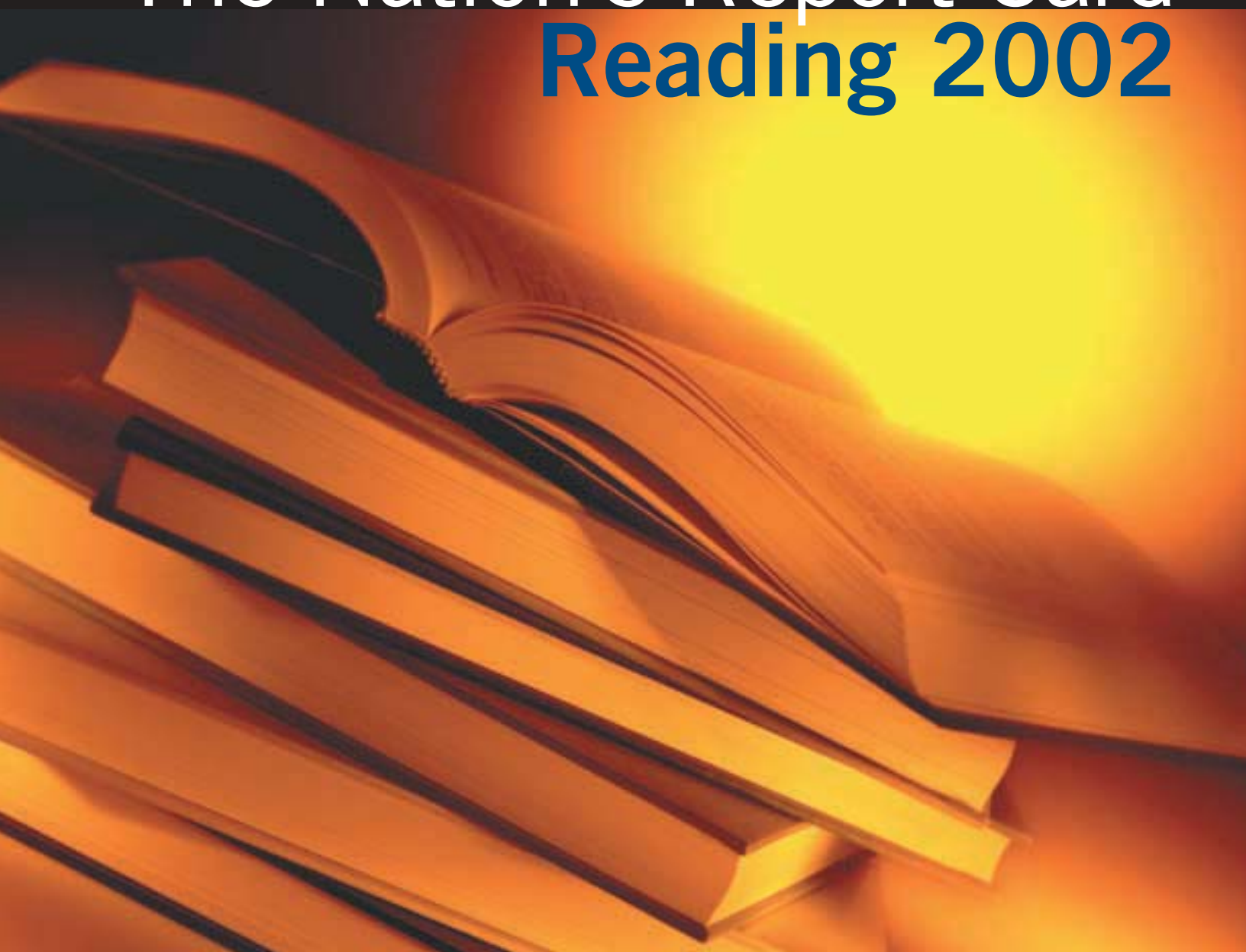




U.S. Department of Education  
Institute of Education Sciences  
NCES 2003-521

# The Nation's Report Card **Reading 2002**



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THE NATION'S REPORT CARD, the National Assessment of Educational Progress (NAEP), is a nationally representative and continuing assessment of what America's students know and can do in various subject areas. Since 1969, assessments have been conducted periodically in reading, mathematics, science, writing, history, geography, and other fields. By making objective information on student performance available to policymakers 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 is collected under this program. NAEP guarantees the privacy of individual students and their families.

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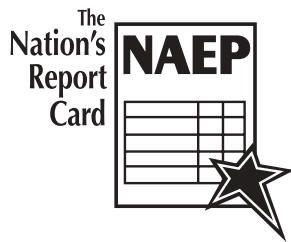
Executive Director, NAGB  
Washington, DC



# The Nation's Report Card

# Reading

# 2002



U.S. Department of Education  
Institute of Education Sciences  
NCES 2003-521

Wendy S. Grigg  
Mary C. Daane  
Ying Jin  
Jay R. Campbell

*in collaboration with*  
Hui Deng  
Kelvin Gregory  
Steven Isham  
Youn-hee Lim  
Andreas Oranje  
Tatyana Petrovicheva  
Fred Schaefer  
John Willey  
Jinming Zhang  
**Educational Testing Service**

Arnold A. Goldstein  
*Project Officer*  
**National Center for  
Education Statistics**

**U.S. Department of Education**

Rod Paige  
*Secretary*

**Institute of Education Sciences**

Grover J. Whitehurst  
*Director*

**National Center for Education Statistics**

Val Plisko  
*Associate Commissioner*

---

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**FOR MORE INFORMATION**

Content contact:  
Arnold Goldstein  
202-502-7344

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# E

## xecutive Summary

The National Assessment of Educational Progress (NAEP) is an ongoing nationally representative sample survey of student achievement in core subject areas. Authorized by Congress and administered by the National Center for Education Statistics (NCES) within the Institute of Education Sciences of the U.S. Department of Education, NAEP regularly reports to the public on the educational progress of fourth-, eighth-, and twelfth-grade students.

This report presents the results of the NAEP 2002 reading assessment for the nation at grades 4, 8, and 12 and for participating states and other jurisdictions at grades 4 and 8. Assessment results are described in terms of students' average reading score on a 0–500 scale and in terms of the percentage of students attaining each of three achievement levels: *Basic*, *Proficient*, and *Advanced*.

The achievement levels are performance standards adopted by the National Assessment Governing Board (NAGB) as part of its statutory responsibilities. The achievement levels are a collective judgment of what students should know and be able to do for each grade tested. As provided by law, NCES, upon review of a congressionally mandated evaluation of NAEP, determined that the achievement levels are to be used on a trial basis and should be interpreted with caution. However, both NCES and the Board believe these performance standards are useful for understanding trends in student achievement. They have been widely used by national and state officials and others as a common yardstick of academic performance.

The results presented in this report are based on representative samples of students for the nation and for participating states and other jurisdictions. Approximately 270,000 students from 11,000 schools were assessed. The national results reflect the performance of students attending both public and nonpublic schools, while the state and jurisdiction results reflect only the performance of students attending public schools.

In addition to providing average scores and achievement level performance in reading for the nation and states and other jurisdictions, this report provides results for subgroups of students defined by various background characteristics. A summary of major findings from the NAEP 2002 assessment is presented on the following pages. Comparisons are made to results from previous years in which the assessment was administered. In addition to the 2002 results, national results are reported from the 1992, 1994, 1998, and 2000 (fourth-grade only) assessments. State and/or jurisdiction results are also reported from the 1992, 1994, and 1998 assessments at grade 4 and from the 1998 assessment at grade 8. The more recent results (those from 1998 or later) are based on administration procedures in which testing accommodations were permitted for students with disabilities and limited English proficient students. Accommodations were not permitted in earlier assessments. Comparisons between results from 2002 and those from assessment years in which both types of administration procedures were used (1998 at all three grades and 2000 at grade 4 only) are discussed in this executive summary based on the results when accommodations were permitted. Changes in student perfor-

mance across years or differences between groups of students in 2002 are discussed only if they have been determined to be statistically significant.

## Overall Reading Results for the Nation and the States

### Reading Results for the Nation

#### At grade 4

- The fourth-grade average score in 2002 was higher than in 1994, 1998 and 2000, but was not found to be significantly different from 1992.
- Scores at the 10th, 25th, and 50th percentiles were higher in 2002 than in 1998 and 2000 but were not found to be significantly different from 1992. The score at the 75th percentile was higher than in 1992, indicating improvement for higher performing fourth-grade students.
- The percentage of fourth-graders who performed at or above the *Basic* level in 2002 was higher than in 1994, 1998, and 2000 but was not found to be significantly different from 1992. The percentage at or above *Proficient* was higher in 2002 than in 1992 and 1998.

#### At grade 8

- The eighth-grade average score in 2002 was higher than in 1992 and 1994.
- Scores were higher in 2002 than in 1992 for all but the highest performing eighth-grade students (at the 10th, 25th, 50th, and 75th percentiles).
- The percentage of eighth-graders who performed at or above *Basic* was higher in 2002 than in all previous assessment years, and the percentage at or above *Proficient* was higher than in 1992 and 1994.

## At grade 12

- The twelfth-grade average score in 2002 was lower than in 1992 and 1998.
- At grade 12, declines in performance since 1992 were evident across most of the score distribution (10th, 25th, 50th, and 75th percentiles).
- The percentages of twelfth-graders who performed at or above the *Basic* and *Proficient* levels decreased between 1998 and 2002, and thus fell below levels seen in 1992.

## Reading Results for the States and Other Jurisdictions

Results from the 2002 assessment are reported for 48 states and other jurisdictions at grade 4, and 47 states and other jurisdictions at grade 8. An additional two states at grade 4 and three states at grade 8 participated in the 2002 assessment, but did not meet minimum participation guidelines for reporting results. Results for public-school students only are reported at the state or jurisdiction level. (Throughout this summary, the term jurisdiction is used to refer to the states, territories, and Department of Defense schools that participated in the NAEP reading assessments).

## At grade 4

- Among the 40 jurisdictions that participated in both the 1992 and 2002 assessments, fourth-graders' average scores increased in 15 jurisdictions and decreased in 2 jurisdictions. The percentage of students at or above *Proficient* increased in 17 of the jurisdictions during the same time period.
- Connecticut, Massachusetts, and Vermont were among the highest-performing states at grade 4 in 2002. The average scores for fourth-graders in Connecticut and Vermont were not found to be significantly different from each other, and fourth-graders in both states were outperformed on average by only those in Massachusetts.

## At grade 8

- Among the 37 jurisdictions that participated in both the 1998 and 2002 assessments, eighth-graders' average scores increased in 10 jurisdictions and decreased in 5 jurisdictions. The percentage of students at or above *Proficient* increased in 5 jurisdictions and declined in 1 jurisdiction during the same time period.
- The Department of Defense domestic and overseas schools, Vermont, and Massachusetts were among the highest-performing jurisdictions at grade 8 in 2002. The average scores for eighth-graders in these jurisdictions were not found to differ significantly from each other.

## National and State Reading Results for Student Subgroups

In addition to overall results for the nation and for the states and jurisdictions, NAEP reports on the performance of various subgroups of students. In interpreting these data, readers are reminded that the relationship between contextual variables and student performance is not necessarily causal. There are many factors that may play a role in student achievement in a particular subject area.

### National Results

#### Gender

- The average scores of male and of female fourth-graders were higher in 2002 than in 1998 but were not found to be significantly different from the scores in 1992. Average scores of male and female eighth-graders were higher in 2002 than in 1992 and 1994. In contrast, the average scores of male and female twelfth-graders were lower in 2002 than in 1992 and 1998.
- In 2002, females had higher average reading scores than males at all three grades.
- The gap between average scores for male and female fourth-graders in 2002 was not found to be significantly different from that in 1992. At grade 8, the gap was smaller in 2002 than in all previous assessment years. The gap at grade 12, however, was wider in 2002 than it had been in 1992.
- The percentages of female fourth-, eighth-, and twelfth-graders at or above *Proficient* in 2002 were not found to differ significantly from those in

1992. The percentage of male eighth-graders at or above *Proficient* was higher in 2002 than in 1992, and the percentage of twelfth-grade males was lower in 2002 than in 1992.

#### Race/Ethnicity

- At grades 4 and 8, both White and Black students had higher average scores in 2002 than in 1992. Similar increases across the decade were seen for eighth-grade Hispanic students and fourth-grade Asian/Pacific Islander students. The average scores for White and Black twelfth-graders, however, declined during the same time period.
- In 2002, White students and Asian/Pacific Islander students had higher average scores than Black and Hispanic students, and White students outperformed Asian/Pacific Islander students at all three grades. American Indian/Alaska Native students had higher average scores than Black and Hispanic students at grade 4.
- In 2002, the score gap between White and Black fourth-graders was smaller than in 1994 and the gap between White and Hispanic fourth-graders was smaller than in 2000, but neither gap was found to be significantly different from 1992. No changes were detected in the gaps between White and Black students and between White and Hispanic students at grades 8 and 12 since 1992.
- Percentages of students at or above *Proficient* were higher in 2002 than in 1992 for White, Black, and Asian/Pacific Islander fourth-graders and for White and Black eighth-graders. The percentage of White twelfth-graders at or above *Proficient* was lower in 2002 than in 1992.



## Eligibility for Free/Reduced-Price Lunch

The program providing free/reduced-price lunch is administered by the U.S. Department of Agriculture (USDA) for children near or below the poverty line. Eligibility is determined by the USDA's Income Eligibility Guidelines (<http://www.fns.usda.gov/cnd/IEGs&NAPs/IEGs.htm>). Reading results by this variable are only available back to 1998.

- Average scores increased between 1998 and 2002 for fourth- and eighth-graders eligible for free/reduced-price lunch. No change was detected between 1998 and 2002 in the average score for twelfth-graders who were eligible, while the score for students who were not eligible decreased.
- In 2002, at all three grades students who were eligible for free/reduced-price lunch had lower average scores than students who were not eligible.

## Title I Participation

Title I is a federally funded program that provides educational services to children who live in areas with high concentrations of low-income families. Because of recent changes in how the program is administered, comparisons to previous assessment-year results are not available.

- As was observed in previous assessments,<sup>1</sup> students at all three grades who attended schools that received Title I funding had lower average reading scores in 2002 than students who attended schools that reported not receiving funds.

## Parents' Level of Education

Eighth- and twelfth-grade students who participated in the NAEP reading assessment were asked to indicate the highest level of education completed by each parent. Information about parental education was not collected at grade 4.

- At grade 8, average scores increased between 1992 and 2002 for students whose parents did not graduate from high school, as well as for students whose parents' highest level of education was either high school or college graduation. At grade 12, average scores in 2002 were lower than in 1992 regardless of parental education level.
- As seen in previous assessments,<sup>2</sup> a positive relationship between student-reported parental education and student reading performance was observed in 2002 at grades 8 and 12: the higher the parental education level, the higher the student's average reading score.

## Type of School

- The average score for fourth-grade public-school students was higher in 2002 than in 1994, 1998, and 2000 but was not found to differ significantly from 1992. Eighth-graders attending public schools or Catholic schools had higher average scores in 2002 than in 1992. Twelfth-graders attending public schools had lower scores in 2002 than in 1992 and 1998.

<sup>1</sup> Donahue, P. L., Voelkl, K. E., Campbell, J. R., and Mazzeo, J. (1999). *The 1998 NAEP Reading Report Card for the Nation and the States* (NCES 1999-500). Washington, DC: U.S. Department of Education, Office of Education Research and Improvement, National Center for Education Statistics.

<sup>2</sup> Ibid.

- In 2002, at all three grades students who attended nonpublic schools had higher average reading scores than their peers who attended public schools.

### **Type of Location**

- Fourth-graders attending schools in central city or urban fringe/large town locations had higher average scores in 2002 than in 2000. (Results by type of location are not available prior to 2000 at grade 4, or prior to 2002 at grades 8 and 12.)
- In 2002, at all three grades students in schools located in urban fringe/large town areas outperformed students in schools located in central city and rural areas.

## **State and Jurisdiction Results**

### **Gender**

Among those jurisdictions that participated in both the 1998 and 2002 assessments,

- both male and female fourth-graders' average scores increased in 13 jurisdictions: Delaware, Florida, Georgia, Hawaii, Massachusetts, Minnesota, North Carolina, Oregon, Utah, Virginia, Washington, District of Columbia, and Department of Defense domestic schools; and
- both male and female eighth-graders' average scores increased in two jurisdictions: Delaware and Florida.

### **Race/Ethnicity**

Among those jurisdictions that participated in both the 1998 and 2002 assessments,

- average scores increased for at least three different racial/ethnic subgroups of fourth-graders in five jurisdictions: Delaware, Massachusetts, New York, Oregon, and Virginia; and
- both White and Black eighth-graders' average scores increased in three jurisdictions: Delaware, Florida, and Missouri.

### **Eligibility for Free/Reduced-Price Lunch**

Among those jurisdictions that participated in both the 1998 and 2002 assessments,

- average scores increased for both fourth-graders who were eligible and those who were not eligible for free/reduced-price lunch in 14 jurisdictions: Arkansas, Delaware, Florida, Hawaii, Louisiana, Maryland, Massachusetts, New York, North Carolina, Oregon, South Carolina, Utah, Virginia, and Washington; and
- average scores increased for both eighth-graders who were eligible and those who were not eligible for free/reduced-price lunch in five jurisdictions: Arkansas, Delaware, Missouri, Washington, and Department of Defense overseas schools.

# 1

## Introduction

Reading is the foundation for many learning endeavors and one important key to unlocking a world of possibilities and opportunities. It has always been viewed as one of the most important abilities that students learn and continuously develop throughout their years in elementary and secondary school. With passage of the *No Child Left Behind* Act of 2001, however, the nation placed new and even greater emphasis on ensuring that every student acquires the ability to read.

This report presents major results from the 2002 National Assessment of Educational Progress (NAEP) reading assessment of the nation's fourth-, eighth-, and twelfth-grade students. In addition, the report provides results for fourth- and eighth-grade students in states and other jurisdictions that participated in the 2002 assessment. The report is intended to inform educators, policymakers, parents, and the general public about students' achievement in reading. In doing so, the report serves an important role in monitoring progress toward the nation's goal of ensuring that no child is left behind.

### **Overview of the 2002 National Assessment of Educational Progress in Reading**

For more than thirty years, NAEP has regularly collected, analyzed, and reported valid and reliable information about what American students know and can do in a variety of subject areas. As authorized by the U.S. Congress, NAEP assesses representative national samples of fourth-, eighth-, and twelfth-grade students. Since 1990, NAEP has also

assessed representative samples of fourth- and eighth-grade students in states and other jurisdictions that participate in the NAEP state-by-state assessments. NAEP is administered and overseen by the National Center for Education Statistics (NCES), which is one of three centers within the U.S. Department of Education's Institute of Education Sciences.

The content of all NAEP assessments is determined by subject-area frameworks that are developed by the National Assessment Governing Board (NAGB) in a comprehensive process involving a broad spectrum of interested parties, including teachers, curriculum specialists, subject-matter specialists, school administrators, parents, and members of the general public. The framework for the 2002 NAEP reading assessment has guided development of the NAEP reading assessments since 1992.

The 2002 assessment was conducted at grades 4, 8, and 12 nationally, and at grades 4 and 8 within the states and other jurisdictions that participated in the state-level assessment. Throughout this report, results from the 2002 assessment are compared to those from previous years. Trends in students' reading achievement can be examined by comparing results from the most current assessment with results of earlier assessment administrations for same-grade students; such comparisons of national results are made at all three grade levels. Also included are comparisons of results for states and jurisdictions that participated in both 2002 and previous state-level assessment administrations.

The reading assessment administered in 2002 was the same as that given in 1992 to fourth-, eighth-, and twelfth-graders nationally—and again in 1994 and 1998. In addition, a national assessment of fourth-graders only was conducted in 2000. State-level assessments using the same test as that used nationally were conducted at grade 4 in 1992, 1994, and 1998. Similarly, a state-level assessment was conducted at grade 8 in 1998.

Prior to 1998, administration procedures for NAEP reading assessments did not permit the use of accommodations (e.g., extra time, individual rather than group administration) for special needs students who could not participate without them. For the 1998 assessment, however, administration procedures were introduced that allowed the use of accommodations by students with disabilities and limited English proficient students (see appendix A). A split-sample design was used in 1998 at all three grades (and again in 2000 at grade 4) so that both administration procedures could be used during the same assessment, but with different samples of students. This made it possible to report trends in students' reading achievement across all the assessment years and, at the same time, examine the effects on overall assessment results of including students assessed with accommodations. Based on an examination of how permitting accommodations affected overall population results, it was decided that beginning with the 2002 assessment NAEP would use only one set of procedures—permitting the use of accommodations.

This change in administration procedures makes it possible for more students to be included in the assessments; however it also represents an important altering of procedures from previous assessments. The reader is encouraged to consider the difference in accommodation procedures when interpreting comparisons between the two sets of results. During the period in which accommodations were not permitted, special needs students could only be included in the assessment if it was determined by school staff that they could be assessed meaningfully without accommodations. As a consequence, some students who would have been assessed in more recent years when accommodations were permitted may have been excluded from those earlier assessments. The charts and tables throughout this report distinguish between results from assessment years in which accommodations were not permitted and results from assessment years in which accommodations were permitted.

In the tables and charts that display results across assessment years, all previous assessment results that were found to be significantly different from the 2002 results are marked with an asterisk (\*). Two sets of results are presented for assessment years in which both administration procedures were used (accommodations not permitted and accommodations permitted). Both sets of results may also be notated, if found to be significantly different from 2002. The text that accompanies these tables and charts indicates which previous assessment results were significantly different from 2002. Comparisons between the 2002 results, when accommodations

were permitted, and the 1992 and 1994 results, when they were not permitted, are discussed in the text. However, for previous assessment years with both accommodations-not-permitted results and accommodations-permitted results, the text describes comparisons only between the accommodations-permitted results and 2002. (See appendix A for further discussion of assessing students with disabilities and/or limited English proficient students.)

### **Framework for the 1992, 1994, 1998, 2000, and 2002 NAEP Reading Assessments**

The NAEP reading framework is the blueprint that has specified the content and guided the development of each NAEP reading assessment administered since 1992. The framework resulted from a national process involving many organizations concerned with reading education. This cooperative effort was managed by the Council of Chief State School Officers (CCSSO) and directed by NAGB. In 2002, the NAEP reading framework was updated to provide more explicit detail regarding the assessment design.<sup>1</sup> At that time, NAGB altered slightly some of the terms used to describe elements of the reading assessment. The following description of the NAEP reading framework incorporates these changes. It should be noted, however, that this updating of the framework does not represent a change in the content or design of the NAEP reading assessment.

The framework is founded on research from the field of education that defines reading as an interactive and constructive process involving the reader, the text, and

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<sup>1</sup> National Assessment Governing Board. (2002). *Reading Framework for the 2003 National Assessment of Educational Progress*. Washington, DC: Author.

the context of the reading experience. Reading involves the development of an understanding of text, thinking about text in different ways, and using a variety of text types for different purposes. For example, readers may read stories to enjoy and appreciate the human experience, study science texts to form new hypotheses about knowledge, or use directions to learn how to do something.

Recognizing that readers vary their approach to reading according to the demands of any particular text, the frame-

work specifies the assessment of reading in three contexts: reading for literary experience, reading to gain information, and reading to perform a task. Each context for reading is associated with a range of different types of texts that are included in the NAEP reading assessment. All three contexts for reading are assessed at grades 8 and 12, but reading to perform a task is not assessed at grade 4. The three contexts for reading as specified in the framework are described in figure 1.1.

**Figure 1.1** Descriptions of the three contexts for reading in the NAEP reading assessment

Contexts for Reading	
<b>Reading for literary experience</b>	<i>Involves the reader in exploring themes, events, characters, settings, plots, actions, and the language of literary works.</i> Various types of texts are associated with reading for literary experience, including novels, short stories, poems, plays, legends, biographies, myths, and folktales.
<b>Reading for information</b>	<i>Involves the engagement of the reader with aspects of the real world.</i> Reading for information is most commonly associated with textbooks, primary and secondary sources, newspapers and magazine articles, essays, and speeches.
<b>Reading to perform a task</b>	<i>Involves reading in order to accomplish or do something.</i> Practical text read to perform a task may include charts, bus or train schedules, directions for games or repairs, classroom or library procedures, tax or insurance forms, recipes, voter registration materials, maps, referenda, consumer warranties, or office memos.

SOURCE: National Assessment Governing Board. (2002). *Reading Framework for the 2003 National Assessment of Educational Progress*. Washington, DC: Author.

As readers attempt to develop understanding of text, they focus on general topics or themes, interpret and integrate ideas, make connections to background knowledge and experiences, and examine the content and structure of the text. The framework accounts for these different approaches to understanding text by

specifying four “aspects of reading” that represent the types of comprehension questions asked of students. All four aspects of reading are assessed at all three grades within each context of reading described above. The four aspects of reading as specified in the framework are described in figure 1.2.



**Figure 1.2** Descriptions of the four aspects of reading in the NAEP reading assessment

Aspects of Reading	
<b>Forming a general understanding<sup>1</sup></b>	<p><i>To form a general understanding, the reader must consider the text as a whole and provide a global understanding of it.</i></p> <p>Students may be asked, for example, to demonstrate a general understanding by giving the topic of a passage, explaining the purpose of an article, or reflecting on the theme of a story.</p>
<b>Developing interpretation</b>	<p><i>To develop an interpretation, the reader must extend initial impressions to develop a more complete understanding of what was read.</i></p> <p>This process involves linking information across parts of a text as well as focusing on specific information. Questions that assess this aspect of reading include drawing inferences about the relationship of two pieces of information and providing evidence to determine the reason for an action.</p>
<b>Making reader/text connections<sup>2</sup></b>	<p><i>To make reader/text connections, the reader must connect information in the text with knowledge and experience.</i></p> <p>This process might include applying ideas in the text to the real world. All student responses to these types of questions must be text-based to receive full-credit.</p>
<b>Examining content and structure<sup>3</sup></b>	<p><i>Examining text content and structure requires critically evaluating, comparing and contrasting, and understanding the effect of such features as irony, humor, and organization.</i></p> <p>Questions used to assess this aspect of reading require readers to stand apart from the text, consider it objectively, and evaluate its quality and appropriateness. Questions ask readers to determine the usefulness of a text for a specific purpose, evaluate the language and textual elements, and think about the author's purpose and style.</p>

<sup>1</sup> This aspect of reading was formerly referred to as “forming an initial understanding” in previous versions of the NAEP reading framework.

<sup>2</sup> This aspect of reading was formerly referred to as “personal reflection and response” in previous versions of the NAEP reading framework.

<sup>3</sup> This aspect of reading was formerly referred to as “demonstrating a critical stance” in previous versions of the NAEP reading framework.

SOURCE: National Assessment Governing Board. (2002). *Reading Framework for the 2003 National Assessment of Educational Progress*. Washington, DC: Author.

## The 2002 NAEP Reading Assessment Instrument

The NAEP reading assessment is the only federally authorized, ongoing, nationwide assessment of student reading achievement. As such, it is necessary for the assessment to reflect the framework and expert perspectives on the measurement of reading comprehension. To that end, during the development process, the assessment undergoes stringent review by teachers and teacher educators, as well as by state officials and measurement specialists. All components of the assessment are evalu-

ated for curricular relevance, developmental appropriateness, and fairness concerns.

The NAEP reading assessment measures understanding by prompting students to read passages and answer comprehension questions. The reading passages used in the NAEP assessment are drawn from the types of books and publications that students might encounter in school, in the library, or at home. NAEP assessment developers strive to replicate authentic reading experiences in the assessment items presented to student participants. The passages students are asked to read are

neither abridged nor contrived especially for the assessment. Instead, full-length reading selections are reprinted in test booklets to resemble as closely as possible the format of their original publication. To demonstrate their comprehension of these passages, students answer a combination of multiple-choice and constructed-response questions. The multiple-choice questions include four options from which students are asked to select the best answer. The constructed-response questions require students to write their own responses. Short constructed-response questions can be completed in no more than a few sentences, while extended constructed-response questions may require students to provide responses as long as a paragraph or a full page.

In order to ensure reliable and valid scoring of constructed-response questions, a unique scoring guide, describing the specific criteria for assigning a score level to each student's response, is developed for each question. Expert scorers go through extensive training to understand how to apply these scoring criteria fairly and consistently. During the scoring process, scorers are consistently monitored to ensure that scoring standards are being applied appropriately and to ensure a high degree of scorer agreement (i.e., interrater reliability). In addition, for those constructed-response questions that were used in previous assessments, monitoring of scorers includes checking to make sure that scoring standards remain consistent from year to year.

At each grade, the entire reading assessment is divided into sections referred to as blocks. Each block contains at least one text and a related set of approximately 10 to 12 comprehension questions (a combination of multiple-choice and constructed-response). Most of the blocks are presented to students as 25-minute timed sections, but some are presented as 50-minute timed sections. The total number of blocks that comprise the NAEP reading assessment at each grade are as follows:

Grade 4—four 25-minute literary blocks and four 25-minute informative blocks;

Grade 8—three 25-minute literary blocks, three 25-minute informative blocks, three 25-minute task blocks, and one 50-minute informative block;

Grade 12—three 25-minute literary blocks, three 25-minute informative blocks, three 25-minute task blocks, and two 50-minute informative blocks.

In order to minimize the burden on any individual student, NAEP uses a procedure referred to as matrix sampling in which an individual student is administered only a small portion of the entire assessment at any grade. For example, at grade 4, students are given a test booklet that contains only two 25-minute blocks. At grades 8 and 12, students are given a test booklet that contains either two 25-minute blocks or one 50-minute block. Because each block is administered to a representative sample



at each grade, the results can then be combined to produce average group and subgroup results based on the entire assessment. In addition to the two 25-minute blocks or one 50-minute block in each student's test booklet, students are asked to complete two sections of background questions that ask about their background and home or school experiences related to reading achievement. In total, the time required for each student to participate in the NAEP reading assessment is no more than one hour.

### **Description of School and Student Samples**

The NAEP 2002 reading assessment was administered to fourth-, eighth-, and twelfth-graders at the national level and to fourth- and eighth-graders at the state level. At the national level, results are reported for both public- and nonpublic-school students. At the state or jurisdiction level, results are reported only for public school students. In order to obtain a representative sample of students for reporting national and state or jurisdiction results, approximately 140,000 fourth-graders from 5,500 schools, 115,000 eighth-graders from 4,700 schools, and 15,000 twelfth-graders from 700 schools were sampled and assessed. In states that did not participate, a small sample of students proportionate to the state's student enrollment was sampled and assessed. Each selected school that participated in the assessment and each student assessed represent a portion of the population of interest. For information on sample sizes and participation rates by state or jurisdiction, see tables A.4-A.6 in appendix A.

### **Reporting the Assessment Results**

Results from the NAEP reading assessment are presented in two ways: as scale scores and as percentages of students attaining achievement levels. The scale scores, indicating how much students *know and can do* in reading, are presented as average scale scores and as scale scores at selected percentiles. The achievement level results indicate the degree to which student performance meets the standards set for what they *should know and be able to do*. Results are reported only for groups or subgroups of students; individual student performance cannot be reported based on the NAEP assessment.

Average scale score results are based on the NAEP reading scale, which ranges from 0 to 500. In order to calculate students' average scores on the NAEP reading assessment, the analysis begins by determining the percentages of students responding correctly to each multiple-choice question and the percentages of students responding at each score level for the constructed-response questions. The analysis entails summarizing the results on separate subscales for each reading context (reading for literary experience, reading for information, and reading to perform a task) and then combining the separate scales to form a single composite reading scale. The relative contribution of each reading purpose at each grade is displayed in table 1.1. (See appendix A for more information on scaling procedures.)

**Table 1.1** Percentage weighting of the “context for reading” subscales on the NAEP composite reading scale, grades 4, 8, and 12

NAEP Reading Subscales	Reading for literary experience	Reading for information	Reading to perform a task
Grade 4	55	45	—
Grade 8	40	40	20
Grade 12	35	45	20

— Not assessed at grade 4.

SOURCE: National Assessment Governing Board. (2002). *Reading Framework for the 2003 National Assessment of Educational Progress*. Washington, DC: Author.

Achievement level results are presented in terms of reading achievement levels as authorized by the NAEP legislation and adopted by NAGB. For each grade assessed, NAGB has adopted three achievement levels: *Basic*, *Proficient*, and *Advanced*. For reporting purposes, achievement level cut scores are placed on the reading scale, resulting in four ranges: below *Basic*, *Basic*, *Proficient*, and *Advanced*. The achievement level results are then reported as percentages of students within each achievement level range, as well as the percentage of students at or above *Basic* and at or above *Proficient*.

