

Achievement Gaps in Oregon's Results on the 2019 National Assessment of Educational Progress

What is an achievement gap?

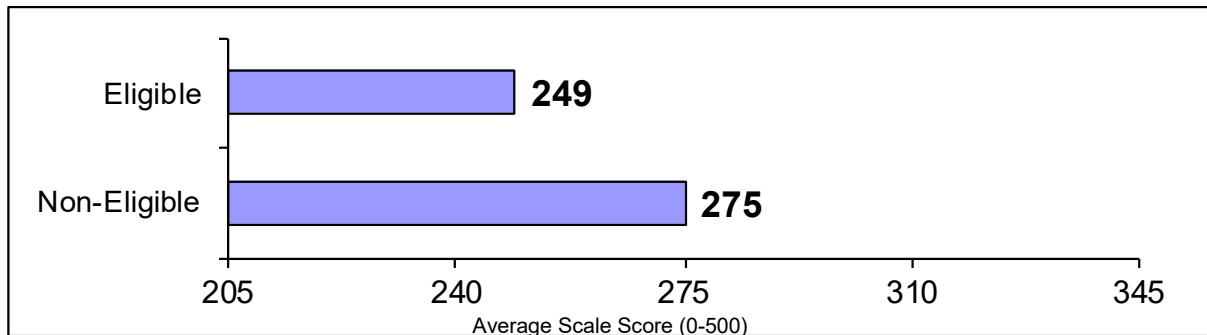
An achievement gap is a difference in what distinct groups of students know and can do in important subjects including math and reading.

How can we find and describe achievement gaps?

One way we find achievement gaps is by comparing test scores for groups of students. One way we describe gaps is by subtracting the average of a lower scoring group from the average of a higher scoring group.

Example

Reading, Grade 8, U.S. Public Schools, NAEP 2019



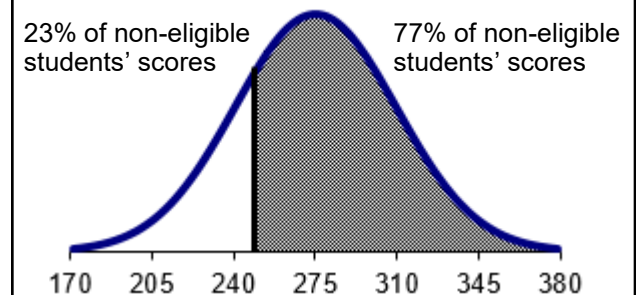
Eligibility for free or reduced price meal benefits through the National School Lunch Program is the most commonly used indicator of economic disadvantage for public school students. It is the indicator used by the National Assessment of Educational Progress (NAEP). In U.S. public schools, students not eligible for a free or reduced price lunch tend to score higher than eligible students on reading tests. On the 2019 8th grade NAEP reading test, the average score for non-eligible students was 275. The average score for eligible students was 249. The achievement gap was 25 points.^{1, 2}

Do achievement gaps exist in Oregon?

Yes. The 2019 NAEP results for Oregon's 4th and 8th graders revealed achievement gaps between student groups, but not in all subject/grade combinations. For example, in math there was no statistically significant⁴ gap between female and male students in 8th grade. In reading, no statistically significant gaps existed at either 4th or 8th grade between Asian students and students of two or more races, or at 4th grade between students of two or more races and White students.

How large is this achievement gap?

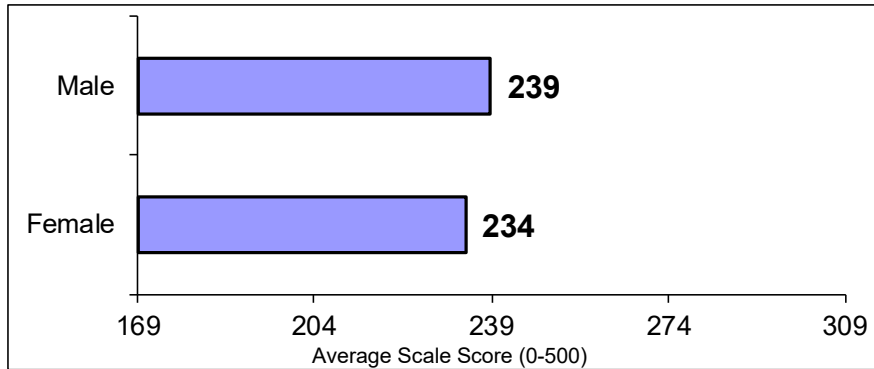
Is this 25-point² gap a concern for teachers and parents? Yes! The average score for students eligible for a free or reduced price lunch falls at the 23rd percentile of scores for non-eligible students. This is a large gap.³



