

2022 National Assessment of Educational Progress (NAEP)

Math Grade 4 Results Graphics



COLORADO
Department of Education

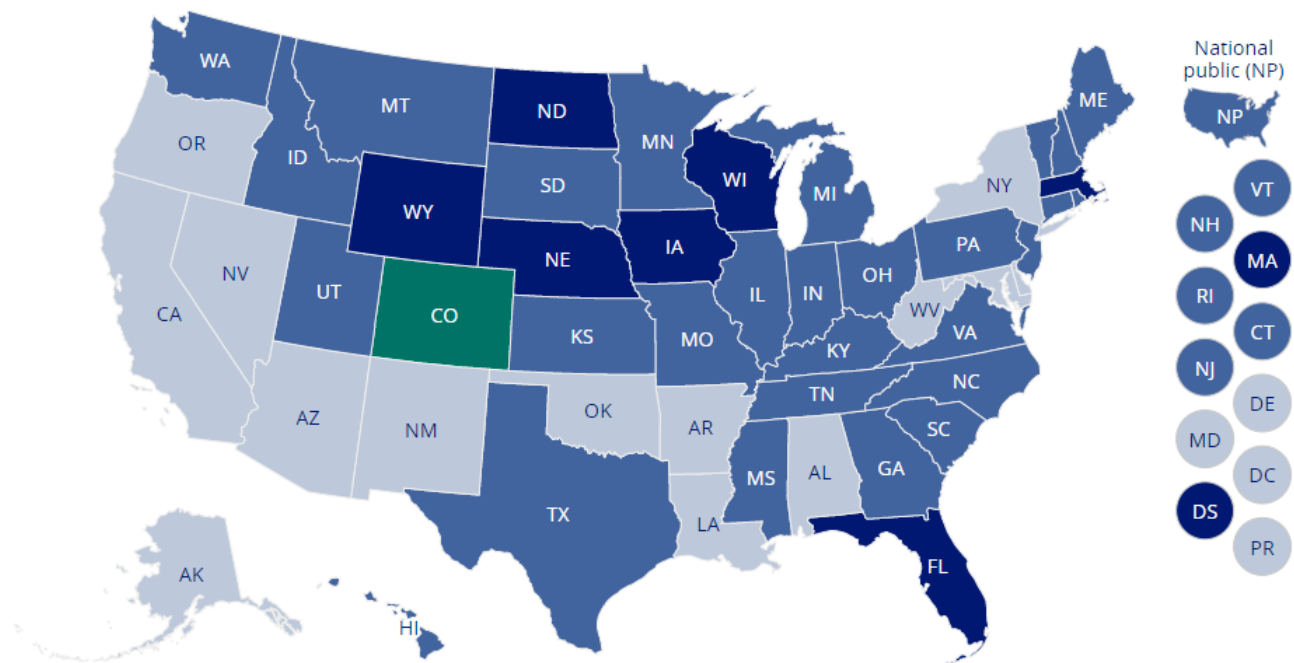


NAEP 2022 Math Grade 4: Average Scale Score



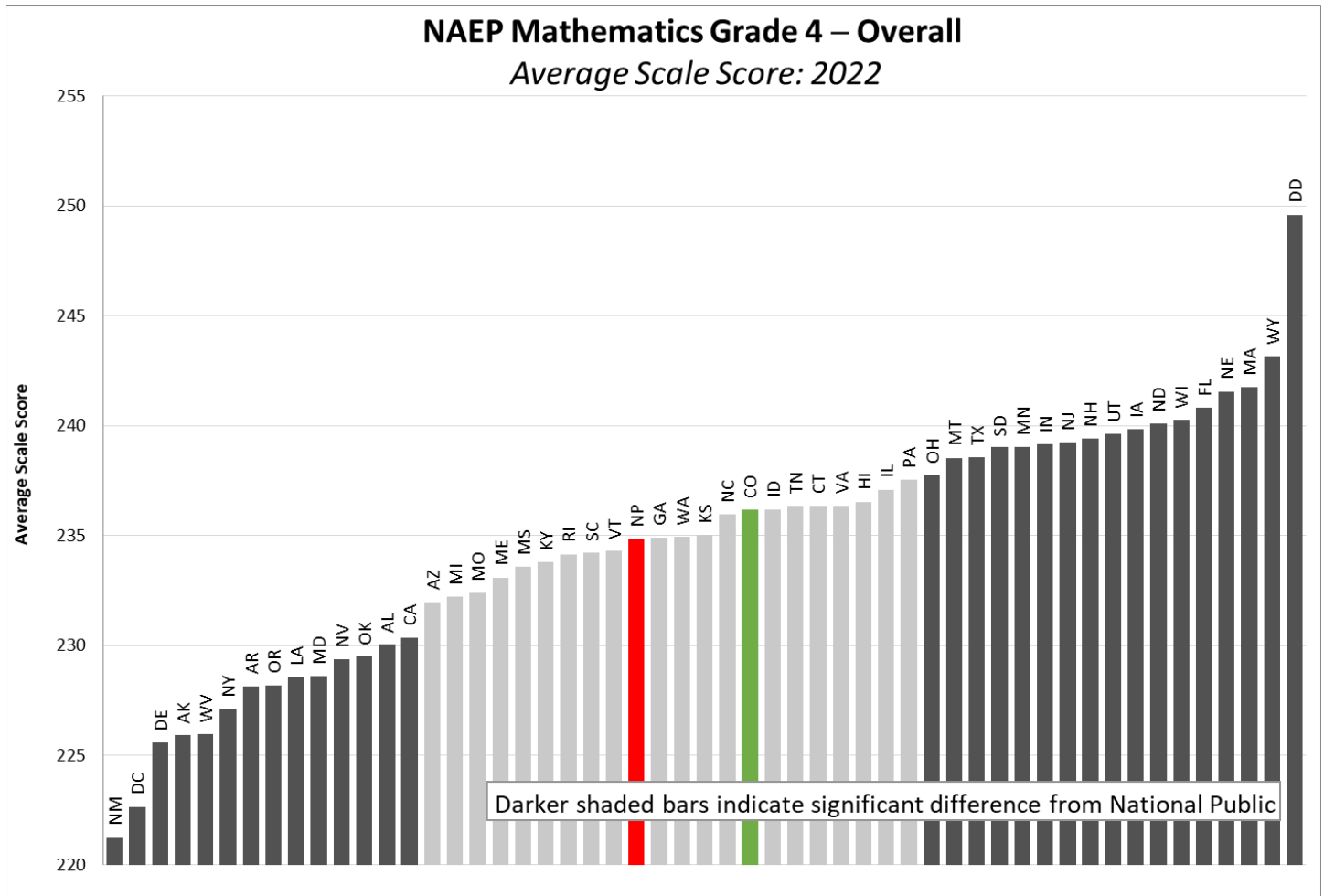
Mathematics, Grade 4

Difference in average scale scores between all jurisdictions and Colorado, for All students [TOTAL], 2022