## The Setting of Achievement Levels

The 1988 NAEP legislation that created the National Assessment Governing Board directed the Board to identify “appropriate achievement goals . . . for each subject area” that NAEP measures.<sup>2</sup> The 2001 NAEP reauthorization reaffirmed many of the Board’s statutory responsibilities, including developing “appropriate student achievement levels for each grade or age in each subject area to be tested . . . .”<sup>3</sup> In order to follow this directive and achieve the mandate of the 1988 statute “to improve the form and use of NAEP results,” NAGB

<sup>2</sup> National Assessment of Educational Progress Improvement Act, Pub. L. No. 100–297, 20 U.S.C. § 1221 *et seq.* (1988).

<sup>3</sup> No Child Left Behind Act of 2001, Pub. L. No. 107–110, 115 Stat. 1425 (2002).

undertook the development of student performance standards (called “achievement levels”). Since 1990, the Board has adopted achievement levels in mathematics, reading, U.S. history, world geography, science, writing, and civics.

The Board defined three levels for each grade: *Basic*, *Proficient*, and *Advanced*. The *Basic* level denotes partial mastery of the knowledge and skills that are fundamental for proficient work at a given grade. The *Proficient* level represents solid academic performance. Students reaching this level demonstrate competency over challenging subject matter. The *Advanced* level presumes mastery of both the *Basic* and

*Proficient* levels and represents superior performance. Figure 1.3 presents the policy definitions of the achievement levels that apply across grades and subject areas. The policy definitions guided the development of the reading achievement levels, as well as the achievement levels established in all other subject areas assessed by NAEP. Adopting three levels of achievement for each grade signals the importance of looking at more than one standard of performance. The Board believes, however, that all students should reach the *Proficient* level; the *Basic* level is not the desired goal, but rather represents partial mastery that is a step toward *Proficient*.

**Figure 1.3 Policy definitions of the three NAEP achievement levels**

Achievement Levels	
<i>Basic</i>	This level denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade.
<i>Proficient</i>	This level represents solid academic performance for each grade assessed. Students reaching this level have demonstrated competency over challenging subject matter, including subject-matter knowledge, application of such knowledge to real-world situations, and analytical skills appropriate to the subject matter.
<i>Advanced</i>	This level signifies superior performance.

SOURCE: National Assessment Governing Board. (2002). *Reading Framework for the 2003 National Assessment of Educational Progress*. Washington, DC: Author.

The achievement levels in this report were adopted by the Board based on a standard-setting process designed and conducted under a contract with ACT, Inc. To develop these levels, ACT convened a cross section of educators and interested citizens from across the nation and asked them to judge what students should know and be able to do relative to a body of content reflected in the NAEP assessment framework for reading. This achievement level setting process was reviewed by an array of individuals including policymakers, representatives of professional organizations, teachers, parents, and other members of the general public. Prior to adopting these levels of student achievement, NAGB engaged a large number of persons to comment on the recommended levels and to review the results.

The results of the achievement level setting process, after NAGB's approval, became a set of achievement level descriptions and a set of achievement level cut scores. The cut scores are the scores on the 0–500 NAEP reading scale that define the lower boundaries of *Basic*, *Proficient*, and *Advanced* performance levels at grades 4, 8, and 12. The Board established these reading achievement levels in 1992 based upon the reading assessment framework. These levels are used to describe student performance on the 1992, 1994, 1998, 2000, and 2002 reading assessments.

## **Reading Achievement Level Descriptions for Each Grade**

Specific definitions of the *Basic*, *Proficient*, and *Advanced* reading achievement levels for grades 4, 8, and 12 are presented in figures 1.4 through 1.6. The achievement levels are cumulative. Therefore, students performing at the *Proficient* level also display the competencies associated with the *Basic* level, and students at the *Advanced* level also demonstrate the competencies associated with both the *Basic* and the *Proficient* levels. For each achievement level listed in figures 1.4 through 1.6, the scale score that corresponds to the lowest score within that level on the NAEP reading scale is shown in parentheses. For example, in figure 1.4 the scale score of 238 corresponds to the lowest score in the range defining the grade 4 *Proficient* level of achievement in reading.

Figure 1.4 Descriptions of NAEP reading achievement levels, grade 4

Grade 4 Achievement Levels	
<b>Basic</b> (208)	<p>Fourth-grade students performing at the <i>Basic</i> level should demonstrate an understanding of the overall meaning of what they read. When reading text appropriate for fourth graders, they should be able to make relatively obvious connections between the text and their own experiences, and extend the ideas in the text by making simple inferences.</p> <p>For example, when reading <b>literary</b> text, they should be able to tell what the story is generally about—providing details to support their understanding—and be able to connect aspects of the stories to their own experiences.</p> <p>When reading <b>informational</b> text, <i>Basic</i>-level fourth graders should be able to tell what the selection is generally about or identify the purpose for reading it, provide details to support their understanding, and connect ideas from the text to their background knowledge and experiences.</p>
<b>Proficient</b> (238)	<p>Fourth-grade students performing at the <i>Proficient</i> level should be able to demonstrate an overall understanding of the text, providing inferential as well as literal information. When reading text appropriate to fourth grade, they should be able to extend the ideas in the text by making inferences, drawing conclusions, and making connections to their own experiences. The connections between the text and what the student infers should be clear.</p> <p>For example, when reading <b>literary</b> text, <i>Proficient</i>-level fourth graders should be able to summarize the story, draw conclusions about the characters or plot, and recognize relationships such as cause and effect.</p> <p>When reading <b>informational</b> text, <i>Proficient</i> level students should be able to summarize the information and identify the author's intent or purpose. They should be able to draw reasonable conclusions from the text, recognize relationships such as cause and effect or similarities and differences, and identify the meaning of the selection's key concepts.</p>
<b>Advanced</b> (268)	<p>Fourth-grade students performing at the <i>Advanced</i> level should be able to generalize about topics in the reading selection and demonstrate an awareness of how authors compose and use literary devices. When reading text appropriate to fourth grade, they should be able to judge texts critically and, in general, give thorough answers that indicate careful thought.</p> <p>For example, when reading <b>literary</b> text, <i>Advanced</i>-level students should be able to make generalizations about the point of the story and extend its meaning by integrating personal experiences and other readings with ideas suggested by the text. They should be able to identify literary devices such as figurative language.</p> <p>When reading <b>informational</b> text, <i>Advanced</i>-level fourth graders should be able to explain the author's intent by using supporting material from the text. They should be able to make critical judgments of the form and content of the text and explain their judgments clearly.</p>

SOURCE: National Assessment Governing Board. (2002). *Reading Framework for the 2003 National Assessment of Educational Progress*. Washington, DC: Author.

**Figure 1.5** Descriptions of NAEP reading achievement levels, grade 8

Grade 8 Achievement Levels	
<b>Basic</b> (243)	<p>Eighth-grade students performing at the <i>Basic</i> level should demonstrate a literal understanding of what they read and be able to make some interpretations. When reading text appropriate to eighth grade, they should be able to identify specific aspects of the text that reflect the overall meaning, extend the ideas in the text by making simple inferences, recognize and relate interpretations and connections among ideas in the text to personal experience, and draw conclusions based on the text.</p> <p>For example, when reading <b>literary</b> text, <i>Basic</i>-level eighth graders should be able to identify themes and make inferences and logical predictions about aspects such as plot and characters.</p> <p>When reading <b>informational</b> text, they should be able to identify the main idea and the author's purpose. They should make inferences and draw conclusions supported by information in the text. They should recognize the relationships among the facts, ideas, events, and concepts of the text (e.g., cause and effect, order).</p> <p>When reading <b>practical</b> text, they should be able to identify the main purpose and make predictions about the relatively obvious outcomes of procedures in the text.</p>
<b>Proficient</b> (281)	<p>Eighth-grade students performing at the <i>Proficient</i> level should be able to show an overall understanding of the text, including inferential as well as literal information. When reading text appropriate to eighth grade, they should be able to extend the ideas in the text by making clear inferences from it, by drawing conclusions, and by making connections to their own experiences—including other reading experiences. <i>Proficient</i> eighth graders should be able to identify some of the devices authors use in composing text.</p> <p>For example, when reading <b>literary</b> text, students at the <i>Proficient</i> level should be able to give details and examples to support themes that they identify. They should be able to use implied as well as explicit information in articulating themes; to interpret the actions, behaviors, and motives of characters; and to identify the use of literary devices such as personification and foreshadowing.</p> <p>When reading <b>informational</b> text, they should be able to summarize the text using explicit and implied information and support conclusions with inferences based on the text.</p> <p>When reading <b>practical</b> text, <i>Proficient</i>-level students should be able to describe its purpose and support their views with examples and details. They should be able to judge the importance of certain steps and procedures.</p>
<b>Advanced</b> (323)	<p>Eighth-grade students performing at the <i>Advanced</i> level should be able to describe the more abstract themes and ideas of the overall text. When reading text appropriate to eighth grade, they should be able to analyze both meaning and form and support their analyses explicitly with examples from the text, and they should be able to extend text information by relating it to their experiences and to world events. At this level, student responses should be thorough, thoughtful, and extensive.</p> <p>For example, when reading <b>literary</b> text, <i>Advanced</i>-level eighth graders should be able to make complex, abstract summaries and theme statements. They should be able to describe the interactions of various literary elements (i.e., setting, plot, characters, and theme) and explain how the use of literary devices affects both the meaning of the text and their response to the author's style. They should be able to critically analyze and evaluate the composition of the text.</p> <p>When reading <b>informational</b> text, they should be able to analyze the author's purpose and point of view. They should be able to use cultural and historical background information to develop perspectives on the text and be able to apply text information to broad issues and world situations.</p> <p>When reading <b>practical</b> text, <i>Advanced</i>-level students should be able to synthesize information that will guide their performance, apply text information to new situations, and critique the usefulness of the form and content.</p>

SOURCE: National Assessment Governing Board. (2002). *Reading Framework for the 2003 National Assessment of Educational Progress*. Washington, DC: Author.

Figure 1.6 Descriptions of NAEP reading achievement levels, grade 12

Grade 12 Achievement Levels	
<b>Basic</b> (265)	<p>Twelfth-grade students performing at the <i>Basic</i> level should be able to demonstrate an overall understanding and make some interpretations of the text. When reading text appropriate to twelfth grade, they should be able to identify and relate aspects of the text to its overall meaning, extend the ideas in the text by making simple inferences, recognize interpretations, make connections among and relate ideas in the text to their personal experiences, and draw conclusions. They should be able to identify elements of an author's style.</p> <p>For example, when reading <b>literary</b> text, <i>Basic</i>-level twelfth graders should be able to explain the theme, support their conclusions with information from the text, and make connections between aspects of the text and their own experiences.</p> <p>When reading <b>informational</b> text, <i>Basic</i>-level twelfth graders should be able to explain the main idea or purpose of a selection and use text information to support a conclusion or make a point. They should be able to make logical connections between the ideas in the text and their own background knowledge.</p> <p>When reading <b>practical</b> text, they should be able to explain its purpose and the significance of specific details or steps.</p>
<b>Proficient</b> (302)	<p>Twelfth-grade students performing at the <i>Proficient</i> level should be able to show an overall understanding of the text, which includes inferential as well as literal information. When reading text appropriate to twelfth grade, they should be able to extend the ideas of the text by making inferences, drawing conclusions, and making connections to their own personal experiences and other readings. Connections between inferences and the text should be clear, even when implicit. These students should be able to analyze the author's use of literary devices.</p> <p>When reading <b>literary</b> text, <i>Proficient</i>-level twelfth graders should be able to integrate their personal experiences with ideas in the text to draw and support conclusions. They should be able to explain the author's use of literary devices such as irony and symbolism.</p> <p>When reading <b>informative</b> text, they should be able to apply text information appropriately to specific situations and integrate their background information with ideas in the text to draw and support conclusions.</p> <p>When reading <b>practical</b> text, they should be able to apply information or directions appropriately. They should be able to use personal experiences to evaluate the usefulness of text information.</p>
<b>Advanced</b> (346)	<p>Twelfth-grade students performing at the <i>Advanced</i> level should be able to describe more abstract themes and ideas in the overall text. When reading text appropriate to twelfth grade, they should be able to analyze both the meaning and the form of the text and explicitly support their analyses with specific examples from the text. They should be able to extend the information from the text by relating it to their experiences and to the world. Their responses should be thorough, thoughtful, and extensive.</p> <p>For example, when reading <b>literary</b> text, <i>Advanced</i>-level twelfth graders should be able to produce complex, abstract summaries and theme statements. They should be able to use cultural, historical, and personal information to develop and explain text perspectives and conclusions. They should be able to evaluate the text, applying knowledge gained from other texts.</p> <p>When reading <b>informational</b> text, they should be able to analyze, synthesize, and evaluate points of view. They should be able to identify the relationship between the author's stance and elements of the text. They should be able to apply text information to new situations and to the process of forming new responses to problems or issues.</p> <p>When reading <b>practical</b> text, <i>Advanced</i>-level twelfth graders should be able to make critical evaluations of the usefulness of the text and apply directions from the text to new situations.</p>

SOURCE: National Assessment Governing Board. (2002). *Reading Framework for the 2003 National Assessment of Educational Progress*. Washington, DC: Author.



## Trial Status of Achievement Levels

The 2001 NAEP reauthorization law requires that the achievement levels be used on a trial basis until the Commissioner of Education Statistics determines that the achievement levels are “reasonable, valid, and informative to the public.”<sup>4</sup> Until that determination is made, the law requires the Commissioner and the Board to state clearly the trial status of the achievement levels in all NAEP reports.

In 1993, the first of several congressionally mandated evaluations of the achievement level setting process concluded that the procedures used to set the achievement levels were flawed and that the percentage of students at or above any particular achievement level cut point may be underestimated.<sup>5</sup> Others have critiqued these evaluations, asserting that the weight of the empirical evidence does not support such conclusions.<sup>6</sup>

In response to the evaluations and critiques, NAGB conducted an additional study of the 1992 reading achievement levels before deciding to use them for reporting 1994 NAEP results.<sup>7</sup> When

reviewing the findings of this study, the National Academy of Education (NAE) panel expressed concern about what it saw as a “confirmatory bias” in the study and about the inability of this study to “address the panel’s perception that the levels had been set too high.”<sup>8</sup> In 1997, the NAE panel summarized its concerns with interpreting NAEP results based on the achievement levels as follows:

First, the potential instability of the levels may interfere with the accurate portrayal of trends. Second, the perception that few American students are attaining the higher standards we have set for them may deflect attention to the wrong aspects of education reform. The public has indicated its interest in benchmarking against international standards, yet it is noteworthy that when American students performed very well on a 1991 international reading assessment, these results were discounted because they were contradicted by poor performance against the possibly flawed NAEP reading achievement levels in the following year.<sup>9</sup>

<sup>4</sup> No Child Left Behind Act of 2001, Pub. L. No. 107–110, 115 Stat. 1425 (2002).

<sup>5</sup> United States General Accounting Office. (1993). *Education Achievement Standards: NAGB’s Approach Yields Misleading Interpretations*. U.S. General Accounting Office Report to Congressional Requestors. Washington, DC: Author.

National Academy of Education. (1993). *Setting Performance Standards for Achievement: A Report of the National Academy of Education Panel on the Evaluations of the NAEP Trial State Assessment: An Evaluation of the 1992 Achievement Levels*. Stanford, CA: Author.

<sup>6</sup> Cizek, G. (1993). *Reactions to National Academy of Education Report*. Washington, DC: National Assessment Governing Board.

Kane, M. (1993). *Comments on the NAE Evaluation of the NAGB Achievement Levels*. Washington, DC: National Assessment Governing Board.

<sup>7</sup> American College Testing. (1995). *NAEP Reading Revisited: An Evaluation of the 1992 Achievement Level Descriptions*. Washington, DC: National Assessment Governing Board.

<sup>8</sup> National Academy of Education. (1996). Reading achievement levels. In *Quality and Utility: The 1994 Trial State Assessment in Reading. The Fourth Report of the National Academy of Education Panel on the Evaluation of the NAEP Trial State Assessment*. Stanford, CA: Author.

<sup>9</sup> National Academy of Education. (1997). *Assessment in Transition: Monitoring the Nation’s Educational Progress* (p. 99). Mountain View, CA: Author.



NCES and NAGB have sought and continue to seek new and better ways to set performance standards on NAEP.<sup>10</sup> For example, NCES and NAGB jointly sponsored a national conference on standard setting in large-scale assessments, which explored many issues related to standard setting.<sup>11</sup> Although new directions were presented and discussed, a proven alternative to the current process has not yet been identified. NCES and NAGB continue to call on the research community to assist in finding ways to improve standard setting for reporting NAEP results.

The most recent congressionally mandated evaluation conducted by the National Academy of Sciences (NAS) relied on prior studies of achievement levels, rather than carrying out new evaluations, on the grounds that the process has not changed substantially since the initial problems were identified. Instead, the NAS panel studied the development of the 1996 science achievement levels. The NAS panel basically concurred with earlier congressionally mandated studies. The panel concluded that “NAEP’s current achievement-level-setting procedures remain fundamentally flawed. The judgment tasks are difficult and confusing; raters’ judgments of different item types are internally

inconsistent; appropriate validity evidence for the cut scores is lacking; and the process has produced unreasonable results.”<sup>12</sup>

The NAS panel accepted the continuing use of achievement levels in reporting NAEP results on a trial basis, until such time as better procedures can be developed. Specifically, the NAS panel concluded that “. . . tracking changes in the percentages of students performing at or above those cut scores (or in fact, any selected cut scores) can be of use in describing changes in student performance over time.”<sup>13</sup>

NAGB urges all who are concerned about student performance levels to recognize that the use of these achievement levels is a developing process and is subject to various interpretations. NAGB and NCES believe that the achievement levels are useful for reporting trends in the educational achievement of students in the United States.<sup>14</sup> In fact, achievement level results have been used in reports by the President of the United States, the Secretary of Education, state governors, legislators, and members of Congress. Government leaders in the nation and in more than 40 states use these results in their annual reports.

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<sup>10</sup> Reckase, M. D. (2000). *The Evolution of the NAEP Achievement Levels Setting Process: A Summary of the Research and Development Efforts Conducted by ACT*. Iowa City, IA: ACT, Inc.

<sup>11</sup> National Assessment Governing Board and National Center for Education Statistics. (1995). *Proceedings of the Joint Conference on Standard Setting for Large-Scale Assessments of the National Assessment Governing Board (NAGB) and the National Center for Education Statistics (NCEES)*. Washington, DC: Government Printing Office.

<sup>12</sup> Pellegrino, J. W., Jones, L. R., and Mitchell, K. J. (Eds.). (1998). *Grading the Nation’s Report Card: Evaluating NAEP and Transforming the Assessment of Educational Progress*. Committee on the Evaluation of National Assessments of Educational Progress, Board on Testing and Assessment, Commission on Behavioral and Social Sciences and Education, National Research Council. Washington, DC: National Academy Press.

<sup>13</sup> *Ibid.*, 176.

<sup>14</sup> Forsyth, R. A. (2000). A Description of the Standard-Setting Procedures Used by Three Standardized Test Publishers. In *Student Performance Standards on the National Assessment of Educational Progress: Affirmations and Improvements*. Washington, DC: National Assessment Governing Board.

Nellhaus, J. M. (2000). States with NAEP-Like Performance Standards. In *Student Performance Standards on the National Assessment of Educational Progress: Affirmations and Improvements*. Washington, DC: National Assessment Governing Board.

However, based on the congressionally mandated evaluations so far, NCES agrees with the National Academy's recommendation that caution needs to be exercised in the use of the current achievement levels. Therefore, NCES concludes that these achievement levels should continue to be used on a trial basis and should continue to be interpreted and used with caution.

### **Interpreting NAEP Results**

The average scores and percentages presented in this report are estimates based on samples of students rather than on entire populations. Moreover, the collection of questions used at each grade level is but a sample of the many questions that could have been asked to assess the skills and abilities described in the NAEP reading framework. As such, the results are subject to a measure of uncertainty, reflected in the standard error of the estimates—a range of a few points plus or minus the score or percentage—which accounts for potential score or percentage fluctuation due to sampling and measurement error. The estimated standard errors for the estimated scale scores and percentages in this report are easily accessible through the NAEP Data Tool on the NAEP web site (<http://nces.ed.gov/nationsreportcard/naepdata>). Examples of these estimated standard errors are also provided in appendix A of this report.

The differences between scale scores and between percentages discussed in the following chapters take into account the standard errors associated with the estimates. Comparisons are based on statistical tests that consider both the magnitude of the difference between the group average scores or percentages and the standard errors of those statistics. Estimates based on smaller subgroups are likely to have relatively large standard errors. As a consequence, some seemingly large differences may not be statistically significant. When this is the case, the term “apparent difference” is used in this report. Differences between scores or between percentages are discussed in this report only when they are significant from a statistical perspective. All differences reported are significant at the .05 level with appropriate adjustments for multiple comparisons. The term “significant” is not intended to imply a judgment about the absolute magnitude or the educational relevance of the differences. It is intended to identify statistically dependable differences in average scores or percentages to help inform dialogue among policymakers, educators, and the public.

Readers are cautioned against interpreting NAEP results in a causal sense. Inferences related to subgroup performance or to the effectiveness of public and nonpublic schools, for example, should take into consideration the many socioeconomic and educational factors that may affect reading performance.

## Overview of the Remaining Report

This report describes the reading performance of fourth-, eighth-, and twelfth-graders in the nation, as well as fourth- and eighth-graders in participating states and other jurisdictions. Chapter 2 presents overall reading scale score and achievement level results across years for both the nation and participating states and other jurisdictions. Chapter 3 discusses national results for subgroups of students by gender, race/ethnicity, parents' highest level of education (for grades 8 and 12 only), school type (public and nonpublic), school's type of location (urban, urban fringe/large town, rural/small town), Title I participation, and eligibility for free/reduced-price school lunch. State and jurisdiction results are reported by gender, race/ethnicity, and eligibility for free/reduced-price school lunch only.

Chapter 4 presents sample assessment questions and student responses at each grade level, including samples of multiple-choice and constructed-response questions. A table showing the percentage of students who answered the question successfully accompanies each sample question. In addition, item maps for each grade level describe the skill or ability needed to answer particular reading questions and show the score points at which individual students had a high probability of successfully answering particular questions, thereby indicating the relative difficulty of each question.

The appendices of this report contain information to expand the results presented in chapters 2–4. Appendix A contains an overview of assessment development, sampling, administration, and analysis procedures. Appendix B presents the percentages of students in each of the subgroups reported for the nation, states, and other jurisdictions. Finally, appendix C shows state-level contextual data from sources other than NAEP.



# 2 **Average Reading Scale Score and Achievement Level Results for the Nation and States**

## **Overview**

This chapter presents the NAEP 2002 reading results for public- and nonpublic-school students in the nation at grades 4, 8, and 12 and for public-school students in participating states and jurisdictions at grades 4 and 8. Average scores are reported on the NAEP reading composite scale, which ranges from 0 to 500 and in terms of the three reading achievement levels *Basic*, *Proficient*, and *Advanced*.

In addition to the results from the 2002 assessment, national results are presented for four previous reading assessment years at grade 4, and three previous assessments at grades 8 and 12 (the 2000 reading assessment was administered at the fourth grade only). State-level results from three previous assessment years at grade 4 and one earlier assessment at grade 8 are also included. At grades 4 and 8, the national sample in 2002 was a subset of the combined sample of students assessed in each participating state plus an additional sample from the states that did not participate in the state assessment. Although results were presented by region of the country (Northeast, South, Central, and West) in previous reports, regional data are not presented in this year's report because low participation in some states that did not participate in the state assessment made the comparative data for two of the regions less reliable than in the past.

Results presented in the figures and tables throughout this report distinguish between two different reporting samples. The most recent results, based on administration procedures in which testing accommodations were permitted for special needs students between 1998 and 2002, are denoted by solid lines or shading. Results from administrations between 1992 and 2000 at grade 4, and between 1992 and 1998 at grades 8 and 12 where accommodations were not permitted are highlighted by broken lines and unshaded areas. See chapter 1 for more information on the change in administration procedures.

In 1998 (and again in 2000 at the fourth grade only) both types of administration procedures were used. Therefore there are two different sets of results in those years. One set of results is based on procedures in which accommodations were not permitted and another set is based on procedures in which accommodations were permitted.

Comparisons between the two sets of results in the years when both procedures were used are discussed in detail in other NAEP reports.<sup>1</sup>

## **National Reading Scale Score Results**

Figure 2.1 displays the average reading scores from 1992 to 2002 for fourth-, eighth-, and twelfth-graders. The fourth-grade average reading score in 2002 was higher than in 1994, 1998, and 2000 but was not found to be significantly different from 1992. Although the average score in 2002 at grade 8 remained higher than average scores in 1992 and 1994, no significant difference has been detected from the 1998 administration. Following a decline in the average twelfth grade reading score between 1992 and 1994, the score increased in 1998, but then declined again between 1998 and 2002.

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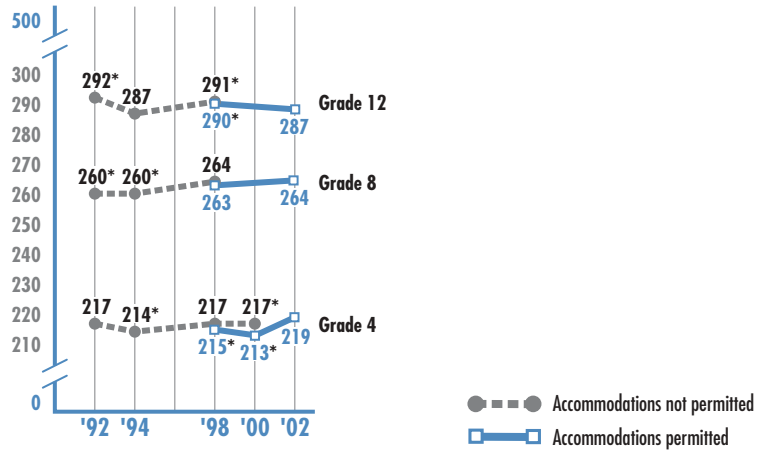
<sup>1</sup> Donahue, P. L., Finnegan, R. J., Lutkus, A. D., Allen, N. L., and Campbell, J. R. (2001). *The Nation's Report Card: Fourth-Grade Reading 2000* (NCES 2002-499). Washington, DC: U.S. Department of Education, Office of Educational Research and Improvement, National Center for Education Statistics.

Lutkus, A. D., and Mazzeo, J. (2003). *Including Special-Needs Students in the NAEP 1998 Reading Assessment: Part I, Comparison of Overall Results With and Without Accommodations*. (NCES 2003-467). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics.

Lutkus, A. D., *Including Special-Needs Students in the NAEP 1998 Reading Assessment: Part II, Results for Students with Disabilities and Limited English Proficient Students*. Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics (forthcoming).

**Figure 2.1 Average reading scale scores, grades 4, 8, and 12: 1992–2002**

**Grades 4, 8, and 12**



\* Significantly different from 2002.

NOTE: Scale score results when testing accommodations were not permitted are shown in darker print; results when accommodations were permitted are shown in lighter print.

In addition to allowing for accommodations, the accommodations-permitted results at grade 4 (1998–2002) differ slightly from previous years' results, and from previously reported results for 1998 and 2000, due to changes in sample weighting procedures. See appendix A for more details.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, 2000, and 2002 Reading Assessments.

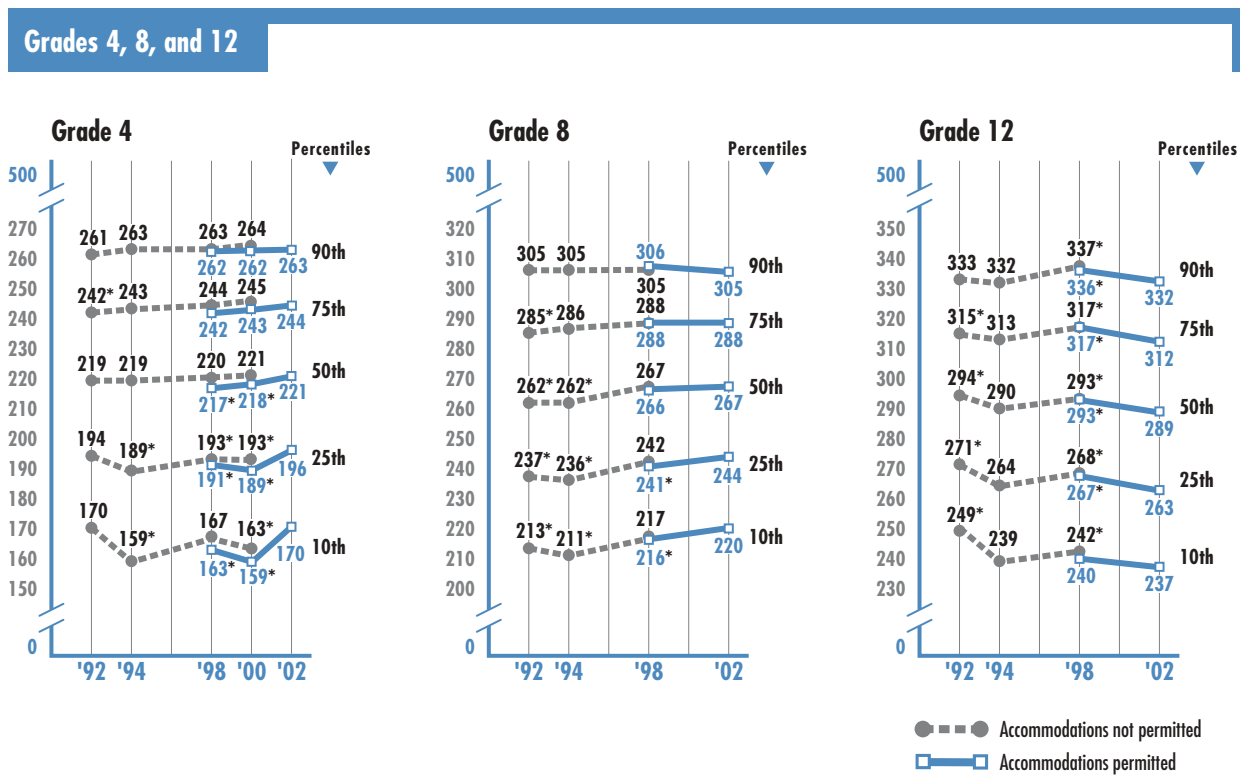
## National Reading Scale Scores by Percentile

Another way to view students' performance is by looking at how scores have changed across the performance distribution. An examination of scores at different percentiles on the 0–500 reading scale at each grade indicates whether or not the changes seen in the overall national average score results are reflected in the performance of lower-, middle-, and higher-performing students. Figure 2.2 shows the average reading scale score for students scoring at the 10th, 25th, 50th, 75th, and 90th percentiles at all three grade levels. The percentile indicates the percentage of students whose scores fell below a particular point on the NAEP reading scale. For

example, the 75th percentile score at grade 4 was 244 in 2002, indicating that 75 percent of fourth-graders scored below 244.

At grade 4, scores at the 10th, 25th, and 50th percentiles were higher in 2002 than in 1998 and 2000 but were not found to be significantly different from 1992. The fourth-grade score at the 75th percentile was higher in 2002 than in 1992. At grade 8, scores were higher in 2002 than in 1992 at all but the 90th percentile. However, only scores for lower-performing students at the 10th and 25th percentiles were higher in 2002 than in 1998. At grade 12, the decline in performance since 1992 was evident across most of the score distribution with lower scores in 2002 at the 10th, 25th, 50th, and 75th percentiles.

**Figure 2.2** Reading scale score percentiles, grades 4, 8, and 12: 1992–2002



\* Significantly different from 2002.

NOTE: Scale score results when testing accommodations were not permitted are shown in darker print; results when accommodations were permitted are shown in lighter print.

In addition to allowing for accommodations, the accommodations-permitted results at grade 4 (1998–2002) differ slightly from previous years' results, and from previously reported results for 1998 and 2000, due to changes in sample weighting procedures. See appendix A for more details.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, 2000, and 2002 Reading Assessments.