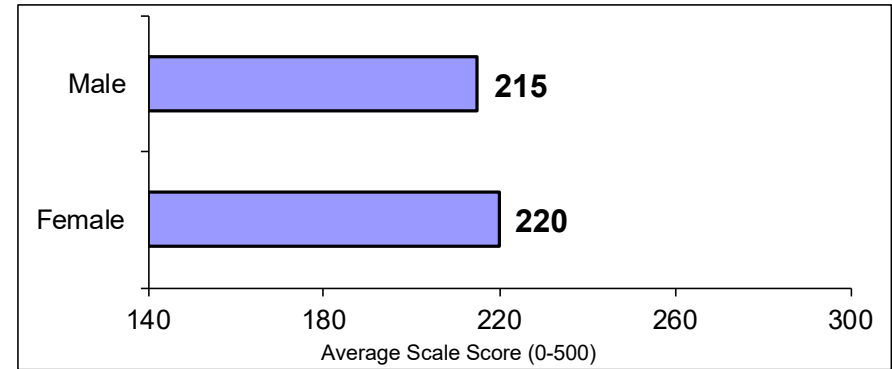
The black line marks the average score for eligible students. If there were no gap, this line would divide the graph in half. Instead, the line falls in the lower part of the graph, showing that 77% of non-eligible students scored higher than the average for eligible students.

