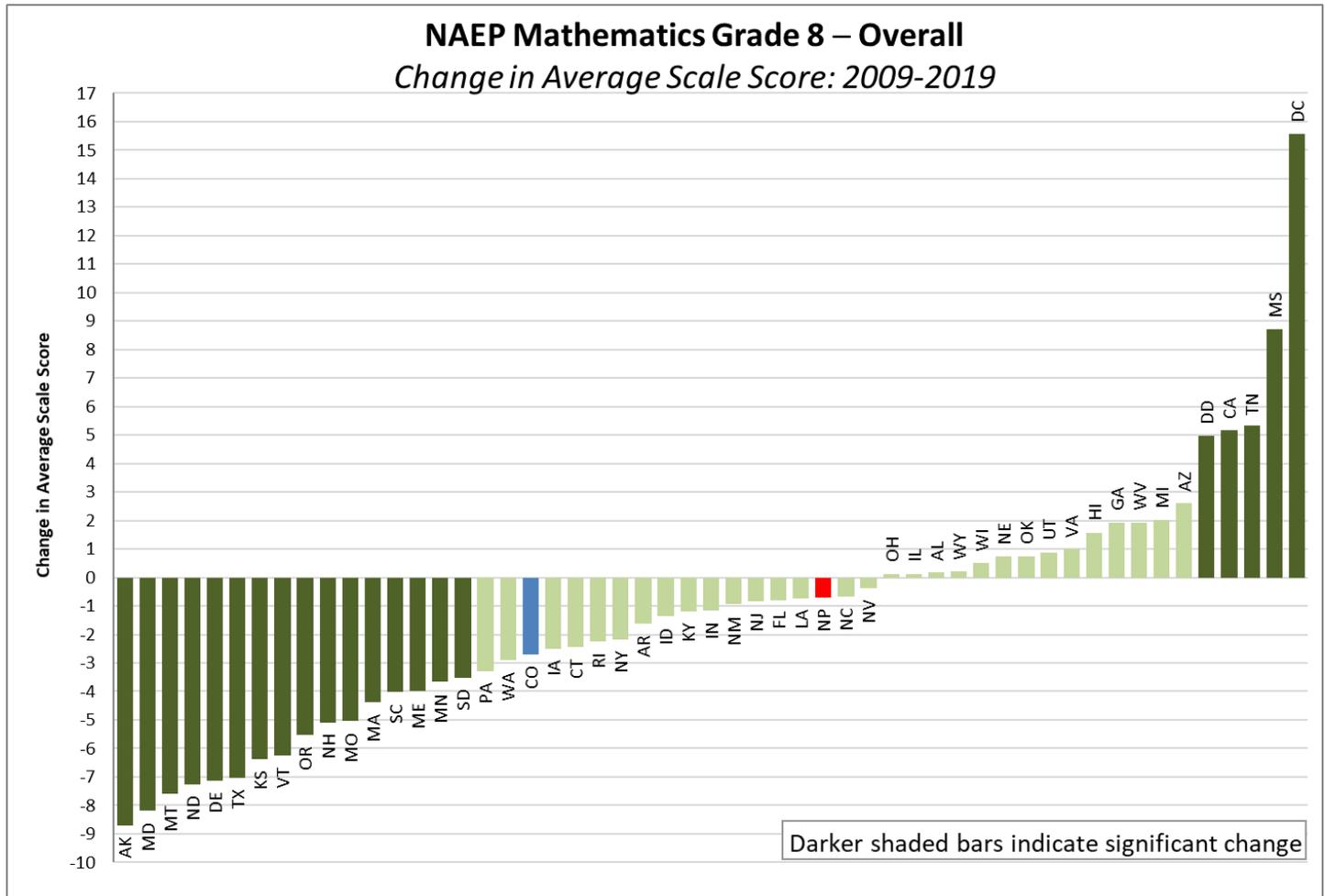
National NAEP Math Grade 8 Average Scale Scores.



Using the average scale score on the NAEP 2019 Math assessment for each state, this bar graph compares Colorado 8th 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.