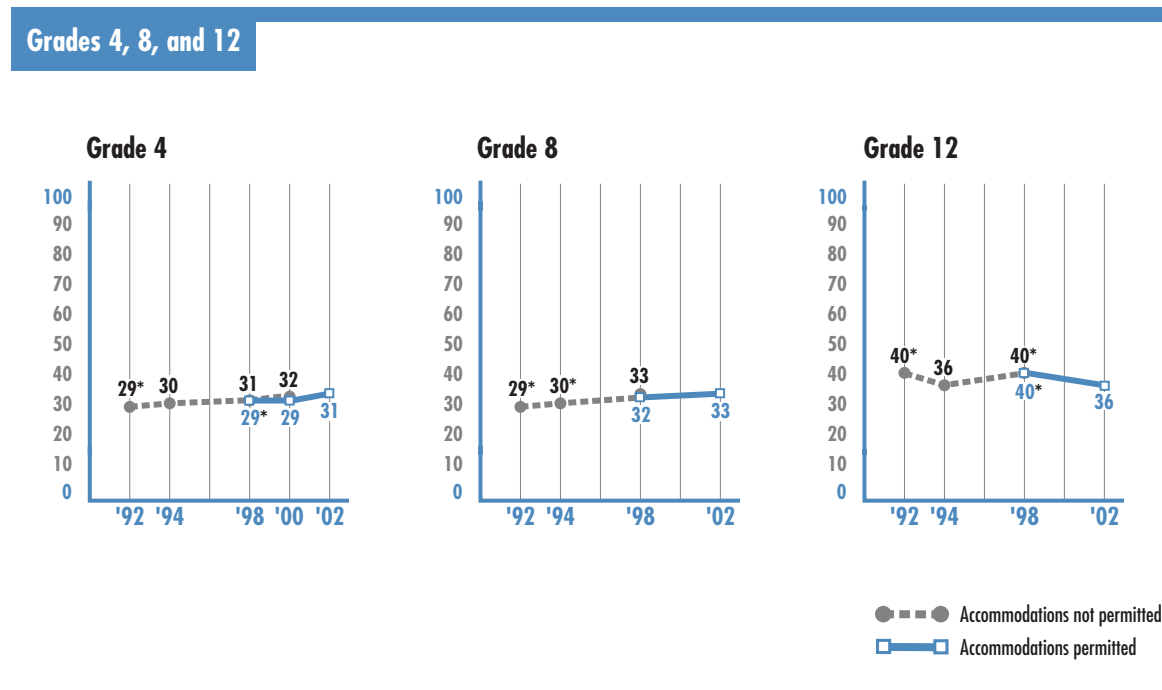
## National Reading Achievement Level Results

In addition to reporting average reading scale scores, NAEP reports reading performance by achievement levels. The reading achievement levels are *Basic*, *Proficient*, and *Advanced*. Discussion related to the setting of achievement levels is covered in chapter 1.

Figure 2.3 tracks the percentages of students at or above *Proficient*—the level identified by NAGB as the level at which all students should perform—across assessment years. Table 2.1 presents the achievement level results in two ways for each grade: as the percentage of students within each achievement level and as the

percentage of students at or above the *Basic* level and at or above the *Proficient* level. The percentages at or above specific achievement levels are cumulative. Included among the percentage of students at or above the *Basic* level are also those who have achieved the *Proficient* and *Advanced* levels of performance. Included among students at or above the *Proficient* level are also those who have attained the *Advanced* level of performance. Although significant differences in the percentages of students within achievement levels are indicated in the table, only the differences at or above *Basic*, at or above *Proficient*, and at *Advanced* are discussed in this section.

**Figure 2.3** Percentage of students at or above *Proficient* in reading, grades 4, 8, and 12: 1992–2002



\* Significantly different from 2002.

NOTE: Scale score results when testing accommodations were not permitted are shown in darker print; results when accommodations were permitted are shown in lighter print.

In addition to allowing for accommodations, the accommodations-permitted results at grade 4 (1998–2002) differ slightly from previous years' results, and from previously reported results for 1998 and 2000, due to changes in sample weighting procedures. See appendix A for more details.

The *Proficient* level represents solid academic performance for each grade assessed.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, 2000, and 2002 Reading Assessments.

In 2002, about one-third of the students in each of the three grades performed at or above the *Proficient* level in reading. Figure 2.3 shows that fourth- and eighth-graders have made overall gains since 1992 in reaching the *Proficient* level, while the percentage of twelfth-graders at or above this level has decreased. As shown in more detail in table 2.1, trends in average scale score results since 1992 described earlier in the chapter are generally consistent with trends in achievement level results. The percentage of fourth-graders at or above *Basic* in 2002 was higher than in 1994, 1998, and 2000 but was not found to be significantly different from 1992. The

percentage of fourth-graders at or above *Proficient* was higher in 2002 than in 1992 and 1998.

The percentage of eighth-graders at or above *Basic* increased between 1998 and 2002, and was higher in 2002 than in all previous assessment years. The percentage of eighth-graders at or above *Proficient* was higher in 2002 than in 1992 and 1994, although no significant change was detected between 1998 and 2002.

The percentages of twelfth-graders at or above *Basic* and *Proficient* decreased between 1998 and 2002, and were lower than in 1992.

**Table 2.1 Percentage of students, by reading achievement level, grades 4, 8, and 12: 1992–2002**

Grade						At or above	At or above		
		Below <i>Basic</i>	At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	<i>Basic</i>	<i>Proficient</i>		
Grade 4	Accommodations not permitted	1992	38	34	22 *	6	62	29 *	
		1994	40 *	31 *	22 *	7	60 *	30	
		1998	38	32	24	7	62	31	
		2000	37	31	24	8	63	32	
		2002	36	32	24	7	64	31	
	Accommodations permitted	1998	40 *	30 *	22 *	7	60 *	29 *	
		2000	41 *	30 *	23	7	59 *	29	
		2002	36	32	24	7	64	31	
	Grade 8	Accommodations not permitted	1992	31 *	40 *	26 *	3	69 *	29 *
			1994	30 *	40 *	27 *	3	70 *	30 *
1998			26	41 *	31	3	74	33	
1998			27 *	41	30	3	73 *	32	
2002			25	43	30	3	75	33	
Accommodations permitted		1998	27 *	41	30	3	73 *	32	
		2002	25	43	30	3	75	33	
Grade 12		Accommodations not permitted	1992	20 *	39	36 *	4	80 *	40 *
			1994	25	38	32	4	75	36
			1998	23 *	37	35 *	6 *	77 *	40 *
	1998		24 *	36	35 *	6 *	76 *	40 *	
	2002		26	38	31	5	74	36	
	Accommodations permitted	1998	24 *	36	35 *	6 *	76 *	40 *	
		2002	26	38	31	5	74	36	

\* Significantly different from 2002.

NOTE: Percentages within each reading achievement level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.

In addition to allowing for accommodations, the accommodations-permitted results at grade 4 (1998–2002) differ slightly from previous years' results, and from previously reported results for 1998 and 2000, due to changes in sample weighting procedures. See appendix A for more details.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, 2000, and 2002 Reading Assessments.

## Reading Results for States and Other Jurisdictions

In addition to the national results, reading performance data were collected for fourth- and eighth-grade students attending public schools in states and other jurisdictions that chose to participate in 2002.<sup>2</sup> Results are presented for jurisdictions that participated in one or more of the 1992, 1994, 1998, and 2002 reading assessments at grade 4, and in the 1998 and 2002 assessments at grade 8. Statistically significant changes across years are indicated in tables based on two tests: one that examines one jurisdiction at a time (\*) and another that considers all the jurisdictions that participated, using a multiple comparison procedure (\*\*). Differences over time discussed in the text of this report are based on statistically significant findings detected using either comparison procedure. (See “Conducting Multiple Tests” in appendix A for a more detailed discussion of comparison procedures.)

Although 50 jurisdictions participated in the 2002 reading assessment (taking into account those that participated in either grade 4 or 8), not all met minimum school participation guidelines for reporting their results. (See “Standards for State Sample Participation and Reporting of Results” in appendix A for details on these guidelines.) Results from the 2002 assessment are not included for Illinois or Wisconsin at grades 4 and 8, or for Minnesota at grade 8, because they did not meet the minimum public school participation rate of 70 percent. Jurisdictions that did not meet one

or more of the other participation guidelines are noted in each of the tables.

To ensure that the samples in each state are representative, NAEP has established policies and procedures to maximize the inclusion of all students in the assessment. Every effort is made to ensure that all selected students who are capable of participating meaningfully in the assessment are assessed. While some students with disabilities and/or limited English proficient (SD and/or LEP) students can be assessed without any special procedures, others require accommodations to participate in NAEP. Still other SD and/or LEP students selected by NAEP may not be able to participate. Local school authorities determine whether SD/LEP students require accommodations or shall be excluded because they cannot be assessed. The percentage of SD and/or LEP students who are excluded from NAEP assessments varies from one jurisdiction to another and within a jurisdiction over time.

If excluded students are less proficient readers, variations in exclusion rates could have an impact on average reading scores or score gains within jurisdictions. NCES is currently sponsoring ongoing research on the potential impact of changes in exclusion rates on changes in average reading performance. The preliminary findings from the research suggest that the potential impact on reading scores is minimal.

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<sup>2</sup> Throughout this chapter the term jurisdiction is used to refer to the states, territories, and Department of Defense schools that participated in the NAEP reading assessments.

For example, in one scenario at the fourth grade, for 21 of 38 jurisdictions that participated in both 1998 and 2002 (and for which scenario results are available) the change in average reading scores might have differed by up to one point in either direction from what is being reported, had all excluded students been assessed and performed as hypothesized. Thirty-five of the 38 jurisdictions might have differed by up to three points, and another three jurisdictions might have differed by three points or more. Further discussion of this research is presented in “Investigating the Potential Effects of Exclusion Rates on Assessment Results” in appendix A.

## **Reading Scale Score Results by State/Jurisdiction**

Average reading scale scores by jurisdiction are shown in table 2.2 for grade 4, and table 2.3 for grade 8. Whereas the national results presented in the previous sections of this chapter represent both public and nonpublic schools combined, the national average scores shown in each of these tables represent the performance of public-school students only.

Of the 40 jurisdictions that participated in both the 1998 and 2002 fourth grade reading assessments, 19 showed score increases in 2002 and only 1 jurisdiction showed a decline. Among the 40 jurisdictions that participated in both 1992 and 2002, average reading scores in 2002 were higher in 15 jurisdictions and lower in 2 jurisdictions. At grade 8, 10 of the 37 jurisdictions that participated in both assessment years showed gains between 1998 and 2002, and 5 showed declines.

**Table 2.2 Average reading scale scores, grade 4 public schools: By state, 1992–2002**

Grade 4	Accommodations not permitted			Accommodations permitted	
	1992	1994	1998	1998	2002
<b>Nation (Public)</b> <sup>1</sup>	215	212 *	215	213 *	217
Alabama	207	208	211	211	207
Arizona	209 *	206	207	206	205
Arkansas	211	209	209 *	209	213
California <sup>‡</sup>	202	197 **,††	202	202	206
Colorado	217	213	222	220	—
Connecticut	222 **,††	222 **,††	232	230	229
Delaware	213 **,††	206 **,††	212 **,††	207 **,††	224
Florida	208 **,††	205 **,††	207 **,††	206 **,††	214
Georgia	212	207 **,††	210 **,††	209 **,††	215
Hawaii	203 *	201 **,††	200 **,††	200 **,††	208
Idaho	219	—	—	—	220
Indiana	221	220	—	—	222
Iowa <sup>‡</sup>	225	223	223	220	223
Kansas <sup>‡</sup>	—	—	222	221	222
Kentucky	213 **,††	212 **,††	218	218	219
Louisiana	204	197 **,††	204	200 **,††	207
Maine	227	228 **,††	225	225	225
Maryland	211 **,††	210 **,††	215	212 **,††	217
Massachusetts	226 **,††	223 **,††	225 **,††	223 **,††	234
Michigan	216	—	217	216	219
Minnesota <sup>‡</sup>	221 **,††	218 **,††	222	219 **,††	225
Mississippi	199	202	204	203	203
Missouri	220	217	216	216 **,††	220
Montana <sup>‡</sup>	—	222	226	225	224
Nebraska	221	220	—	—	222
Nevada	—	—	208	206	209
New Hampshire	228	223	226	226	—
New Jersey	223	219	—	—	—
New Mexico	211	205	206	205	208
New York <sup>‡</sup>	215 **,††	212 **,††	216 **,††	215 **,††	222
North Carolina	212 **,††	214 **,††	217 **,††	213 **,††	222
North Dakota <sup>‡</sup>	226	225	—	—	224
Ohio	217 **,††	—	—	—	222
Oklahoma	220 **,††	—	220 **,††	219 **,††	213
Oregon	—	—	214 **,††	212 **,††	220
Pennsylvania	221	215 **,††	—	—	221
Rhode Island	217	220	218	218	220
South Carolina	210 *	203 **,††	210	209 **,††	214
Tennessee <sup>‡</sup>	212	213	212	212	214
Texas	213	212	217	214	217
Utah	220	217 **,††	215 **,††	216 **,††	222
Vermont	—	—	—	—	227
Virginia	221 *	213 **,††	218 **,††	217 **,††	225
Washington <sup>‡</sup>	—	213 **,††	217 **,††	218 **,††	224
West Virginia	216	213 **,††	216	216	219
Wisconsin <sup>‡</sup>	224	224	224	222	—
Wyoming	223	221	219	218	221
<b>Other Jurisdictions</b>					
District of Columbia	188 *	179 **,††	182 **,††	179 **,††	191
DDESS <sup>2</sup>	—	—	220 **,††	219 **,††	225
DoDDS <sup>3</sup>	—	218 **,††	223	221 **,††	224
Guam	182	181 **,††	—	—	185
Virgin Islands	171 **,††	—	178	174	179

— Indicates that the jurisdiction did not participate or did not meet minimum participation guidelines for reporting.

‡ Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002.

\* Significantly different from 2002 when only one jurisdiction or the nation is being examined.

\*\* Significantly different from 2002 when using a multiple-comparison procedure based on all jurisdictions that participated both years.

<sup>1</sup> National results that are presented for assessments prior to 2002 are based on the national sample, not on aggregated state assessment samples.

<sup>2</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools.

<sup>3</sup> Department of Defense Dependents Schools (Overseas).

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited English proficient students in the NAEP samples.

In addition to allowing for accommodations, the accommodations-permitted results for national public schools at grade 4 (1998 and 2002) differ slightly from previous years' results, and from previously reported results for 1998, due to changes in sample weighting procedures. See appendix A for more details.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, and 2002 Reading Assessments.

**Table 2.3 Average reading scale scores, grade 8 public schools: By state, 1998 and 2002**

Grade 8	Accommodations not permitted		Accommodations permitted	
	1998	2002	1998	2002
<b>Nation (Public)</b> <sup>1</sup>	261	263	261 *	263
Alabama	255	253	255	253
Arizona	261 *	257	260	257
Arkansas	256 *	260	256 *	260
California ‡	253	250	252	250
Colorado	264	—	264	—
Connecticut	272 **, **	267	270 *	267
Delaware	256 **, **	267	254 **, **	267
Florida	253 **, **	261	255 **, **	261
Georgia	257	258	257	258
Hawaii	250	252	249 *	252
Idaho	—	266	—	266
Indiana	—	265	—	265
Kansas ‡	268	269	268	269
Kentucky	262	265	262	265
Louisiana	252 *	256	252 *	256
Maine	273	270	271	270
Maryland	262	263	261	263
Massachusetts	269	271	269	271
Michigan	—	265	—	265
Minnesota ‡	267	—	265	—
Mississippi	251 *	255	251 *	255
Missouri	263 **, **	268	262 **, **	268
Montana ‡	270	270	271	270
Nebraska	—	270	—	270
Nevada	257 **, **	251	258 **, **	251
New Mexico	258 *	254	258 **, **	254
New York ‡	266	264	265	264
North Carolina	264	265	262	265
North Dakota ‡	—	268	—	268
Ohio	—	268	—	268
Oklahoma	265 *	262	265 *	262
Oregon ‡	266	268	266	268
Pennsylvania	—	265	—	265
Rhode Island	262	262	264 *	262
South Carolina	255	258	255	258
Tennessee ‡	259	260	258	260
Texas	262	262	261	262
Utah	265	263	263	263
Vermont	—	272	—	272
Virginia	266	269	266	269
Washington ‡	265	268	264 *	268
West Virginia	262	264	262	264
Wisconsin ‡	266	—	265	—
Wyoming	262	265	263	265
<b>Other Jurisdictions</b>				
American Samoa	—	198	—	198
District of Columbia	236	240	236	240
DDESS <sup>2</sup>	269	272	268	272
DoDDS <sup>3</sup>	269 **, **	273	269 **, **	273
Guam	—	240	—	240
Virgin Islands	233 *	241	231 **, **	241

— Indicates that the jurisdiction did not participate or did not meet minimum participation guidelines for reporting.

‡ Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002.

\* Significantly different from 2002 when only one jurisdiction or the nation is being examined.

\*\* Significantly different from 2002 when using a multiple-comparison procedure based on all jurisdictions that participated both years.

<sup>1</sup> National results that are presented for assessments prior to 2002 are based on the national sample, not on aggregated state assessment samples.

<sup>2</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools.

<sup>3</sup> Department of Defense Dependents Schools (Overseas).

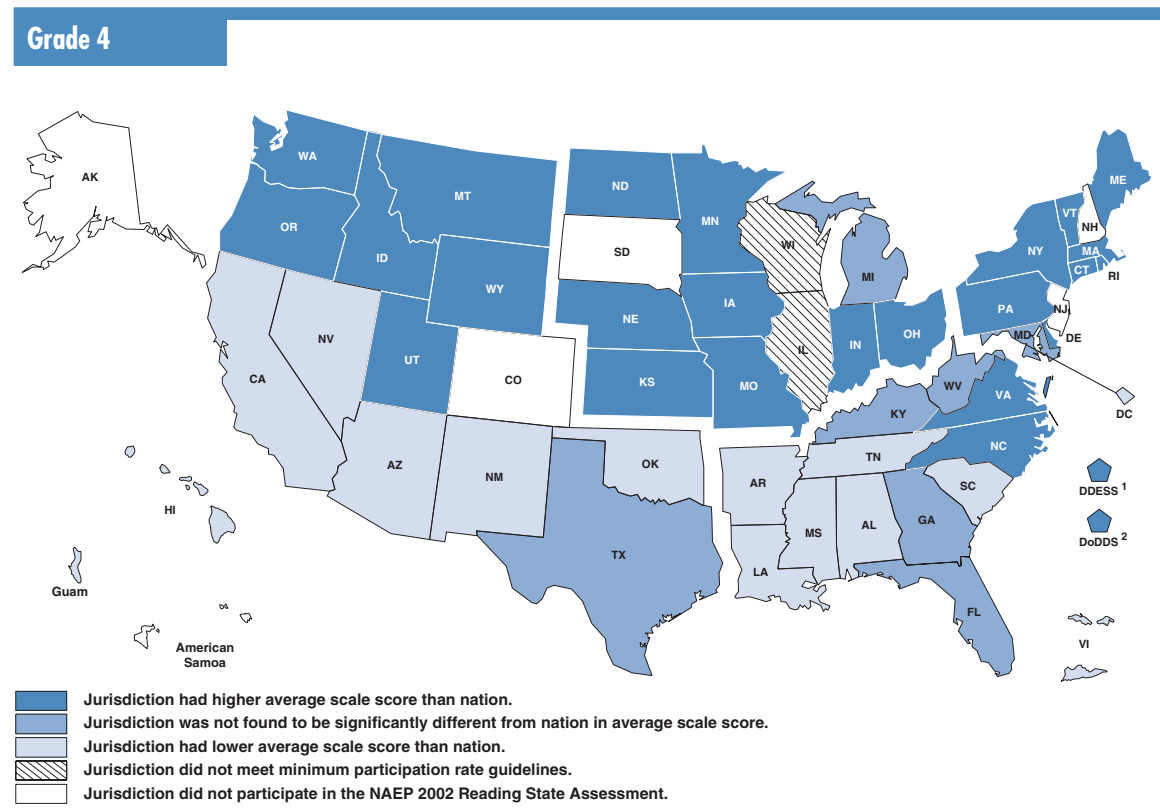
NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited English proficient students in the NAEP samples.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 and 2002 Reading Assessments.

The maps in figures 2.4 and 2.5 compare state and national average reading scores in 2002 at grades 4 and 8 respectively. At grade 4, 26 jurisdictions had scores that were higher than the national average score, 15 had scores that were lower than the national average, and no significant differences were detected between the

jurisdiction and national average for 7 jurisdictions. At grade 8, 20 jurisdictions had scores that were higher than the national average score, 15 had scores that were lower than the national average, and no significant differences were detected between the state and national average for 12 jurisdictions.

**Figure 2.4 Comparison of state and national public school average reading scale scores, grade 4: 2002**



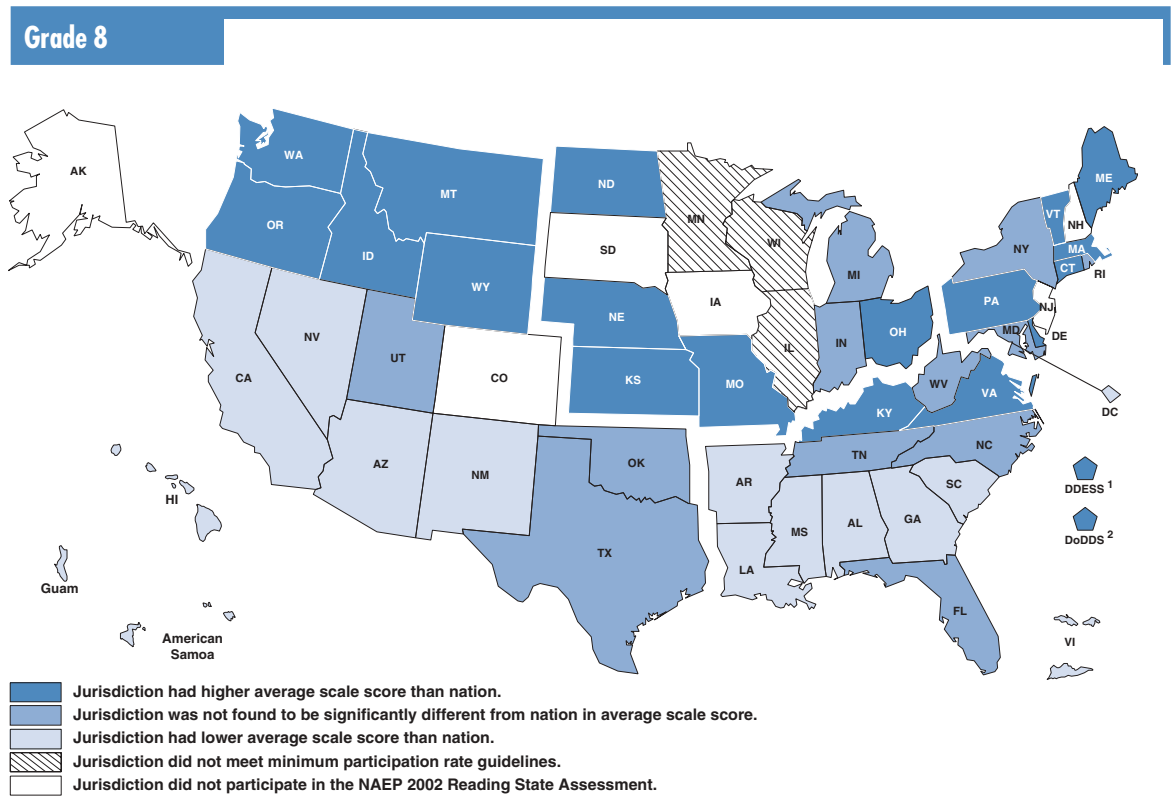
<sup>1</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools.

<sup>2</sup> Department of Defense Dependents Schools (Overseas).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2002 Reading Assessment.



**Figure 2.5 Comparison of state and national public school average reading scale scores, grade 8: 2002**



<sup>1</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools.

<sup>2</sup> Department of Defense Dependents Schools (Overseas).

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2002 Reading Assessment.

## **Cross-State/Jurisdiction Reading Scale Score Comparisons**

Figures 2.6 and 2.7 display the differences in the NAEP 2002 average reading scale scores between any two participating jurisdictions at grades 4 and 8 respectively. These figures are set up similarly to mileage charts on travel maps. On the line across the top of the figure, find the name of the targeted jurisdiction and follow the column below the target jurisdiction to the jurisdiction chosen for comparison. If the cell of the comparison jurisdiction is not shaded, the difference between the two scores was not found to be statistically significant. If the cell of the comparison jurisdiction is lightly shaded, the average scale score of that jurisdiction was higher than that of the jurisdiction named at the top of the column. The darkly shaded cells indicate that

the average scale score of the comparison jurisdiction was lower than that of the jurisdiction selected at the top of the column. For example, in figure 2.6, the first cell in the second row compares the average scores at grade 4 in Massachusetts (MA) to the average score in Connecticut (CT). The shading in this cell indicates that the average score in Massachusetts was higher than that in Connecticut.

At grade 4, Massachusetts was the highest-performing state. Fourth-graders in Connecticut were outperformed by their counterparts in Massachusetts and had higher scores than the other participating jurisdictions except Vermont. At grade 8, average scores for Department of Defense domestic schools and overseas schools, Vermont, and Massachusetts were among the highest performing jurisdictions.





## Reading Achievement Level Results by State/Jurisdiction

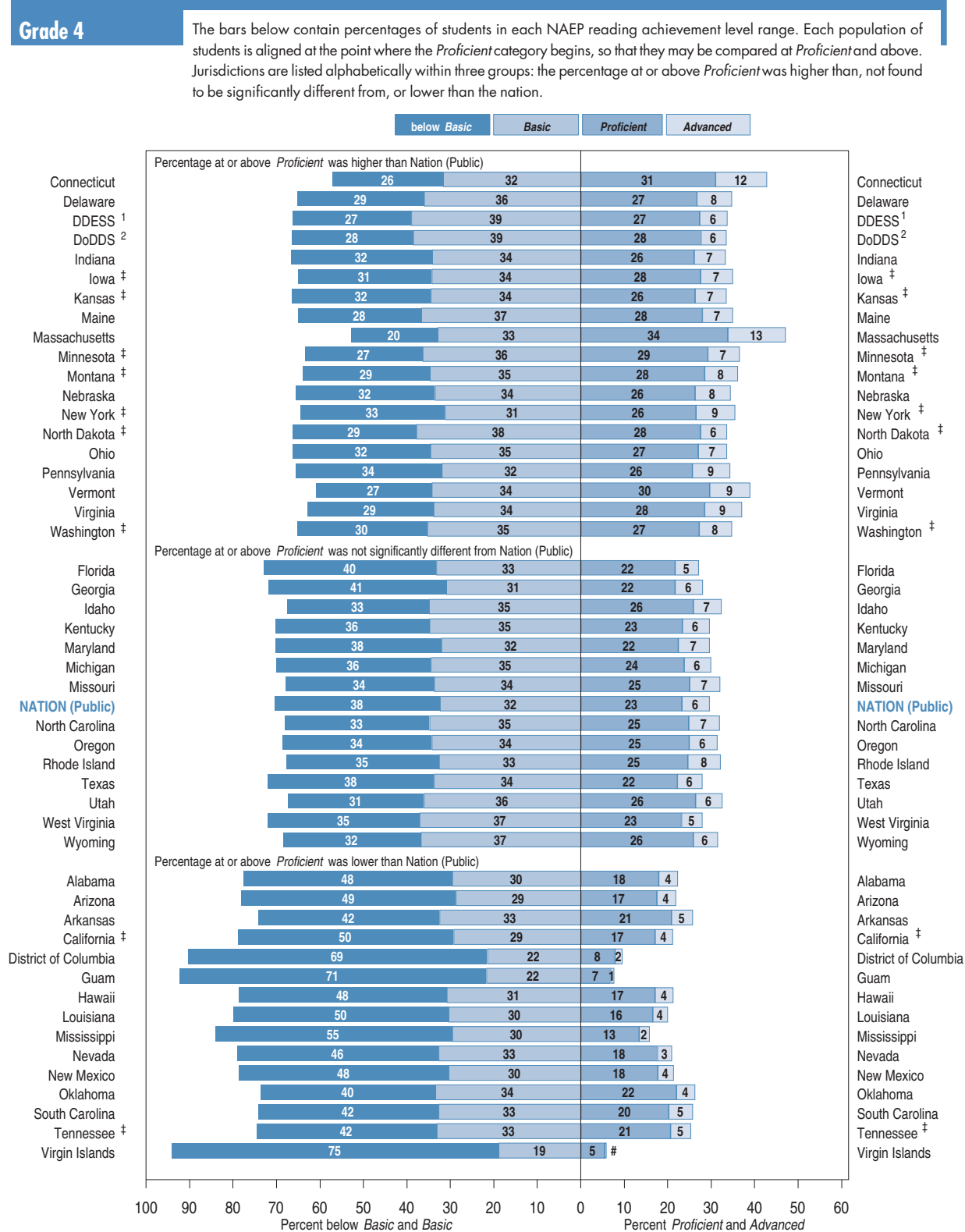
Achievement level scores for jurisdictions are presented both as the percentage of students scoring within each reading achievement level range and as the percentage of students falling at or above the *Proficient* level. The percentage of students within each reading achievement level range for participating jurisdictions in 2002 is presented in figure 2.8 for grade 4 and in figure 2.9 for grade 8. The shaded bars represent the proportion of students in each of the three achievement levels (*Basic*, *Proficient*, and *Advanced*) as well as the proportion of students who performed below the *Basic* level. Each jurisdiction's shaded bar is aligned at the point where the *Proficient* level begins; scanning down the horizontal bars allows comparison of the percentages of students who were at or above *Proficient*. Jurisdictions are listed in the figures in three clusters based on a statistical comparison of the percentage of students at or above *Proficient* in each jurisdiction with the national percentage of

public-school students at or above *Proficient*. The jurisdictions in the top cluster of each figure had a higher percentage of students who were at or above the *Proficient* level compared to the nation. The percentages of students in jurisdictions clustered in the middle were not found to differ significantly from the national percentage. Jurisdictions in the bottom cluster had percentages lower than the national percentage. Within each cluster, jurisdictions are listed alphabetically.

Figure 2.8 shows that, at grade 4, 19 jurisdictions had higher percentages of students performing at or above the *Proficient* level than the nation, 14 had percentages that were not found to differ significantly from the nation, and 15 had percentages that were lower than the nation.

In figure 2.9, the results for grade 8 show 16 jurisdictions with higher percentages of students performing at or above the *Proficient* level than the nation, 15 with percentages that were not found to differ significantly from the nation, and 16 with percentages that were lower than the nation.

**Figure 2.8 Percentage of students within each reading achievement level range, grade 4 public schools: By state, 2002**



# Percentage rounds to zero.

‡ Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002.

<sup>1</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools.

<sup>2</sup> Department of Defense Dependents Schools (Overseas).

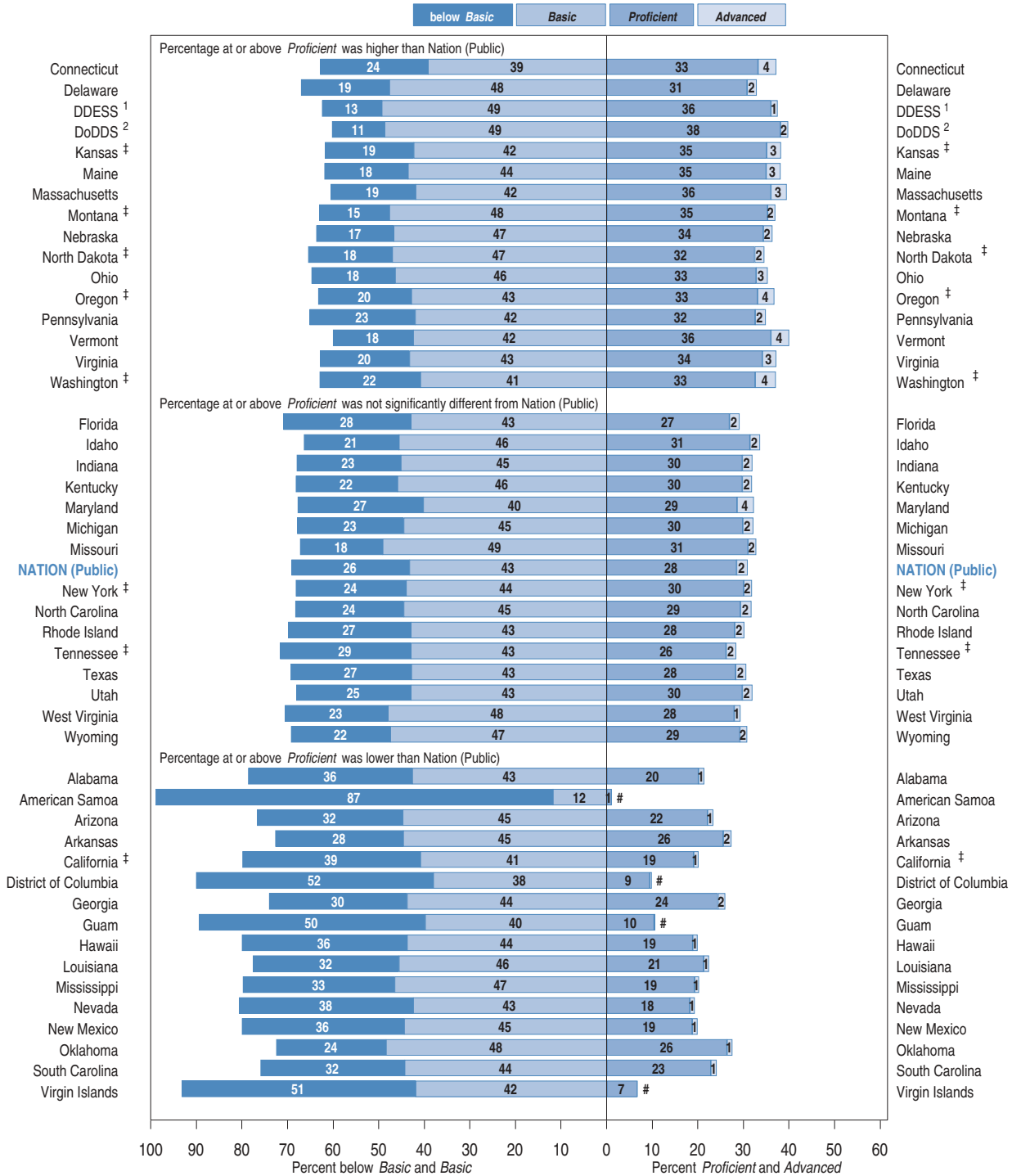
NOTE: Percentages may not add to 100, due to rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2002 Reading Assessment.