Achievement Gaps Between Female and Male Students

**Math, Grade 4
Oregon, NAEP 2019**

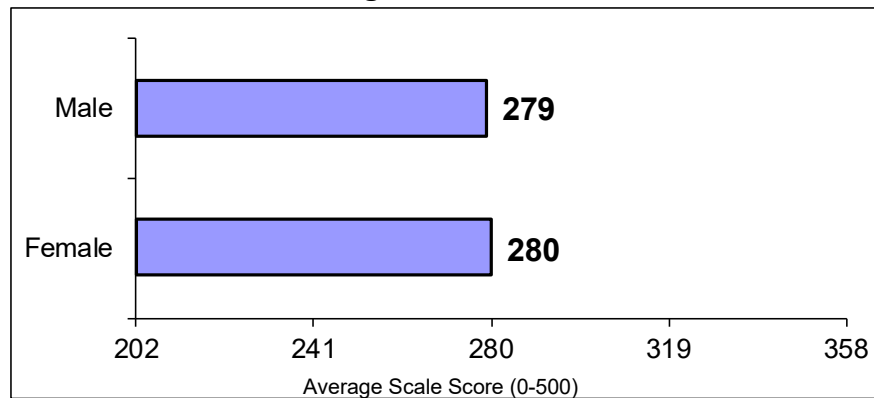


**Reading, Grade 4
Oregon, NAEP 2019**

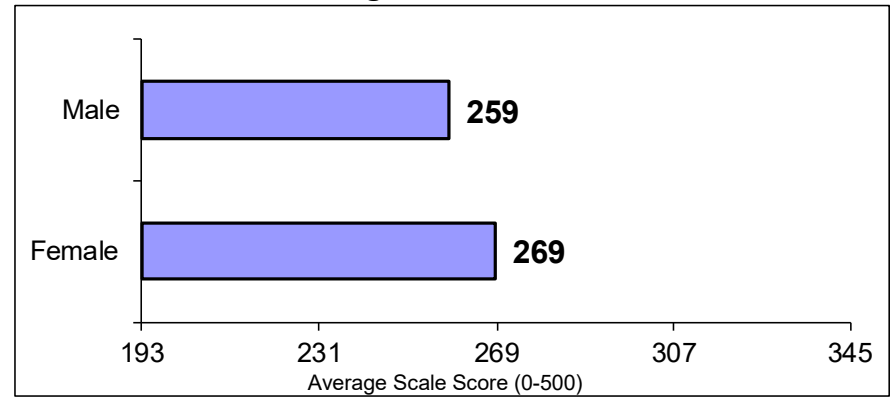


On the 2019 4th grade NAEP math test, the average score for female students was 234. The average score for male students was 239. The achievement gap between females and males was 5 points. The average score for females fell at the 44th percentile of male students' scores. This is a small gap. On the 2019 4th grade NAEP reading test, the average score for female students was 220. The average score for male students was 215. The achievement gap between females and males was 5 points.² The average score for males fell at the 44th percentile of female students' scores. This is a small gap.

**Math, Grade 8
Oregon, NAEP 2019**



**Reading, Grade 8
Oregon, NAEP 2019**

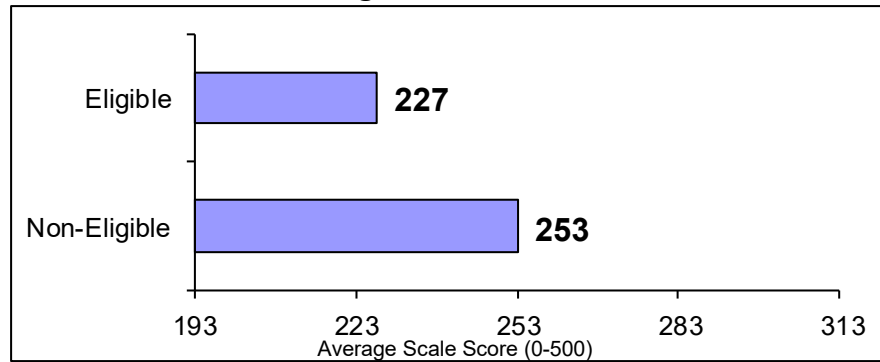


On the 2019 8th grade NAEP math test, the average score for female students was 280. The average score for male students was 279. The difference in scores between male and female students was not statistically significant. On the 2019 8th grade NAEP reading test, the average score for female students was 269. The average score for male students was 259. The achievement gap between females and males was 9 points.² The average score for males fell at the 40th percentile of female students' scores. This is a small gap.

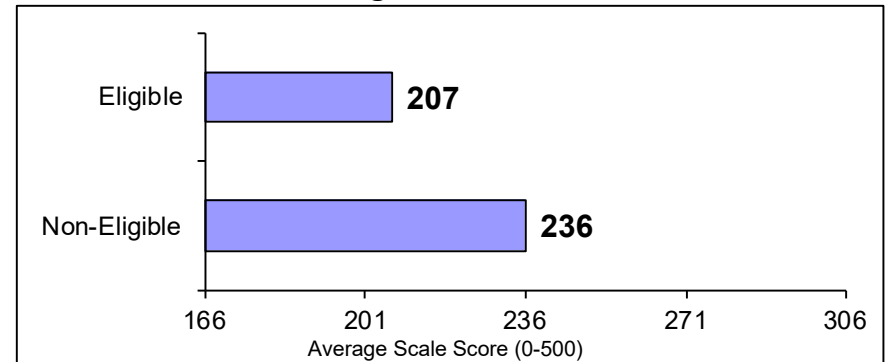
Achievement Gaps Between Economically Advantaged and Disadvantaged Students

Eligibility for free or reduced price meal benefits through the National School Lunch Program is the most commonly used indicator of economic disadvantage for public school students. It is the indicator used in NAEP.