The map compares Colorado 4th graders average scale score on the NAEP 2022 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.

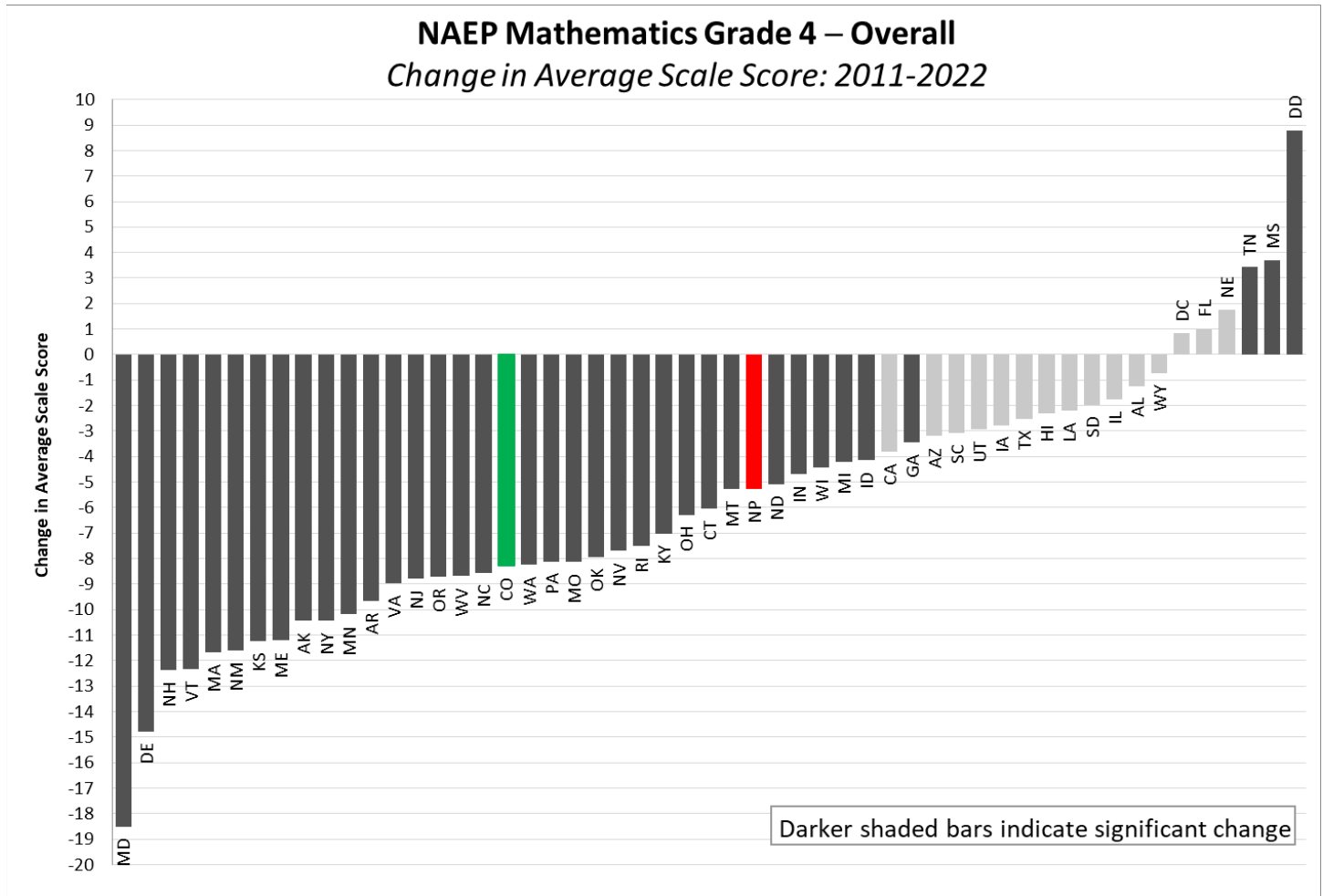
National NAEP Math Grade 4 Average Scale Scores



Using the average scale score on the NAEP 2022 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 green bar represents Colorado. Darker shaded bars indicate significant difference from National Public average.



