

the condition of education 2008



INDICATOR 16

Trends in the Achievement Gaps in Reading and Mathematics

The indicator and corresponding tables are taken directly from *The Condition of Education 2008*. Therefore, the page numbers may not be sequential.

Additional information about the survey data and supplementary notes can be found in the full report. For a copy of *The Condition of Education 2008*, visit the NCES website (<http://nces.ed.gov/pubsearch/pubsinfo.asp?pubid=2008031>) or contact ED PUBs at 1-877-4ED-PUBS.

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Academic Outcomes

Trends in the Achievement Gaps in Reading and Mathematics

In 2007, the achievement gap between White and Black scores in reading and mathematics at the 4th grade was smaller than in 1992, while not measurably different at the 8th grade or between Whites and Hispanics in either grade.

The main National Assessment of Educational Progress (NAEP) program has assessed student reading and mathematics performance since the early 1990s. NAEP thus provides a picture of the extent to which student performance in each subject has changed over time, including the achievement gaps between White and Black and White and Hispanic students.

In reading, the achievement gap between White-Black 4th-graders was smaller in 2007 than in any previous assessment. However, the gap between White-Hispanic 4th-graders was not measurably different in 2007 compared with 1992. In 2007, at the 4th-grade level, Blacks scored, on average, 27 points lower than Whites (on a 0–500 scale), and Hispanics scored, on average, 26 points lower than Whites (see supplemental table 16-1). At 8th grade, there was no measurable difference in the White-Black or White-Hispanic reading achievement gaps in 2007 compared with 1992 or 2005. In 2007, at the 8th-grade level, Blacks scored, on

average, 27 points lower on the reading assessment than Whites, and Hispanics scored, on average, 25 points lower than Whites.

In mathematics, the achievement gap between White-Black 4th-graders was lower in 2007 than in 1990 (26 vs. 32 points), but there was no measurable change over the last two years. The gap between White-Hispanic 4th-graders increased in the 1990s before decreasing in the first half of the 2000s, but the gap in 2007 (21 points) was not measurably different from that in 1990. Among 8th-graders, a similar trend existed in both the White-Black and White-Hispanic score gaps: increases occurred in the 1990s before decreasing to the current levels, which are not measurably different from those in 1990. The White-Black 8th-grade mathematics gap was lower in 2007 than in 2005, but there was no measurable change in the White-Hispanic gap. In 2007, among 8th-graders, the White-Black mathematics gap was 32 points, and the White-Hispanic gap was 26 points.

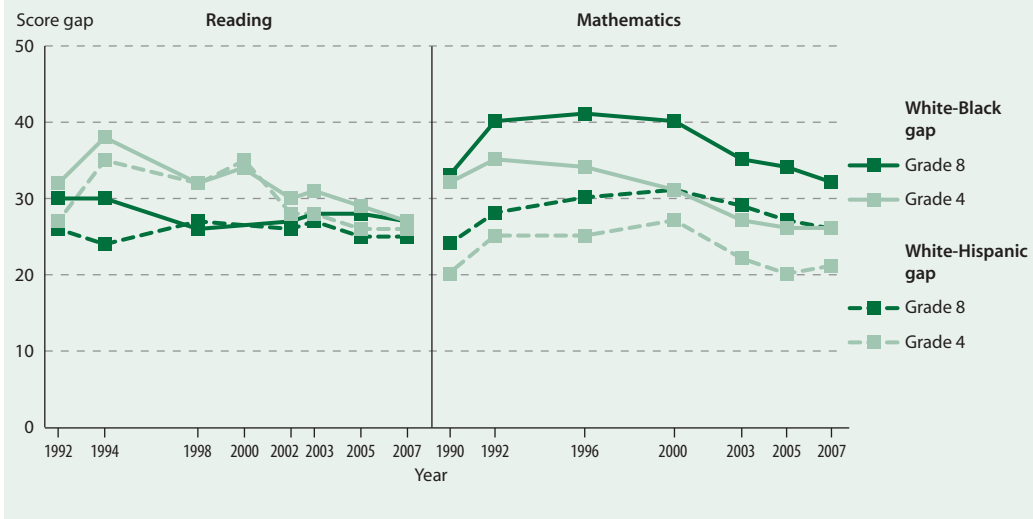
NOTE:NAEP scores are calculated on a 0 to 500 scale. Student assessments are not designed to permit comparisons across subjects or grades. Race categories exclude persons of Hispanic ethnicity. The score gap is determined by subtracting the average Black and Hispanic score, respectively, from the average White score. Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English-proficient students were not permitted from 1990 through 1994. Beginning in 2002, the NAEP national sample for grades 4 and 8 was obtained by aggregating samples from each state, rather than by obtaining an independently selected national sample. See *supplemental note 4* for more information on NAEP.