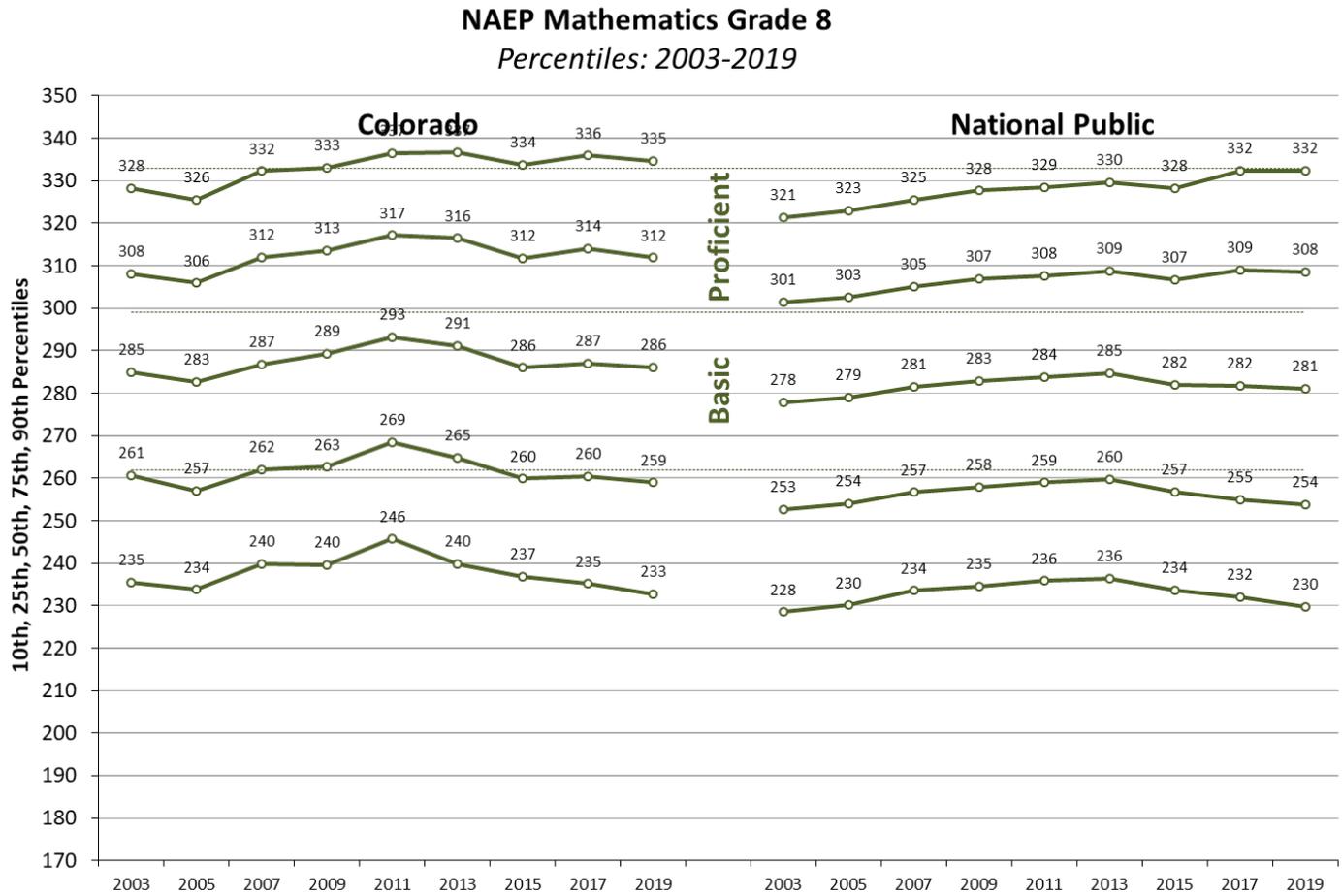
National Change in NAEP Grade 8 Math Scale Scores Over Ten Years



Using the average scale score on the NAEP 2019 Math assessment for each state, this bar graph compares Colorado 8th 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 2003-2019