**Figure 2.9 Percentage of students within each reading achievement level range, grade 8 public schools: By state, 2002**

**Grade 8**

The bars below contain percentages of students in each NAEP reading achievement level range. Each population of students is aligned at the point where the *Proficient* category begins, so that they may be compared at *Proficient* and above. Jurisdictions are listed alphabetically within three groups: the percentage at or above *Proficient* was higher than, not found to be significantly different from, or lower than the nation.



# Percentage rounds to zero.

‡ Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002.

<sup>1</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools.

<sup>2</sup> Department of Defense Dependents Schools (Overseas).

NOTE: Percentages may not add to 100, due to rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2002 Reading Assessment.



The percentage of students performing at or above the *Proficient* level across years for each state/jurisdiction is presented in table 2.4 for grade 4 and in table 2.5 for grade 8. The percentage of fourth-graders at or above *Proficient* increased from 1998

to 2002 in 11 jurisdictions and decreased in 1 jurisdiction. Percentages of fourth-graders increased since 1992 in 17 jurisdictions. The percentage of eighth-graders at or above *Proficient* increased since 1998 in 5 jurisdictions and declined in 1 jurisdiction.

**Table 2.4** Percentage of students at or above *Proficient* in reading, grade 4 public schools: By state, 1992–2002

Grade 4	Accommodations not permitted			Accommodations permitted	
	1992	1994	1998	1998	2002
<b>Nation (Public)</b> <sup>1</sup>	27 *	28	29	28	30
Alabama	20	23	24	24	22
Arizona	21	24	22	22	22
Arkansas	23	24	23	23	26
California ‡	19	18	20	20	21
Colorado	25	28	34	33	—
Connecticut	34 **, **	38 *	46	43	43
Delaware	24 **, **	23 **, **	25 **, **	22 **, **	35
Florida	21 **, **	23 *	23 *	22 **, **	27
Georgia	25	26	24	24 *	28
Hawaii	17 *	19	17 *	17 *	21
Idaho	28 *	—	—	—	32
Indiana	30	33	—	—	33
Iowa ‡	36	35	35	33	35
Kansas ‡	—	—	34	34	34
Kentucky	23 **, **	26	29	29	30
Louisiana	15 **, **	15 **, **	19	17	20
Maine	36	41 **, **	36	35	35
Maryland	24 **, **	26	29	27	30
Massachusetts	36 **, **	36 **, **	37 **, **	35 **, **	47
Michigan	26	—	28	28	30
Minnesota ‡	31 **, **	33	36	35	37
Mississippi	14	18	18	17	16
Missouri	30	31	29	28	32
Montana ‡	—	35	37	37	36
Nebraska	31	34	—	—	34
Nevada	—	—	21	20	21
New Hampshire	38	36	38	37	—
New Jersey	35	33	—	—	—
New Mexico	23	21	22	21	21
New York ‡	27 **, **	27 **, **	29 *	29 *	35
North Carolina	25 **, **	30	28 *	27 *	32
North Dakota ‡	35	38	—	—	34
Ohio	27 **, **	—	—	—	34
Oklahoma	29	—	30	30 *	26
Oregon	—	—	28	26 *	31
Pennsylvania	32	30 *	—	—	34
Rhode Island	28 *	32	32	31	32
South Carolina	22 *	20 **, **	22	22	26
Tennessee ‡	23	27	25	25	25
Texas	24	26	29	28	28
Utah	30	30	28 *	28 *	33
Vermont	—	—	—	—	39
Virginia	31 **, **	26 **, **	30 **, **	30 **, **	37
Washington ‡	—	27 **, **	29 *	30 *	35
West Virginia	25	26	29	28	28
Wisconsin ‡	33	35	34	34	—
Wyoming	33	32	30	29	31
<b>Other Jurisdictions</b>					
District of Columbia	10	8	10	10	10
DDESS <sup>2</sup>	—	—	32	32	34
DoDDS <sup>3</sup>	—	28 **, **	34	33	33
Guam	8	8	—	—	8
Virgin Islands	3 **, **	—	8	7	6

— Indicates that the jurisdiction did not participate or did not meet minimum participation guidelines for reporting.

‡ Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002.

\* Significantly different from 2002 when only one jurisdiction or the nation is being examined.

\*\* Significantly different from 2002 when using a multiple-comparison procedure based on all jurisdictions that participated both years.

<sup>1</sup> National results that are presented for assessments prior to 2002 are based on the national sample, not on aggregated state assessment samples.

<sup>2</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools.

<sup>3</sup> Department of Defense Dependents Schools (Overseas).

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited English proficient students in the NAEP samples.

In addition to allowing for accommodations, the accommodations-permitted results for national public schools at grade 4 (1998 and 2002) differ slightly from previous years' results, and from previously reported results for 1998, due to changes in sample weighting procedures. See appendix A for more details.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, and 2002 Reading Assessments.

**Table 2.5 Percentage of students at or above *Proficient* in reading, grade 8 public schools: By state, 1998 and 2002**

Grade 8	Accommodations not permitted		Accommodations permitted	
	1998	1998	1998	2002
<b>Nation (Public)</b> <sup>1</sup>	31	30	31	
Alabama	21	22	21	
Arizona	28 *	27	23	
Arkansas	23 *	23	27	
California ‡	22	21	20	
Colorado	30	30	—	
Connecticut	42 *	40	37	
Delaware	25 **, **	23 **, **	33	
Florida	23 *	23 *	29	
Georgia	25	25	26	
Hawaii	19	19	20	
Idaho	—	—	34	
Indiana	—	—	32	
Kansas ‡	35	36	38	
Kentucky	29	30	32	
Louisiana	18 *	17 *	22	
Maine	42	41	38	
Maryland	31	31	32	
Massachusetts	36	38	39	
Michigan	—	—	32	
Minnesota ‡	37	36	—	
Mississippi	19	19	20	
Missouri	29	28 *	33	
Montana ‡	38	40	37	
Nebraska	—	—	36	
Nevada	24 *	23 *	19	
New Mexico	24	23	20	
New York ‡	34	32	32	
North Carolina	31	30	32	
North Dakota ‡	—	—	35	
Ohio	—	—	35	
Oklahoma	29	30	28	
Oregon ‡	33	35	37	
Pennsylvania	—	—	35	
Rhode Island	30	32	30	
South Carolina	22	22	24	
Tennessee ‡	26	27	28	
Texas	28	27	31	
Utah	31	31	32	
Vermont	—	—	40	
Virginia	33	33	37	
Washington ‡	32 *	32 *	37	
West Virginia	27	28	29	
Wisconsin ‡	33	34	—	
Wyoming	29	31	31	
<b>Other Jurisdictions</b>				
American Samoa	—	—	1	
District of Columbia	12	11	10	
DDESS <sup>2</sup>	37	39	37	
DoDDS <sup>3</sup>	36	37	40	
Guam	—	—	11	
Virgin Islands	10	9	7	

— Indicates that the jurisdiction did not participate or did not meet minimum participation guidelines for reporting.

‡ Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002.

\* Significantly different from 2002 when only one jurisdiction or the nation is being examined.

\*\* Significantly different from 2002 when using a multiple-comparison procedure based on all jurisdictions that participated both years.

<sup>1</sup> National results that are presented for assessments prior to 2002 are based on the national sample, not on aggregated state assessment samples.

<sup>2</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools.

<sup>3</sup> Department of Defense Dependents Schools (Overseas).

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited English proficient students in the NAEP samples.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 and 2002 Reading Assessments.

## **Cross-State/Jurisdiction Reading Achievement Level Comparisons**

Figures 2.10 and 2.11 display the same type of cross-state/jurisdiction comparisons that were presented earlier for scale score results, but the performance measure being compared in these figures is the percentage of students at or above the *Proficient* level in 2002 for grades 4 and 8 respectively.

At grade 4, Massachusetts and Connecticut had higher percentages of students at or above *Proficient* than the other participating jurisdictions, and the percentage in Vermont was lower only in comparison with Massachusetts.

At grade 8, the percentages of students at or above *Proficient* in 13 jurisdictions were among the highest in the participating jurisdictions. The 3 jurisdictions included Connecticut, Department of Defense domestic schools and overseas schools, Kansas, Maine, Massachusetts, Montana, Nebraska, Ohio, Oregon, Vermont, Virginia, and Washington.





# 3

## Subgroup Results for the Nation and States

In addition to reporting on the performance of all students, NAEP also provides results for a variety of subgroups of students for each grade level assessed. The subgroup results show not only how these groups of students performed in comparison with one another, but also the progress each group has made over time. The information presented in this chapter is a valuable indicator of how well the nation is progressing toward the goal of improving the achievement of all students.

This chapter includes average reading scale scores and achievement level results for subgroups of students in the nation at grades 4, 8, and 12, and in participating jurisdictions at grades 4 and 8. National results are reported by gender, race/ethnicity, students' eligibility for free/reduced-price school lunch, participation in Title I, parents' highest level of education, type of school, and type of school location. Results for participating jurisdictions are presented by gender, race/ethnicity, and students' eligibility for free/reduced-price school lunch. Additional subgroup results for each jurisdiction that participated in the NAEP reading assessment are available on the NAEP web site (<http://nces.ed.gov/nationsreportcard>). The weighted percentage of students corresponding with each subgroup reported in this chapter can be found in appendix B.



Differences in students' performance on the 2002 reading assessment between demographic subgroups and across years for a particular subgroup are discussed only if they have been determined to be statistically significant. The reader should bear in mind that the estimated scale score for a subgroup of students does not reflect the entire range of performance within that group. Differences in subgroup performance cannot be ascribed solely to students' subgroup identification. Average student performance is affected by the interaction of a complex set of educational, cultural, and social factors not discussed in this report or addressed by NAEP assessments.

## Performance of Selected Subgroups for the Nation

### Gender

As shown in figure 3.1, the average scores of male and female fourth-graders were higher in 2002 than in 1998, but were not found to be significantly different from the scores in 1992. While reading scores for eighth-grade males increased between 1998 and 2002, the average score for females in 2002 was not found to be significantly different from that in 1998. Average reading

scores for both male and female eighth-graders were higher in 2002 than in 1992 and 1994. The average reading scores of both male and female twelfth-graders decreased between 1998 and 2002, and the 2002 average scores were lower than the 1992 scores for both groups.

Educators and government agencies have produced a body of research rich in data documenting gender differences in reading and language arts achievement.<sup>1</sup> A 2000 reading study of students in grades 2 through 7 showed gender differences favoring girls,<sup>2</sup> just as another study showed that girls outperform boys in reading by approximately one and one-half years.<sup>3</sup> Results of a recent international assessment of reading suggest that differences in performance between male and female students are also evident in other countries.<sup>4</sup> Results from the NAEP reading assessments presented in figure 3.1 reflect similar patterns in performance between male and female students. In 2002, female students outperformed their male peers in all three grades.

<sup>1</sup> U.S. Department of Education. (2002). *The Condition of Education* (NCES 2002–025). Washington, DC: Author.

U.S. Department of Education. (2001). *Reading for Understanding: Towards an R & D Program in Reading Comprehension*. Washington, DC: Author.

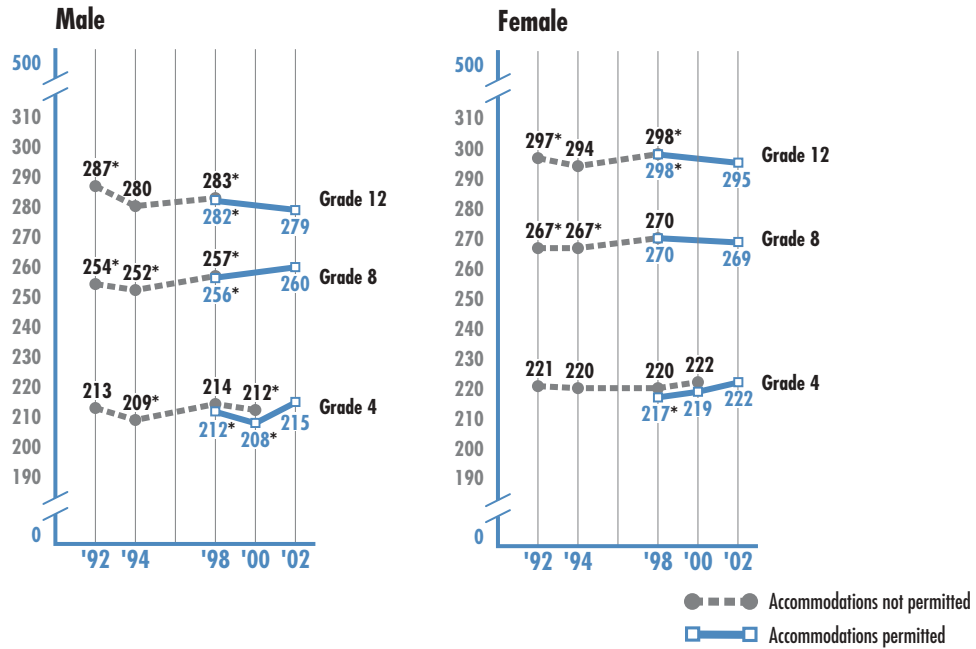
<sup>2</sup> MacMillan, P. (2000). Simultaneous Measurement of Reading Growth, Gender, and Relative-Age Effects: Many Faceted Rasch Applied to CBM Reading Scores. *Journal of Applied Measurement* 1(4), 393–408.

<sup>3</sup> Hoff Sommers, C. (2000). *The War Against Boys: How Misguided Feminism is Harming Our Young Men*. New York: Simon and Schuster.

<sup>4</sup> Ogle, L. T., Sen, A., Pahlke, E., Jocelyn, L., Kastberg, D., Roey, S., and Williams, T. (2003). *International Comparisons in Fourth-Grade Reading Literacy: Finding from the Progress in International Reading Literacy Study (PIRLS) of 2001* (NCES 2003-073). Washington, DC: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics.

**Figure 3.1 Average reading scale scores, by gender, grades 4, 8, and 12: 1992–2002**

**Grades 4, 8, and 12**



\* Significantly different from 2002.

NOTE: Scale score results when testing accommodations were not permitted are shown in darker print; results when accommodations were permitted are shown in lighter print.

In addition to allowing for accommodations, the accommodations-permitted results at grade 4 (1998–2002) differ slightly from previous years' results, and from previously reported results for 1998 and 2000, due to changes in sample weighting procedures. See appendix A for more details.

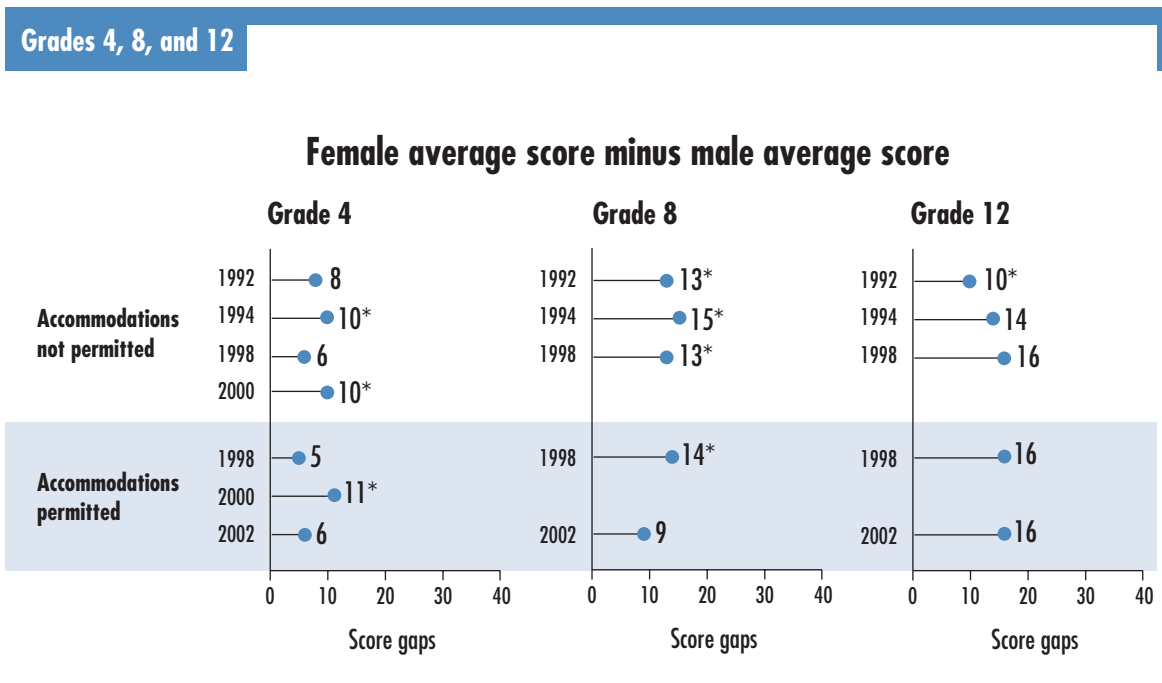
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, 2000, and 2002 Reading Assessments.

Another way to view trends in student performance is to determine whether the score “gap” that exists between subgroups of students has narrowed or widened across assessment years. The scale score gaps between male and female students are presented in figure 3.2.

In 2002, the difference in average reading scale scores favoring females over males was 6 score points for fourth-graders, 9 points

for eighth-graders, and 16 points for twelfth-graders. While this represents a narrowing of the gap since 2000 at grade 4, the gap in 2002 was not found to be significantly different from that in 1992. At grade 8, the gap in 2002 was smaller than in all prior assessment years. The scale score gap between male and female twelfth-graders in 2002 was larger than it had been in 1992.

**Figure 3.2 Gaps in average reading scale scores, by gender, grades 4, 8, and 12: 1992–2002**



\* Significantly different from 2002.

NOTE: Score gaps are calculated based on differences between unrounded average scale scores.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, 2000, and 2002 Reading Assessments.

Table 3.1 displays achievement level information for the national sample of fourth-, eighth-, and twelfth-graders both as the percentages of male and female students within each achievement level range and as the percentages of male and female students at or above the *Basic* and *Proficient* levels.

At grade 4, the percentages of males at or above the *Basic* and *Proficient* levels were higher in 2002 than in 2000 but were not found to differ significantly from those in 1992. The percentages of female fourth-graders at or above *Basic* and at or above *Proficient* were higher in 2002 than in 1998 but were not found to differ significantly from those in 1992.

At grade 8, the percentage of males at or above *Basic* was higher in 2002 than in any of the previous assessment years. The percentage of males at or above *Proficient* in 2002 was higher than that in 1992 and in 1994. The percentage of eighth-grade

females at or above *Basic* in 2002 was higher than in 1992 and in 1994, while the percentage at or above *Proficient* in 2002 was not found to be significantly different from that in any of the previous assessment years.

At grade 12, the percentages of male and female students at or above *Basic* were lower in 2002 than in 1992. The percentage of male twelfth-graders at or above *Proficient* declined from 1998 to 2002 and was lower in 2002 than in 1992. The percentage of female twelfth-graders at or above *Proficient* was lower than in 2002 than in 1998 but was not found to be significantly different from 1992. In 2002, the percentage of females at *Advanced* was higher than in 1992.

Looking at the differences in performance between male and female students in 2002, higher percentages of female students were at or above the *Basic* and *Proficient* levels, and at *Advanced*, than their male peers in all three grades.

**Table 3.1** Percentage of students, by reading achievement level and gender, grades 4, 8, and 12: 1992–2002

Grade 4		Below <i>Basic</i>	At or above			At or above <i>Basic</i>	At or above <i>Proficient</i>
			At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>		
<b>Male</b>							
Accommodations not permitted	1992	42	32	20	5	58	25
	1994	45 *	30	20 *	6	55 *	26
	1998	41	31	22	6	59	28
	2000	42	31	21	6	58	27
Accommodations permitted	1998	43 *	30	21	6	57 *	27
	2000	45 *	30	20 *	5	55 *	25 *
	2002	39	32	22	6	61	28
<b>Female</b>							
Accommodations not permitted	1992	33	35	24	8	67	32
	1994	34	32	25	9	66	34
	1998	35	32	25	8	65	33
	2000	33	31	26	10	67	36
Accommodations permitted	1998	38 *	31	23 *	8	62 *	32 *
	2000	36	30	25	9	64	34
	2002	33	33	26	8	67	35
<b>Grade 8</b>							
<b>Male</b>							
Accommodations not permitted	1992	36 *	40 *	22 *	2	64 *	23 *
	1994	38 *	40 *	21 *	2	62 *	23 *
	1998	32 *	41 *	25	2	68 *	27
Accommodations permitted	1998	33 *	41 *	24	2	67 *	26
	2002	29	43	26	2	71	28
<b>Female</b>							
Accommodations not permitted	1992	24 *	40	31 *	4	76 *	35
	1994	23 *	40	32	4	77 *	36
	1998	19	41	36	4	81	40
Accommodations permitted	1998	20	41	35	4	80	39
	2002	20	42	34	4	80	38
<b>Grade 12</b>							
<b>Male</b>							
Accommodations not permitted	1992	25 *	41	32 *	2	75 *	34 *
	1994	31	39	27	2	69	29
	1998	30 *	38	28	4 *	70 *	32 *
Accommodations permitted	1998	30	38	28	3	70	32 *
	2002	33	39	26	2	67	28
<b>Female</b>							
Accommodations not permitted	1992	16 *	38	41 *	5 *	84 *	46
	1994	20	37	37	6	80	43
	1998	17 *	35	41	8	83 *	48 *
Accommodations permitted	1998	17	35	40	8	83	48 *
	2002	20	37	37	7	80	44

\* Significantly different from 2002.

NOTE: Percentages within each reading achievement level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.

In addition to allowing for accommodations, the accommodations-permitted results at grade 4 (1998–2002) differ slightly from previous years' results, and from previously reported results for 1998 and 2000, due to changes in sample weighting procedures. See appendix A for more details.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, 2000, and 2002 Reading Assessments.

## Race/Ethnicity

In recent years, much has been written about differences in academic achievement between students with varying racial/ethnic backgrounds. Despite efforts to narrow the long-standing gap between the performances of these subgroups, significant differences persist at all performance levels.<sup>5</sup>

Based on information obtained from school records, students who participated in the NAEP reading assessment were identified as belonging to one of the following racial/ethnic subgroups: White, Black, Hispanic, Asian/Pacific Islander, American Indian (including Alaska Native), and Other (i.e., students who identified with more than one of the other five categories or had a background other than the ones listed). The results presented here for 1992 through 2000 differ from those presented in earlier reading reports in which results were reported for the same five racial/ethnic subgroups based on student self-identification.

Over the 10 year period between 1992 and 2002, the percentage of Hispanic students increased from 7 percent to 16 percent at grade 4, from 8 percent to

14 percent at grade 8, and from 7 percent to 10 percent at grade 12. During the same period, the percentage of White students decreased from 73 percent to 61 percent at grade 4, from 72 percent to 65 percent at grade 8, and from 74 percent to 71 percent at grade 12. Students categorized as Other made up approximately 1 percent of the students at each grade. (See table B.2 in appendix B.)

Figure 3.3 shows the average reading scale scores of students in each of the six categories at grades 4, 8, and 12. Results were not reported in 1992 and 1998 for American Indian/Alaska Native students at all three grades because the sample sizes were insufficient to permit reliable estimates. Results for twelfth-grade American Indian/Alaska Native students in 2002 are omitted from this report because special analyses raised concerns about the accuracy of the data. Sample sizes were also insufficient to report results for students whose race/ethnicity was categorized as Other in all assessment years prior to 2002 at grades 4 and 12, and in 1994 and 1998 (when accommodations were permitted) at grade 8.

<sup>5</sup> Bankston, C. L., and Caldas, S. J. (1997). The American School Dilemma: Race and Scholastic Performance. *The Sociological Quarterly*, 38, 423–429.

Jencks, C., and Phillips, M. (Eds.). (1998). *The Black-White Test Score Gap*. Washington, DC: Brookings Institution Press.

At grade 4, both White students and Black students had higher average reading scores in 2002 than in any of the previous assessment years. The average score for Hispanic students in 2002 was higher than in 1994, 1998, and 2000, but was not found to be significantly different from that in 1992. The average score of Asian/Pacific Islander students in 2002 was higher than that in 1992.

At grade 8, average reading scores in 2002 were higher than those in 1992 and 1994 for White, Black, and Hispanic students.

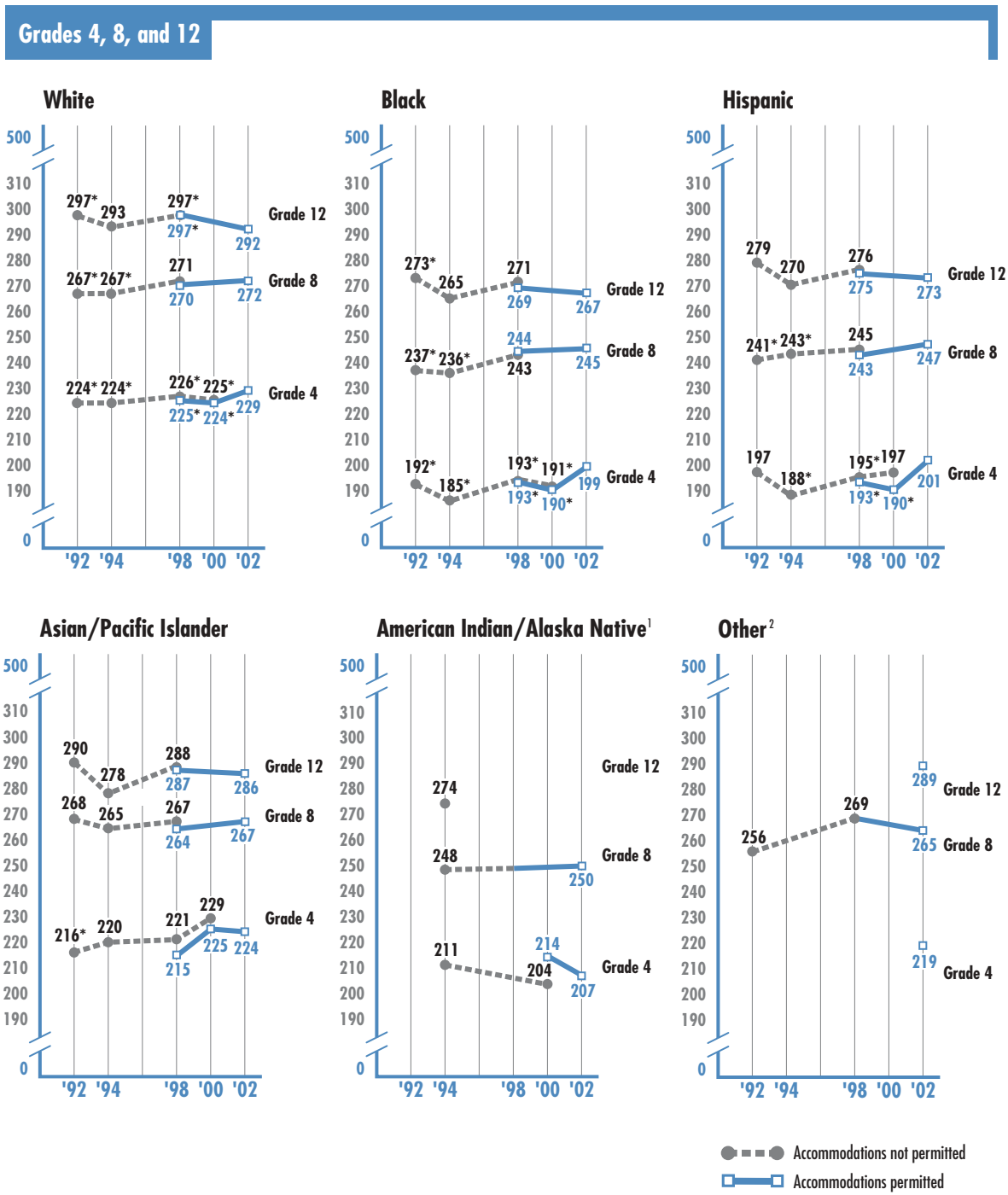
At grade 12, there was a decline in the average reading score of White students between 1998 and 2002, and between 1992 and 2002. The average score of Black students was lower in 2002 than in 1992.

Apparent differences between the average scores in 2002 and previous assessment years were not found to be statistically significant for Hispanic and Asian/Pacific Islander students, likely due to small sample sizes or large standard errors.

In 2002, White students and Asian/Pacific Islander students had higher average scores than Black and Hispanic students, and White students outperformed their Asian/Pacific Islander peers at all three grades. In addition, White and Asian/Pacific Islander students scored higher on average than American Indian/Alaska Native students at grades 4 and 8. At grade 4, American Indian/Alaska Native students had higher average scores than Black and Hispanic students. At the twelfth grade, Hispanic students scored higher on average than Black students.



**Figure 3.3 Average reading scale scores, by race/ethnicity, grades 4, 8, and 12: 1992–2002**



\* Significantly different from 2002.

<sup>1</sup> Sample sizes were insufficient to permit reliable estimates for American Indian/Alaska Native in 1992 and 1998 at all three grades. Quality control activities and special analysis raised concerns about the accuracy and precision of grade 12 American Indian/Alaska Native data in 2002. As a result, they are omitted from this report.

<sup>2</sup> Sample sizes were insufficient to permit a reliable estimate for students classified as other races in all assessment years prior to 2002 at grades 4 and 12, and in 1994 and 1998 (where accommodations were permitted) at grade 8.

NOTE: Scale score results when testing accommodations were not permitted are shown in darker print; results when accommodations were permitted are shown in lighter print.

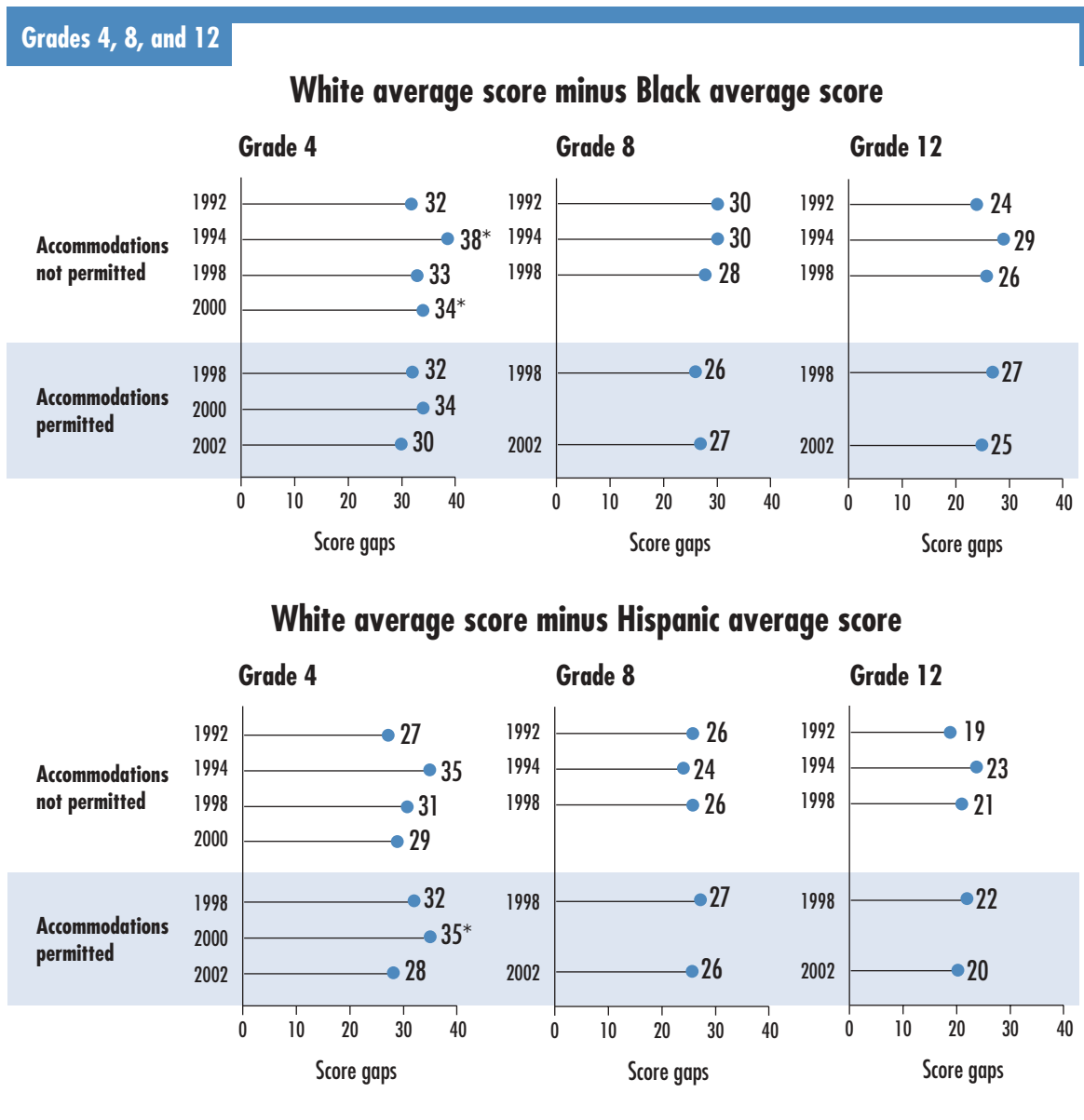
In addition to allowing for accommodations, the accommodations-permitted results at grade 4 (1998–2002) differ slightly from previous years' results, and from previously reported results for 1998 and 2000, due to changes in sample weighting procedures. See appendix A for more details.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, 2000, and 2002 Reading Assessments.