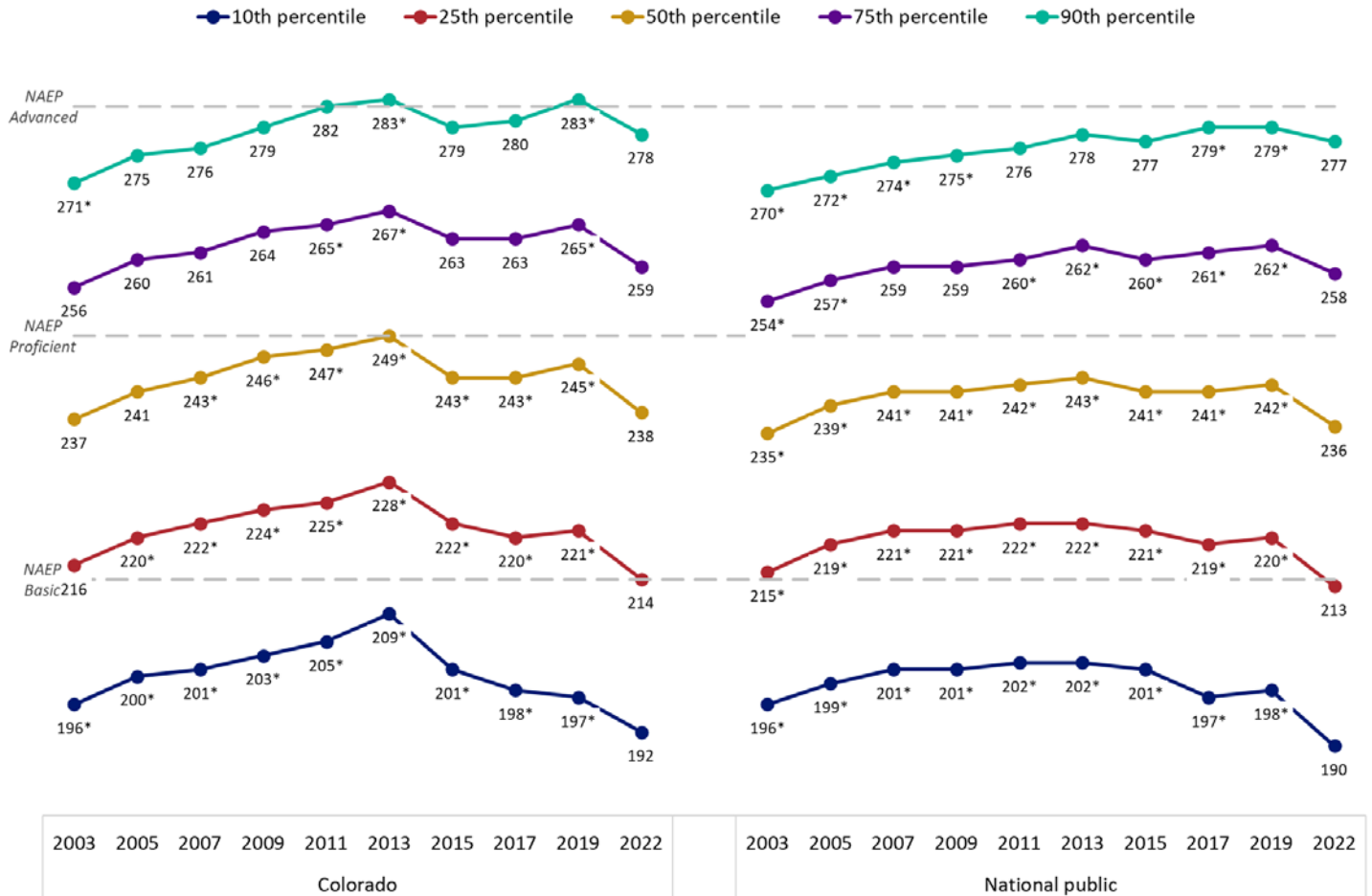
National Change in NAEP Grade 4 Math Scale Scores Over Ten Years



Using the average scale score on the NAEP 2022 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 green bar represents Colorado. Darker shaded bars indicate significant difference from National Public average.