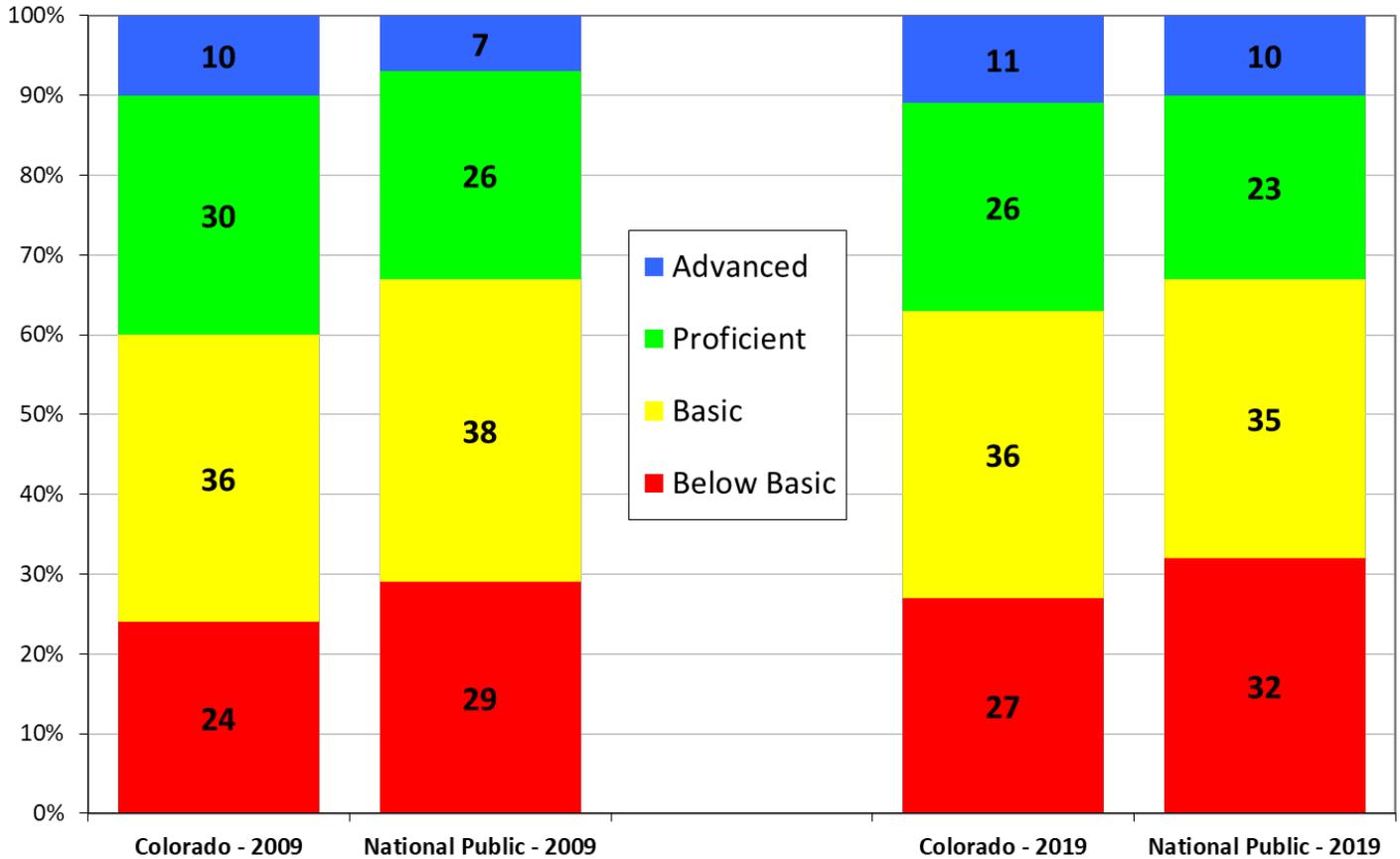


The line charts above represent average scale score on the 2019 NAEP Grade 8 Math assessment separated into the 10th, 25th, 50th, 75th, and 90th percentiles for each Colorado and National Public school students extending back to 2003. The dashed lines represents the 2019 NAEP Grade 4 Math NAEP Basic and Proficient achievement levels.



Change in NAEP Math Grade 8 Achievement Levels Over Ten Years

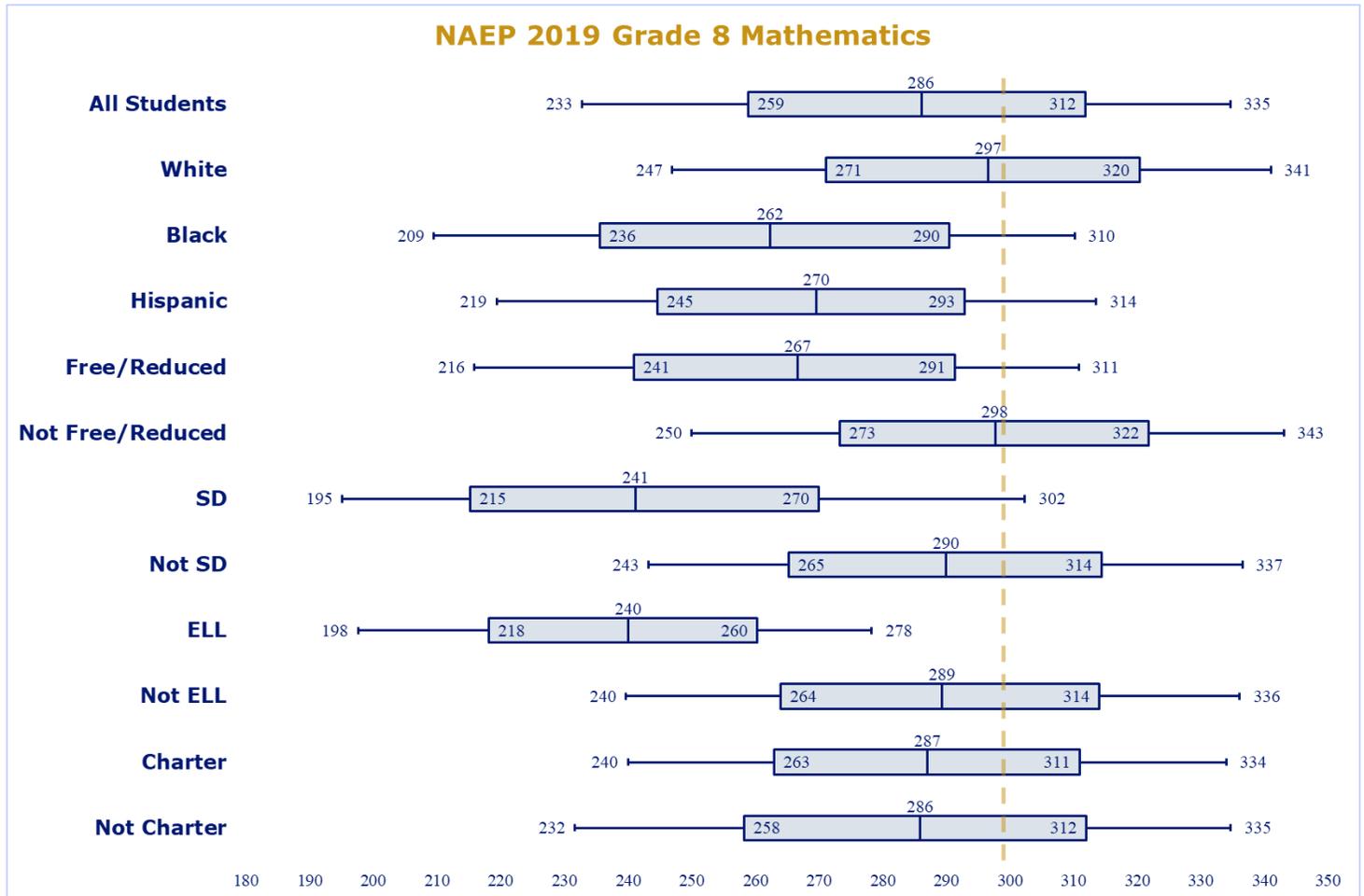
NAEP Mathematics - Grade 8
Achievement Levels: 2009 & 2019



