

The National Assessment of Educational Progress (NAEP) assesses science in two major dimensions: Fields of Science (Earth, Physical, and Life) and Knowing and Doing Science (Conceptual Understanding, Scientific Investigation, and Practical Reasoning). The NAEP science scale ranges from 0 to 300. Scales are created separately for each grade.

Overall Science Results for Maryland

- In 2005, the average scale score for fourth-grade students in Maryland was 149. This was higher than their average score in 2000 (145).¹
- Maryland's average score (149) in 2005 was not significantly different from that of the nation's public schools (149).
- Of the 44 states and one jurisdiction that participated in the 2005 fourth-grade assessment, students' average scale score in Maryland was higher than those in 8 jurisdictions, not significantly different from those in 13 jurisdictions, and lower than those in 23 jurisdictions.²
- The percentage of students in Maryland who performed at or above the NAEP *Proficient* level was 27 percent in 2005. This percentage was not significantly different from that in 2000 (24 percent).
- The percentage of students in Maryland who performed at or above the NAEP *Basic* level was 64 percent in 2005. This percentage was not significantly different from that in 2000 (61 percent).

Student Percentages at NAEP Achievement Levels



¹ Accommodations were not permitted for this assessment.

NOTE: The NAEP grade 4 science achievement levels correspond to the following scale points: *Below Basic*, 137 or lower; *Basic*, 138–169; *Proficient*, 170–204; *Advanced*, 205 or above.

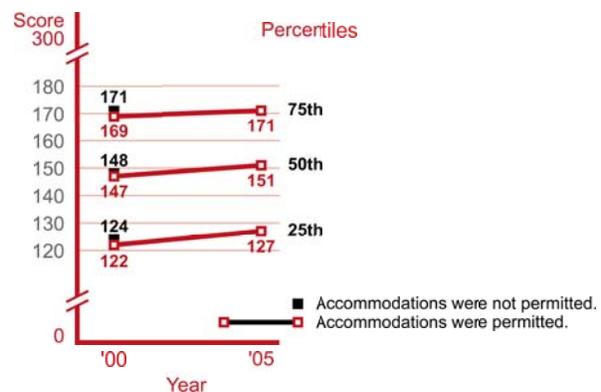
Performance of NAEP Reporting Groups in Maryland: 2005

Reporting groups	Percent of students	Average score	Percent below <i>Basic</i>	Percent of students at or above <i>Basic</i>	Percent <i>Proficient</i>	Percent <i>Advanced</i>
Male	50	148	36	64	28	3
Female	50	149 [†]	35 [↓]	65 [†]	26	2
White	51	162	17	83	40	4
Black	35	128	64	36	7	1
Hispanic	7 [†]	139	49	51	13	#
Asian/Pacific Islander	6	161	21	79	41	7
American Indian/Alaska Native	#	‡	‡	‡	‡	‡
Eligible for free/reduced-price school lunch	32	129	62	38	7	#
Not eligible for free/reduced-price school lunch	66 [†]	159	22	78	37	4

Average Score Gaps Between Selected Groups

- In 2005, male students in Maryland had an average score that was not significantly different from that of female students. In 2000, there was no significant difference between the average score of male and female students.
- In 2005, Black students had an average score that was lower than that of White students by 34 points. In 2000, the average score for Black students was lower than that of White students by 37 points.
- In 2005, Hispanic students had an average score that was lower than that of White students by 23 points. In 2000, the average score for Hispanic students was lower than that of White students by 26 points.
- In 2005, students who were eligible for free/reduced-price school lunch, an indicator of poverty, had an average score that was lower than that of students who were not eligible for free/reduced-price school lunch by 30 points. In 2000, the average score for students who were eligible for free/reduced-price school lunch was lower than the score of those not eligible by 33 points.
- In 2005, the score gap between students at the 75th percentile and students at the 25th percentile was 44 points. In 2000, the score gap between students at the 75th percentile and students at the 25th percentile was 47 points.

Science Scale Scores at Selected Percentiles



Scores at selected percentiles on the NAEP science scale indicate how well students at lower, middle, and higher levels performed.

The estimate rounds to zero.

‡ Reporting standards not met.

* Significantly different from 2005.

† Significantly higher than 2000. ‡ Significantly lower than 2000.

¹ Comparisons (higher/lower/not different) are based on statistical tests. The .05 level was used for testing statistical significance. Comparisons across jurisdictions and comparisons with the nation or within a jurisdiction across years may be affected by differences in exclusion rates for students with disabilities (SD) and English language learners (ELL). The exclusion rates for SD and ELL in Maryland were 2 percent and 1 percent in 2005, respectively. Statistical comparisons are calculated on the basis of unrounded scale scores or percentages.

² "Jurisdiction" refers to states and the Department of Defense Education Activity schools.

NOTE: Detail may not sum to totals because of rounding and because the "Information not available" category for free/reduced-price school lunch and the "Unclassified" category for race/ethnicity are not displayed. Visit <http://nces.ed.gov/nationsreportcard/states/> for additional results and detailed information.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 and 2005 Science Assessments.