Colorado vs National Public Average Scale Score by Percentiles 2003-2022

Trend in percentile scores for Colorado and National public

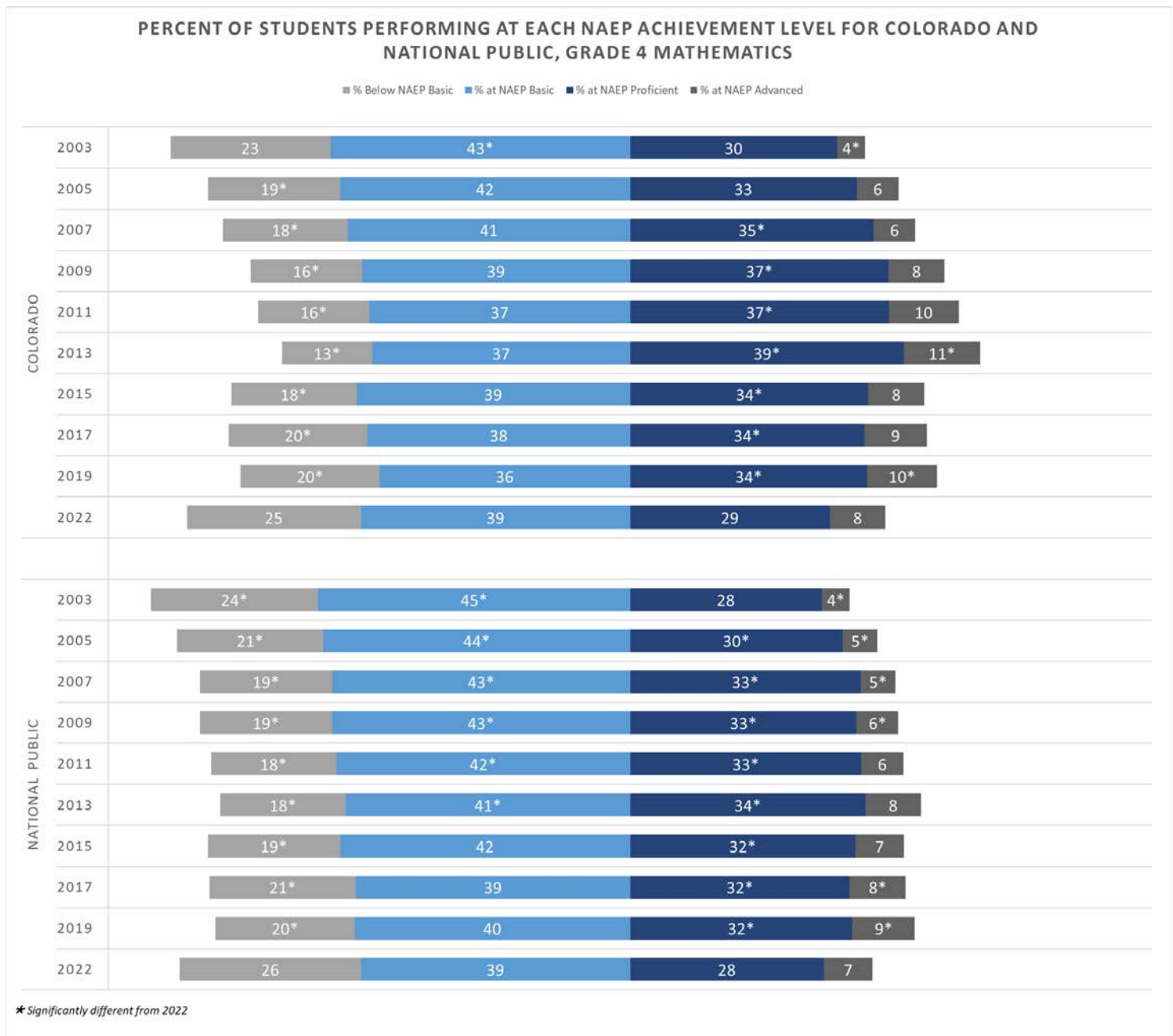


* Significantly different from 2022
Note: the NAEP Grade 4 Mathematics scale ranges from 0 to 500

The line charts above represent average scale score on the 2022 NAEP Grade 4 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 2022 NAEP Grade 4 Math NAEP Basic, Proficient, and advanced achievement levels.



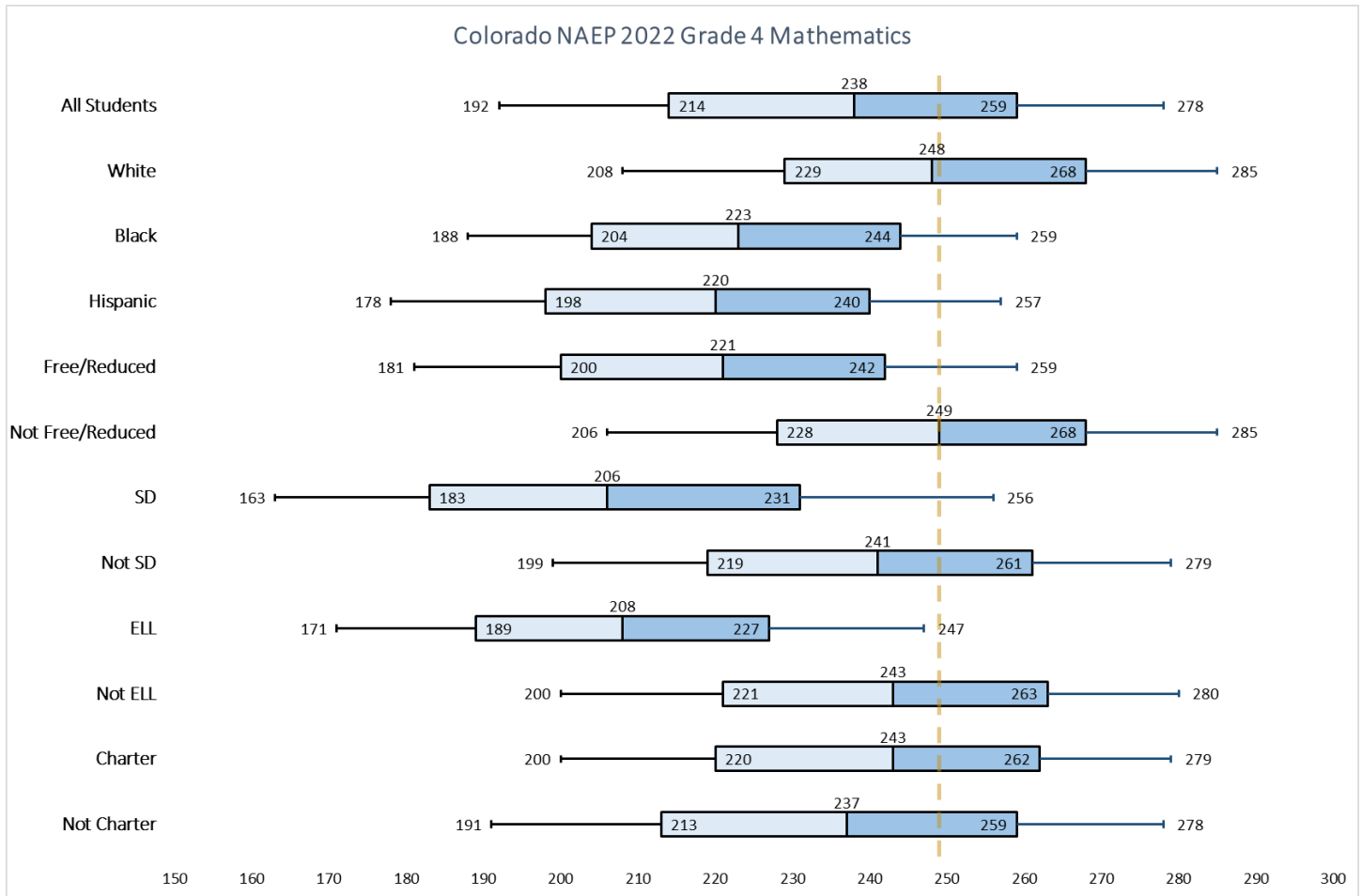
Change in NAEP Math Grade 4 Achievement Levels Over Time