The bar chart on the far left compares the percentages at each NAEP Math achievement level for 8th graders in Colorado and National Public in 2009. The bar chart on the right compares the percentages at each NAEP Math achievement level for 8th 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 8 Math Scale Scores Percentiles by Subgroups

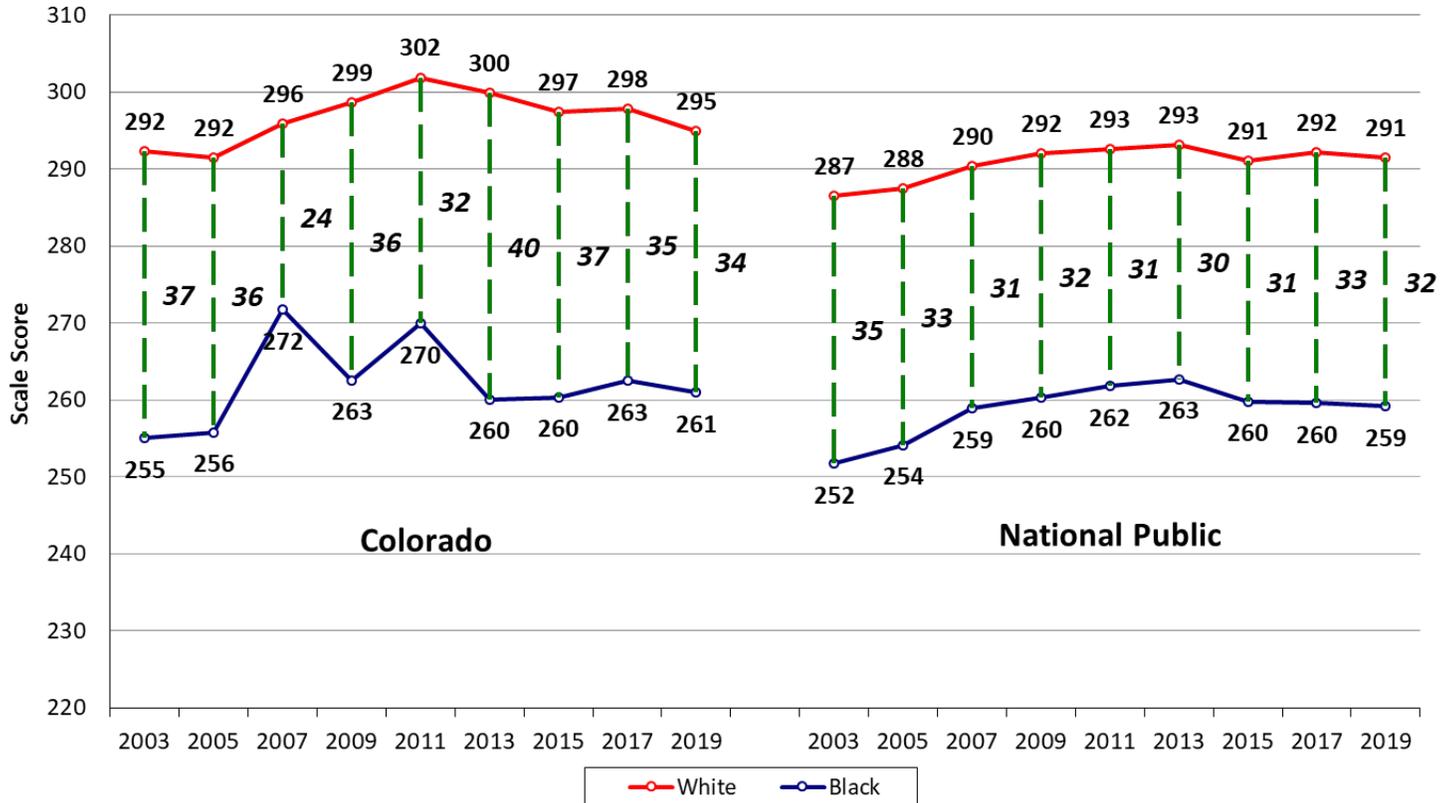


The horizontal box plots above represent average scale score on the 2019 NAEP Grade 8 Math assessment separated into the 10th, 