The Nation’s Report Card
Reading 2007

NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS AT GRADES 4 AND 8
What is The Nation’s Report Card™?

The Nation’s Report Card™ informs the public about the academic achievement of elementary and secondary students in the United States. Report cards communicate the findings of the National Assessment of Educational Progress (NAEP), a continuing and nationally representative measure of achievement in various subjects over time.

For over three decades, NAEP assessments have been conducted periodically in reading, mathematics, science, writing, U.S. history, civics, geography, and other subjects. By collecting and reporting information on student performance at the national, state, and local levels, NAEP is an integral part of our nation’s evaluation of the condition and progress of education. Only information related to academic achievement and relevant variables is collected. The privacy of individual students and their families is protected, and the identities of participating schools are not released.

NAEP is a congressionally authorized project of the National Center for Education Statistics (NCES) within the Institute of Education Sciences of the U.S. Department of Education. The Commissioner of Education Statistics is responsible for carrying out the NAEP project. The National Assessment Governing Board oversees and sets policy for NAEP.

Executive Summary

Reading skills are improving for both fourth- and eighth-graders, particularly among lower- and middle-performing students. Many student groups made gains in both grades; however, these gains were not always accompanied by significant closing of racial/ethnic and gender gaps.

Students demonstrated their reading comprehension skills by responding to questions about various types of reading passages on the 2007 National Assessment of Educational Progress (NAEP) reading assessment. Reading abilities were assessed in the contexts of literary experience, gaining information, and performing a task.

A nationally representative sample of more than 350,000 students at grades 4 and 8 participated in the 2007 reading assessment. Comparing these results to results from previous years shows the progress fourth- and eighth-graders are making both in the nation and in individual states.

Fourth-graders scored higher in 2007 than in all the previous assessment years. The average reading score was up 2 points since 2005 and 4 points compared to the first assessment 15 years ago. Higher percentages of students were performing at or above the Basic and Proficient achievement levels in 2007 than in previous years.

The average reading score for eighth-graders was up 1 point since 2005 and 3 points since 1992; however, the trend of increasing scores was not consistent over all assessment years. In comparison to both 1992 and 2005, the percentage of students performing at or above the Basic level increased, but there was no significant change in the percentage of students at or above the Proficient level.
White, Black, and Hispanic students in both grades make gains

As indicated on the chart below, White, Black, and Hispanic students all scored higher in 2007 than in the first assessment 15 years ago at both grades 4 and 8. However, improvements for minority students did not always result in the narrowing of the achievement gaps with White students. Only the White – Black gap at grade 4 was smaller in comparison to the gaps in 2005 and 1992.

Female students outperform males

Patterns in improvement for male and female students varied by grade. Scores for both male and female students increased since 2005 at grade 4, but not at grade 8. In 2007, female students scored 7 points higher than male students at grade 4 and 10 points higher at grade 8. These gender score gaps were not significantly different from the gaps seen 15 years ago.

<table>
<thead>
<tr>
<th>Student groups</th>
<th>Grade 4 Since 1992</th>
<th>Grade 4 Since 2005</th>
<th>Grade 8 Since 1992</th>
<th>Grade 8 Since 2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>White</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>Black</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>Hispanic</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
<td>↑</td>
</tr>
<tr>
<td>American Indian/Alaska Native</td>
<td>‡</td>
<td>⇔</td>
<td>‡</td>
<td>⇔</td>
</tr>
</tbody>
</table>

Gaps

- Male – Female: ⇔ ⇔ ⇔ ⇔
- White – Black: ↓ ↓ ⇔ ⇔
- White – Hispanic: ⇔ ⇔ ⇔ ⇔

† Indicates the score was higher or the gap increased in 2007.
↓ Indicates the score was lower or the gap decreased in 2007.
⇔ Indicates there was no significant change in the score or the gap in 2007.
‡ Reporting standards not met. Sample size was insufficient to permit a reliable estimate.

Compared with 2005,

- 4 states and jurisdictions (District of Columbia, Florida, Hawaii, and Maryland) improved at both grades,
- 13 states and Department of Defense schools improved at grade 4 only,
- 2 states improved at grade 8 only,
- 2 states declined at grade 8, and
- 30 states showed no significant change at either grade.

Differing patterns emerged when results were examined by the contexts for reading. For example, 5 of the 44 states and jurisdictions that showed no change in overall performance at grade 8 did show a gain in at least one of the three reading contexts.