The bar chart above compares the percentages at each NAEP Mathematics achievement level for 4th graders in Colorado and National Public in 2003 through 2022. Dark gray represents the percent of students scoring in the advanced achievement level. Navy 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



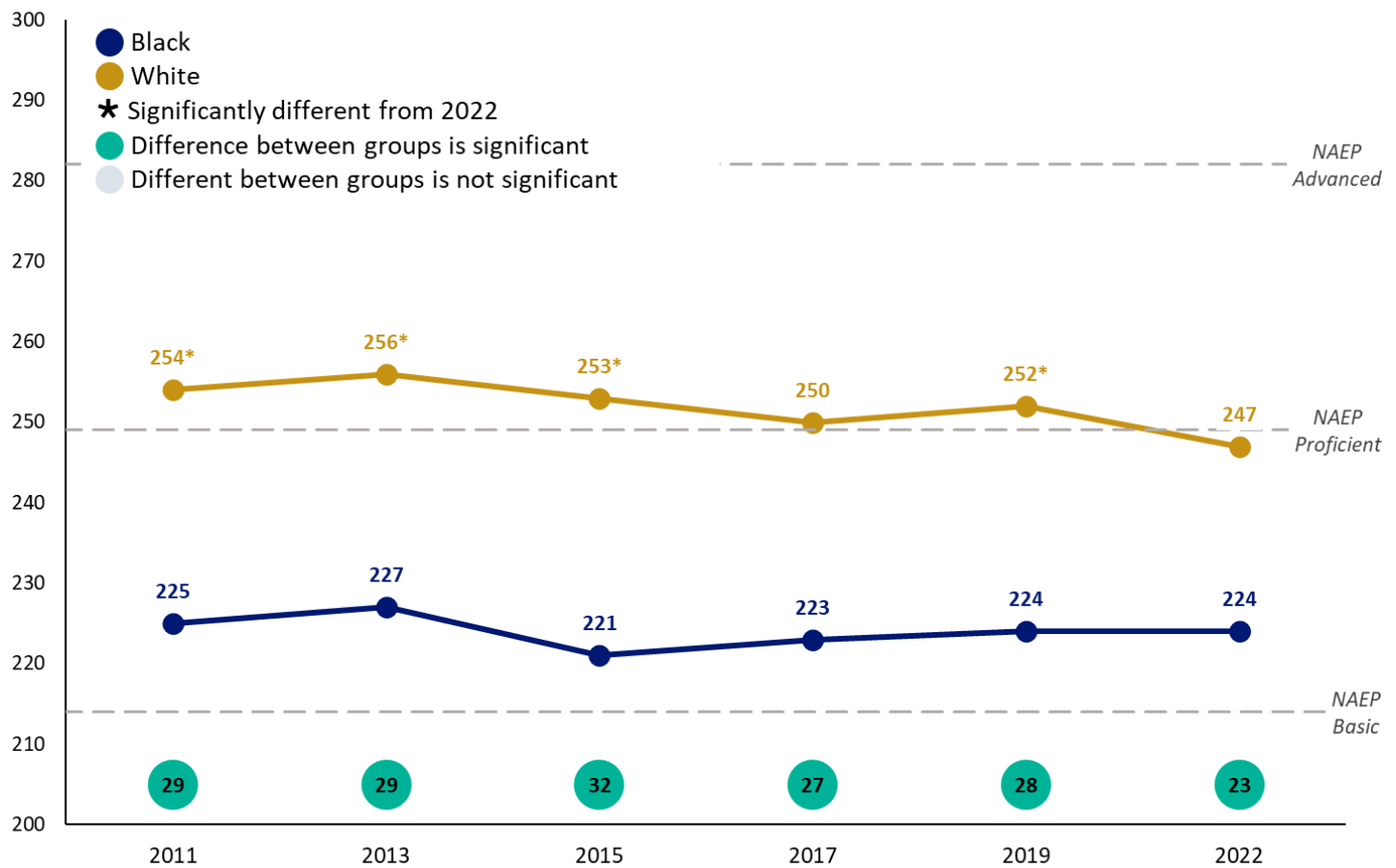
2022 Colorado NAEP Math Grade 4 Math Scale Scores Percentiles by Subgroups