25th, 50th, 75th, and 90th percentiles for each Colorado subgroup. The dashed orange line represents the 2019 NAEP Grade 8 Math NAEP Proficient achievement level scale score of 299.



Colorado NAEP Math Grade 8 Black / White Gap

NAEP Mathematics Grade 8 – Black- White Gap - Average Scale Score: 2003-2019



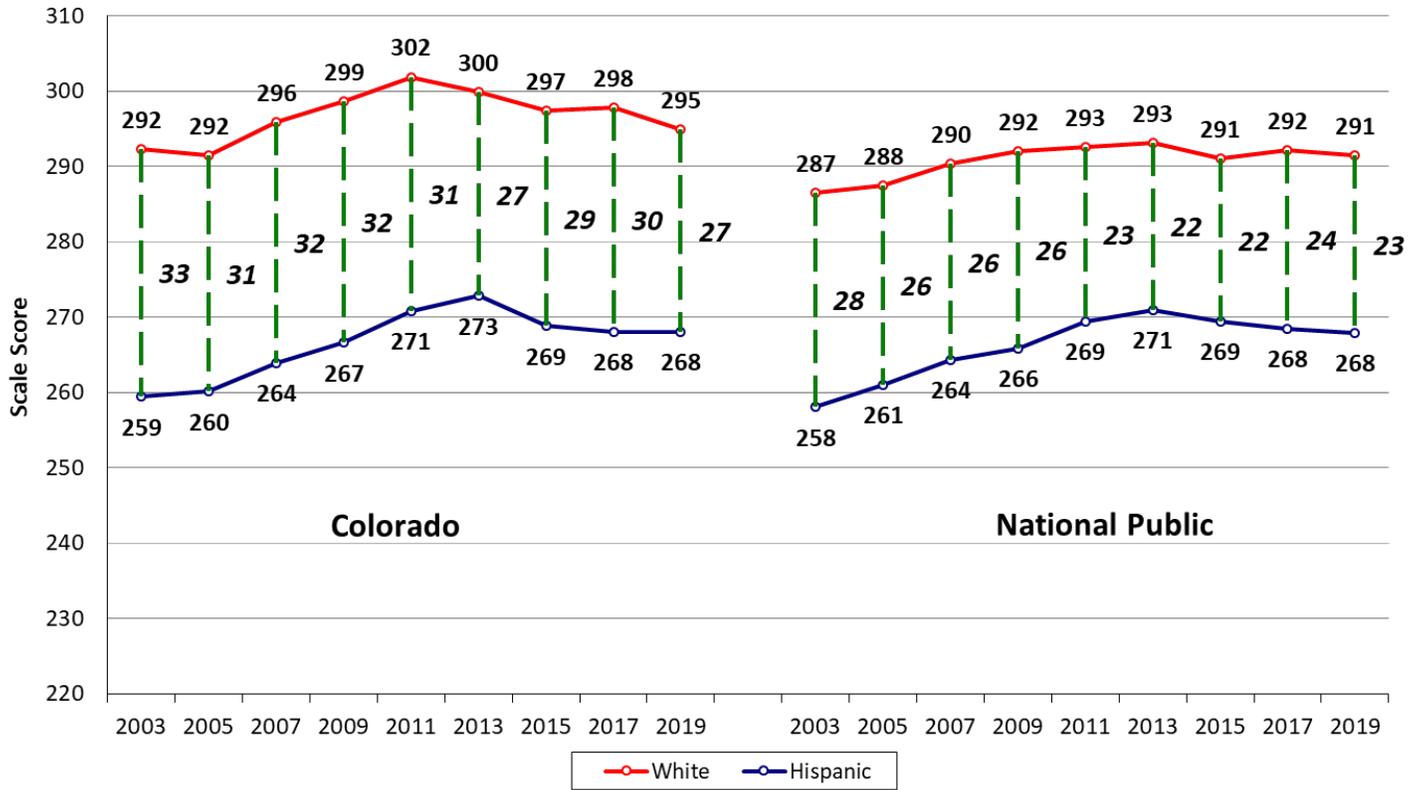
NOTE: The NAEP Mathematics scale ranges from 0 to 500. Observed differences are not necessarily statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP).