**Math, Grade 4
Oregon, NAEP 2019**

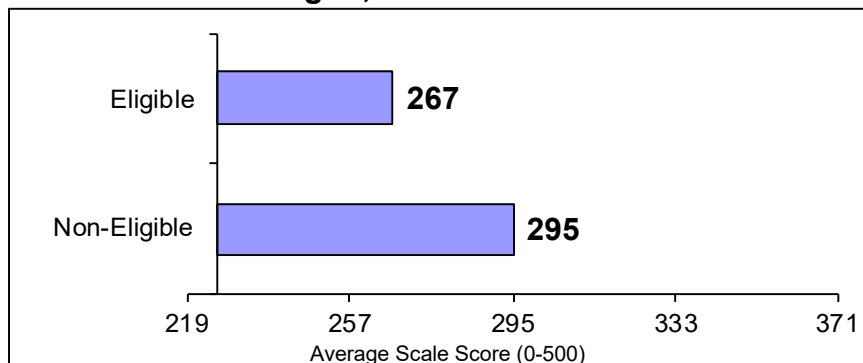


**Reading, Grade 4
Oregon, NAEP 2019**

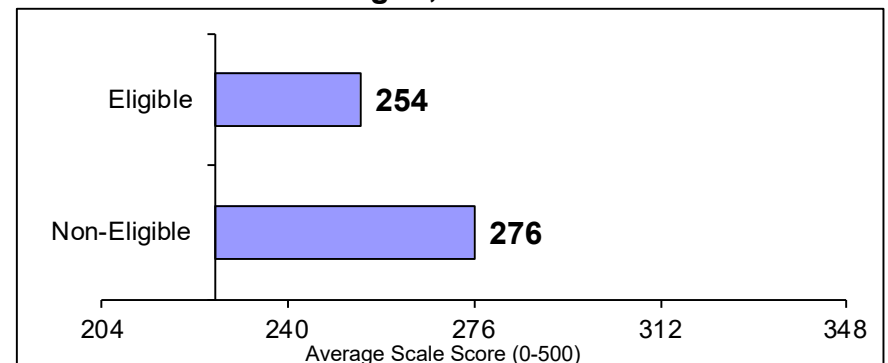


On the 2019 4th grade NAEP math test, the average score for non-eligible students was 253. The average score for eligible students was 227. The achievement gap between non-eligible and eligible students was 26 points. The average score for eligible students fell at the 20th percentile of non-eligible students' scores. This is a large gap. On the 2019 4th grade NAEP reading test, the average score for non-eligible students was 236. The average score for eligible students was 207. The achievement gap was 30 points. The average score for eligible students fell at the 22nd percentile of non-eligible students' scores. This is a large gap.

**Math, Grade 8
Oregon, NAEP 2019**



**Reading, Grade 8
Oregon, NAEP 2019**



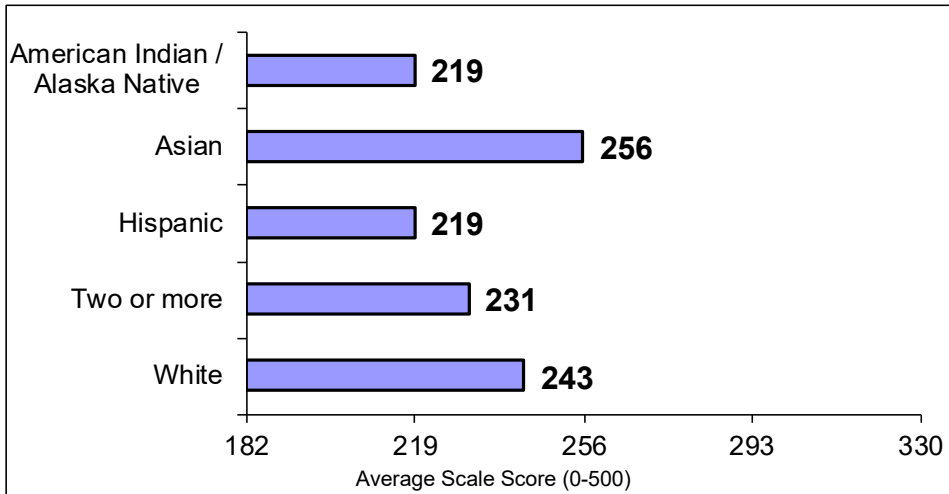
On the 2019 8th grade NAEP math test, the average score for non-eligible students was 295. The average score for eligible students was 267. The achievement gap between non-eligible and eligible students was 28 points. The average score for eligible students fell at the 22nd percentile of non-eligible students' scores. This is a large gap. On the 2019 8th grade NAEP reading test, the average score for non-eligible students was 276. The average score for eligible students was 254. The achievement gap was 22 points. The average score for eligible students fell at the 26th percentile of non-eligible students' scores. This is a large gap.