Average scale score gaps between White and Black students and between White and Hispanic students are presented in figure 3.4. In 2002, the score gaps between White and Black fourth-graders and between White and Hispanic fourth-graders were not found to be significantly different from

1992; although, the White-Hispanic gap was smaller in 2002 than in 2000. At grades 8 and 12, any apparent differences in either the White/Black or White/Hispanic gaps between 2002 and any of the previous assessment years were not found to be statistically significant.

**Figure 3.4** Gaps in average reading scale scores, by race/ethnicity, grades 4, 8, and 12: 1992–2002



\* Significantly different from 2002.

NOTE: Score gaps are calculated based on differences between unrounded average scale scores.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, 2000, and 2002 Reading Assessments.

Achievement level results across assessment years for racial/ethnic subgroups are shown in table 3.2. At grade 4, the percentages of White and Black students at or above *Basic* were higher in 2002 than in any of the previous assessment years, and the percentages at or above *Proficient* were higher in 2002 than in 1992 and 1994 for both groups. The percentage of Hispanic students at or above *Basic* in 2002 was higher than in 1994 but was not found to differ significantly from that in 1992. The percentage of Asian/Pacific Islander students at or above *Proficient* was higher in 2002 compared to 1992.

At grade 8, the percentages of White students and Black students at or above the *Basic* and *Proficient* levels were higher in 2002 than in 1992 and 1994. The percentage of White students at or above *Basic* was also higher in 2002 than in 1998. A higher percentage of Hispanic students was at or above *Basic* in 2002 than in 1992 and 1994.

At grade 12, the percentages of White students at or above the *Basic* and *Proficient* levels were lower in 2002 than in 1992 and 1998. Other apparent differences between 2002 and previous assessment years in the percentages of students in the other racial/ethnic subgroups attaining any of the achievement levels were not found to be statistically significant, likely due to small sample sizes and large standard errors.

As with the scale score results, comparison of the performance of racial/ethnic subgroups in 2002 reveals higher percentages of White and Asian/Pacific Islander students performing at or above the *Basic* and *Proficient* levels than of Black and Hispanic students in all three grades. Higher percentages of White students than Asian/Pacific Islander students performed at or above *Basic* and *Proficient* at grades 4 and 8.

**Table 3.2** Percentage of students, by reading achievement level and race/ethnicity, grades 4, 8, and 12: 1992–2002

Grade 4							At or above	At or above
			Below <i>Basic</i>	At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	<i>Basic</i>	<i>Proficient</i>
<b>White</b>								
Accommodations not permitted	1992	29 *	36	27 *	8	71 *	35 *	
	1994	30 *	34	27 *	9	70 *	36 *	
	1998	28 *	34	29	9	72 *	38	
	2000	28 *	33	29	10	72 *	39	
Accommodations permitted	1998	30 *	33	28 *	9	70 *	37 *	
	2000	30 *	32	28	9	70 *	38	
	2002	25	35	31	10	75	41	
<b>Black</b>								
Accommodations not permitted	1992	68 *	24	8 *	1	32 *	8 *	
	1994	70 *	21	7 *	1	30 *	8 *	
	1998	65 *	25	9	1	35 *	10	
	2000	65 *	24 *	10	1	35 *	11	
Accommodations permitted	1998	64 *	25	9	1	36 *	10	
	2000	65 *	25	9	1	35 *	10	
	2002	60	28	11	2	40	12	
<b>Hispanic</b>								
Accommodations not permitted	1992	61	28	10	2	39	12	
	1994	66 *	22	9	3	34 *	12	
	1998	62	26	10	2	38	13	
	2000	59	26	12	2	41	15	
Accommodations permitted	1998	63	24	11	2	37	13	
	2000	63	25	11	1	37	13	
	2002	56	29	13	2	44	15	
<b>Asian/Pacific Islander</b>								
Accommodations not permitted	1992	40	35	20	5	60	25 *	
	1994	34	30	27	9	66	36	
	1998	37	29	23	11	63	34	
	2000	25	31	28	16	75	44	
Accommodations permitted	1998	42	28	20	10	58	30	
	2000	30	30	27	14	70	41	
	2002	30	33	27	10	70	37	
<b>American Indian/Alaska Native</b>								
Accommodations not permitted	1992	***	***	***	***	***	***	
	1994	41	28	24	6	59	30	
	1998	***	***	***	***	***	***	
	2000	40	38	21	1	60	22	
Accommodations permitted	1998	***	***	***	***	***	***	
	2000	37	35	26	2	63	28	
	2002	49	29	17	5	51	22	
<b>Other</b>								
Accommodations not permitted	1992	***	***	***	***	***	***	
	1994	***	***	***	***	***	***	
	1998	***	***	***	***	***	***	
	2000	***	***	***	***	***	***	
Accommodations permitted	1998	***	***	***	***	***	***	
	2000	***	***	***	***	***	***	
	2002	37	33	23	7	63	30	

See footnotes at end of table. ▶

**Table 3.2** Percentage of students, by reading achievement level and race/ethnicity, grades 4, 8, and 12: 1992–2002  
—Continued

<b>Grade 8</b>			Below <i>Basic</i>	At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>
<b>White</b>								
Accommodations not permitted	1992	23 *	42	32 *	4	77 *	35 *	
	1994	23 *	42	32 *	4	77 *	35 *	
	1998	18	41	37	3	82	40	
Accommodations permitted	1998	19 *	42	36	3	81 *	39	
	2002	16	43	37	4	84	41	
<b>Black</b>								
Accommodations not permitted	1992	55 *	36 *	9 *	#	45 *	9 *	
	1994	57 *	34 *	9 *	#	43 *	10 *	
	1998	48	39	12	#	52	13	
Accommodations permitted	1998	47	40	12	#	53	13	
	2002	45	42	13	1	55	13	
<b>Hispanic</b>								
Accommodations not permitted	1992	51 *	36	12	1	49 *	13	
	1994	49 *	36 *	14	1	51 *	15	
	1998	46	39	15	1	54	15	
Accommodations permitted	1998	47	39	14	1	53	14	
	2002	43	42	15	1	57	15	
<b>Asian/Pacific Islander</b>								
Accommodations not permitted	1992	24	39	30	7	76	37	
	1994	28	38	29	5	72	34	
	1998	23	42	31	3	77	35	
Accommodations permitted	1998	25	42	30	3	75	33	
	2002	24	41	32	4	76	36	
<b>American Indian/Alaska Native</b>								
Accommodations not permitted	1992	***	***	***	***	***	***	
	1994	42	39	17	2	58	19	
	1998	***	***	***	***	***	***	
Accommodations permitted	1998	***	***	***	***	***	***	
	2002	39	44	17	1	61	17	
<b>Other</b>								
Accommodations not permitted	1992	33	42	22	3	67	25	
	1994	***	***	***	***	***	***	
	1998	15	50	33	2	85	36	
Accommodations permitted	1998	***	***	***	***	***	***	
	2002	23	46	28	3	77	31	

See footnotes at end of table. ►

**Table 3.2** Percentage of students, by reading achievement level and race/ethnicity, grades 4, 8, and 12: 1992–2002  
—Continued

Grade 12							At or above	At or above
			Below <i>Basic</i>	At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	<i>Basic</i>	<i>Proficient</i>
<b>White</b>								
Accommodations not permitted	1992	15 *	38	42 *	5	85 *	46 *	
	1994	20	38	37	5	80	42	
	1998	17 *	36	40	7	83 *	47 *	
Accommodations permitted	1998	18 *	35	40 *	7	82 *	47 *	
	2002	21	37	36	6	79	42	
<b>Black</b>								
Accommodations not permitted	1992	39	43	17	1	61	18	
	1994	48	38	13	1	52	13	
	1998	42	40	17	1	58	18	
Accommodations permitted	1998	43	40	16	1	57	17	
	2002	46	38	15	1	54	16	
<b>Hispanic</b>								
Accommodations not permitted	1992	33	44	22	1	67	23	
	1994	42	38	19	1	58	20	
	1998	36	39	23	2	64	25	
Accommodations permitted	1998	38	38	22	2	62	24	
	2002	39	39	20	1	61	22	
<b>Asian/Pacific Islander</b>								
Accommodations not permitted	1992	23	37	35	5	77	40	
	1994	33	38	26	3	67	29	
	1998	25	37	31	6	75	37	
Accommodations permitted	1998	26	36	33	5	74	38	
	2002	27	38	30	4	73	34	
<b>American Indian/Alaska Native</b>								
Accommodations not permitted	1992	***	***	***	***	***	***	
	1994	39	41	18	2	61	20	
	1998	***	***	***	***	***	***	
Accommodations permitted	1998	***	***	***	***	***	***	
	2002	***	***	***	***	***	***	
<b>Other</b>								
Accommodations not permitted	1992	***	***	***	***	***	***	
	1994	***	***	***	***	***	***	
	1998	***	***	***	***	***	***	
Accommodations permitted	1998	***	***	***	***	***	***	
	2002	25	39	33	3	75	36	

# Percentage rounds to zero.

\* Significantly different from 2002.

\*\*\* Sample size is insufficient to permit a reliable estimate. Quality control activities and special analysis raised concerns about the accuracy and precision of grade 12 American Indian/Alaska Native data in 2002. As a result, they are omitted from this report.

NOTE: Percentages within each reading achievement level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.

In addition to allowing for accommodations, the accommodations-permitted results at grade 4 (1998–2002) differ slightly from previous years' results, and from previously reported results for 1998 and 2000, due to changes in sample weighting procedures. See appendix A for more details.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, 2000, and 2002 Reading Assessments.

## Student Eligibility for Free/ Reduced-Price School Lunch

Funded by the U.S. Department of Agriculture (USDA) as part of the National School Lunch Program, free/reduced-price school lunches are provided to eligible children near or below the poverty line. Eligibility guidelines for the program are based on the federal income poverty guidelines and are stated by household size (<http://www.fns.usda.gov/cnd/IEGs&NAPs/IEGs.htm>).<sup>6</sup>

NAEP first began collecting information on student eligibility for this program in 1996; therefore, cross-year comparisons to 1992 and 1994 cannot be made. The percentage of eligible students varied by grade. In 2002, 40 percent of fourth-graders, 31 percent of eighth-graders, and 19 percent of twelfth-graders were eligible for free/reduced-price lunches. Information regarding eligibility was not available for 13 to 17 percent of the students. (See table B.3 in appendix B.)

As shown in figure 3.5, average fourth-grade reading scores in 2002 were higher than in the 1998 and 2000 assessment years for students who were eligible for free/reduced-price school lunch, as well as for those who were not eligible. At grade 8, the average scores increased since 1998 for students who were eligible and for students who were not eligible. At grade 12, there was no statistically significant change detected between 1998 and 2002 for students who were eligible while the average score for students who were not eligible was lower in 2002 than in 1998.

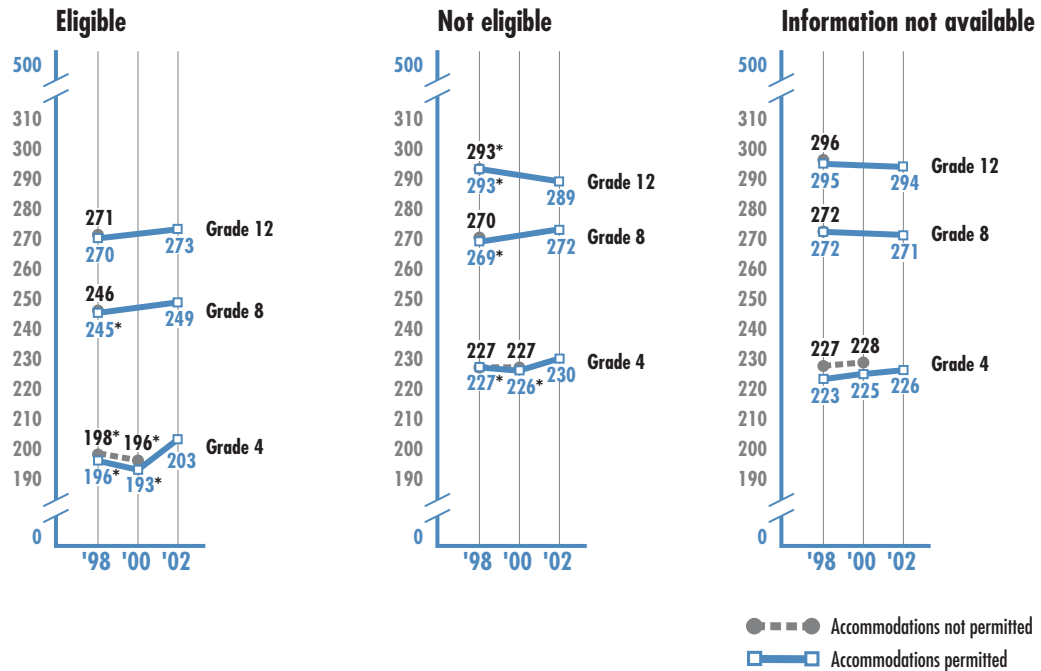
In 2002, the average reading score for students who were eligible for free/reduced-price lunch was lower than that of students who were not eligible at all three grades.

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<sup>6</sup> U.S. General Services Administration. (2001). *Catalog of Federal Domestic Assistance*. Washington, DC: Executive Office of the President, Office of Management and Budget.

**Figure 3.5** Average reading scale scores, by student eligibility for free/reduced-price school lunch, grades 4, 8, and 12: 1998–2002

**Grades 4, 8, and 12**



\* Significantly different from 2002.

NOTE: Scale score results when testing accommodations were not permitted are shown in darker print; results when accommodations were permitted are shown in lighter print. In addition to allowing for accommodations, the accommodations-permitted results at grade 4 (1998–2002) differ slightly from previously reported results for 1998 and 2000, due to changes in sample weighting procedures. See appendix A for more details.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998, 2000, and 2002 Reading Assessments.

Achievement level results by students' eligibility for free/reduced-price lunch are presented in table 3.3. The percentages of fourth-graders eligible for free/reduced-price school lunch who were at or above *Basic* and *Proficient* were higher in 2002 than in both previous assessment years. Among fourth-graders who were not eligible, the percentage at or above *Basic* was higher in 2002 than in earlier years. The percentage of eighth-graders at or above *Basic* was higher in 2002 than in 1998 both for students who were eligible and those who were

not eligible. At grade 12, no change was detected in the percentages at or above *Basic* and *Proficient* among students who were eligible, while there was a decrease in the percentages since 1998 among students who were not eligible.

At all three grades, lower percentages of students who were eligible for free/reduced-price school lunch performed at or above the *Basic* and *Proficient* levels in 2002 than of students who were not eligible.



**Table 3.3** Percentage of students, by reading achievement level and eligibility for free/reduced-price school lunch, grades 4, 8, and 12: 1998–2002

			Below <i>Basic</i>	At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>
<b>Grade 4</b>								
<b>Eligible</b>								
Accommodations not permitted	1998		58 *	29	11	2	42 *	13 *
	2000		60 *	26 *	12	2	40 *	14
Accommodations permitted	1998		61 *	26	11 *	2 *	39 *	13 *
	2000		62 *	25 *	11	2 *	38 *	13 *
	2002		54	30	14	3	46	16
<b>Not eligible</b>								
Accommodations not permitted	1998		27 *	33	30	10	73 *	40
	2000		26	34	30	11	74	41
Accommodations permitted	1998		27 *	33	30	10	73 *	40
	2000		27 *	33	30	10	73 *	39
	2002		23	35	32	10	77	42
<b>Information not available</b>								
Accommodations not permitted	1998		27	33	29	11	73	40
	2000		26	32	30	12	74	42
Accommodations permitted	1998		31	33	27	10	69	37
	2000		29	32	29	11	71	40
	2002		29	32	29	10	71	39
<b>Grade 8</b>								
<b>Eligible</b>								
Accommodations not permitted	1998		44	41	14	#	56	15
Accommodations permitted	1998		44 *	42	14	#	56 *	14
	2002		40	43	16	1	60	17
<b>Not eligible</b>								
Accommodations not permitted	1998		19 *	42	36	3	81 *	39
Accommodations permitted	1998		20 *	42	35	3	80 *	38
	2002		16	44	37	3	84	40
<b>Information not available</b>								
Accommodations not permitted	1998		18	38	39	4	82	44
Accommodations permitted	1998		20	38	38	4	80	43
	2002		19	41	36	5	81	41
<b>Grade 12</b>								
<b>Eligible</b>								
Accommodations not permitted	1998		43	38	18	1	57	19
Accommodations permitted	1998		44	37	18	1	56	19
	2002		40	38	20	2	60	22
<b>Not eligible</b>								
Accommodations not permitted	1998		20 *	37	37	6	80 *	43 *
Accommodations permitted	1998		21 *	36	37	6	79 *	43 *
	2002		24	38	34	5	76	38
<b>Information not available</b>								
Accommodations not permitted	1998		18	36	39	7	82	46
Accommodations permitted	1998		19	35	39	7	81	45
	2002		20	38	36	6	80	43

# Percentage rounds to zero. \* Significantly different from 2002.

NOTE: Percentages within each reading achievement level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.

In addition to allowing for accommodations, the accommodations-permitted results at grade 4 (1998–2002) differ slightly from previously reported results for 1998 and 2000, due to changes in sample weighting procedures. See appendix A for more details.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998, 2000, and 2002 Reading Assessments.

The previous results presented for students within different racial/ethnic subgroups and by eligibility for free/reduced-price lunch are explored in more detail in table 3.4. Average scores for students within the six different racial/ethnic categories are presented for students who were either eligible or not eligible for free/reduced-price lunch, as well as for students for whom eligibility information was not available. By presenting the data in this manner, it is possible to examine the performance of students in different racial/ethnic subgroups, while controlling for one indicator of socioeconomic status—eligibility for free/reduced-price lunch.

The percentages of students who were eligible for free/reduced-price school lunch in 2002 were higher among Black and Hispanic students than among White and Asian/Pacific Islander students at all three grades (see table B.4 in appendix B). With a few exceptions, comparisons between the performance of different racial/ethnic subgroups were similar among students who were eligible and those who were not eligible for free/reduced-price lunch.

At all three grades, White students outperformed Black and Hispanic students regardless of whether or not the students were eligible for free/reduced-price lunch. Although White students outperformed Asian students overall at all three grades, the apparent differences in average scores were not found to be significantly different when controlling for students' eligibility for free/reduced-price lunch at grades 4 and 12. At grade 8, the difference in average scores between White and Asian students was found to be statistically significant among students who were eligible but not among students who were not eligible.

While eighth- and twelfth-grade Asian students had higher average scores overall than Hispanic students, the difference was found to be statistically significant only for students who were not eligible for free/reduced-price lunch and not for students who were eligible. A similar pattern was detected in relation to the overall higher average score for Hispanic twelfth-graders in comparison to Black twelfth-graders. The difference was observed for students who were not eligible, but was not detected for students who were eligible.

**Table 3.4 Average reading scale scores, by eligibility for free/reduced-price school lunch and race/ethnicity, grades 4, 8, and 12: 2002**

	Eligible	Not eligible	Information not available
<b>Grade 4</b>			
White	215	233	234
Black	193	212	206
Hispanic	195	216	207
Asian/Pacific Islander	212	234	222
American Indian/Alaska Native	201	219	200
<b>Grade 8</b>			
White	260	275	279
Black	239	256	251
Hispanic	244	256	249
Asian/Pacific Islander	249	274	276
American Indian/Alaska Native	240	265	255
<b>Grade 12</b>			
White	283	292	298
Black	260	272	273
Hispanic	266	278	280
Asian/Pacific Islander	274	288	296
American Indian/Alaska Native	***	***	***

\*\*\* Quality control activities and special analysis raised concerns about the accuracy and precision of grade 12 American Indian data. As a result, they are omitted from this report.  
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2002 Reading Assessment.

### Title I

Title I is a federally funded program that provides educational services to children who live in areas with high concentrations of low-income families. Although NAEP first began collecting data on schools receiving Title I funds in 1996, changes in the program make meaningful comparisons across years impossible. Therefore, only the information collected as part of the 2002 assessment is reported for each grade.

In 2002, 33 percent of fourth-graders, 19 percent of eighth-graders, and 10 percent of twelfth-graders attended schools that reported participating in Title I. The results presented in table 3.5 show that, at all three grades, students who attended schools that participated in Title I had lower average reading scores than students who attended schools that did not participate.

**Table 3.5** Average reading scale scores, by school participation in Title I, grades 4, 8, and 12: 2002

		2002
<b>Grade 4</b>		
	Participated	201
	Did not participate	227
<b>Grade 8</b>		
	Participated	245
	Did not participate	269
<b>Grade 12</b>		
	Participated	271
	Did not participate	289

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2002 Reading Assessment.

Achievement level results by school participation in Title I are presented in table 3.6. The pattern for achievement level results parallels that seen in the scale scores. At all three grades, there were higher per-

centages of students performing at or above *Basic*, at or above *Proficient*, and at *Advanced* in schools that did not participate in Title I than students in schools that did participate.

**Table 3.6** Percentage of students, by reading achievement level and school participation in Title I, grades 4, 8, and 12: 2002

		Below <i>Basic</i>	At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>
<b>Grade 4</b>							
	Participated	56	29	13	2	44	15
	Did not participate	26	34	30	10	74	40
<b>Grade 8</b>							
	Participated	45	41	14	1	55	14
	Did not participate	20	43	34	3	80	37
<b>Grade 12</b>							
	Participated	42	37	19	2	58	21
	Did not participate	25	38	33	5	75	38

NOTE: Percentages within each reading achievement level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.  
SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2002 Reading Assessment.

## Parents' Highest Level of Education

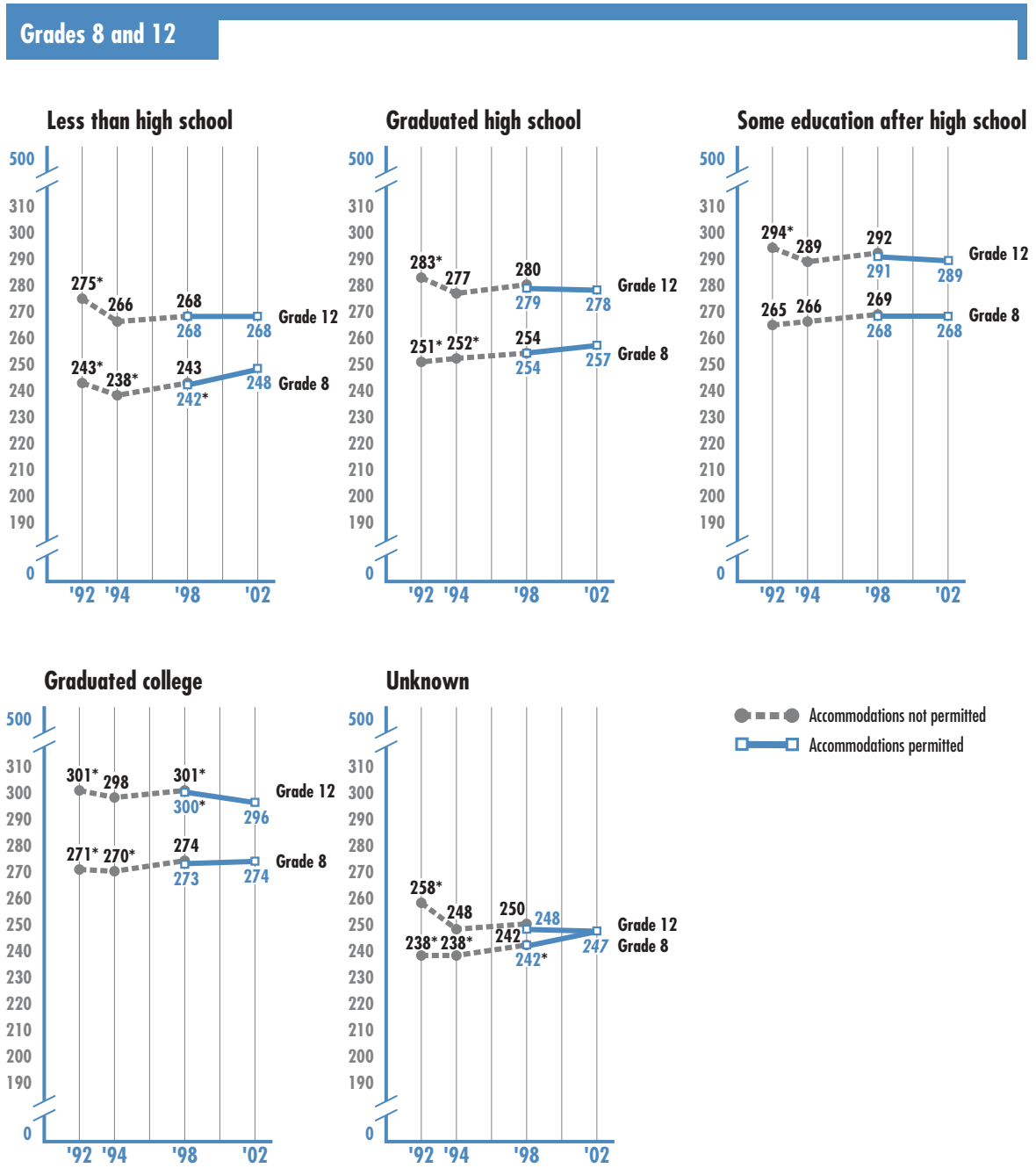
Eighth- and twelfth-grade students who participated in the NAEP 2002 reading assessment were asked to indicate the highest level of education they thought their parents had completed. Five response options—did not finish high school, graduated from high school, some education after high school, graduated from college, or “I don’t know”—were offered. The highest level of education reported for either parent was used in the analysis of this question. The question was not posed to fourth-graders because their responses in previous NAEP assessments were highly variable, and a large percentage of them chose the “I don’t know” option.

Almost half of the eighth- and twelfth-graders who participated in the 2002 reading assessment reported that at least one of their parents had graduated from college, and only 7 percent indicated neither parent had graduated from high school. Only 3 percent of twelfth-graders indicated they did not know their parents’ level of education and 9 percent of eighth graders indicated they didn’t know.

Average eighth- and twelfth-grade reading scores for student-reported parental education levels are shown in figure 3.6. Average scores were higher in 2002 than in previous assessment years among eighth-graders who reported that their parents had not graduated from high school. Scores were also higher in 2002 than in 1992 and 1994 among eighth-graders who reported high school graduation or college graduation as their parents’ highest level of education. Average twelfth-grade reading scores in 2002 were lower than in 1992 regardless of the parents’ education level reported by students, and showed a recent decline since 1998 among students whose parents graduated from college.

Overall, there is a positive relationship between student reported parental education and student achievement: the higher the parental education level, the higher the average reading score.

**Figure 3.6** Average reading scale scores, by student-reported parents' highest level of education, grades 8 and 12: 1992–2002



\* Significantly different from 2002.

NOTE: Scale score results when testing accommodations were not permitted are shown in darker print; results when accommodations were permitted are shown in lighter print.

Italicized scale score values indicate that two or more groups had the same rounded average score. The average scores, when rounded, were the same in 2002 for eighth- and twelfth-grade students who reported they did not know their parents' level of education.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, and 2002 Reading Assessments.

Achievement level results by level of parental education are presented in table 3.7. The percentage of eighth-graders at or above *Basic* in 2002 was higher than in 1992 and 1994 regardless of the level of parental education students reported. Among eighth-graders who reported that at least one parent had graduated from college, the percentage at or above *Proficient* was higher in 2002 than in 1994 but was not found to be significantly different from 1992, likely due to a somewhat smaller sample size and large standard error.

With the exception of those students who reported they didn't know their parents' level of education, the percentage of twelfth-graders at or above *Basic* was lower in 2002 than in 1992, regardless of the level of parental education. The percentage of twelfth-graders at or above *Proficient* in 2002 was lower than 1992 for students who reported that their parents' highest level of education was either some education after high school or college graduation.

Achievement level results for eighth- and twelfth-graders also showed a positive relationship to parental education: higher percentages of students at or above the *Basic* and *Proficient* levels were associated with higher levels of parental education.

**Table 3.7** Percentage of students, by reading achievement level and student-reported parents' highest level of education, grades 8 and 12: 1992–2002

Grade 8			Below <i>Basic</i>	At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>
			<b>Less than high school</b>					
Accommodations not permitted	1992	49 *	38 *	12	1	51 *	13	
	1994	54 *	36 *	10	#	46 *	10	
	1998	48	41	11	#	52	11	
Accommodations permitted	1998	48	41	11	#	52	11	
	2002	42	44	13	#	58	14	
<b>Graduated high school</b>								
Accommodations not permitted	1992	39 *	42 *	18	1	61 *	19	
	1994	38 *	42 *	19	1	62 *	20	
	1998	34	43	21	1	66	22	
Accommodations permitted	1998	34	45	20	1	66	21	
	2002	31	48	21	1	69	21	
<b>Some education after high school</b>								
Accommodations not permitted	1992	24 *	44 *	30	3	76 *	32	
	1994	23 *	44 *	30	3	77 *	33	
	1998	19	44	34	2	81	36	
Accommodations permitted	1998	20	44	33	2	80	36	
	2002	19	48	32	2	81	34	
<b>Graduated college</b>								
Accommodations not permitted	1992	20 *	40	35 *	5	80 *	40	
	1994	21 *	39	35 *	5	79 *	40 *	
	1998	16	39	41	5	84	45	
Accommodations permitted	1998	17	39	40	4	83	44	
	2002	16	40	39	5	84	44	
<b>Unknown</b>								
Accommodations not permitted	1992	55 *	33 *	12	#	45 *	12	
	1994	52 *	36 *	11	#	48 *	12	
	1998	50	38	12	#	50	12	
Accommodations permitted	1998	48	39	12	#	52	12	
	2002	43	43	14	#	57	14	

See footnotes at end of table. ►



**Table 3.7** Percentage of students, by reading achievement level and student-reported parents' highest level of education, grades 8 and 12: 1992–2002 — Continued

Grade 12							At or above	At or above
			Below <i>Basic</i>	At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	<i>Basic</i>	<i>Proficient</i>
<b>Less than high school</b>								
Accommodations not permitted	1992	37 *	42	20	#	63 *	21	
	1994	47	37	15	1	53	15	
	1998	43	38	18	1	57	19	
Accommodations permitted	1998	44	38	18	1	56	19	
	2002	44	38	17	1	56	17	
<b>Graduated high school</b>								
Accommodations not permitted	1992	28 *	44	26	2	72 *	28	
	1994	34	42	22	2	66	24	
	1998	32	40	25	2	68	28	
Accommodations permitted	1998	33	39	26	2	67	28	
	2002	34	41	23	2	66	25	
<b>Some education after high school</b>								
Accommodations not permitted	1992	17 *	41	38 *	3	83 *	41 *	
	1994	22	42	32	3	78	36	
	1998	20	41	35	4	80	39	
Accommodations permitted	1998	21	40	35	4	79	39	
	2002	23	40	33	4	77	36	
<b>Graduated college</b>								
Accommodations not permitted	1992	13 *	36	45 *	6	87 *	52 *	
	1994	16	36	41	7	84	48	
	1998	15	33	43	9 *	85	52 *	
Accommodations permitted	1998	16	33	42	9	84	51 *	
	2002	18	36	39	7	82	46	
<b>Unknown</b>								
Accommodations not permitted	1992	56	34	9	#	44	10	
	1994	68	25	6	#	32	6	
	1998	61	30	8	#	39	9	
Accommodations permitted	1998	62	29	9	#	38	10	
	2002	65	29	6	#	35	6	

# Percentage rounds to zero.

\* Significantly different from 2002.