This is a comparison of Colorado and National Public 8th grade student subgroups using the average scale scores on the NAEP Math assessment extending back to 2003. The red line represents White student 8th grade average scale scores while the blue line represents Black student 8th grade average scale scores. The dotted green vertical lines represent the score gaps between the student subgroups.



Colorado NAEP Math Grade 8 Hispanic / White Gap

NAEP Mathematics Grade 8 – White- Hispanic
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).

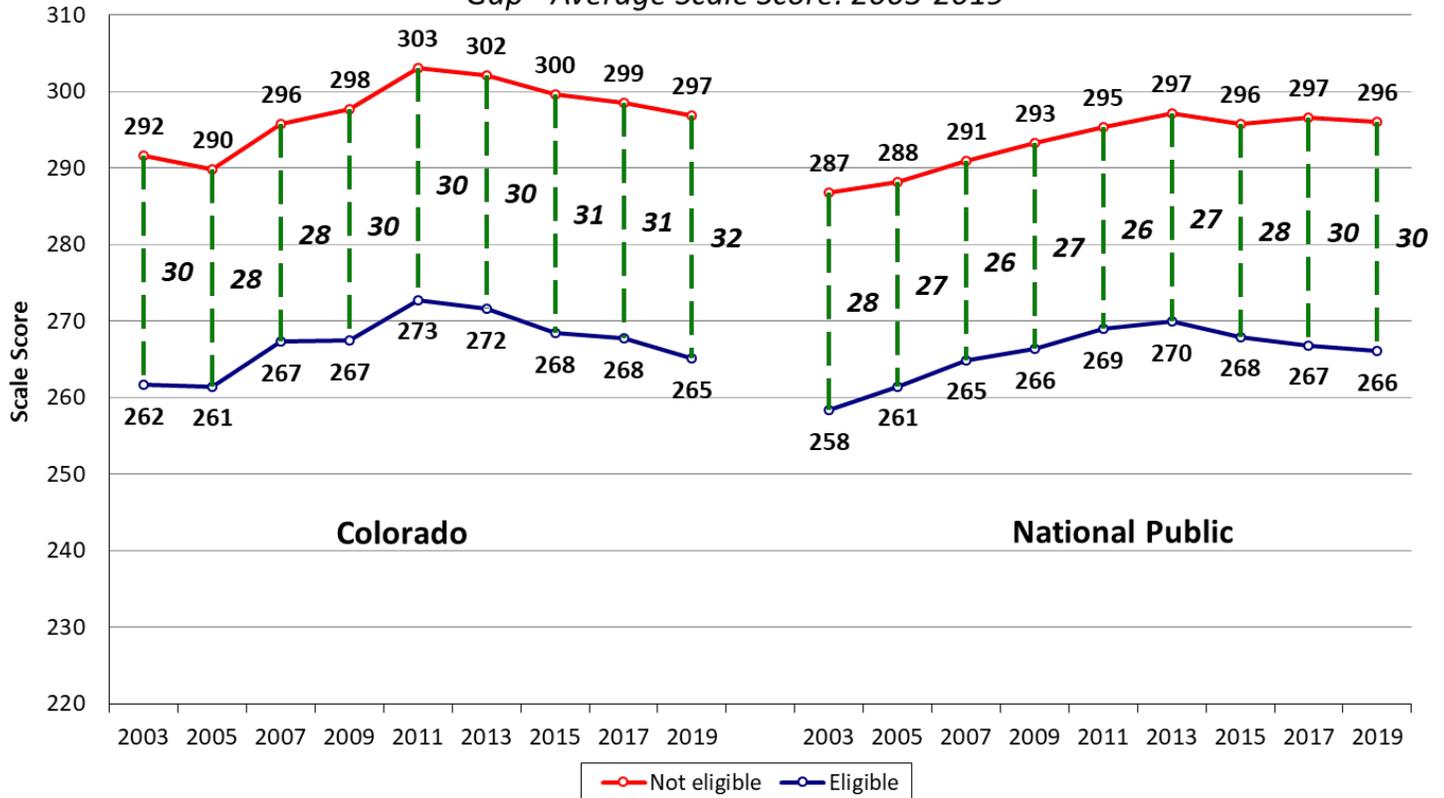
This is a comparison of Colorado and National Public 8th grade student subgroups using the average scale scores on the NAEP Math assessment extending back to 2003. The red line represents White student 8th grade average scale scores while the blue line represents Hispanic student 8th grade average scale scores. The dotted green vertical lines represent the score gaps between the student subgroups.