SOURCE:U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2007 Reading and Mathematics Assessments, NAEP Data Explorer.

FOR MORE INFORMATION:
 Supplemental Notes 1, 4
 Supplemental Table 16-1
 NCES 2007-494
 NCES 2007-496



ACHIEVEMENT GAP: Differences in White-Black and White-Hispanic 4th- and 8th-grade average reading and mathematics scale scores: Various years, 1990–2007



Trends in the Achievement Gaps in Reading and Mathematics

Table 16-1. White-Black and White-Hispanic gaps in average reading and mathematics scores, by grade: Various years, 1990–2007

Subject, race/ethnicity, ¹ and grade	1990	1992	1994	1996	1998	2000	2002	2003	2005	2007
Reading										
White-Black gap										
Grade 4	—	32	38	—	32	34	30	31	29	27
Grade 8	—	30	30	—	26	—	27	28	28	27
White-Hispanic gap										
Grade 4	—	27	35	—	32	35	28	28	26	26
Grade 8	—	26	24	—	27	—	26	27	25	25
Mathematics										
White-Black gap										
Grade 4	32	35	—	34	—	31	—	27	26	26
Grade 8	33	40	—	41	—	40	—	35	34	32
White-Hispanic gap										
Grade 4	20	25	—	25	—	27	—	22	20	21
Grade 8	24	28	—	30	—	31	—	29	27	26

— Not available (tests not conducted in all grades for all years).

¹ Race categories exclude persons of Hispanic ethnicity.

NOTE: The score gap is determined by subtracting the average Black or Hispanic score, respectively, from the average White score. Testing accommodations (e.g., extended time, small group testing) for children with disabilities and limited-English-proficient students were not permitted from 1990 through 1994. Beginning in 2002, the National Assessment of Educational Progress (NAEP) national sample for grades 4 and 8 was obtained by aggregating the samples from each state, rather than by obtaining an independently selected national sample. As a consequence, the size of the national sample increased, and smaller differences between years or between types of students were found to be statistically significant than would have been detected in previous assessments. See *supplemental note 4* for more information on NAEP.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2007 Reading and Mathematics Assessments, NAEP Data Explorer.

Trends in the Achievement Gaps in Reading and Mathematics

Table S16-1. Standard errors for the White-Black and White-Hispanic gaps in average reading and mathematics scores, by grade: Various years, 1990–2007

Subject, race/ethnicity, and grade	1990	1992	1994	1996	1998	2000	2002	2003	2005	2007
Reading										
White-Black gap										
Grade 4	†	2.1	2.2	†	2.2	2.1	0.6	0.5	0.4	0.5
Grade 8	†	2.0	2.1	†	1.5	†	0.9	0.5	0.5	0.4
White-Hispanic gap										
Grade 4	†	2.9	3.6	†	3.3	3.1	1.4	0.6	0.5	0.6
Grade 8	†	2.0	1.5	†	1.9	†	0.9	0.7	0.5	0.5
Mathematics										
White-Black gap										
Grade 4	2.0	1.6	†	1.8	†	1.5	†	0.4	0.3	0.4
Grade 8	3.0	1.7	†	2.2	†	1.5	†	0.6	0.4	0.5
White-Hispanic gap										
Grade 4	2.4	1.7	†	2.1	†	1.7	†	0.5	0.3	0.4
Grade 8	4.5	1.5	†	2.0	†	1.6	†	0.7	0.5	0.5

† Not applicable.

SOURCE: U.S. Department of Education, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), various years, 1990–2007 Reading and Mathematics Assessments, NAEP Data Explorer.