NOTE: Percentages within each reading achievement level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, and 2002 Reading Assessments.

## Type of School

The schools that participate in the NAEP assessment are classified as either public or nonpublic. A further distinction is then made between nonpublic schools that are Catholic schools and those that are some other type of nonpublic school. Results for additional categories of nonpublic schools are available on the NAEP web site (<http://nces.ed.gov/nationsreportcard/naepdata>). In 2002, the vast majority of students attended public schools (90 percent of fourth-graders, and 91 percent of eighth- and twelfth-graders). The remaining one-tenth of students were split fairly evenly between Catholic schools and other nonpublic schools (see table B.7 in appendix B).

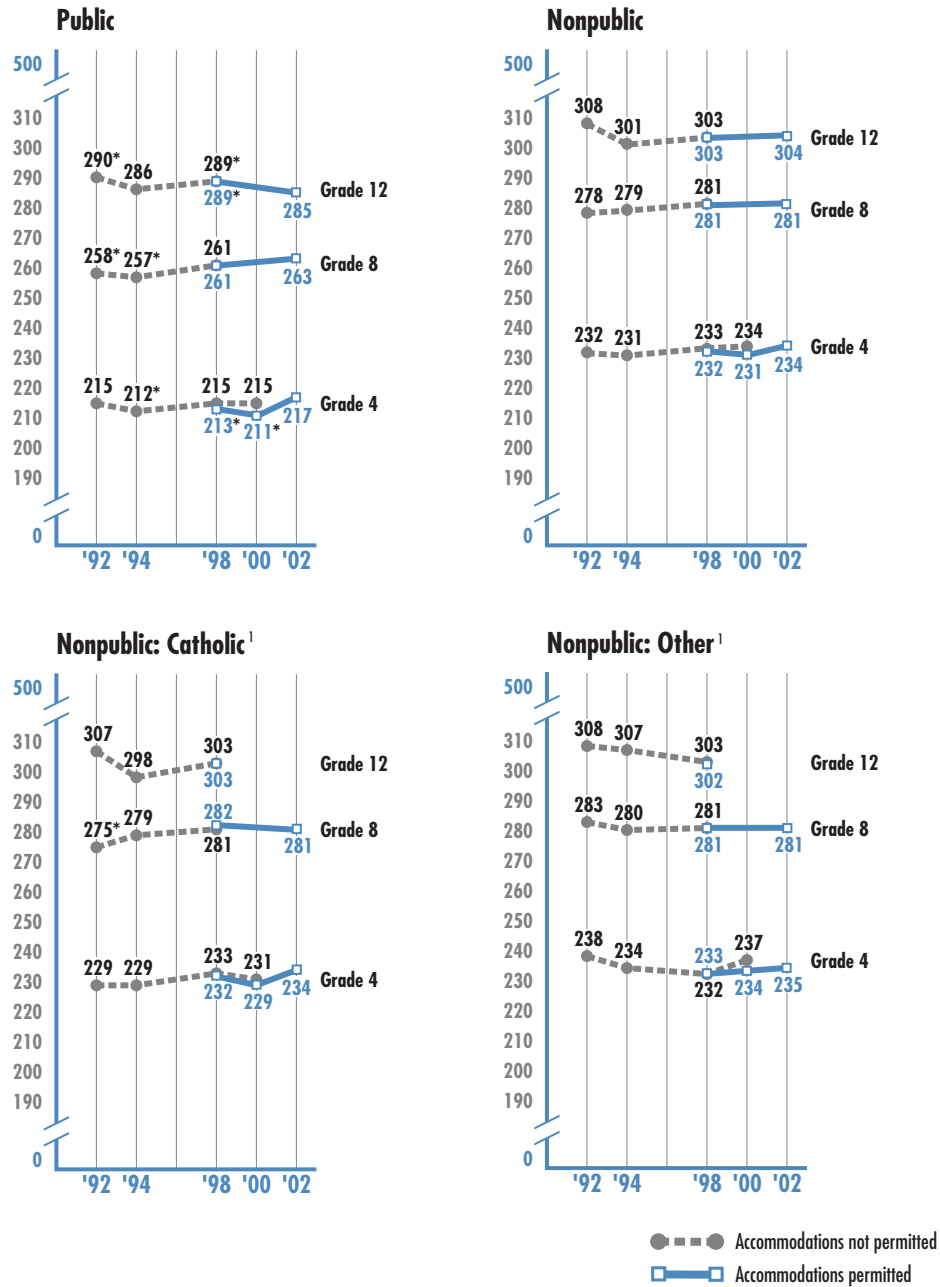
The average reading scores of fourth-, eighth-, and twelfth-grade students by the type of school they attend are presented in figure 3.7. Results for twelfth-graders attending Catholic schools or other nonpublic schools in 2002 are omitted because participation rates did not meet the minimum criterion for reporting.

The average reading score for fourth-grade public-school students was higher in 2002 than in 1994, 1998, and 2000 but was not found to differ significantly from 1992. The average reading scores for eighth-grade students attending public schools and those attending Catholic schools were higher in 2002 than in 1992. The average reading scores among twelfth-grade public-school students decreased since 1998 and was lower in 2002 than in 1992.

Performance results in 2002 show that, at all three grades, students who attended nonpublic schools had higher average reading scores than students who attended public schools.

**Figure 3.7 Average reading scale scores, by type of school, grades 4, 8, and 12: 1992–2002**

**Grades 4, 8, and 12**



\* Significantly different from 2002.

<sup>1</sup> Participation rates for Catholic and Other nonpublic school students at grade 12 did not meet the minimum criterion for reporting in 2002.

NOTE: Scale score results when testing accommodations were not permitted are shown in darker print; results when accommodations were permitted are shown in lighter print.

In addition to allowing for accommodations, the accommodations-permitted results at grade 4 (1998–2002) differ slightly from previous years' results, and from previously reported results for 1998 and 2000, due to changes in sample weighting procedures. See appendix A for more details.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, 2000, and 2002 Reading Assessments.

Achievement level results by type of school are presented for each of the three grades in table 3.8. The percentage of fourth-grade public-school students at or above *Basic* was higher in 2002 than in 1994, 1998, and 2000 but was not found to differ significantly from that in 1992. For eighth-graders attending public schools, the percentages at or above *Basic* and *Proficient* in 2002 were higher than 1992 and 1994. Eighth-graders in Catholic schools also had a higher percentage at or above *Basic* in 2002 in comparison to 1992. At grade 12, the percentages of public-school students at or

above *Basic* and *Proficient* decreased since 1998 and the percentage of students in nonpublic schools at or above *Basic* was lower in 2002 than in 1992.

In 2002, the percentages of students at or above *Basic*, and at or above *Proficient*, were higher at all three grades for students attending nonpublic schools than those in public schools. There were no significant differences in the percentages of students at or above the achievement levels among fourth- and eighth-grade students attending Catholic schools and those in other private schools.

**Table 3.8** Percentage of students, by reading achievement level and type of school, grades 4, 8, and 12: 1992–2002

Grade 4		Below <i>Basic</i>	At or above			At or above	At or above
			At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	<i>Basic</i>	<i>Proficient</i>
<b>Public</b>							
Accommodations not permitted	1992	40	33	21	6	60	27
	1994	41 *	30	21	7	59 *	28
	1998	39	31	23	6	61	29
	2000	40	31	22	7	60	30
Accommodations permitted	1998	42 *	30 *	21	6	58 *	28
	2000	43 *	30	21	6	57 *	28
	2002	38	32	23	6	62	30
<b>Nonpublic</b>							
Accommodations not permitted	1992	21	34	33	12	79	45
	1994	23	34	31	13	77	43
	1998	22	32	32	14	78	46
	2000	20	32	34	14	80	47
Accommodations permitted	1998	22	32	32	14	78	46
	2000	22	33	33	12	78	45
	2002	20	32	34	13	80	48
<b>Nonpublic: Catholic</b>							
Accommodations not permitted	1992	24	35	30	10	76	41
	1994	24	34	30	12	76	42
	1998	21	33	32	13	79	46
	2000	22	33	33	11	78	44
Accommodations permitted	1998	22	34	32	13	78	45
	2000	25	34	31	10	75	41
	2002	20	33	34	13	80	47
<b>Nonpublic: Other</b>							
Accommodations not permitted	1992	16	31	38	15	84	53
	1994	20	34	32	14	80	46
	1998	24	30	31	16	76	46
	2000	18	31	35	16	82	51
Accommodations permitted	1998	23	30	32	15	77	47
	2000	20	32	34	15	80	49
	2002	20	32	35	14	80	49

See footnotes at end of table. ►

**Table 3.8** Percentage of students, by reading achievement level and type of school, grades 4, 8, and 12: 1992–2002  
—Continued

Grade 8			Below <i>Basic</i>	At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>
			<b>Public</b>					
Accommodations not permitted	1992	33 *	41 *	25 *	2	67 *	27 *	
	1994	33 *	40 *	25 *	2	67 *	27 *	
	1998	28	41	28	2	72	31	
Accommodations permitted	1998	29 *	42	27	2	71 *	30	
	2002	26	43	28	2	74	31	
<b>Nonpublic</b>								
Accommodations not permitted	1992	13	38	41	7	87	48	
	1994	11	39	43	6	89	49	
	1998	9	37	49	5	91	54	
Accommodations permitted	1998	9	38	47	6	91	53	
	2002	10	39	45	7	90	51	
<b>Nonpublic: Catholic</b>								
Accommodations not permitted	1992	16 *	40	39	6	84 *	45	
	1994	12	39	43	6	88	49	
	1998	9	38	48	5	91	53	
Accommodations permitted	1998	8	38	48	5	92	53	
	2002	10	40	44	6	90	51	
<b>Nonpublic: Other</b>								
Accommodations not permitted	1992	10	36	45	10	90	54	
	1994	11	39	43	7	89	50	
	1998	9	36	49	5	91	54	
Accommodations permitted	1998	10	37	47	6	90	53	
	2002	11	37	45	7	89	52	

See footnotes at end of table. ►

**Table 3.8** Percentage of students, by reading achievement level and type of school, grades 4, 8, and 12: 1992–2002  
—Continued

Grade 12						At or above	At or above
			Below <i>Basic</i>	At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	<i>Basic</i>
<b>Public</b>							
Accommodations not permitted	1992	22 *	41 *	34 *	3	78 *	37 *
	1994	27	39	31	4	73	35
	1998	24 *	37	33	5 *	76 *	39 *
Accommodations permitted	1998	25 *	37	33 *	5 *	75 *	38 *
	2002	28	38	30	4	72	34
<b>Nonpublic</b>							
Accommodations not permitted	1992	8 *	32	51 *	9	92 *	60
	1994	13	35	44	8	87	52
	1998	13	33	45	9	87	54
Accommodations permitted	1998	13	33	44	9	87	54
	2002	11	34	45	10	89	55
<b>Nonpublic: Catholic</b>							
Accommodations not permitted	1992	7 *	35	51	8	93 *	59
	1994	15	38	41	6	85	47
	1998	13	33	46	8	87	54
Accommodations permitted	1998	12	34	44	9	88	54
	2002	***	***	***	***	***	***
<b>Nonpublic: Other</b>							
Accommodations not permitted	1992	11	28	49	12	89	61
	1994	11	30	48	11	89	59
	1998	13	33	44	9	87	53
Accommodations permitted	1998	15	31	45	9	85	54
	2002	***	***	***	***	***	***

\* Significantly different from 2002.

\*\*\* Participation rates for Catholic and Other nonpublic school students at grade 12 did not meet the minimum criterion for reporting.

NOTE: Percentages within each reading achievement level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.

In addition to allowing for accommodations, the accommodations-permitted results at grade 4 (1998–2002) differ slightly from previous years' results, and from previously reported results for 1998 and 2000, due to changes in sample weighting procedures. See appendix A for more details.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, 2000, and 2002 Reading Assessments.

The previous results presented for students in public and nonpublic schools and by highest level of parents' education are explored in more detail in table 3.9. Average scores of students in public and nonpublic schools are presented for each level of parental education. By presenting the data in this manner, it is possible to examine the performance of students in the two types of schools, while controlling for parental education.

At both grades 8 and 12, approximately two-thirds of the students attending nonpublic schools reported that at least one

parent had graduated from college, while close to one-half of the students attending public schools reported at least one parent graduated from college. In contrast, students reporting each other level of parental education were more likely to attend public than nonpublic schools. (see table B.8 in appendix B). The average reading score for both eighth- and twelfth-grade public-school students was lower than the average score for nonpublic-school students, regardless of the reported level of parents' education.

**Table 3.9** Average reading scale scores, by parents' highest level of education and type of school, grades 8 and 12: 2002

	Less than high school	Graduated high school	Some education after high school	Graduated college	Unknown
<b>Grade 8</b>					
Public	247	256	267	273	246
Nonpublic	264	270	279	285	265
<b>Grade 12</b>					
Public	268	277	288	294	247
Nonpublic	285	294	302	309	262

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2002 Reading Assessment.



## Type of Location

The schools from which NAEP draws its samples of students are classified according to their type of location. Based on U.S. Census Bureau definitions of metropolitan statistical areas, including population size and density, the three mutually exclusive categories are central city, rural/small town, and urban fringe/large town. The methods used to identify the type of school location for the 2000 fourth-grade assessment and the 2002 assessment were different from those used for prior assessments; therefore, only the data from the 2000 and 2002 assessments at grade 4, and the 2002 assessment at grades 8 and 12 are reported. More information on the definitions of location type is given on page 183 in appendix A.

The average reading scores for fourth-, eighth-, and twelfth-grade students, by type of location, are presented in table 3.10. Average reading scores for fourth-graders in central city and urban fringe locations were higher in 2002 than in 2000.

At both grades 4 and 8, students in schools located in urban fringe and rural locations had higher average reading scores than those in central city locations, and students in urban fringe locations outperformed their peers in rural areas. At grade 12, students in urban fringe locations scored higher on average than students in central city and rural locations.

**Table 3.10** Average reading scale scores, by type of location, grades 4, 8, and 12: 2000 and 2002

	Accommodations not permitted	Accommodations permitted	
	2000	2000	2002
<b>Grade 4</b>			
Central city	209	206 *	212
Urban fringe/large town	222	217 *	223
Rural/small town	218	218	220
<b>Grade 8</b>			
Central city	—	—	258
Urban fringe/large town	—	—	268
Rural/small town	—	—	266
<b>Grade 12</b>			
Central city	—	—	284
Urban fringe/large town	—	—	290
Rural/small town	—	—	285

— Data were not collected at grades 8 and 12 in 2000.

\* Significantly different from 2002.

NOTE: In addition to allowing for accommodations, the accommodations-permitted results at grade 4 (1998–2002) differ slightly from previously reported results for 2000, due to changes in sample weighting procedures. See appendix A for more details.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 and 2002 Reading Assessments.

Achievement level results by type of school location are presented in table 3.11. At grade 4, the percentage of students at or above *Basic* increased in 2002 among students attending schools in urban fringe locations.

The percentages of fourth- and eighth-graders at or above the *Basic* and *Proficient* levels were higher in urban fringe and rural locations than in central city locations. The percentages of twelfth-graders at or above *Basic* and *Proficient* were higher in urban fringe locations than in central city locations.

**Table 3.11 Percentage of students, by reading achievement level and type of location, grades 4, 8, and 12: 2000 and 2002**

			Below <i>Basic</i>	At <i>Basic</i>	At <i>Proficient</i>	At <i>Advanced</i>	At or above <i>Basic</i>	At or above <i>Proficient</i>
<b>Grade 4</b>								
<b>Central city</b>								
Accommodations not permitted	2000		47	27	20	6	53	26
Accommodations permitted	2000		49	27	19	5	51	24
	2002		45	30	20	6	55	25
<b>Urban fringe/large town</b>								
Accommodations not permitted	2000		32	32	26	10	68	36
Accommodations permitted	2000		37 *	30	24	8	63 *	33
	2002		31	33	27	9	69	36
<b>Rural/small town</b>								
Accommodations not permitted	2000		35	33	25	8	65	32
Accommodations permitted	2000		35	33	25	7	65	32
	2002		34	35	25	6	66	32
<b>Grade 8</b>								
<b>Central city</b>								
Accommodations permitted	2002		32	41	24	2	68	26
<b>Urban fringe/large town</b>								
Accommodations permitted	2002		21	42	33	3	79	37
<b>Rural/small town</b>								
Accommodations permitted	2002		22	45	31	2	78	33
<b>Grade 12</b>								
<b>Central city</b>								
Accommodations permitted	2002		30	36	30	4	70	34
<b>Urban fringe/large town</b>								
Accommodations permitted	2002		23	38	34	5	77	39
<b>Rural/small town</b>								
Accommodations permitted	2002		27	39	30	3	73	34

\* Significantly different from 2002.

NOTE: Percentages within each reading achievement level range may not add to 100, or to the exact percentages at or above achievement levels, due to rounding.

In addition to allowing for accommodations, the accommodations-permitted results at grade 4 (1998–2002) differ slightly from previously reported results for 2000, due to changes in sample weighting procedures. See appendix A for more details.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000 and 2002 Reading Assessments.

## Performance of Selected Subgroups by State

Results for public-school students in participating states and jurisdictions are presented in this section by gender, race/ethnicity, and eligibility for free/reduced-price school lunch. Additional data for participating jurisdictions by subgroup (including percentages at or above *Basic* and average scale score gaps by gender and race/ethnicity) are available on the NAEP web site (<http://nces.ed.gov/nationsreportcard/reading/results2002/stateresults.asp>) Since results for each jurisdiction are based on the performance of public-school students only, the results for the nation that appear in the tables along with data for participating jurisdictions are based on public-school students only (unlike the national results presented earlier in the chapter, which reflect the performance of both public- and nonpublic-school students combined).

In addition to results from the 2002 assessment, results from earlier assessment years in which data are available are presented by these subgroups for participating jurisdictions.

## Gender

Tables 3.12 and 3.13 present the average reading scores for male and female students in participating jurisdictions at grades 4 and 8 respectively. For those jurisdictions that participated in both the 1992 and 2002 fourth-grade reading assessments, 9 showed score increases for both male and female students, 3 showed increases for female students only, and 4 showed increases for male students only. Only one jurisdiction had lower average scores for both male and female students in 2002 compared to 1992. Among the jurisdictions that participated in both 1998 and 2002, 13 showed score increases for both male and female students, 6 showed increases for male students only, and 3 showed increases for female students only. Only one jurisdiction showed a score decrease for male students since 1998.

At grade 8, average scores were higher in 2002 than in 1998 for both male and female students in 2 jurisdictions, for male students in 6 jurisdictions, and for female students in 1 jurisdiction. Decreases in average scores were detected for both male and female students in 1 jurisdiction and for female students in 2 jurisdictions.

In 2002, female students had higher average scores than male students in all but 4 of the jurisdictions that participated at grade 4, and in all of the jurisdictions that participated at grade 8.

**Table 3.12 Average reading scale scores, by gender, grade 4 public schools: By state, 1992–2002**

Grade 4	Male					Female				
	Accommodations not permitted			Accommodations permitted		Accommodations not permitted			Accommodations permitted	
	1992	1994	1998	1998	2002	1992	1994	1998	1998	2002
<b>Nation (Public)</b> <sup>1</sup>	211	207 *	212	210 *	214	219	218	218	215 *	220
Alabama	204	203	208	209	203	211	213	214	214	211
Arizona	206	201	201	202	200	213	211	212	211	211
Arkansas	208	204 **	206	205	210	214	213	212	213	216
California †	198	194 **	198	198	204	207	200 *	206	206	208
Colorado	214	209	218	217	—	219	218	225	224	—
Connecticut	219 **	218 **	229	225	226	224 **	226 **	234	235	233
Delaware	209 **	200 **	208 **	204 **	222	217 **	212 **	216 **	210 **	226
Florida	205 *	199 **	203 **	201 **	210	211 **	210 **	212 **	210 **	218
Georgia	210	201 **	206 *	205 **	211	215	212 **	213 *	212 **	219
Hawaii	198	194 **	194 **	193 **	203	209	208 **	205 **	206 **	213
Idaho	217	—	—	—	216	221	—	—	—	224
Indiana	219	216	—	—	220	224	223	—	—	224
Iowa †	222	219	218	216	220	229	227	228	225	226
Kansas †	—	—	219	218	218	—	—	226	225	226
Kentucky	209 **	206 **	216	216	215	216 **	217 **	220	219 **	224
Louisiana	200	193 **	199	195 **	204	207	200 **	209	205	210
Maine	225	225	222	222	222	229	231	229	228	228
Maryland	207 **	205 **	209	206 **	214	215 *	214 **	221	217	220
Massachusetts	225 **	221 **	221 **	219 **	231	227 **	226 **	229 **	226 **	237
Michigan	214	—	212	211	216	218	—	221	221	222
Minnesota †	217	214 **	218	215 **	221	225 **	223 **	226	223 **	230
Mississippi	196	196	201	199	200	202	207	208	207	206
Missouri	217	213	211	210 **	216	223	221	222	221	224
Montana †	—	218	221	220	219	—	227	231	230	229
Nebraska	218	216	—	—	218	225	224	—	—	225
Nevada	—	—	204	203	206	—	—	211	209	212
New Hampshire	224	218	222	224	—	231	229	229	228	—
New Jersey	220	216	—	—	—	226	222	—	—	—
New Mexico	209	201	202	201	204	213	208	209	209	211
New York †	212 *	207 **	214	214	217	218 **	216 **	218 **	217 **	227
North Carolina	209 **	209 **	213 *	208 **	218	214 **	220 **	220 *	218 **	225
North Dakota †	224	221	—	—	221	227	230	—	—	227
Ohio	214 *	—	—	—	220	221 *	—	—	—	225
Oklahoma	218 **	—	219 **	218 **	210	223 **	—	220	220	217
Oregon	—	—	210 *	208 **	215	—	—	218 *	215 **	224
Pennsylvania	218	211 **	—	—	218	223	220	—	—	223
Rhode Island	215	215	217	218	217	218	225	220	217	222
South Carolina	206	199 **	207	206	209	213 *	208 **	214 *	212 **	218
Tennessee †	209	208	209	208	211	215	217	216	215	217
Texas	209 *	210	213	208 *	215	216	214	221	220	219
Utah	217	213 **	212 **	213 **	218	224	222	219 **	219 **	225
Vermont	—	—	—	—	223	—	—	—	—	231
Virginia	217 **	208 **	214 **	213 **	223	225	219 **	223 *	222 **	227
Washington †	—	209 **	212 **	213 **	220	—	217 **	222 **	223 *	227
West Virginia	211 **	208 **	213	212	217	220	218	219	219	221
Wisconsin †	221	221	222	221	—	226	227	226	224	—
Wyoming	220	218	216	215	219	226	224	223	222	224
<b>Other Jurisdictions</b>										
District of Columbia	185	174 **	177 **	175 **	185	191 **	183 **	186 **	183 **	196
DDESS <sup>2</sup>	—	—	217 **	214 *	222	—	—	223 *	223 **	228
DoDDS <sup>3</sup>	—	213 **	219	217 **	222	—	223 **	228	226	227
Guam	175	172 **	—	—	180	190	190	—	—	192
Virgin Islands	164 **	—	169	166 **	175	179	—	186	182	184

— Indicates that the jurisdiction did not participate or did not meet minimum participation guidelines for reporting.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002.

\* Significantly different from 2002 when only one jurisdiction or the nation is being examined. \*\* Significantly different from 2002 when using a multiple-comparison procedure based on all jurisdictions that participated both years.

<sup>1</sup> National results that are presented for assessments prior to 2002 are based on the national sample, not on aggregated state assessment samples.

<sup>2</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools. <sup>3</sup> Department of Defense Dependents Schools (Overseas).

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited English proficient students in the NAEP samples.

In addition to allowing for accommodations, the accommodations-permitted results for national public schools at grade 4 (1998 and 2002) differ slightly from previous years' results, and from previously reported results for 1998, due to changes in sample weighting procedures. See appendix A for more details.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, and 2002 Reading Assessments.

**Table 3.13 Average reading scale scores, by gender, grade 8 public schools: By state, 1998 and 2002**

Grade 8	Male			Female		
	Accommodations not permitted	Accommodations permitted		Accommodations not permitted	Accommodations permitted	
		1998	1998		2002	1998
<b>Nation (Public)<sup>1</sup></b>	255 *	253 *	258	268	268	267
Alabama	251	250	247	259	261	258
Arizona	256	255	252	266	265	262
Arkansas	250	251	255	262	262	266
California †	249	249	247	257	255	255
Colorado	257	258	—	270	270	—
Connecticut	265	265	261	278 **	277	273
Delaware	249 ***	248 ***	264	262 ***	260 ***	271
Florida	247 ***	248 ***	255	260 *	261 *	266
Georgia	252	252	253	262	262	263
Hawaii	243	242	243	256	256	260
Idaho	—	—	259	—	—	273
Indiana	—	—	260	—	—	270
Kansas †	263	262	265	273	273	274
Kentucky	255 *	256 *	261	269	269	270
Louisiana	245 *	245 *	252	258	258	260
Maine	265	264	265	280 ***	279 *	275
Maryland	255	255	258	269	267	269
Massachusetts	263	264	266	274	274	275
Michigan	—	—	259	—	—	270
Minnesota †	260	258	—	275	273	—
Mississippi	245 *	247	251	256	256	259
Missouri	258 ***	257 ***	265	269	268	271
Montana †	263	264	267	277	277	274
Nebraska	—	—	267	—	—	274
Nevada	252 ***	253 ***	246	262 ***	263 ***	257
New Mexico	252	253	250	263 *	263 ***	258
New York †	263	261	261	270	269	267
North Carolina	256	255 ***	260	270	269	270
North Dakota †	—	—	263	—	—	273
Ohio	—	—	265	—	—	272
Oklahoma	259	259	257	271 *	271	267
Oregon †	259	258 *	264	273	275	273
Pennsylvania	—	—	263	—	—	268
Rhode Island	257	259	258	268	269	266
South Carolina	250	250	253	259	259	263
Tennessee †	252	250	254	265	265	266
Texas	257	256	257	267	266	268
Utah	260	259	257	269	268	270
Vermont	—	—	267	—	—	277
Virginia	262	262	264	271	271	275
Washington †	258	256	261	272	272	275
West Virginia	254	255	259	269	268	268
Wisconsin †	259	258	—	273	273	—
Wyoming	255 *	256	260	270	271	271
<b>Other Jurisdictions</b>						
American Samoa	—	—	186	—	—	208
District of Columbia	230	229	235	242	241	245
DDESS <sup>2</sup>	268	266	269	270	271	275
DoDDS <sup>3</sup>	265 *	264 ***	269	274 *	274	277
Guam	—	—	235	—	—	246
Virgin Islands	229	227	234	236 *	235 ***	247

— Indicates that the jurisdiction did not participate or did not meet minimum participation guidelines for reporting.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002.

\* Significantly different from 2002 when only one jurisdiction or the nation is being examined.

\*\* Significantly different from 2002 when using a multiple-comparison procedure based on all jurisdictions that participated both years.

<sup>1</sup> National results that are presented for assessments prior to 2002 are based on the national sample, not on aggregated state assessment samples.

<sup>2</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools. <sup>3</sup> Department of Defense Dependents Schools (Overseas).

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited English proficient students in the NAEP samples.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 and 2002 Reading Assessments.

Tables 3.14 and 3.15 present the percentages of male and female students at or above the *Proficient* level for the participating jurisdictions at grades 4 and 8 respectively. At grade 4, the percentage of students at or above *Proficient* in 2002 was higher than in 1992 for both male and female students in 8 of the jurisdictions that participated in both years. The percentages increased among male students only in 2 jurisdictions and for female students only in 2 jurisdictions. Increases in percentages at or above *Proficient* were detected between 1998 and 2002 for both male and female students in 3 jurisdictions, for males only in 2 jurisdictions, and for females only in 2 jurisdictions. Only 1 jurisdiction had a decrease in the percentage of male students at or above *Proficient* since 1998.

At grade 8, the percentages of both males and females at or above *Proficient* increased between 1998 and 2002 in 1 jurisdiction, and for males only in 2 jurisdictions. The percentage of female eighth-graders at or above *Proficient* decreased since 1998 in 1 jurisdiction.

In 2002, higher percentages of female students than male students were at or above *Proficient* in 36 of the jurisdictions that participated at grade 4, and 43 of the jurisdictions at grade 8.

**Table 3.14** Percentage of students at or above *Proficient* in reading, by gender, grade 4 public schools: By state, 1992–2002

Grade 4	Male					Female				
	Accommodations not permitted			Accommodations permitted		Accommodations not permitted			Accommodations permitted	
	1992	1994	1998	1998	2002	1992	1994	1998	1998	2002
<b>Nation (Public)</b> <sup>1</sup>	24	24	27	25	26	30	32	31	30	33
Alabama	17	20	22	22	20	23	26	26	25	25
Arizona	17	20	18	18	18	24	28	26	25	26
Arkansas	20	21	22	21	23	25	27	24	24	28
California <sup>‡</sup>	16	15	18	17	18	22	20	22	23	24
Colorado	22	25	30	29	—	29	31	37	36	—
Connecticut	30 <sup>*,**</sup>	34	41	38	39	37 <sup>*,**</sup>	43	49	49	47
Delaware	21 <sup>*,**</sup>	19 <sup>*,**</sup>	21 <sup>*,**</sup>	20 <sup>*,**</sup>	32	27 <sup>*,**</sup>	27 <sup>*,**</sup>	28 <sup>*,**</sup>	25 <sup>*,**</sup>	37
Florida	20	19	19 <sup>*</sup>	19 <sup>*</sup>	24	23 <sup>*,**</sup>	26	26	25 <sup>*</sup>	30
Georgia	23	23	22	21	25	27	28	27	27	31
Hawaii	14 <sup>*</sup>	16	15	14	18	20 <sup>*</sup>	22	20	20	25
Idaho	25	—	—	—	28	30	—	—	—	37
Indiana	28	29	—	—	31	32	36	—	—	35
Iowa <sup>‡</sup>	32	30	29	27	32	40	40	40	39	38
Kansas <sup>‡</sup>	—	—	29	29	29	—	—	39	39	38
Kentucky	21	22	27	28	25	25 <sup>*,**</sup>	29	31	30	35
Louisiana	14 <sup>*</sup>	13 <sup>*</sup>	16	14	18	17 <sup>*</sup>	16 <sup>*</sup>	22	21	22
Maine	34	38	32	32	32	38	44	41	39	38
Maryland	20 <sup>*,**</sup>	23	24	22	27	28	30	34	32	32
Massachusetts	34 <sup>*,**</sup>	33 <sup>*,**</sup>	31 <sup>*,**</sup>	31 <sup>*,**</sup>	43	38 <sup>*,**</sup>	39 <sup>*,**</sup>	42 <sup>*</sup>	39 <sup>*,**</sup>	52
Michigan	24	—	23	23	26	28	—	33	32	34
Minnesota <sup>‡</sup>	27	28	32	30	31	36	37	40	39	42
Mississippi	12	14	16	15	14	15	21	19	19	18
Missouri	27	28	23	23	28	33	34	35	33	36
Montana <sup>‡</sup>	—	30	31	30	30	—	40	44	44	43
Nebraska	27	30	—	—	30	34	39	—	—	39
Nevada	—	—	18	18	19	—	—	24	22	23
New Hampshire	34	30	35	35	—	42	42	41	39	—
New Jersey	31	29	—	—	—	38	37	—	—	—
New Mexico	21	17	19	18	19	24	24	25	24	24
New York <sup>‡</sup>	24 <sup>*</sup>	24 <sup>*</sup>	27	27	31	29 <sup>*,**</sup>	31 <sup>*,**</sup>	31 <sup>*</sup>	31 <sup>*,**</sup>	40
North Carolina	23 <sup>*</sup>	26	24	23 <sup>*</sup>	28	26 <sup>*,**</sup>	34	31	31	35
North Dakota <sup>‡</sup>	33	33	—	—	30	37	42	—	—	38
Ohio	23 <sup>*</sup>	—	—	—	30	31 <sup>*</sup>	—	—	—	37
Oklahoma	26	—	29	29 <sup>*</sup>	23	32	—	31	32	29
Oregon	—	—	24	23	26	—	—	32	30	37
Pennsylvania	29	25 <sup>*</sup>	—	—	32	34	35	—	—	37
Rhode Island	26	27	31	31	30	30	37	33	32	34
South Carolina	19	17 <sup>*</sup>	20	20	22	24	23 <sup>*</sup>	24	24 <sup>*</sup>	29
Tennessee <sup>‡</sup>	21	23	23	22	23	26	30	28	28	28
Texas	20	24	25	23	27	27	28	32	33	29
Utah	27	26	24	24	28	33	34	32	31	37
Vermont	—	—	—	—	33	—	—	—	—	45
Virginia	28 <sup>*</sup>	21 <sup>*,**</sup>	26 <sup>*</sup>	25 <sup>*,**</sup>	35	35	32 <sup>*,**</sup>	33 <sup>*</sup>	34	39
Washington <sup>‡</sup>	—	24 <sup>*</sup>	25	26	31	—	29 <sup>*,**</sup>	33	35	38
West Virginia	21	22	26	24	25	30	30	31	31	31
Wisconsin <sup>‡</sup>	30	31	32	32	—	37	39	37	36	—
Wyoming	30	28	26	26	29	35	36	34	33	35
<b>Other Jurisdictions</b>										
District of Columbia	9	7	8	8	8	10	9	12	12	11
DDESS <sup>2</sup>	—	—	28	28	30	—	—	35	35	37
DoDDS <sup>3</sup>	—	22 <sup>*,**</sup>	28	28	30	—	34	39	37	37
Guam	5	5	—	—	6	11	11	—	—	9
Virgin Islands	2	—	6	5	5	5	—	10	9	7

— Indicates that the jurisdiction did not participate or did not meet minimum participation guidelines for reporting. ‡ Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002. \* Significantly different from 2002 when only one jurisdiction or the nation is being examined. \*\* Significantly different from 2002 when using a multiple-comparison procedure based on all jurisdictions that participated both years.