The horizontal box plots above represent average scale score on the 2022 NAEP Grade 4 Math assessment separated into the 10th, 25th, 50th, 75th, and 90th percentiles for each Colorado subgroup. The dashed orange line represents the 2022 NAEP Grade 4 Math NAEP proficient 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

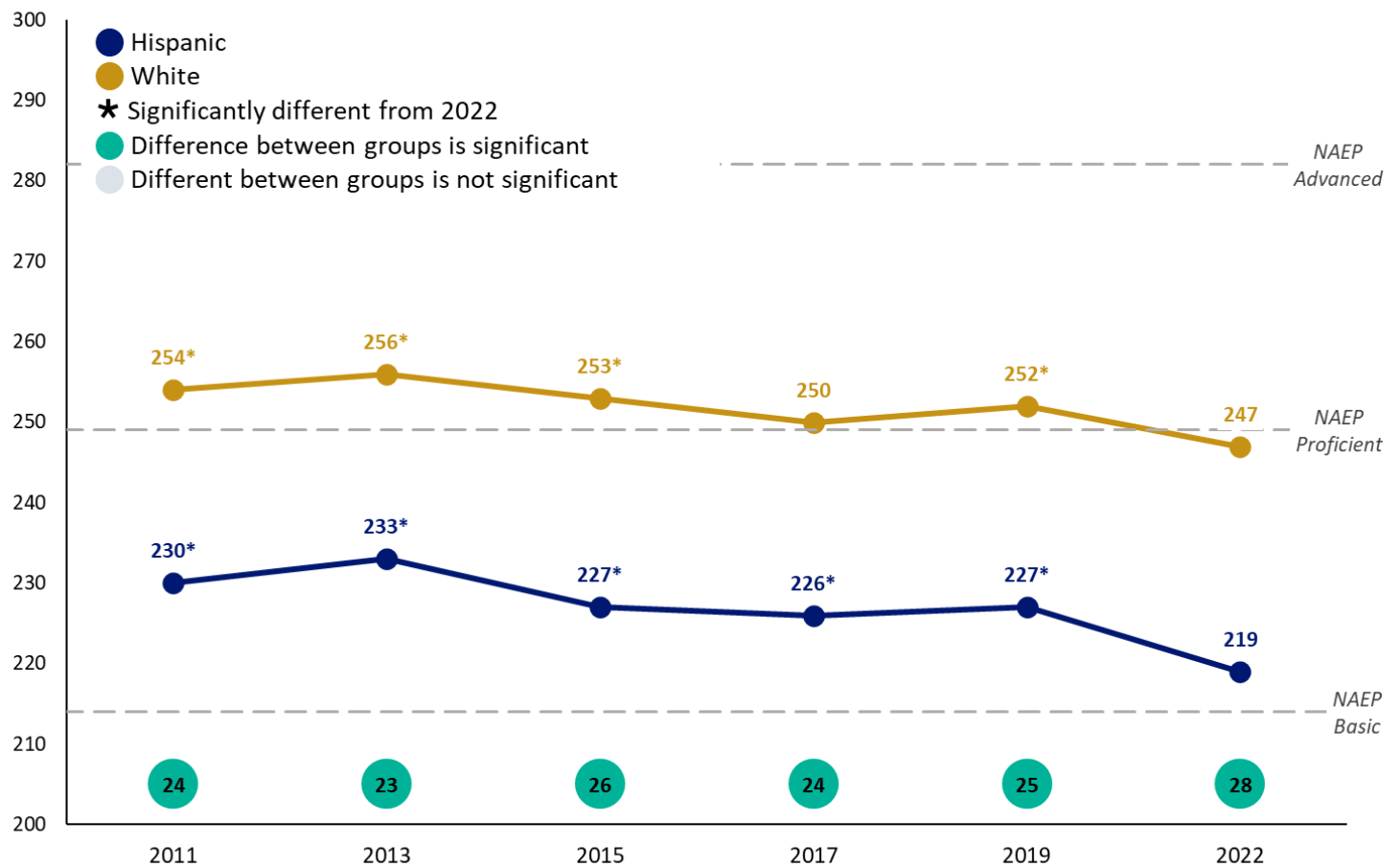


Note: The NAEP Grade 4 Mathematics scale is from 0 to 500

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 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.