Colorado NAEP Math Grade 8 Free and Reduced Lunch / Non-Free and Reduced Lunch Gap

NAEP Mathematics Grade 8 – Non- Free and Reduced Lunch - Free and Reduced Lunch

Gap - Average Scale Score: 2003-2019



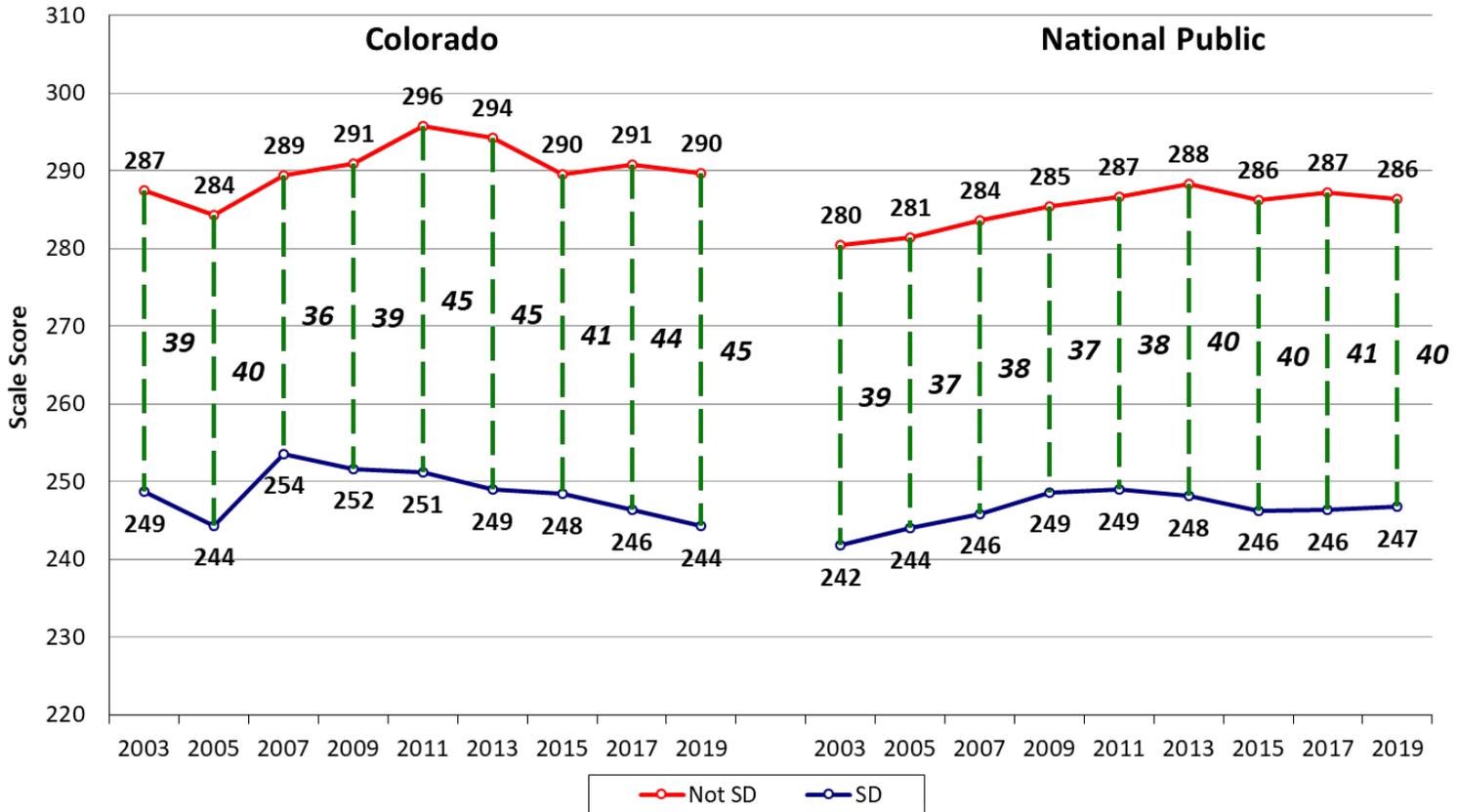
NOTE: The NAEP Mathematics scale ranges from 0 to 500. Observed differences are not necessarily statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP).