<sup>1</sup> National results that are presented for assessments prior to 2002 are based on the national sample, not on aggregated state assessment samples.

<sup>2</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools. <sup>3</sup> Department of Defense Dependents Schools (Overseas).

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited English proficient students in the NAEP samples.

In addition to allowing for accommodations, the accommodations-permitted results for national public schools at grade 4 (1998 and 2002) differ slightly from previous years' results, and from previously reported results for 1998, due to changes in sample weighting procedures. See appendix A for more details.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, and 2002 Reading Assessments.



**Table 3.15** Percentage of students at or above *Proficient* in reading, by gender, grade 8 public schools:  
By state, 1998 and 2002

Grade 8	Male			Female		
	Accommodations not permitted	Accommodations permitted		Accommodations not permitted	Accommodations permitted	
		1998	1998 2002		1998	2002
<b>Nation (Public)</b> <sup>1</sup>	24	23 *	26	37	37	36
Alabama	18	17	17	25	26	26
Arizona	22	21	18	33	32	29
Arkansas	18	19	22	28	28	33
California ‡	17	17	17	26	25	24
Colorado	23	23	—	38	37	—
Connecticut	34	33	31	50	48	43
Delaware	19 *	18 ***	28	31 *	29 ***	38
Florida	18	17 *	24	28	28	34
Georgia	20	21	22	29	30	30
Hawaii	14	15	14	23	23	26
Idaho	—	—	25	—	—	41
Indiana	—	—	26	—	—	38
Kansas ‡	29	29	32	42	43	44
Kentucky	22	23	27	37	38	37
Louisiana	13 *	13 *	19	22	22	25
Maine	33	32	32	51 *	50	44
Maryland	25	24	27	38	37	37
Massachusetts	29	30	33	44	45	45
Michigan	—	—	27	—	—	37
Minnesota ‡	28	28	—	46	44	—
Mississippi	14	15	16	23	22	24
Missouri	24	23	28	35	33	38
Montana ‡	30	32	33	46	48	41
Nebraska	—	—	32	—	—	41
Nevada	19	18	16	30 *	29	23
New Mexico	18	17	17	29	29 *	23
New York ‡	30	28	29	37	37	35
North Carolina	24	22	27	38	38	36
North Dakota ‡	—	—	28	—	—	42
Ohio	—	—	31	—	—	39
Oklahoma	21	23	22	36	37	33
Oregon ‡	25 *	25	32	42	45	41
Pennsylvania	—	—	32	—	—	38
Rhode Island	25	27	25	35	37	35
South Carolina	17	18	19	26	26	29
Tennessee ‡	18	19	23	33	34	34
Texas	22	21	25	33	33	36
Utah	25	25	26	37	37	38
Vermont	—	—	34	—	—	46
Virginia	28	27	31	38	39	43
Washington ‡	24	24	30	40	40	44
West Virginia	20	21	25	35	35	33
Wisconsin ‡	24	25	—	42	44	—
Wyoming	22	22	25	37	40	37
<b>Other Jurisdictions</b>						
American Samoa	—	—	#	—	—	2
District of Columbia	10	9	9	14	13	11
DDESS <sup>2</sup>	36	37	33	38	40	42
DoDDS <sup>3</sup>	31	31	34	43	42	45
Guam	—	—	7	—	—	14
Virgin Islands	8	6	4	11	11	9

— Indicates that the jurisdiction did not participate or did not meet minimum participation guidelines for reporting.

‡ Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002.

# Percentage rounds to zero.

\* Significantly different from 2002 when only one jurisdiction or the nation is being examined.

\*\* Significantly different from 2002 when using a multiple-comparison procedure based on all jurisdictions that participated both years.

<sup>1</sup> National results that are presented for assessments prior to 2002 are based on the national sample, not on aggregated state assessment samples.

<sup>2</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools. <sup>3</sup> Department of Defense Dependents Schools (Overseas).

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited English proficient students in the NAEP samples.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 and 2002 Reading Assessments.

## Race/Ethnicity

The average reading scores of the racial/ethnic groups in each participating jurisdiction are presented in table 3.16 for grade 4 and in table 3.17 for grade 8. At grade 4, average scores were higher in 2002 than in 1992 for White students in 14 jurisdictions, Black students in 9 jurisdictions, Hispanic students in 5 jurisdictions, and Asian/Pacific Islander students in 6 jurisdictions. Only 1 jurisdiction showed an average score decrease since 1992 among White, Black, and Hispanic students, and 1 jurisdiction showed a decrease among American Indian students. Increases since 1998 were detected for White students in 12 jurisdictions, Black students in 16 jurisdictions, Hispanic students in 9 jurisdictions, and Asian/Pacific

Islander students in 3 jurisdictions. Average score increases were observed since 1998 for three or more racial/ethnic subgroups in the following jurisdictions: Delaware, Massachusetts, New York, Oregon, and Virginia. Only 1 jurisdiction showed a score decrease since 1998 among White students.

At grade 8, average scores increased since 1998 for both White and Black students in 3 jurisdictions. Average scores increased for just White students in 2 jurisdictions, and for just Black students in 1 jurisdiction. Average score decreases were detected for White students in 1 jurisdiction, Black students in 1 jurisdiction, and Asian/Pacific Islander students in 1 jurisdiction.

**Table 3.16 Average reading scale scores, by race/ethnicity, grade 4 public schools: By state, 1992–2002**

Grade 4	White					Black					Hispanic				
	Accommodations not permitted		Accommodations permitted			Accommodations not permitted		Accommodations permitted			Accommodations not permitted		Accommodations permitted		
	1992	1994	1998	1998	2002	1992	1994	1998	1998	2002	1992	1994	1998	1998	2002
<b>Nation (Public)</b> <sup>1</sup>	223*	222*	224*	223*	227	191*	184*	192*	192*	198	194	186*	194	192	199
Alabama	217	219	221	222	218	187	185	192	191	188	***	***	***	***	***
Arizona	220	219	221	219	220	198	188	193	191	199	197	188	183	188	188
Arkansas	218	217*	217*	216*	222	189	182*	184	184	188	***	***	***	***	204
California †	217	212*,**	217	217	223	181*,**	182*,**	188	186	196	180*	171*,**	178	181	192
Colorado	221	220	228	226	—	200	192	200	197	—	202	191	201	201	—
Connecticut	230*,**	233*,**	239	237	237	195*	189*,**	204	203	206	187*,**	183*,**	200	196	204
Delaware	221*,**	215*,**	219*,**	218*,**	233	195*,**	187*,**	197*,**	189*,**	209	***	***	202	176*	212
Florida	218*,**	217*,**	219*,**	217*,**	226	185*,**	181*,**	188*,**	186*,**	196	203	192*,**	198	198	207
Georgia	223	221*	223	221*,**	226	195	184*,**	192*,**	191*,**	200	***	***	***	***	200
Hawaii	212	214	214	214	219	205	197	205	203	208	193	189	196	197	203
Idaho	221	—	—	—	224	***	—	—	—	***	198	—	—	—	197
Indiana	224	224	—	—	225	200	192*,**	—	—	202	***	***	—	—	216
Iowa †	226	224	225	222	225	208	185*,**	195	191*	207	***	***	***	***	203
Kansas †	—	—	227	227	226	—	—	193	197	206	—	—	215	201	205
Kentucky	214*,**	214*,**	220	220	222	196	190*	197	199	199	***	***	***	***	***
Louisiana	215*,**	213*,**	222	218	221	189	178*,**	183*,**	180*,**	192	***	***	***	***	***
Maine	227	229*	226	225	225	***	***	***	***	***	***	***	***	***	***
Maryland	220*,**	222*,**	228	224	230	192*	185*,**	192	190*,**	199	197	***	208	207	208
Massachusetts	230*,**	230*,**	230*,**	228*,**	239	204*	196*,**	203*	202*,**	212	196*,**	182*,**	195*,**	194*,**	207
Michigan	222	—	224	223	226	187	—	187	187	195	***	—	202	201	205
Minnesota †	223*,**	221*,**	226	224*,**	229	189	176*	188	184	202	***	***	***	***	202
Mississippi	217	218	216	215	218	186	185	191	189	189	***	***	***	***	***
Missouri	225	221	222	221	226	195	191	188	188	197	***	***	***	***	***
Montana †	—	225	228	227	226	—	***	***	***	***	—	***	***	***	***
Nebraska	224	223	—	—	226	196	190	—	—	209	205	199	—	—	203
Nevada	—	—	214	213	218	—	—	188	183**	196	—	—	191	189	195
New Hampshire	228	224	226	227	—	***	***	***	***	—	***	***	***	***	—
New Jersey	233	231	—	—	—	198	191	—	—	—	195	193	—	—	—
New Mexico	223	220	224	222	223	202	196	196	196	***	199	197	198	195	202
New York †	226*,**	226*,**	228*,**	228*,**	235	199	190*,**	192*,**	191*,**	202	184*,**	189*,**	189*,**	188*,**	204
North Carolina	220*,**	224*,**	226*,**	223*,**	232	194*,**	192*,**	198*,**	193*,**	205	***	***	202*	***	213
North Dakota †	226	227	—	—	226	***	***	—	—	***	***	***	—	—	***
Ohio	220*,**	—	—	—	229	197	—	—	—	202	***	—	—	—	***
Oklahoma	223*	—	224*,**	225*,**	220	201*,**	—	193	195	188	207*	—	210*	204	197
Oregon	—	—	218*,**	217*,**	223	—	—	193	191	204	—	—	186*	178*,**	200
Pennsylvania	227	224*,**	—	—	228	190	178*,**	—	—	192	191	***	—	—	197
Rhode Island	223	225	227	226	227	192*	197	191	192	201	183	193	176	177*,**	195
South Carolina	221	218*,**	222	221	225	194	182*,**	194	192*,**	199	***	***	***	***	***
Tennessee †	218	219	220	218	220	192	188	191	193	194	***	***	***	***	192
Texas	223*,**	226*,**	232	230	232	199	190*	193	191*,**	202	200*,**	198*,**	206	200*,**	208
Utah	222	219*,**	220*,**	220*,**	224	***	***	***	***	***	200	192	186*,**	190*,**	201
Vermont	—	—	—	—	227	—	—	—	—	***	—	—	—	—	***
Virginia	227*,**	224*,**	226*,**	225*,**	233	201	192*,**	202	199*,**	205	***	211*	200*,**	207*	224
Washington †	—	216*,**	220*,**	221*,**	227	—	198*	202	204	213	—	185*,**	195	200	204
West Virginia	216*	214*,**	217	216	220	***	200	192*	194	207	***	***	***	***	***
Wisconsin †	227	227	229	228	—	198	196	193	187	—	209	203	209	201	—
Wyoming	225	223	221	220	224	***	***	***	***	***	206	208	206	205	207
<b>Other Jurisdictions</b>															
District of Columbia	246	248	248	247	248	185	174*,**	177*,**	174*,**	188	189	183	180	173*	193
DDESS <sup>2</sup>	—	—	229	227	231	—	—	209*	208*,**	215	—	—	211	213	222
DoDDS <sup>3</sup>	—	223*,**	229	227	229	—	205*,**	211	209	215	—	213*,**	215	212	222
Guam	207	206	—	—	***	***	***	—	—	***	***	***	—	—	***
Virgin Islands	***	—	***	***	***	173*,**	—	179	175*,**	183	155	—	166	161	158

See footnotes at end of table. ▶

**Table 3.16 Average reading scale scores, by race/ethnicity, grade 4 public schools: By state, 1992–2002—Continued**

Grade 4	Asian/Pacific Islander					American Indian/Alaska Native					Other				
	Accommodations not permitted			Accommodations permitted		Accommodations not permitted			Accommodations permitted		Accommodations not permitted			Accommodations permitted	
	1992	1994	1998	1998	2002	1992	1994	1998	1998	2002	1992	1994	1998	1998	2002
<b>Nation (Public)</b> <sup>1</sup>	215*	217	218	211	223	***	212	***	***	207	***	***	***	***	216
Alabama	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Arizona	***	186	***	***	222	179	173	190	174	180	***	***	***	***	***
Arkansas	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
California <sup>‡</sup>	207*	207*	210	211	220	***	***	***	***	***	***	***	***	***	***
Colorado	217	205	222	***	—	***	***	***	***	—	***	***	***	***	—
Connecticut	***	225	***	***	243	***	***	***	***	***	***	***	***	***	***
Delaware	***	***	***	***	242	***	***	***	***	***	***	***	***	***	***
Florida	***	***	***	***	228	***	***	***	***	***	***	***	***	***	***
Georgia	***	***	***	***	227	***	***	***	***	***	***	***	***	***	222
Hawaii	200	197*,**	195*,**	196*,**	204	***	***	***	***	***	208	200*,**	204	196*,**	210
Idaho	***	—	—	—	***	***	—	—	—	187	***	—	—	—	***
Indiana	***	***	—	—	***	***	***	—	—	***	***	***	—	—	***
Iowa <sup>‡</sup>	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Kansas <sup>‡</sup>	—	—	***	***	***	—	—	***	***	***	—	—	***	***	***
Kentucky	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Louisiana	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Maine	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Maryland	219*	232	232	231	234	***	***	***	***	***	***	***	***	***	***
Massachusetts	217*	208*,**	212*,**	211*,**	233	***	***	***	***	***	***	***	***	***	***
Michigan	***	—	***	***	***	***	—	***	***	***	***	—	***	***	***
Minnesota <sup>‡</sup>	205	209	207	193	221	***	***	***	***	221	***	***	***	***	***
Mississippi	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Missouri	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Montana <sup>‡</sup>	—	***	***	***	***	—	203	205	199	209	—	***	***	***	***
Nebraska	***	***	—	—	***	***	***	—	—	***	***	***	—	—	***
Nevada	—	—	213	212	220	—	—	***	***	***	—	—	***	***	***
New Hampshire	***	***	***	***	—	***	***	***	***	—	***	***	***	***	—
New Jersey	231	232	—	—	—	***	***	—	—	—	***	***	—	—	—
New Mexico	***	***	***	***	***	200*,**	178	175	180	184	***	***	***	***	***
New York <sup>‡</sup>	219*,**	225	233	230	240	***	***	***	***	***	***	***	***	***	***
North Carolina	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
North Dakota <sup>‡</sup>	***	***	—	—	***	205	199	—	—	202	***	***	—	—	***
Ohio	***	—	—	—	***	***	—	—	—	***	***	—	—	—	***
Oklahoma	***	—	***	***	***	215	—	216*	214	209	***	—	***	***	228
Oregon	—	—	214	205*	220	—	—	***	***	***	—	—	***	***	***
Pennsylvania	***	***	—	—	236	***	***	—	—	***	***	***	—	—	***
Rhode Island	187*	199	206	206	205	***	***	***	***	***	***	***	***	***	***
South Carolina	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Tennessee <sup>‡</sup>	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Texas	***	***	213	***	232	***	***	***	***	***	***	***	***	***	***
Utah	***	212	208	216	214	***	***	***	***	***	***	***	***	***	***
Vermont	—	—	—	—	***	—	—	—	—	***	—	—	—	—	***
Virginia	230	225	219	218	229	***	***	***	***	***	***	***	***	***	***
Washington <sup>‡</sup>	—	212	212	213	220	—	***	203	203	209	—	***	***	***	***
West Virginia	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Wisconsin <sup>‡</sup>	***	204	***	***	—	***	***	***	***	—	***	***	***	***	—
Wyoming	***	***	***	***	***	203	201	198	197	210	***	***	***	***	***
<b>Other Jurisdictions</b>	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
District of Columbia	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
DDESS <sup>2</sup>	—	—	***	***	***	—	—	***	***	***	—	—	219	218	226
DoDDS <sup>3</sup>	—	217	226	225	225	—	***	***	***	***	—	223	225	218	222
Guam	179*,**	178*,**	—	—	185	***	***	—	—	***	***	194	—	—	***
Virgin Islands	***	—	***	***	***	***	—	***	***	***	***	—	***	***	***

— Indicates that the jurisdiction did not participate or did not meet minimum participation guidelines for reporting. <sup>‡</sup> Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002.  
 \* Significantly different from 2002 when only one jurisdiction or the nation is being examined. \*\* Significantly different from 2002 when using a multiple-comparison procedure based on all jurisdictions that participated both years.  
 \*\*\* Sample size is insufficient to permit a reliable estimate.  
<sup>1</sup> National results that are presented for assessments prior to 2002 are based on the national sample, not on aggregated state assessment samples.  
<sup>2</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools. <sup>3</sup> Department of Defense Dependents Schools (Overseas).  
 NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited English proficient students in the NAEP samples.  
 In addition to allowing for accommodations, the accommodations-permitted results for national public schools at grade 4 (1998 and 2002) differ slightly from previous years' results, and from previously reported results for 1998, due to changes in sample weighting procedures. See appendix A for more details.  
 SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992, 1994, 1998, and 2002 Reading Assessments.

**Table 3.17 Average reading scale scores, by race/ethnicity, grade 8 public schools: By state, 1998 and 2002**

Grade 8	White			Black			Hispanic		
	Accommodations not permitted	Accommodations permitted		Accommodations not permitted	Accommodations permitted		Accommodations not permitted	Accommodations permitted	
	1998	1998	2002	1998	1998	2002	1998	1998	2002
<b>Nation (Public)</b> <sup>1</sup>	269	268	271	241	242	244	243	241	245
Alabama	264	265	264	237	237	234	***	***	***
Arizona	271	269	267	245	248	250	245	244	242
Arkansas	262 *	263 *	267	234	234	238	***	***	***
California ‡	268	268	265	243	238	242	238	238	238
Colorado	270	270	—	246	248	—	242	244	—
Connecticut	278	277	277	243	245	240	247 *	247	239
Delaware	263 ***	263 ***	275	238 ***	234 ***	252	247	248	250
Florida	264 *	264 *	269	232 ***	236 *	244	247	247	252
Georgia	268	268	268	240 *	241	246	***	***	242
Hawaii	262	262	263	***	***	253	***	***	246
Idaho	—	—	269	—	—	***	—	—	247
Indiana	—	—	267	—	—	247	—	—	***
Kansas ‡	271	272	273	252	249	244	248	241	253
Kentucky	264	264	267	242	246	248	***	***	***
Louisiana	263 *	262 *	268	236	236	240	***	***	***
Maine	273	272	270	***	***	***	***	***	***
Maryland	272	272	274	241	240	246	262	261	253
Massachusetts	274	274	278	248	246	246	244	242	246
Michigan	—	—	270	—	—	242	—	—	***
Minnesota ‡	270	269	—	236	231	—	***	***	—
Mississippi	263 *	264	268	237	238	240	***	***	***
Missouri	266 ***	265 ***	271	243	242 *	250	***	***	***
Montana ‡	271	273	273	***	***	***	***	***	***
Nebraska	—	—	273	—	—	246	—	—	251
Nevada	263 *	264 ***	259	237	241	234	242	242	237
New Mexico	270	270	266	***	***	***	247	250	247
New York ‡	276	275	274	248	246	246	248	247	251
North Carolina	271	270	274	249	246	247	***	***	252
North Dakota ‡	—	—	269	—	—	***	—	—	***
Ohio	—	—	273	—	—	246	—	—	***
Oklahoma	269	268	268	252 ***	253 ***	238	249	254	251
Oregon ‡	268	269	270	240	239	***	245	237	249
Pennsylvania	—	—	271	—	—	236	—	—	241
Rhode Island	265	268	268	251	246	243	238	239	240
South Carolina	265	265	268	239	240	243	***	***	***
Tennessee ‡	265	264	265	237	235	240	***	***	***
Texas	272	271	276	245	246	247	251	250	250
Utah	266	266	267	***	***	***	252 *	244	238
Vermont	—	—	272	—	—	***	—	—	***
Virginia	273	273	275	250	250	252	258	265	261
Washington ‡	268	267	271	249	242	247	244	240	247
West Virginia	262	262	264	246	248	242	***	***	***
Wisconsin ‡	270	269	—	235	234	—	255	256	—
Wyoming	264	265	267	***	***	***	243	250	249
<b>Other Jurisdictions</b>									
American Samoa	—	—	***	—	—	***	—	—	***
District of Columbia	***	***	***	234	233	238	243	246	240
DDESS <sup>2</sup>	277	278	279	254	248	260	270	276	273
DoDDS <sup>3</sup>	276	275	278	259	256	263	260	263	267
Guam	—	—	***	—	—	***	—	—	***
Virgin Islands	***	***	***	233 *	231 ***	241	***	***	236

See footnotes at end of table. ►

**Table 3.17 Average reading scale scores, by race/ethnicity, grade 8 public schools: By state, 1998 and 2002—Continued**

Grade 8	Asian/Pacific Islander			American Indian/Alaska Native			Other		
	Accommodations not permitted	Accommodations permitted		Accommodations not permitted	Accommodations permitted		Accommodations not permitted	Accommodations permitted	
	1998	1998	2002	1998	1998	2002	1998	1998	2002
<b>Nation (Public)</b> <sup>1</sup>	265	261	265	***	***	252	***	***	260
Alabama	***	***	***	***	***	***	***	***	***
Arizona	***	***	***	243	238	244	***	***	***
Arkansas	***	***	***	***	***	***	***	***	***
California †	257	259	257	***	***	***	***	***	***
Colorado	265	261	—	***	***	—	***	***	—
Connecticut	285 ***	285 ***	265	***	***	***	***	***	***
Delaware	***	***	282	***	***	***	***	***	***
Florida	281	275	***	***	***	***	***	***	***
Georgia	***	***	265	***	***	***	***	***	***
Hawaii	246	246	249	***	***	***	249	245	254
Idaho	—	—	***	—	—	***	—	—	***
Indiana	—	—	***	—	—	***	—	—	***
Kansas †	***	***	***	***	***	***	***	***	***
Kentucky	***	***	***	***	***	***	***	***	***
Louisiana	***	***	***	***	***	***	***	***	***
Maine	***	***	***	***	***	***	***	***	***
Maryland	282	278	284	***	***	***	***	***	***
Massachusetts	261	269	270	***	***	***	***	***	***
Michigan	—	—	***	—	—	***	—	—	***
Minnesota †	245	236	—	***	***	—	***	***	—
Mississippi	***	***	***	***	***	***	***	***	***
Missouri	***	***	***	***	***	***	***	***	***
Montana †	***	***	***	255	251	253	***	***	***
Nebraska	—	—	***	—	—	***	—	—	***
Nevada	259	260	258	***	***	***	***	***	***
New Mexico	***	***	***	246	243	239	***	***	***
New York †	273	276	261	***	***	***	***	***	***
North Carolina	***	***	***	257	257	***	***	***	***
North Dakota †	—	—	***	—	—	250	—	—	***
Ohio	—	—	***	—	—	***	—	—	***
Oklahoma	***	***	***	260	260	258	***	***	***
Oregon †	269	265	275	***	***	***	***	***	***
Pennsylvania	—	—	253	—	—	***	—	—	***
Rhode Island	267	260	251	***	***	***	***	***	***
South Carolina	***	***	***	***	***	***	***	***	***
Tennessee †	***	***	***	***	***	***	***	***	***
Texas	272	275	271	***	***	***	***	***	***
Utah	***	***	254	***	***	***	***	***	***
Vermont	—	—	***	—	—	***	—	—	***
Virginia	273	274	279	***	***	***	***	***	***
Washington †	263	267	272	250	254	***	***	***	***
West Virginia	***	***	***	***	***	***	***	***	***
Wisconsin †	***	***	—	***	***	—	***	***	—
Wyoming	***	***	***	249	241	247	***	***	***
<b>Other Jurisdictions</b>									
American Samoa	—	—	198	—	—	***	—	—	***
District of Columbia	***	***	***	***	***	***	***	***	***
DDESS <sup>2</sup>	***	***	***	***	***	***	***	***	274
DoDDS <sup>3</sup>	265	266	273	***	***	***	268	269	273
Guam	—	—	240	—	—	***	—	—	***
Virgin Islands	***	***	***	***	***	***	***	***	***

— Indicates that the jurisdiction did not participate or did not meet minimum participation guidelines for reporting. † Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002.

\* Significantly different from 2002 when only one jurisdiction or the nation is being examined.

\*\* Significantly different from 2002 when using a multiple-comparison procedure based on all jurisdictions that participated both years.

\*\*\* Sample size is insufficient to permit a reliable estimate.

<sup>1</sup> National results that are presented for assessments prior to 2002 are based on the national sample, not on aggregated state assessment samples.

<sup>2</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools. <sup>3</sup> Department of Defense Dependents Schools (Overseas).

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited English proficient students in the NAEP samples.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 and 2002 Reading Assessments.

The percentages of students at or above *Proficient* in the different racial/ethnic subgroups across jurisdictions are presented in tables 3.18 (grade 4) and 3.19 (grade 8). The percentage of fourth-graders at or above *Proficient* increased since 1992 for White students in 15 jurisdictions, Black students in 5 jurisdictions, Hispanic students in 3 jurisdictions, and Asian/Pacific Islander students in 1 jurisdiction. Increases since 1998 were

detected for White students in 6 jurisdictions, Black students in 3 jurisdictions, Hispanic students in 3 jurisdictions, and Asian/Pacific Islander students in 1 jurisdiction.

The percentage of eighth-graders at or above *Proficient* increased since 1998 for White students in 3 jurisdictions, and for Black students in 2 jurisdictions.

**Table 3.18** Percentage of students at or above *Proficient* in reading, by race/ethnicity, grade 4 public schools: By state, 1992–2002

Grade 4	White										Black					Hispanic				
	Accommodations not permitted			Accommodations permitted		Accommodations not permitted			Accommodations permitted		Accommodations not permitted			Accommodations permitted						
	1992	1994	1998	1998	2002	1992	1994	1998	1998	2002	1992	1994	1998	1998	2002					
<b>Nation (Public)</b> <sup>1</sup>	33 *	35 *	36	36 *	39	8 *	8 *	9	10	12	10 *	11	12	12	14					
Alabama	27	31	32	32	31	5	7	8	7	7	***	***	***	***	***					
Arizona	28	32	31	30	32	14	11	11	11	17	10	13	7	8	10					
Arkansas	28	29	28	28	33	6	6	6	6	8	***	***	***	***	16					
California †	28	25 *	29	28	35	9	7	6	6	11	5	4 *	8	8	10					
Colorado	29	33	40	38	—	11	12	15	11	—	12	11	14	14	—					
Connecticut	41 **	47	54	51	52	8 **	9	13	13	17	6 **	10	12	11	15					
Delaware	30 **	29 **	31 **	30 **	45	8 **	10 **	12 *	10 **	18	***	***	12	6 **	18					
Florida	28 **	31 *	31 *	29 **	38	7	7	9	8	11	14	13 *	18	19	20					
Georgia	34	35	36	35	39	10	9	9 *	9 *	13	***	***	***	***	15					
Hawaii	23	29	27	25	32	17	11	20	20	21	10	12	14	15	20					
Idaho	29 **	—	—	—	35	***	—	—	—	***	7	—	—	—	10					
Indiana	33	36	—	—	37	10	8	—	—	14	***	***	—	—	24					
Iowa †	37	36	37	35	37	17	7	12	8	20	***	***	***	***	14					
Kansas †	—	—	37	37	38	—	—	13	15	17	—	—	27	22	15					
Kentucky	24 **	27	31	31	32	8	11	11	11	13	***	***	***	***	***					
Louisiana	23 **	24 *	30	28	31	6	3 **	5 *	5 *	8	***	***	***	***	***					
Maine	36	41 *	37	36	35	***	***	***	***	***	***	***	***	***	***					
Maryland	32 **	36	40	37	42	9	8	10	9	12	11	***	24	22	20					
Massachusetts	40 **	41 **	42 **	40 **	54	10	12	10	12	19	9	6 *	10	11	15					
Michigan	30	—	33	33	36	7	—	7	8	11	***	—	17	16	16					
Minnesota †	33 **	34 *	39	38	40	5	11	11	12	15	***	***	***	***	14					
Mississippi	25	29	26	25	26	5	7	8	7	6	***	***	***	***	***					
Missouri	34	34	33	32	37	8	11	8	8	10	***	***	***	***	***					
Montana †	—	37	40	39	39	—	***	***	***	***	—	***	***	***	***					
Nebraska	33	36	—	—	38	8	10	—	—	19	19	15	—	—	18					
Nevada	—	—	26	25	28	—	—	7	6	10	—	—	11	9	11					
New Hampshire	38	36	38	37	—	***	***	***	***	—	***	***	***	***	—					
New Jersey	44	42	—	—	—	9	11	—	—	—	9	12	—	—	—					
New Mexico	34	31	36	35	35	12	13	9	10	***	12	15	14	12	15					
New York †	35 **	38 **	39 *	39 **	49	10	9	8	8	14	8 **	11	7 **	7 **	16					
North Carolina	32 **	38	36 *	35 **	44	9	11	11	10	13	***	***	14	***	19					
North Dakota †	36	39	—	—	36	***	***	—	—	***	***	***	—	—	***					
Ohio	30 **	—	—	—	40	10	—	—	—	13	***	—	—	—	***					
Oklahoma	32	—	35	35	31	9	—	9	11	8	14	—	15	14	13					
Oregon	—	—	31	30	34	—	—	9	9	13	—	—	8	6	14					
Pennsylvania	36	36 *	—	—	41	8	7	—	—	10	8	***	—	—	14					
Rhode Island	32 **	36	38	37	39	8	12	10	10	12	4	12	5	5	10					
South Carolina	32	30 *	32	32	36	7 **	5 **	9	8	12	***	***	***	***	***					
Tennessee †	28	32	31	30	31	7	9	9	8	9	***	***	***	***	8					
Texas	35 *	38	43	43	44	8 *	9	10	9	14	11 *	12 *	15	14	18					
Utah	31	31	30	30	35	***	***	***	***	***	13	14	7	7	14					
Vermont	—	—	—	—	40	—	—	—	—	***	—	—	—	—	***					
Virginia	38 **	35 **	37 *	38 *	46	11	8 **	13	12	15	***	25	14 *	16 *	34					
Washington †	—	30 **	32 *	33	38	—	11	13	12	23	—	6 **	12	15	17					
West Virginia	26	27	30	28	29	***	14	5	7	17	***	***	***	***	***					
Wisconsin †	37	38	39	38	—	9	9	8	6	—	16	16	19	13	—					
Wyoming	35	33	32	31	34	***	***	***	***	***	15	19	17	16	15					
<b>Other Jurisdictions</b>																				
District of Columbia	61	63	64	62	66	7	5 *	6	6	7	10	14	10	10	8					
DDESS <sup>2</sup>	—	—	41	40	42	—	—	20	20	21	—	—	24	26	28					
DoDDS <sup>3</sup>	—	34	41	40	39	—	14	20	19	21	—	23	24	21	32					
Guam	19	22	—	—	***	***	***	—	—	***	***	***	—	—	***					
Virgin Islands	***	—	***	***	***	3 **	—	8	7	6	2	—	5	5	1					

See footnotes at end of table. ▶



**Table 3.18** Percentage of students at or above *Proficient* in reading, by race/ethnicity, grade 4 public schools: By state, 1992–2002  
— Continued

Grade 4	Asian/Pacific Islander					American Indian/Alaska Native					Other				
	Accommodations not permitted			Accommodations permitted		Accommodations not permitted			Accommodations permitted		Accommodations not permitted			Accommodations permitted	
	1992	1994	1998	1998	2002	1992	1994	1998	1998	2002	1992	1994	1998	1998	2002
<b>Nation (Public)</b> <sup>1</sup>	23 *	34	31	27	36	***	31	***	***	22	***	***	***	***	26
Alabama	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Arizona	***	16	***	***	30	3	5	11	7	7	***	***	***	***	***
Arkansas	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
California <sup>‡</sup>	22	26	27	31	34	***	***	***	***	***	***	***	***	***	***
Colorado	29	26	35	***	—	***	***	***	***	—	***	***	***	***	—
Connecticut	***	40	***	***	58	***	***	***	***	***	***	***	***	***	***
Delaware	***	***	***	***	58	***	***	***	***	***	***	***	***	***	***
Florida	***	***	***	***	41	***	***	***	***	***	***	***	***	***	***
Georgia	***	***	***	***	42	***	***	***	***	***	***	***	***	***	32
Hawaii	15	17	14	15	18	***	***	***	***	***	21	19	16	16	22
Idaho	***	—	—	—	***	***	—	—	—	13	***	—	—	—	***
Indiana	***	***	—	—	***	***	***	—	—	***	***	***	—	—	***
Iowa <sup>‡</sup>	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Kansas <sup>‡</sup>	—	—	***	***	***	—	—	***	***	***	—	—	***	***	***
Kentucky	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Louisiana	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Maine	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Maryland	33	49	42	44	45	***	***	***	***	***	***	***	***	***	***
Massachusetts	28	22 *	23 *	19 **,	46	***	***	***	***	***	***	***	***	***	***
Michigan	***	—	***	***	***	***	—	***	***	***	***	—	***	***	***
Minnesota <sup>‡</sup>	14	25	30	20	33	***	***	***	***	29	***	***	***	***	***
Mississippi	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Missouri	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Montana <sup>‡</sup>	—	***	***	***	***	—	19	18	15	17	—	***	***	***	***
Nebraska	***	***	—	—	***	***	***	—	—	***	***	***	—	—	***
Nevada	—	—	24	21	24	—	—	***	***	***	—	—	***	***	***
New Hampshire	***	***	***	***	—	***	***	***	***	—	***	***	***	***	—
New Jersey	42	46	—	—	—	***	***	—	—	—	***	***	—	—	—
New Mexico	***	***	***	***	***	8	6	5	6	6	***	***	***	***	***
New York <sup>‡</sup>	29 **,	42	48	47	57	***	***	***	***	***	***	***	***	***	***
North Carolina	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
North Dakota <sup>‡</sup>	***	***	—	—	***	14	17	—	—	11	***	***	—	—	***
Ohio	***	—	—	—	***	***	—	—	—	***	***	—	—	—	***
Oklahoma	***	—	***	***	***	25	—	24	24	23	***	—	***	***	42
Oregon	—	—	24	23	33	***	***	***	***	***	—	—	***	***	***
Pennsylvania	***	***	—	—	49	***	***	—	—	***	***	***	—	—	***
Rhode Island	10	17	20	22	22	***	***	***	***	***	***	***	***	***	***
South Carolina	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Tennessee <sup>‡</sup>	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Texas	***	***	28	***	42	***	***	***	***	***	***	***	***	***	***
Utah	***	25	21	28	24	***	***	***	***	***	***	***	***	***	***
Vermont	—	—	—	—	***	—	—	—	—	***	—	—	—	—	***
Virginia	44	41	29	25	40	***	***	***	***	***	***	***	***	***	***
Washington <sup>‡</sup>	—	27	22	24	32	—	***	19	17	17	—	***	***	***	***
West Virginia	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
Wisconsin <sup>‡</sup>	***	23	***	***	—	***	***	***	***	—	***	***	***	***	—
Wyoming	***	***	***	***	***	10	14	12	10	23	***	***	***	***	***
<b>Other Jurisdictions</b>	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
District of Columbia	***	***	***	***	***	***	***	***	***	***	***	***	***	***	***
DDESS <sup>2</sup>	—	—	***	***	***	—	—	***	***	***	—	—	30	30	38
DoDDS <sup>3</sup>	—	26	36	37	33	—	***	***	***	***	—	35	32	29	31
Guam	6	6	—	—	8	***	***	—	—	***	***	19	—	—	***
Virgin Islands	***	—	***	***	***	***	—	***	***	***	***	—	***	***	***

— Indicates that the jurisdiction did not participate or did not meet minimum participation guidelines for reporting.

