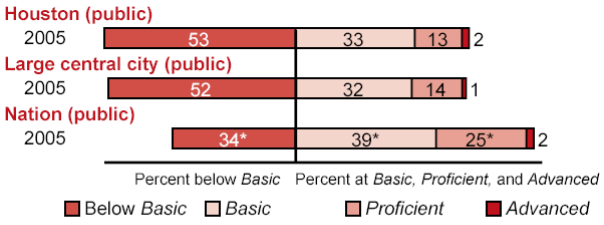
The National Assessment of Educational Progress (NAEP) assesses science in two major dimensions: Fields of Science (Earth, Physical, and Life) and Knowing and Doing Science (Conceptual Understanding, Scientific Investigation, and Practical Reasoning). The NAEP science scale ranges from 0 to 300. Scales are created separately for each grade. In 2005, Houston Independent School District was one of ten urban districts that voluntarily participated in the NAEP science assessment on a trial basis.

Overall Science Results for Houston

- In 2005, the average scale score for fourth-grade students in Houston was 138. This was lower than the average score in the nation (149).[1]
- Houston's average score (138) in 2005 was not significantly different from that of public schools in large central cities (135).[2]
- The percentage of students in Houston who performed at or above the NAEP *Proficient* level was 15 percent in 2005. This percentage was not significantly different from that in large central cities (15 percent).
- The percentage of students in Houston who performed at or above the NAEP *Basic* level was 47 percent in 2005. This percentage was not significantly different from that in large central cities (48 percent).

Student Percentages at NAEP Achievement Levels



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 Houston: 2005

Reporting groups	Percent of students[3]	Average score	Percent below *Basic*	Percent of students at or above *Basic*	Percent at or above *Proficient*	Percent *Advanced*
Male	51	140	51	49	17	2
Female	49	136	55	45	13	1
White	10↓	175↑	11↓	89↑	65↑	9
Black	28	130↑	63	37	7	#
Hispanic	59↑	134↑	57	43	8	#
Asian/Pacific Islander	3↓	‡	‡	‡	‡	‡
American Indian/Alaska Native	#	‡	‡	‡	‡	‡
Eligible for free/reduced-price school lunch	79↑	131↑	61	39	7	#
Not eligible for free/reduced-price school lunch	21↓	163↑	20↓	80↑	46↑	7

Average Score Gaps Between Selected Groups

- In 2005, male students in Houston had an average score that was not significantly different from that of female students. In large central cities, 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 45 points. This performance gap was wider than that of the large central cities (37 points).
- In 2005, Hispanic students had an average score that was lower than that of White students by 42 points. This performance gap was wider than that of the large central cities (33 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 32 points. In large central cities, the average score for students who were eligible for free/reduced-price school lunch was lower than the score of those not eligible by 29 points.
- In 2005, the score gap between students at the 75th percentile and students at the 25th percentile was 41 points. In large central cities, the score gap between students at the 75th percentile and students at the 25th percentile was 46 points.

Science Scale Scores at Selected Percentiles

	Scale Score Distribution		
	25th Percentile	50th Percentile	75th Percentile
Houston	117	136	158
Large central city (public)	113	136	159
Nation (public)	129 *	152 *	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 Houston scored below 158.

The estimate rounds to zero.
‡ Reporting standards not met.
* Significantly different from Houston.
↑ 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 Houston Independent School District were 5 percent and 4 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 79 percent of students in large central city public schools and 43 percent in public schools nationally. Also, students eligible for free/reduced-price school lunch comprised 69 percent of students in large central city public schools and 45 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.