This is a comparison of Colorado and National Public 8th grade student subgroups using the average scale scores on the NAEP Math assessment extending back to 2003. The red line represents 8th grade students not eligible for free and reduced lunch average scale scores while the blue line represents 8th grade students eligible for free and reduced lunch average scale scores. The dotted green vertical lines represent the score gaps between the student subgroups.



Colorado NAEP Math Grade 8 Non-Disabled Students / Students with Disabilities Gap

NAEP Mathematics Grade 8 – Non-Disabled Students - Students with Disabilities
Gap - Average Scale Score: 2003-2019



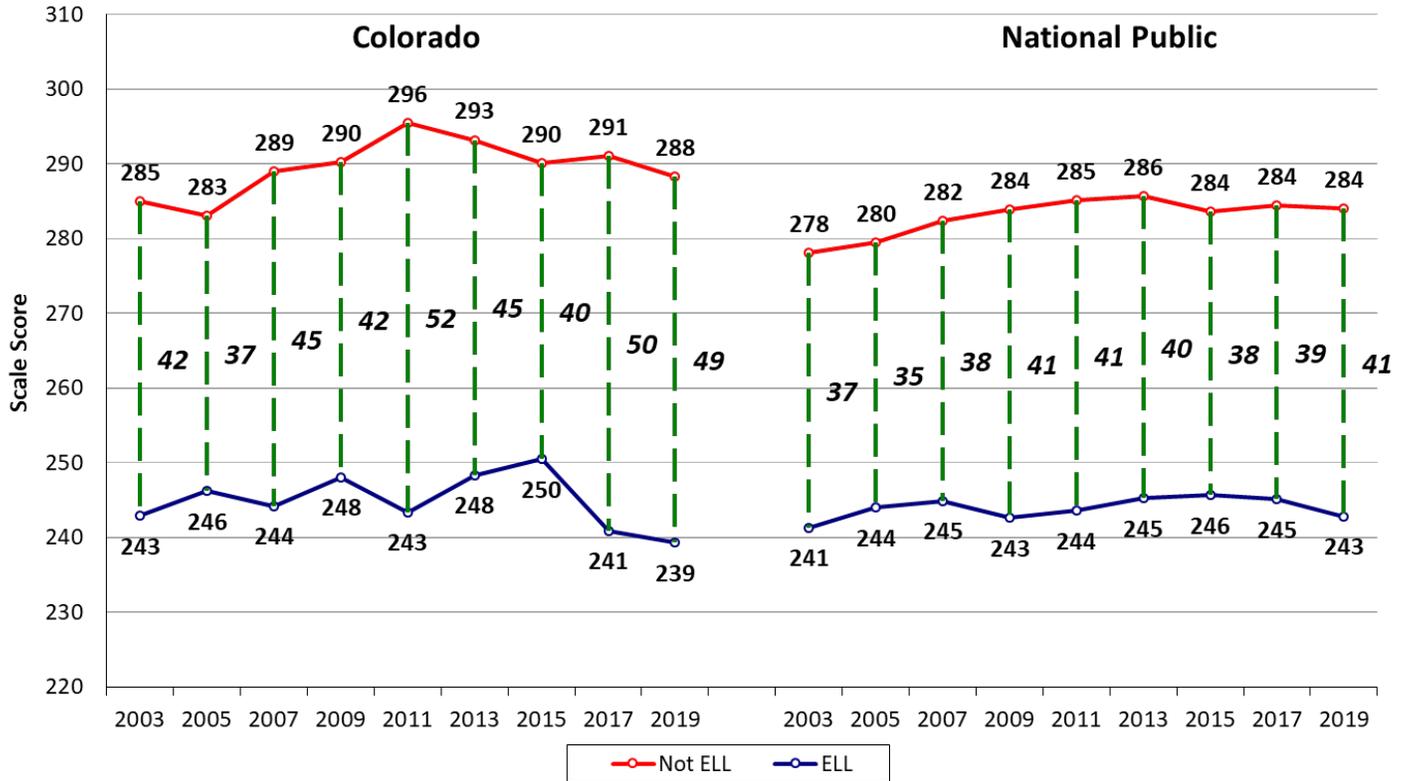
NOTE: The NAEP Mathematics scale ranges from 0 to 500. Observed differences are not necessarily statistically significant.
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP).

This is a comparison of Colorado and National Public 8th grade student subgroups using the average scale scores on the NAEP Math assessment extending back to 2003. The red line represents 8th grade average scale scores of non disabled students while the blue line represents 8th grade average scale scores of with disabilities. The dotted green vertical lines represent the score gaps between the student subgroups.



Colorado NAEP Math Grade 8 Non-English Language Learners / English Language Learners Gap

NAEP Mathematics Grade 8 – Non-English Language Learners - 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 8th grade student subgroups using the average scale scores on the NAEP Math assessment extending back to 2003. The red line represents 8th grade average scale scores of students who are not English language learners while the blue line represents 8th 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>