Achievement Gaps Between Student Racial/Ethnic Groups

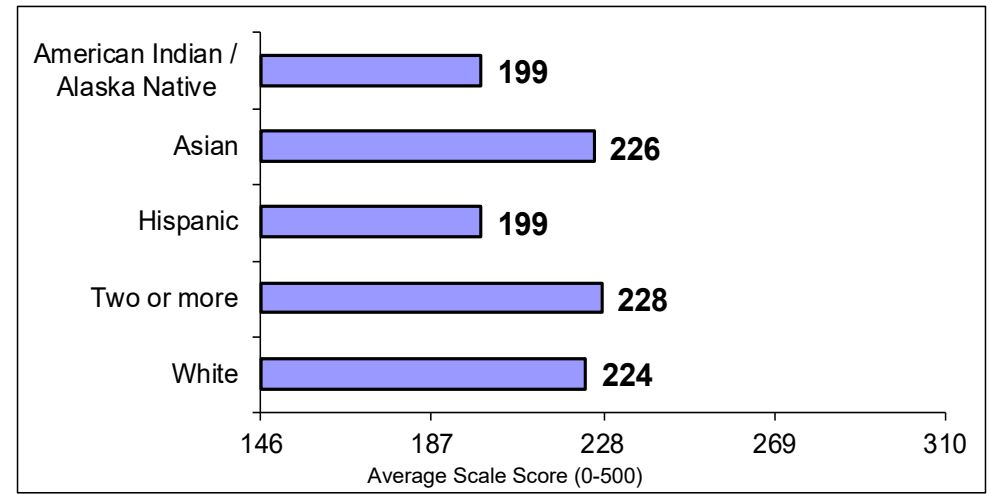
The terms used in this report to for student racial/ethnic groups are the terms used by the National Center for Education Statistics, which administers NAEP. The percentage of Oregon 4th and 8th graders in each category is presented in the table to the right. NAEP does not provide enough information about students classified as Black or Native Hawaiian/Other Pacific Islander to conduct the analyses used in this report.

Racial/Ethnic Group	Percent of 4 th Grade Population ⁵	Percent of 8 th Grade Population ⁵
American Indian/ Alaska Native	1%	1%
Asian	4%	4%
Black	2%	2%
Hispanic	22%	25%
Native Hawaiian/Other Pacific Islander	1%	1%
Two or more races	8%	6%
White	62%	61%