1 Department of Defense Education Activity (overseas and domestic schools).
As the key that allows access to many forms of knowledge and information, reading literacy is a skill critical to learning. The NAEP reading assessment measures reading comprehension by asking students to read passages and answer questions about what they have read. In this way, it collects valuable information on the progress of literacy and provides a broad picture of what our nation’s students are able to read and understand at specific grade levels.

The Reading Framework

The NAEP reading framework serves as the blueprint for the assessment, specifying what should be assessed. Developed under the direction of the National Assessment Governing Board, the framework reflects ideas from a variety of organizations involved in reading education, including reading experts, school administrators, policymakers, teachers, parents, and others.

The current NAEP reading framework was first used to guide the development of the 1992 assessment and has continued to be used through 2007. Updates to the framework over the years have provided more detail regarding the assessment design but did not change the content, allowing students’ performance in 2007 to be compared with previous years. For more information on the framework, see http://www.nagb.org/frameworks/reading_07.pdf.

The framework provides a broad definition of reading that includes developing a general understanding of written texts, interpreting texts, and using texts for different purposes. In addition, it views reading as an interactive and dynamic process involving the reader, the text, and the context of the reading experience.

Recognizing that readers vary in their approach to reading according to the demands of any particular text, the framework specifies that reading performance be measured in two dimensions: reading contexts and aspects of reading. Three contexts for reading provide guidance for the types of texts included in the assessment. Four aspects of reading provide guidance for the types of questions that are asked about the texts.

**CONTEXTS FOR READING**

- **Reading for literary experience** includes exploring events, characters, themes, settings, plots, actions, and the language of literary works by reading novels, short stories, poems, plays, legends, biographies, myths, and folktales.

- **Reading for information** involves reading materials such as magazines, newspapers, textbooks, essays, and speeches in order to better understand the world.

- **Reading to perform a task** requires readers to apply what they learn from reading materials such as bus or train schedules, directions for repairs or games, classroom procedures, maps, and so on.
Assessment Design

Because of the large number of questions and the variety of texts included in the NAEP reading assessment, each student took just a portion of the test, consisting of two 25-minute sections or one 50-minute section. Each section contained a reading passage and a set of related questions. The passages used in the assessment reflect those typically available to students, such as collections of stories, children’s magazines, or informational books. Students were asked to respond to both multiple-choice and constructed-response (i.e., open-ended) questions.

Each question in the NAEP reading assessment measured one of the aspects of reading within the broader context for reading. All three contexts for reading are assessed at grade 8, but only two—reading for literary experience and reading for information—are assessed at grade 4. At both grades, the framework recommends that the assessment time for each aspect of reading be distributed as shown in table 1.

<table>
<thead>
<tr>
<th>ASPECTS OF READING</th>
<th>Grade 4</th>
<th>Grade 8</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forming a general understanding/Developing interpretation</td>
<td>60%</td>
<td>55%</td>
</tr>
<tr>
<td>Making reader/text connections</td>
<td>15%</td>
<td>15%</td>
</tr>
<tr>
<td>Examining content and structure</td>
<td>25%</td>
<td>30%</td>
</tr>
</tbody>
</table>

Table 1. Target percentage of assessment time in NAEP reading, by grade and aspect of reading: 2007

For the purpose of distribution by assessment time, forming a general understanding and developing interpretation were combined as per the specifications for the assessment.

The students selected to take the NAEP assessment represent all fourth- and eighth-grade students across the U.S. Students who participate in NAEP play an important role by demonstrating the achievement of our nation’s students and representing the success of our schooling. NAEP data can only be obtained with the cooperation of schools, teachers, and students nationwide.

Representative samples of schools and students at grades 4 and 8 participated in the 2007 NAEP reading assessment (table 2). The national results reflect the performance of all fourth- and eighth-graders in public schools, private schools, Bureau of Indian Education schools, and Department of Defense schools. The state results reflect the performance of students in public schools only.

Table 2. Number of participating schools and students in NAEP reading assessment, by grade: 2007

<table>
<thead>
<tr>
<th>Grade</th>
<th>Schools</th>
<th>Students</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grade 4</td>
<td>7,830</td>
<td>191,000</td>
</tr>
<tr>
<td>Grade 8</td>
<td>6,930</td>
<td>160,700</td>
</tr>
</tbody>
</table>

NOTE: The numbers of schools are rounded to the nearest ten, and the numbers of students are rounded to the nearest hundred.