Colorado NAEP Math Grade 4 Hispanic / White Gap

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

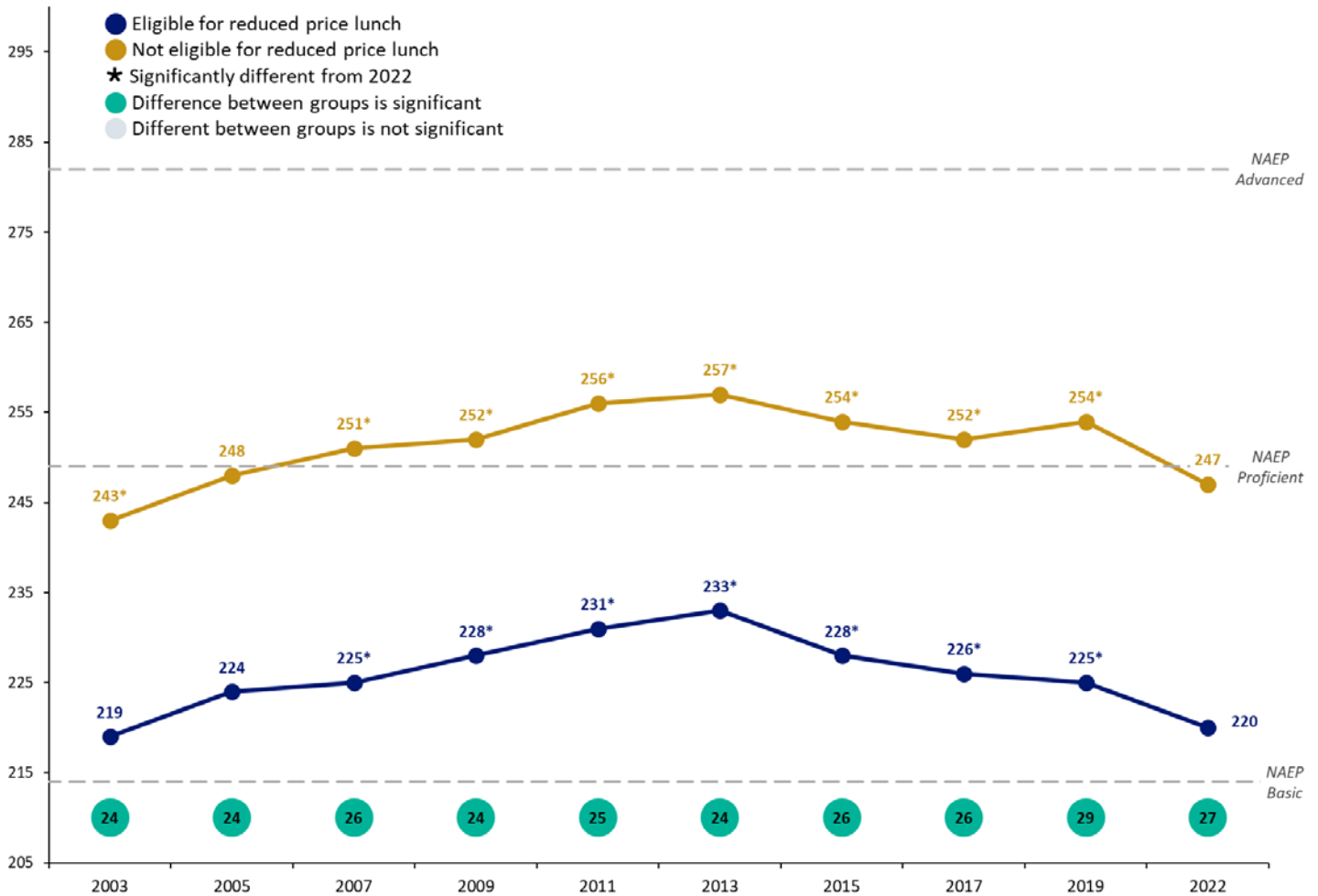


Note: The NAEP Grade 4 Mathematics scale is from 0 to 500

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 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