<sup>‡</sup> Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002.

\* Significantly different from 2002 when only one jurisdiction or the nation is being examined. \*\* Significantly different from 2002 when using a multiple-comparison procedure based on all jurisdictions that participated both years.

\*\*\* Sample size is insufficient to permit a reliable estimate.

<sup>1</sup> National results that are presented for assessments prior to 2002 are based on the national sample; not on aggregated state assessment samples.

<sup>2</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools. <sup>3</sup> Department of Defense Dependents Schools (Overseas).

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited English proficient students in the NAEP samples.

In addition to allowing for accommodations, the accommodations-permitted results for national public schools at grade 4 (1998 and 2002) differ slightly from previous years' results, and from previously reported results for 1998, due to changes in sample weighting procedures. See appendix A for more details.

SOURCE: U.S. Department of Education; Institute of Education Sciences; National Center for Education Statistics; National Assessment of Educational Progress (NAEP): 1992-1994-1998 and 2002 Reading Assessments.

**Table 3.19** Percentage of students at or above *Proficient* in reading, by race/ethnicity, grade 8 public schools: By state, 1998 and 2002

Grade 8	White			Black			Hispanic		
	Accommodations not permitted	Accommodations permitted		Accommodations not permitted	Accommodations permitted		Accommodations not permitted	Accommodations permitted	
		1998	1998		2002	1998		1998	2002
<b>Nation (Public)</b> <sup>1</sup>	38	37	39	11	11	13	14	13	14
Alabama	28	29	30	7	8	7	***	***	***
Arizona	37	35	32	10	12	12	12	12	11
Arkansas	28 *	29	34	6	5	6	***	***	***
California †	35	35	33	12	9	13	8	8	10
Colorado	37	36	—	9	10	—	10	11	—
Connecticut	49	47	48	10	11	9	13	13	10
Delaware	31 *,**	30 *,**	42	10	9 *	14	18	17	14
Florida	31	30	36	7 *	7 *	14	15	17	20
Georgia	34	35	35	9	10	14	***	***	14
Hawaii	31	30	30	***	***	18	***	***	16
Idaho	—	—	35	—	—	***	—	—	17
Indiana	—	—	34	—	—	12	—	—	***
Kansas †	39	40	42	17	20	12	15	11	23
Kentucky	31	32	33	9	11	14	***	***	***
Louisiana	26	25 *	32	6	6	9	***	***	***
Maine	42	42	38	***	***	***	***	***	***
Maryland	41	41	44	11	10	13	27	23	24
Massachusetts	41	43	47	13	12	12	12	12	16
Michigan	—	—	37	—	—	13	—	—	***
Minnesota †	39	39	—	8	7	—	***	***	—
Mississippi	29	28	31	8	8	7	***	***	***
Missouri	32	31 *	37	8	9	13	***	***	***
Montana †	40	42	40	***	***	***	***	***	***
Nebraska	—	—	40	—	—	11	—	—	14
Nevada	30	29	25	10	10	7	10	9	8
New Mexico	37	36	32	***	***	***	14	15	12
New York †	45	44	43	12	10	12	12	10	15
North Carolina	40	39	42	13	12	11	***	***	18
North Dakota †	—	—	35	—	—	***	—	—	***
Ohio	—	—	40	—	—	13	—	—	***
Oklahoma	33	34	33	12	14	8	10	16	14
Oregon †	36	37	39	10	10	***	13	15	14
Pennsylvania	—	—	40	—	—	8	—	—	14
Rhode Island	33	35	36	15	12	12	10	10	12
South Carolina	30	30	35	8	9	9	***	***	***
Tennessee †	31	32	33	6	7	11	***	***	***
Texas	38	38	47	12	12	15	14	14	17
Utah	32	32	35	***	***	***	23	20	9
Vermont	—	—	40	—	—	***	—	—	***
Virginia	41	42	46	13	13	15	24	28	23
Washington †	35	35	40	14	13	18	12	11	20
West Virginia	28	28	30	11	11	10	***	***	***
Wisconsin †	37	37	—	8	10	—	18	19	—
Wyoming	31	32	33	***	***	***	15	19	13
<b>Other Jurisdictions</b>									
American Samoa	—	—	***	—	—	***	—	—	***
District of Columbia	***	***	***	9	9	8	15	22	11
DDESS <sup>2</sup>	45	48	48	21	20	19	37	43	37
DoDDS <sup>3</sup>	45	45	48	24	22	24	26	27	29
Guam	—	—	***	—	—	***	—	—	***
Virgin Islands	***	***	***	9	8	7	***	***	4

See footnotes at end of table. ▶

**Table 3.19 Percentage of students at or above *Proficient* in reading, by race/ethnicity, grade 8 public schools: By state, 1998 and 2002**  
— Continued

Grade 8	Asian/Pacific Islander			American Indian/Alaska Native			Other		
	Accommodations not permitted	Accommodations permitted		Accommodations not permitted	Accommodations permitted		Accommodations not permitted	Accommodations permitted	
	1998	1998	2002	1998	1998	2002	1998	1998	2002
<b>Nation (Public)</b> <sup>1</sup>	32	30	34	***	***	18	***	***	24
Alabama	***	***	***	***	***	***	***	***	***
Arizona	***	***	***	10	7	12	***	***	***
Arkansas	***	***	***	***	***	***	***	***	***
California <sup>‡</sup>	24	25	25	***	***	***	***	***	***
Colorado	30	25	—	***	***	—	***	***	—
Connecticut	59 <sup>*</sup>	58	34	***	***	***	***	***	***
Delaware	***	***	54	***	***	***	***	***	***
Florida	54	47	***	***	***	***	***	***	***
Georgia	***	***	27	***	***	***	***	***	***
Hawaii	16	16	17	***	***	***	17	17	24
Idaho	—	—	***	—	—	***	—	—	***
Indiana	—	—	***	—	—	***	—	—	***
Kansas <sup>‡</sup>	***	***	***	***	***	***	***	***	***
Kentucky	***	***	***	***	***	***	***	***	***
Louisiana	***	***	***	***	***	***	***	***	***
Maine	***	***	***	***	***	***	***	***	***
Maryland	53	55	56	***	***	***	***	***	***
Massachusetts	35	40	37	***	***	***	***	***	***
Michigan	—	—	***	—	—	***	—	—	***
Minnesota <sup>‡</sup>	21	16	—	***	***	—	***	***	—
Mississippi	***	***	***	***	***	***	***	***	***
Missouri	***	***	***	***	***	***	***	***	***
Montana <sup>‡</sup>	***	***	***	20	20	17	***	***	***
Nebraska	—	—	***	—	—	***	—	—	***
Nevada	21	24	24	***	***	***	***	***	***
New Mexico	***	***	***	10	11	9	***	***	***
New York <sup>‡</sup>	43	49	36	***	***	***	***	***	***
North Carolina	***	***	***	21	21	***	***	***	***
North Dakota <sup>‡</sup>	—	—	***	—	—	19	—	—	***
Ohio	—	—	***	—	—	***	—	—	***
Oklahoma	***	***	***	22	23	23	***	***	***
Oregon <sup>‡</sup>	33	35	41	***	***	***	***	***	***
Pennsylvania	—	—	27	—	—	***	—	—	***
Rhode Island	34	30	19	***	***	***	***	***	***
South Carolina	***	***	***	***	***	***	***	***	***
Tennessee <sup>‡</sup>	***	***	***	***	***	***	***	***	***
Texas	45	43	39	***	***	***	***	***	***
Utah	***	***	22	***	***	***	***	***	***
Vermont	—	—	***	—	—	***	—	—	***
Virginia	43	38	50	***	***	***	***	***	***
Washington <sup>‡</sup>	32	34	39	15	17	***	***	***	***
West Virginia	***	***	***	***	***	***	***	***	***
Wisconsin <sup>‡</sup>	***	***	—	***	***	—	***	***	—
Wyoming	***	***	***	13	12	15	***	***	***
<b>Other Jurisdictions</b>									
American Samoa	—	—	1	—	—	***	—	—	***
District of Columbia	***	***	***	***	***	***	***	***	***
DDESS <sup>2</sup>	***	***	***	***	***	***	***	***	44
DoDDS <sup>3</sup>	29	34	37	***	***	***	35	36	39
Guam	—	—	10	—	—	***	—	—	***
Virgin Islands	***	***	***	***	***	***	***	***	***

— Indicates that the jurisdiction did not participate or did not meet minimum participation guidelines for reporting. <sup>‡</sup> Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002.

<sup>\*</sup> Significantly different from 2002 when only one jurisdiction or the nation is being examined.

<sup>\*\*</sup> Significantly different from 2002 when using a multiple-comparison procedure based on all jurisdictions that participated both years. <sup>\*\*\*</sup> Sample size is insufficient to permit a reliable estimate.

<sup>1</sup> National results that are presented for assessments prior to 2002 are based on the national sample, not on aggregated state assessment samples.

<sup>2</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools. <sup>3</sup> Department of Defense Dependents Schools (Overseas).

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited English proficient students in the NAEP samples.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 and 2002 Reading Assessments.

### **Student Eligibility for Free/Reduced-Price School Lunch**

NAEP collects data on students' eligibility for federal funded free/reduced-price school lunch as an indicator of economic status at both the national and state/jurisdiction levels. Tables 3.20 (grade 4) and 3.21 (grade 8) present the 2002 average reading score results for participating jurisdictions by students' eligibility for free/reduced-price school lunch.

At grade 4, average scores increased since 1998 for both those students who were eligible for free/reduced-price lunch and those who were not eligible in 14 jurisdictions. It appears that gains were

more evident among fourth-graders who were eligible than those who were ineligible. Average scores increased only for students who were eligible in 8 jurisdictions and only for students who were not eligible in 1 jurisdiction. The average score decreased among students who were not eligible in 1 jurisdiction.

At grade 8, average scores were higher in 2002 for eligible and ineligible students in 5 jurisdictions, only for eligible students in 6 jurisdictions, and only for ineligible students in 1 jurisdiction. Average scores were lower in 2002 for eligible students in 1 jurisdiction, and for ineligible students in 1 jurisdiction.

**Table 3.20 Average reading scale scores, by student eligibility for free/reduced-price school lunch, grade 4 public schools: By state, 1998 and 2002**

Grade 4	Eligible			Not eligible			Information not available		
	Accommodations not permitted	Accommodations permitted		Accommodations not permitted	Accommodations permitted		Accommodations not permitted	Accommodations permitted	
	1998	1998	2002	1998	1998	2002	1998	1998	2002
<b>Nation (Public)</b> <sup>1</sup>	198 *	195 *	202	226 *	226 *	229	225	219	217
Alabama	196	196	195	226	226	221	204 **	211	221
Arizona	188	189	191	222	221	219	212	208	213
Arkansas	196 **	196 *	202	221 *	221 *	227	213	208	210
California †	182	182	190	218	218	225	212	219	208
Colorado	204	202	—	229	227	—	216	218	—
Connecticut	205	203	209	240	238	237	239	240	238
Delaware	199 **	189 **	211	221 **	219 **	232	***	***	242
Florida	192 **	190 **	204	222 *	220 **	227	215	217	***
Georgia	193 **	192 **	202	227	224	227	218	217	213
Hawaii	185 **	185 **	196	212 **	212 **	218	***	***	***
Idaho	—	—	210	—	—	229	—	—	222
Indiana	—	—	207	—	—	230	—	—	233
Iowa †	210	205	213	229	226	228	216	216	***
Kansas †	207	206	211	229	229	230	236	231	***
Kentucky	204	206	209	229	227	229	***	***	211
Louisiana	193	189 **	197	224	221 *	227	209	206	199
Maine	216	215	213	230	230	231	226	221	225
Maryland	195	192 **	202	225	222 *	227	210	195 *	224
Massachusetts	205 **	203 **	215	233 **	230 **	241	226	224	238
Michigan	200	200	204	226	225	228	214	214	218
Minnesota †	202 **	198 **	218	230	228	230	225	218	222
Mississippi	195	194	195	220	219	221	***	***	205
Missouri	202	202	205	225 **	224 **	231	222	219	227
Montana †	215	212	213	234	233	231	223	222	***
Nebraska	—	—	209	—	—	230	—	—	***
Nevada	189 **	189 **	198	217	214	217	217	221	206
New Hampshire	208	211	—	231	230	—	220	222	—
New Mexico	194	193 **	201	224	223	224	214	211	199
New York †	197 **	196 **	207	232	231 *	236	226	223	230
North Carolina	202 **	198 **	208	227 **	224 **	234	223	216	222
North Dakota †	—	—	214	—	—	229	—	—	***
Ohio	—	—	207	—	—	231	—	—	225
Oklahoma	209 **	208	203	230 *	231 **	227	215	215	196
Oregon	196 **	192 **	207	225	223 **	229	223	216	218
Pennsylvania	—	—	200	—	—	232	—	—	221
Rhode Island	196	195	202	231	230	231	***	***	217
South Carolina	196 *	194 **	201	223 *	223 **	228	***	***	225
Tennessee †	198	198	202	225	224	224	203	195	214
Texas	203	199 **	210	231	230	228	199	202	215
Utah	203 **	205 *	211	222 **	222 **	228	220	220	214
Vermont	—	—	213	—	—	233	—	—	230
Virginia	200 **	198 **	209	228 *	226 **	233	217 **	226 *	241
Washington †	200 **	203 **	211	225 **	226 **	232	230	223	217
West Virginia	205 *	205 *	210	228	227	228	***	***	218
Wisconsin †	206	203	—	231	230	—	220	213	—
Wyoming	208	207	212	225	224	227	224	221	235
<b>Other Jurisdictions</b>									
District of Columbia	174 **	172 **	185	216	215	210	200	188	***
DDESS <sup>2</sup>	214 **	212 **	220	226	225	230	224	215	223
DoDDS <sup>3</sup>	221	217	221	228	224	227	222	221	224
Guam	—	—	180	—	—	193	—	—	***
Virgin Islands	179	175	180	***	***	***	164	153	***

— Indicates that the jurisdiction did not participate or did not meet minimum participation guidelines for reporting.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002.

\* Significantly different from 2002 when only one jurisdiction or the nation is being examined. \*\* Significantly different from 2002 when using a multiple-comparison procedure based on all jurisdictions that participated both years.

\*\*\* Sample size is insufficient to permit a reliable estimate.

<sup>1</sup> National results that are presented for assessments prior to 2002 are based on the national sample, not on aggregated state assessment samples.

<sup>2</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools. <sup>3</sup> Department of Defense Dependents Schools (Overseas).

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited English proficient students in the NAEP samples.

In addition to allowing for accommodations, the accommodations-permitted results for national public schools at grade 4 (1998 and 2002) differ slightly from previously reported results for 1998, due to changes in sample weighting procedures. See appendix A for more details.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 and 2002 Reading Assessments.

**Table 3.21 Average reading scale scores, by student eligibility for free/reduced-price school lunch, grade 8 public schools: By state, 1998 and 2002**

Grade 8	Eligible			Not eligible			Information not available		
	Accommodations not permitted	Accommodations permitted		Accommodations not permitted	Accommodations permitted		Accommodations not permitted	Accommodations permitted	
	1998	1998	2002	1998	1998	2002	1998	1998	2002
<b>Nation (Public)</b> <sup>1</sup>	246 *	245 *	249	269 *	268 *	271	265	264	264
Alabama	241	241	240	265	265	264	***	***	255
Arizona	245	246	242	270	269	266	264	259	259
Arkansas	242 **	243 **	250	264 *	264 *	268	263	262	***
California <sup>2</sup> †	237	235	240	267	267	262	253	255	252
Colorado	245	249	—	271	270	—	257	252	—
Connecticut	249	249	247	277	276	275	275	273	274
Delaware	239 **	238 **	253	263 **	262 **	275	258	247	***
Florida	240 *	241 **, **	249	262 *	265	269	258	259	274
Georgia	241	240	245	267	268	267	262	263	263
Hawaii	239	238	241	255	254 *	259	260	261	***
Idaho	—	—	259	—	—	270	—	—	269
Indiana	—	—	253	—	—	269	—	—	271
Kansas †	256	254	251	274	275	276	***	***	***
Kentucky	251	251	253	270	270	273	262	259	276
Louisiana	242	243	246	263	262	268	244	245	260
Maine	261	259	260	277	276	273	274	277	271
Maryland	242	239 **, **	248	269	270	269	***	***	***
Massachusetts	248	247	253	276	276	278	269	265	259
Michigan	—	—	257	—	—	270	—	—	254
Minnesota †	250	248	—	272	271	—	271	263	—
Mississippi	240 *	241 *	246	263 *	264	268	249	254	260
Missouri	249 **, **	248 **	257	269 *	269 *	273	249	249	267
Montana †	260	259	261	275	276	274	263	270	***
Nebraska	—	—	260	—	—	275	—	—	***
Nevada	241	245	240	263 **	263 **	256	259	255	253
New Mexico	249	250 *	245	266	265	265	258	259	259
New York †	252	250	250	276	275	275	271	270	252
North Carolina	249	247	253	271	271	273	261	258	266
North Dakota †	—	—	261	—	—	270	—	—	***
Ohio	—	—	257	—	—	273	—	—	263
Oklahoma	258	257	253	271	270	270	262	262	269
Oregon †	251	252	257	271	271	272	270	267	271
Pennsylvania	—	—	246	—	—	274	—	—	***
Rhode Island	245	246	249	269	272	270	***	***	251
South Carolina	240	240 *	245	265	266	268	256	259	261
Tennessee †	242	240	246	267	267	268	254	254	268
Texas	248	246	248	271	270	275	***	262	262
Utah	254	248	249	269	268	269	261	267	261
Vermont	—	—	257	—	—	276	—	—	***
Virginia	247 **, **	248 **, **	256	272	272	274	271 *	268 **, **	283
Washington †	247	245 *	254	270	269 *	274	270	271	268
West Virginia	254	254	255	268	268	269	249	255	***
Wisconsin †	249	250	—	271	270	—	267	268	—
Wyoming	252	252	258	265	267	268	***	***	270
<b>Other Jurisdictions</b>									
American Samoa	—	—	198	—	—	***	—	—	***
District of Columbia	228 *	229	235	257	253	251	234	234	***
DDESS <sup>3</sup>	261	259	267	273	274	273	***	***	275
DoDDS <sup>4</sup>	257 *	257 **, **	272	267 *	267 **, **	276	271	270	272
Guam	—	—	224	—	—	248	—	—	***
Virgin Islands	233	231 **, **	241	***	***	***	234	233	***

— Indicates that the jurisdiction did not participate or did not meet minimum participation guidelines for reporting.

† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002.

\* Significantly different from 2002 when only one jurisdiction or the nation is being examined.

\*\* Significantly different from 2002 when using a multiple-comparison procedure based on all jurisdictions that participated both years.

\*\*\* Sample size is insufficient to permit a reliable estimate.

<sup>1</sup> National results that are presented for assessments prior to 2002 are based on the national sample, not on aggregated state assessment samples.

<sup>2</sup> Results by students' eligibility for free/reduced-price lunch in California do not include Los Angeles. <sup>3</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools. <sup>4</sup> Department of Defense Dependents Schools (Overseas).

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited English proficient students in the NAEP samples.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 and 2002 Reading Assessments.

The percentages of students at or above the *Proficient* level by students' eligibility for free/reduced-price school lunch are presented for participating jurisdictions in tables 3.22 and 3.23 for grades 4 and 8 respectively. The percentage of fourth-graders at or above *Proficient* increased since 1998 for both eligible and ineligible students in 5 jurisdictions, only for eligible students in 2 jurisdictions, and only for ineligible students in 5 jurisdictions. The percentage was lower in 2002 for ineligible students in 1 jurisdiction.

The percentage of eighth-graders at or above *Proficient* increased since 1998 for both eligible and ineligible students in 1 jurisdiction, only for eligible students in 4 jurisdictions, and for ineligible students in 1 jurisdiction. The percentage was lower in 2002 for ineligible students in 1 jurisdiction.

**Table 3.22 Percentage of students at or above Proficient in reading, by eligibility for free/reduced-price school lunch, grade 4 public schools: By state, 1998 and 2002**

Grade 4	Eligible			Not eligible			Information not available		
	Accommodations not permitted	Accommodations permitted		Accommodations not permitted	Accommodations permitted		Accommodations not permitted	Accommodations permitted	
	1998	1998	2002	1998	1998	2002	1998	1998	2002
<b>Nation (Public)</b> <sup>1</sup>	13	12 *	16	39	39	41	38	33	30
Alabama	10	11	13	38	36	35	20	22	32
Arizona	9	10	11	33	32	32	25	22	29
Arkansas	13	13	17	32	32	38	26	23	18
California ‡	7	7	9	30	30	37	31	33	21
Colorado	17	16	—	40	39	—	31	28	—
Connecticut	15	14	21	55	52	51	55	54	53
Delaware	13 *	11 *,**	19	31 *,**	30 *,**	44	***	***	61
Florida	12 *,**	12 *,**	18	33 *	31 *	39	29	30	***
Georgia	10 *	11	16	39	38	39	33	29	24
Hawaii	9	9	12	24 *	24 *	29	***	***	***
Idaho	—	—	21	—	—	42	—	—	38
Indiana	—	—	17	—	—	41	—	—	47
Iowa ‡	22	19	22	40	39	41	30	32	***
Kansas ‡	21	22	21	40	39	43	49	44	***
Kentucky	15	17	19	41	39	40	***	***	23
Louisiana	10	9	12	33	31	37	27	27	13
Maine	25	24	22	42	42	42	37	31	36
Maryland	12	12	15	37	35	39	24	21	36
Massachusetts	15	15 *	23	45 *,**	43 *,**	56	37	35 *	54
Michigan	14	15	16	36	35	39	23	25	30
Minnesota ‡	18 ***	15 ***	30	43	43	41	37	29	34
Mississippi	10	9	10	31	30	29	***	***	16
Missouri	16	16	17	36	36 *	43	38	34	38
Montana ‡	24	23	23	46	46	45	34	35	***
Nebraska	—	—	22	—	—	43	—	—	***
Nevada	9	9	13	27	26	27	27	27	18
New Hampshire	20	19	—	44	42	—	30	28	—
New Mexico	13	12	15	36	35	35	27	24	17
New York ‡	12 *	13 *	19	44	43 *	50	34	32	40
North Carolina	14	14	17	37 *,**	37 *,**	47	35	31	30
North Dakota ‡	—	—	23	—	—	39	—	—	***
Ohio	—	—	18	—	—	42	—	—	35
Oklahoma	19	19	17	42	42	38	26	25	17
Oregon	13	13	18	37	34 *	42	32	30	27
Pennsylvania	—	—	16	—	—	45	—	—	31
Rhode Island	13	13	14	43	41	44	***	***	29
South Carolina	10	10	14	33	33 *	39	***	***	36
Tennessee ‡	13	13	15	36	36	34	9	8	27
Texas	14	13 *	20	43	43	39	16	16	26
Utah	17	18	22	32	32	39	33	33	25
Vermont	—	—	21	—	—	46	—	—	43
Virginia	13 *	13 *	18	38 *	37 *	46	27 **	37 *	59
Washington ‡	13 **	15	22	37 *	38	43	45 *	35	28
West Virginia	17	17	19	40	39	37	***	***	29
Wisconsin ‡	16	15	—	41	41	—	29	26	—
Wyoming	20	19	21	35	35	38	33	31	48
<b>Other Jurisdictions</b>									
District of Columbia	5	5	5	33	35 *	23	22	17	***
DDESS <sup>2</sup>	25	25	26	38	39	41	35	30	33
DoDDS <sup>3</sup>	33	29	31	38	37	36	32	32	33
Guam	—	—	5	—	—	11	—	—	***
Virgin Islands	8	8	6	***	***	***	4	3	***

— Indicates that the jurisdiction did not participate or did not meet minimum participation guidelines for reporting.

‡ Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002.

\* Significantly different from 2002 when only one jurisdiction or the nation is being examined. \*\* Significantly different from 2002 when using a multiple-comparison procedure based on all jurisdictions that participated both years.

\*\*\* Sample size is insufficient to permit a reliable estimate.

<sup>1</sup> National results that are presented for assessments prior to 2002 are based on the national sample; not on aggregated state assessment samples.

<sup>2</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools. <sup>3</sup> Department of Defense Dependents Schools (Overseas).

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited English proficient students in the NAEP samples.

In addition to allowing for accommodations, the accommodations-permitted results for national public schools at grade 4 (1998 and 2002) differ slightly from previously reported results for 1998, due to changes in sample weighting procedures. See appendix A for more details.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 and 2002 Reading Assessments.



**Table 3.23 Percentage of students at or above *Proficient* in reading, by eligibility for free/reduced-price school lunch, grade 8 public schools: By state, 1998 and 2002**

Grade 8	Eligible			Not eligible			Information not available		
	Accommodations not permitted	Accommodations permitted		Accommodations not permitted	Accommodations permitted		Accommodations not permitted	Accommodations permitted	
	1998	1998	2002	1998	1998	2002	1998	1998	2002
<b>Nation (Public)</b> <sup>1</sup>	15	14	17	38	37	40	35	34	32
Alabama	10	10	11	29	30	31	***	***	25
Arizona	13	12	12	37	36	31	29	26	25
Arkansas	12 *	12 *	18	29 *	30	35	29	29	***
California <sup>2†</sup>	7	7	11	34	34	30	21	22	20
Colorado	12	15	—	37	36	—	24	21	—
Connecticut	16	15	17	48	46	45	44	42	46
Delaware	12	11 *	16	31 **	30 **	41	25	20	***
Florida	12 *	11 *	17	31	31	37	24	25	41
Georgia	10	10	14	33	35	34	31	28	27
Hawaii	11	12	11	22	22	26	28	29	***
Idaho	—	—	26	—	—	37	—	—	39
Indiana	—	—	19	—	—	36	—	—	37
Kansas <sup>‡</sup>	22	21	19	42	43	45	***	***	***
Kentucky	18	20	17	38	38	41	24	25	44
Louisiana	10	10	13	27	26	33	12	14	28
Maine	26	26	27	47	46	42	45	47	40
Maryland	11	11	16	39	39	39	***	***	***
Massachusetts	14	14	18	43	45	49	37	31	24
Michigan	—	—	24	—	—	37	—	—	22
Minnesota <sup>‡</sup>	21	20	—	41	41	—	38	31	—
Mississippi	10	10	12	29	29	32	18	19	24
Missouri	14	13	19	35	35	39	16	13	33
Montana <sup>‡</sup>	25	27	25	44	45	42	31	38	***
Nebraska	—	—	24	—	—	43	—	—	***
Nevada	12	12	11	28 *	28 *	22	26	21	24
New Mexico	13	16	11	33	30	31	26	26	25
New York <sup>‡</sup>	16	14	15	45	45	45	40	39	16
North Carolina	15	14	19	39	39	40	28	26	34
North Dakota <sup>‡</sup>	—	—	27	—	—	37	—	—	***
Ohio	—	—	24	—	—	40	—	—	30
Oklahoma	20	20	18	35	36	36	23	26	37
Oregon <sup>‡</sup>	18	20	24	39	40	42	39	36	38
Pennsylvania	—	—	15	—	—	43	—	—	***
Rhode Island	13	13	17	37	39	38	***	***	20
South Carolina	9	9	12	31	31	34	16	21	30
Tennessee <sup>‡</sup>	10	11	15	33	35	35	20	20	35
Texas	13	12	16	37	36	44	***	28	30
Utah	21	19	21	35	35	36	26	31	31
Vermont	—	—	22	—	—	45	—	—	***
Virginia	13 *	13 *	20	39	40	43	40 *	36 *	56
Washington <sup>‡</sup>	14 *	13 *	23	37	37	43	33	40	35
West Virginia	19	19	20	34	34	36	16	21	***
Wisconsin <sup>‡</sup>	16	20	—	38	38	—	31	34	—
Wyoming	20	19	23	32	34	34	***	***	35
<b>Other Jurisdictions</b>									
American Samoa	—	—	1	—	—	***	—	—	***
District of Columbia	6	6	6	25	26	18	10	9	***
DDESS <sup>3</sup>	29	31	30	41	43	40	***	***	41
DoDDS <sup>4</sup>	23	23	37	34	33 *	44	38	39	39
Guam	—	—	5	—	—	13	—	—	***
Virgin Islands	10	8	7	***	***	***	9	9	***

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† Indicates that the jurisdiction did not meet one or more of the guidelines for school participation in 2002.

\* Significantly different from 2002 when only one jurisdiction or the nation is being examined.

\*\* Significantly different from 2002 when using a multiple-comparison procedure based on all jurisdictions that participated both years.

\*\*\* Sample size is insufficient to permit a reliable estimate.

<sup>1</sup> National results that are presented for assessments prior to 2002 are based on the national sample, not on aggregated state assessment samples.

<sup>2</sup> Results by students' eligibility for free/reduced-price lunch in California do not include Los Angeles.

<sup>3</sup> Department of Defense Domestic Dependent Elementary and Secondary Schools.

<sup>4</sup> Department of Defense Dependents Schools (Overseas).

NOTE: Comparative performance results may be affected by changes in exclusion rates for students with disabilities and limited English proficient students in the NAEP samples.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1998 and 2002 Reading Assessments.