At grade 4, national results from the 2007 reading assessment are compared to results from seven previous assessment years. The 2007 national results for grade 8 are compared to results from six previous assessments, as the 2000 assessment was administered at grade 4 only. The 2007 state results are compared to results from six earlier assessments at grade 4 and four earlier assessments at grade 8.

Changes in students’ performance over time are summarized by comparing the results in 2007 to those in the next most recent assessment and first assessment, except when pointing out consistent patterns in results across all assessments.

Scale Scores

NAEP reading results are reported on a 0–500 scale. Because NAEP scales are developed independently for each subject, average scores cannot be compared across subjects even when the scale has the same range.

In addition to reporting an overall reading score for each grade, scores are reported at five percentiles (10th, 25th, 50th, 75th, and 90th) to show trends in performance for lower-, middle-, and higher-performing students. Scores are also reported for two contexts for reading at grade 4 and three contexts at grade 8. Here again, the scales were set separately for each context for reading; therefore, direct comparisons cannot be made from one to another.

Achievement Levels

Based on recommendations from policymakers, educators, and members of the general public, the Governing Board sets specific achievement levels for each subject area and grade. Achievement levels are performance standards showing what students should know and be able to do. They provide another perspective with which to interpret

NAEP ACHIEVEMENT LEVELS

Basic denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at a given grade.

Proficient represents solid academic performance. Students reaching this level have demonstrated competency over challenging subject matter.

Advanced represents superior performance.
student performance. NAEP results are reported as percentages of students performing at or above the Basic and Proficient levels and at the Advanced level.

As provided by law, NCES, upon review of congressionally mandated evaluations of NAEP, has determined that achievement levels are to be used on a trial basis and should be interpreted with caution. The NAEP achievement levels have been widely used by national and state officials.

Item Maps

Item maps provide another way to interpret the scale scores and achievement-level results for each grade. The item maps displayed in each grade section of this report show student performance on NAEP reading questions at different points on the scale.

Accommodations and Exclusions in NAEP

Testing accommodations, such as extra testing time or individual rather than group administration, are provided for students with disabilities or English language learners who could not fairly and accurately demonstrate their abilities without modified test administration procedures. Prior to 1998, no testing accommodations were provided in the NAEP reading assessment. This resulted in the exclusion of some students. In 1998, administration procedures were introduced allowing certain accommodations for students requiring such accommodations’ to participate.

Note that most figures in this report show two data points in 1998—one permitting and the other not permitting accommodations. Both 1998 data points are presented in this report, but comparisons between 1998 and 2007 are based on accommodated samples.

Even with the availability of accommodations, there still remains a portion of students excluded from the NAEP assessment. Variations in exclusion and accommodation rates, due to differences in policies and practices regarding the identification and inclusion of students with disabilities and English language learners, should be considered when comparing students’ performance over time and across states. While the effect of exclusion is not precisely known, comparisons of performance results could be affected if exclusion rates are comparatively high or vary widely over time. See appendix tables A-1 through A-5 for the percentages of students accommodated and excluded at the national and state levels. More information about NAEP’s policy on inclusion of special-needs students is available at http://nces.ed.gov/nationsreportcard/about/inclusion.asp.

Interpreting Results

Changes in performance results over time may reflect not only changes in students’ knowledge and skills but also other factors, such as changes in student demographics, education programs and policies (including policies on accommodations and exclusions), and teacher qualifications.

NAEP results adopt widely accepted statistical standards; findings are reported based on a statistical significance level set at .05 with appropriate adjustments for multiple comparisons. In the tables and figures of this report that present results over time, the symbol (*) is used to indicate that a score or percentage in a previous assessment year is significantly different from the comparable measure in 2007. This symbol is also used in tables to highlight differences between male and female students within 2007. As a result of larger student sample sizes beginning in 2002, smaller differences (e.g., 1 or 2 points) can be found statistically significant than would have been detected with the smaller sample sizes used in earlier assessments.

Score differences or gaps cited in this report are calculated based on differences between unrounded numbers. Therefore, the reader may find that the score difference cited in the text may not be identical to the difference obtained from subtracting the rounded values shown in the accompanying tables or figures.

Not all of the data for results discussed in this report are presented in corresponding tables or figures. These and other results can be found in the NAEP Data Explorer at http://nces.ed.gov/nationsreportcard/nde.

For additional information, visit http://nationsreportcard.gov.

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