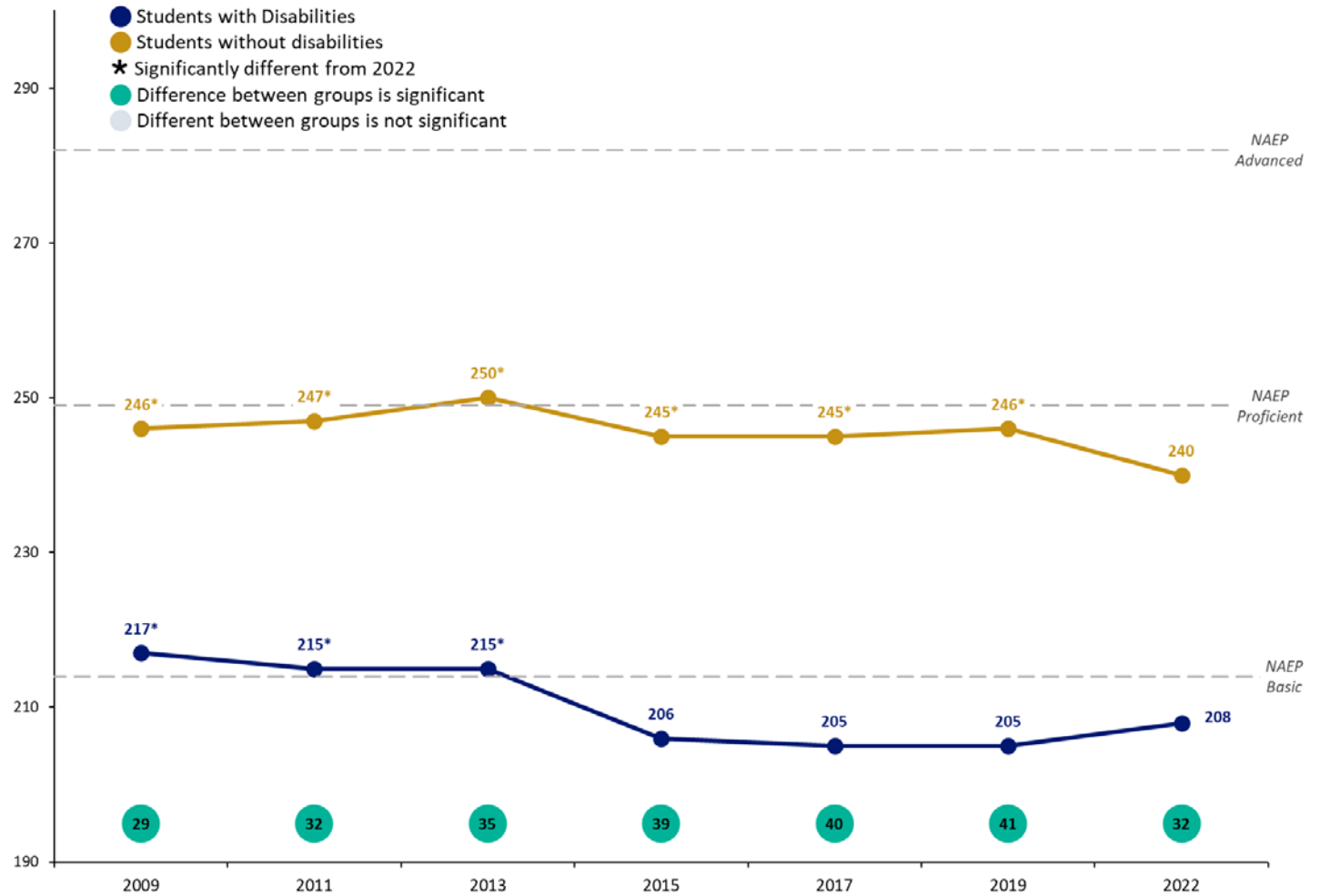


Note: The NAEP Grade 4 Mathematics scale is from 0 to 500

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 students not eligible for free and reduced lunch 4th grade average scale scores while the blue line represents students eligible for free and reduced lunch 4th grade 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

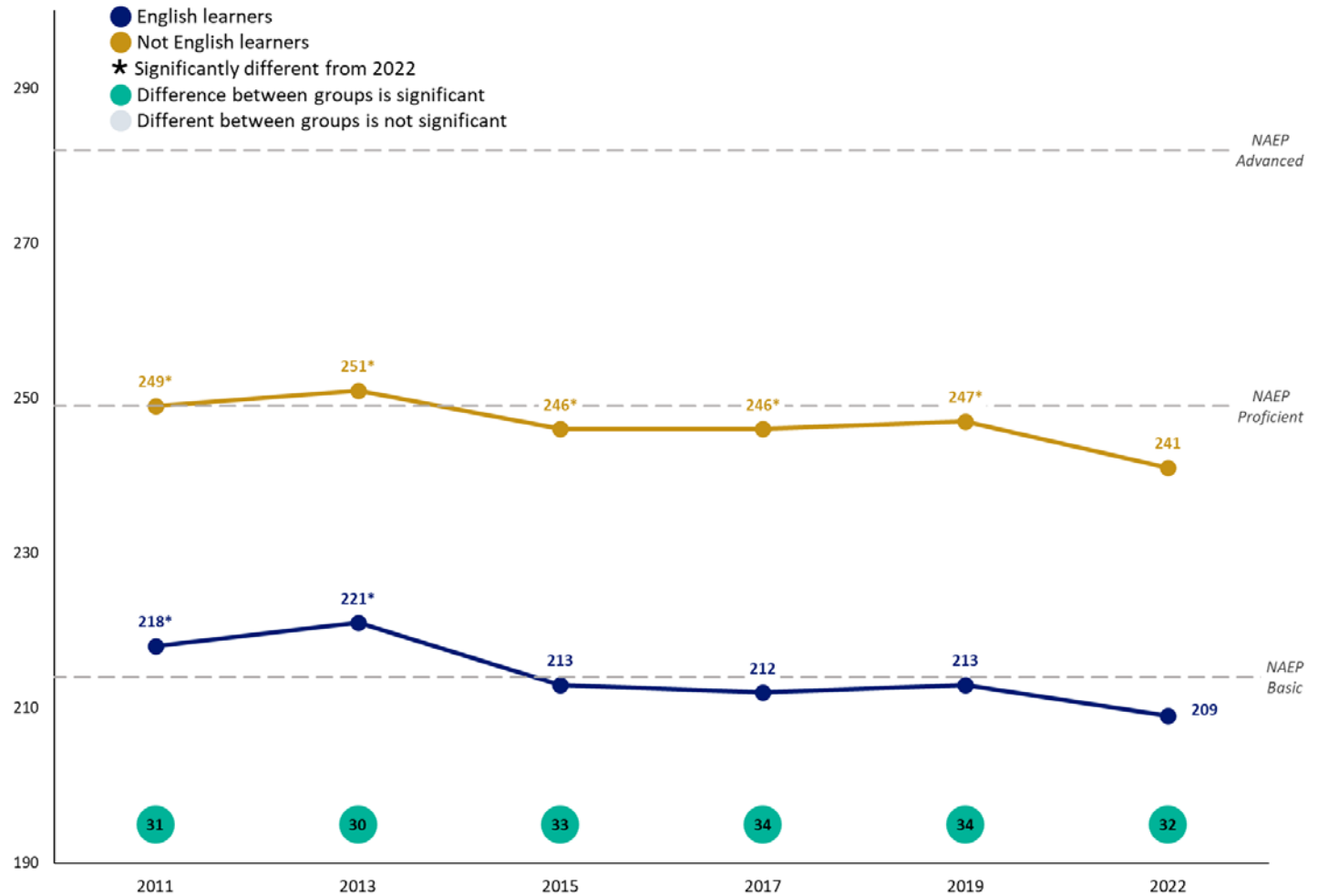
Trend in NAEP average scores and score gaps for students in Colorado, by disability status



This is a comparison of Colorado 4th grade student subgroups using the average scale scores on the NAEP Math assessment extending back to 2009. 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-English Language Learners / English Language Learners Gap

Trend in NAEP average scores and score gaps for students in National Public, by English learner status



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

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 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 green dots represent the score gaps between the student subgroups.

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<https://www.nationsreportcard.gov>