**Math, Grade 4
Oregon, NAEP 2019**



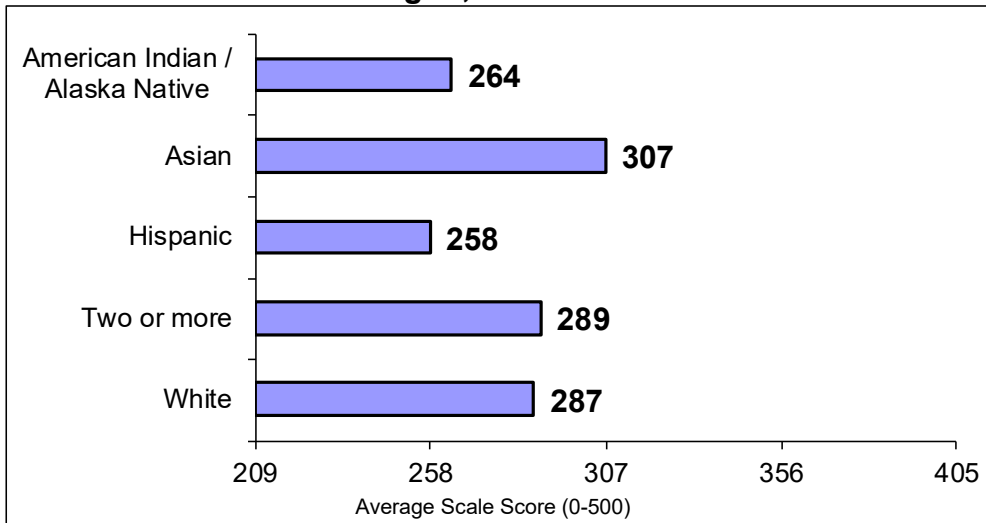
**Reading, Grade 4
Oregon, NAEP 2019**



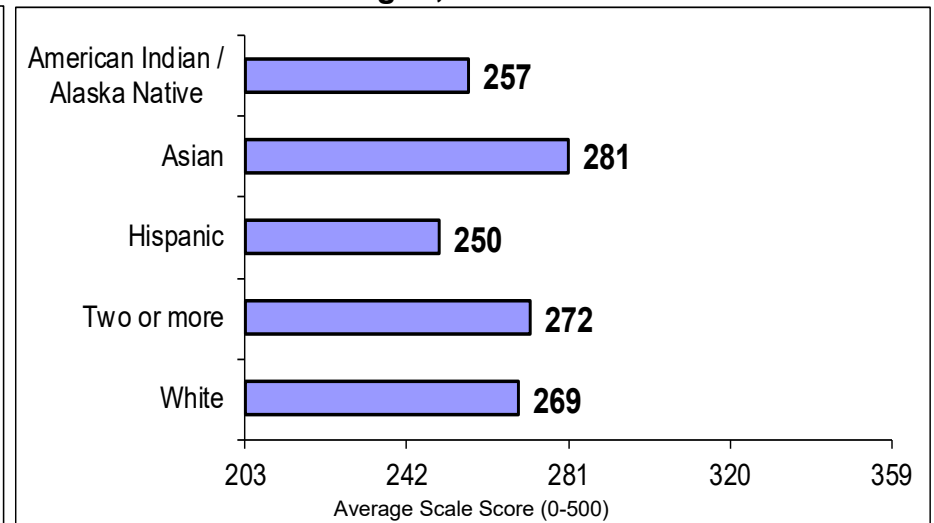
On the 2019 4th grade NAEP math test, the average score for Asian students was 256; for American Indian/Alaska Native students, 219; for Hispanic students, 219; for students of two or more races, 231; and for White students, 243. The achievement gap between Asian students and both American Indian/Alaska Native and Hispanic students was 37 points. The average scores for both American Indian/Alaska Native and for Hispanic students fell at the 14th percentile of Asian students' scores. These are large gaps. The achievement gap between Asian students and students of two or more races was 25 points. The average score for students of two or more races fell at the 22nd percentile of Asian students' scores. This is a large gap. The achievement gap between Asian students and White students was 13 points. The average score for White students fell at the 34th percentile of Asian students' scores. This is a medium gap.

On the 2019 4th grade NAEP reading test, the average score for students of two or more races was 228; for American Indian/Alaska Native students, 199; for Asian students, 226; for Hispanic students, 199; and for White students, 224. An achievement gap existed between students of two or more races and both American Indian/Alaska Native students and Hispanic students. The differences between scores for students of two or more races and both Asian and White students were not statistically significant. The achievement gap between students of two or more races and both American Indian/Alaska Native and Hispanic students was 29 points. The average scores for both American Indian/Alaska Native and Hispanic students fell at the 24th percentile of students' of two or more races scores. These are large gaps.

