Science 2005

Charlotte-Mecklenburg Schools
Grade 8
Public Schools

Snapshot Report

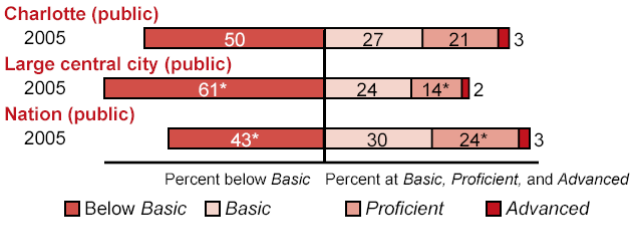
NCES 2007-455XT8

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. In 2005, Charlotte-Mecklenburg Schools was one of ten urban districts that voluntarily participated in the NAEP science assessment on a trial basis.

Overall Science Results for Charlotte

- In 2005, the average scale score for eighth-grade students in Charlotte was 142. This was lower than the average score in the nation (147).[1]
- Charlotte's average score (142) in 2005 was higher than that of public schools in large central cities (132).[2]
- The percentage of students in Charlotte who performed at or above the NAEP *Proficient* level was 23 percent in 2005. This percentage was greater than that in large central cities (15 percent).
- The percentage of students in Charlotte who performed at or above the NAEP *Basic* level was 50 percent in 2005. This percentage was greater than that in large central cities (39 percent).

Student Percentages at NAEP Achievement Levels



NOTE: The NAEP grade 8 science achievement levels correspond to the following scale points: Below *Basic*, 142 or lower; *Basic*, 143–169; *Proficient*, 170–207; *Advanced*, 208 or above.

Performance of NAEP Reporting Groups in Charlotte: 2005

Reporting groups	Percent of students[3]	Average score	Percent below *Basic*	Percent of students at or above *Basic*	Percent of students at or above *Proficient*	Percent *Advanced*
Male	50	144↑	48↓	52↑	25↑	3
Female	50	140↑	51↓	49↑	22↑	2
White	41↑	165↑	18↓	82↑	44↑	5
Black	45↑	122↑	76	24	5	#
Hispanic	9↓	128	68	32	10	1
Asian/Pacific Islander	4↓	‡	‡	‡	‡	‡
American Indian/Alaska Native	#	‡	‡	‡	‡	‡
Eligible for free/reduced-price school lunch	43↓	121	76	24	5↓	#
Not eligible for free/reduced-price school lunch	56↑	159↑	29↓	71↑	38↑	4

Average Score Gaps Between Selected Groups

- In 2005, male students in Charlotte had an average score that was not significantly different from that of female students. In large central cities, the average score for male students was higher than that of female students by 3 points.
- In 2005, Black students had an average score that was lower than that of White students by 43 points. In large central cities, the average score for Black students was lower than that of White students by 39 points.
- In 2005, Hispanic students had an average score that was lower than that of White students by 37 points. In large central cities, the average score for Hispanic students was lower than that of White students by 35 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 37 points. This performance gap was wider than that of the large central cities (28 points).
- In 2005, the score gap between students at the 75th percentile and students at the 25th percentile was 51 points. In large central cities, the score gap between students at the 75th percentile and students at the 25th percentile was 50 points.

Science Scale Scores at Selected Percentiles

	Scale Score Distribution		
	25th Percentile	50th Percentile	75th Percentile
Charlotte	117	143	168
Large central city (public)	107 *	132 *	157 *
Nation (public)	124 *	150 *	172 *

Scores at selected percentiles on the NAEP science scale indicate how well students at lower, middle, and higher levels performed. For example, the data above show that 75 percent of students in public schools nationally scored below 172, while 75 percent of students in Charlotte scored below 168.

The estimate rounds to zero.
‡ Reporting standards not met.
* Significantly different from Charlotte.
↑ Significantly higher than large central cities. ↓ Significantly lower than large central cities.

[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 Charlotte-Mecklenburg Schools were 2 percent and 1 percent in 2005, respectively. Statistical comparisons are calculated on the basis of unrounded scale scores or percentages.
[2] "Large central city" includes public schools located in large central cities (population 250,000 or more) within metropolitan statistical areas as defined by the federal Office of Management and Budget. It is not synonymous with "inner city."
[3] For comparison, non-White students comprised 77 percent of students in large central city public schools and 40 percent in public schools nationally. Also, students eligible for free/reduced-price school lunch comprised 62 percent of students in large central city public schools and 39 percent in public schools nationally.
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 "Unclassifed" category for race/ethnicity are not displayed. Visit http://nces.ed.gov/nationsreportcard/science/tuda.asp 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), 2005 Trial Urban District Science Assessment.