**Math, Grade 8
Oregon, NAEP 2019**



**Reading, Grade 8
Oregon, NAEP 2019**



On the 2019 8th grade NAEP math test, the average score for Asian students was 307; for American Indian/Alaska Native students, 264; for Hispanic students, 258; for students of two or more races, 289; and for White students, 287. The achievement gap between Asian students and American Indian/Alaska Native students was 42 points.² The average score for American Indian/Alaska Native students fell at the 16th percentile of Asian students' scores. This is a large gap. The achievement gap between Asian students and Hispanic students was 49 points. The average score for Hispanic students fell at the 10th percentile of Asian students' scores. This is a large gap. The achievement gap between Asian students and students of two or more races students was 18 points. The average score for students of two or more races fell at the 34th percentile of Asian students' scores. This is a medium gap. The achievement gap between Asian students and White students was 20 points. The average score for White students fell at the 30th percentile of Asian students' scores. This is a medium gap.

On the 2019 8th grade NAEP reading test, the average score for Asian students was 281; for American Indian/Alaska Native students, 257; for Hispanic students, 250; for students of two or more races, 272; and for White students, 269. The achievement gap between Asian students and American Indian/Alaska Native students was 23 points.² The average score for American Indian/Alaska Native students fell at the 27th percentile of Asian students' scores. This is a large gap.

The achievement gap between Asian students and Hispanic students was 31 points. The average score for Hispanic students fell at the 21st percentile of Asian students' scores. This is a large gap. The difference between scores for Asian students and scores for students of two or more races was not statistically significant. The achievement gap between Asian students and White students was 12 points. The average score for White students fell at the 37th percentile of Asian students' scores. This is a medium gap.

How do we explain achievement gaps?

There is no final answer to this question. Research has focused on both out-of-school and in-school factors associated with gaps. Some out-of-school factors identified in the research are child health, out-of-school learning, and student mobility. Examples of in-school factors are teacher quality, the cultural relevance of instructional materials, and school climate.

Additional Information

Results from the National Assessment of Educational Progress can be viewed on the NAEP Data Explorer web site at <http://nces.ed.gov/nationsreportcard/naepdata/>. For more information about NAEP in Oregon, contact Beth LaDuca, NAEP State Coordinator with the Oregon Department of Education, at beth.laduca@state.or.us.

Notes

¹ All NAEP data are estimates based on samples and have associated standard errors. The standard errors can be viewed on the NAEP Data Explorer, <http://nces.ed.gov/nationsreportcard/naepdata/>.

² Due to rounding.

³ If the average score of the lower scoring group falls between the 49th and 40th percentiles of the distribution of the higher scoring group, the gap is classified as small; between the 39th and 30th percentiles, as medium; and at the 29th percentile or below, as large. However, as in any classification system, values falling immediately above and below the dividing value may not be meaningfully different.

⁴ In NAEP, tests are conducted to determine if a difference in scores is likely due to sampling and measurement uncertainty. If so, the score difference is classified as not statistically significant.

⁵ Population estimates are from the NAEP samples of Oregon's 4th and 8th graders for the 2019 math assessment.

Summary of Oregon Achievement Gaps on NAEP 2019 by Gap Size

No Statistically Significant Gap

Female and male students, 8th grade math
Asian and students of two or more races, 8th grade reading
Students of two or more races and Asian students, 4th grade reading
Students of two or more races and White students, 4th grade reading

Small Gaps

Male and female students, 4th grade math
Female and male students, 4th grade reading
Female and male students, 8th grade reading

Medium Gaps

Asian and students of two or more races, 8th grade math
Asian and White students, 4th grade math
Asian and White students, 8th grade math

Large Gaps

Eligible and non-eligible students, 4th grade math
Eligible and non-eligible students, 8th grade math
Eligible and non-eligible students, 4th grade reading
Eligible and non-eligible students, 8th grade reading
Asian and American Indian/Alaska Native students, 4th grade math
Asian and American Indian/Alaska Native students, 8th grade math
Asian and American Indian/Alaska Native students, 8th grade reading
Asian and Hispanic students, 4th grade math
Asian and Hispanic students, 8th grade math
Asian and Hispanic students, 8th grade reading
Asian and students of two or more races, 4th grade math
Students of two or more races and American Indian/Alaska Native students, 4th grade reading
Students of two or more races and Hispanic students, 4th grade reading