DOCUMENT RESUME

ED 388 962 CS 012 361

AUTHOR Campbell, Jay R.; and Others
TITLE NAEP 1994 Reading Report Card for the Nation and the States: Findings from the National Assessment of Educational Progress and Trial State Assessment.
INSTITUTION Educational Testing Service, Princeton, NJ. Center for the Assessment of Educational Progress.; National Assessment of Educational Progress, Princeton, NJ.
SPONS AGENCY National Center for Education Statistics (ED), Washington, DC.
REPORT NO NCES-95-045
PUB DATE Jan 96
NOTE 193p.; For tables of cross-state information for the variables discussed here, see CS 012 362. For specific details on the samples and analysis processes used here, see "Technical Report of the NAEP 1994 Trial State Assessment Program in Reading."
AVAILABLE FROM National Library of Education, Office of Educational Research and Improvement, U.S. Department of Education, 555 New Jersey Ave., N.W., Washington, DC 20208-5641.
PUB TYPE Reports - Research/Technical (143) -- Statistical Data (110)

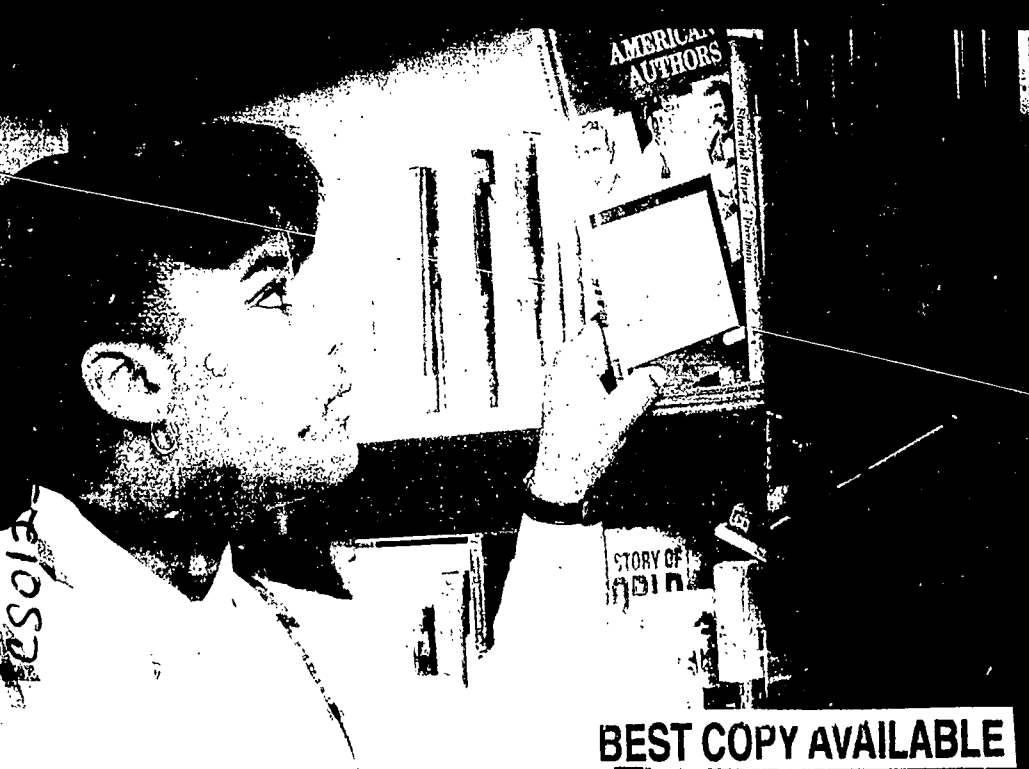
EDRS PRICE MF01/PC08 Plus Postage.
DESCRIPTORS Comparative Analysis; Elementary Secondary Education; *Grade 4; *Grade 8; *Grade 12; *National Competency Tests; *Reading Achievement; Reading Research; Regional Characteristics; Sex Differences; *Student Evaluation; Test Results
IDENTIFIERS *National Assessment of Educational Progress

ABSTRACT

This report describes students' reading achievements at grades 4, 8, and 12 and within various subgroups of the general population. State-level results are presented for individual states that chose to participate in the 1994 Trial State Assessment. Chapter 1 presents an overview of the 1994 NAEP reading assessment and sample questions and responses. Chapter 2 provides overall average proficiency results for the nation, regions, subgroups of students, and jurisdictions participating in the Trial State Assessment. Chapter 3 describes students' reading performance in terms of achievement levels. Chapter 4 focuses on cross-state comparisons of proficiency results from the state-by-state assessment at grade 4. Chapter 5 describes contextual factors related to students' reading achievement. Chapter 6 describes specific abilities demonstrated by students in the NAEP reading assessment and reports student performance when reading for different purposes. The "most striking" finding from the 1994 assessment is that the average reading proficiency of 12th-grade students declined significantly from 1992 to 1994. Other major findings include: (1) the decline in average proficiency among 12th-graders between 1992 and 1994 was concentrated among lower performing students; (2) reading proficiency at all three grade levels was higher on average for students whose parents had more education; (3) at all three grade levels, female students had higher average reading proficiencies than male students; and (4) students who reported having a greater array of literacy materials in their homes displayed higher average reading achievement. Contains 38 tables and 23 figures of data. Appendixes provide an overview of procedures used in the 1994 assessment and describe students' reading performance; cross-state proficiency and achievement level results; and sample texts and questions. (RS)

NATIONAL CENTER FOR EDUCATION STATISTICS

NAEP 1994 READING REPORT CARD FOR THE NATION AND THE STATES



U.S. DEPARTMENT OF EDUCATION
OFFICE OF EDUCATIONAL RESEARCH AND IMPROVEMENT

What is The Nation's Report Card?

THE NATION'S REPORT CARD, the National Assessment of Educational Progress (NAEP), is the only 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.

NAEP is a congressionally mandated project of the National Center for Education Statistics, the U.S. Department of Education. The Commissioner of Education Statistics is responsible, by law, for carrying out the NAEP project through competitive awards to qualified organizations. NAEP reports directly to the Commissioner, who is also responsible for providing continuing reviews, including validation studies and solicitation of public comment, on NAEP's conduct and usefulness.

In 1988, Congress established the National Assessment Governing Board (NAGB) to formulate policy guidelines for NAEP. The Board is responsible for selecting the subject areas to be assessed from among those included in the National Education Goals; for setting appropriate student performance levels; for developing assessment objectives and test specifications through a national consensus approach; for designing the assessment methodology; for developing guidelines for reporting and disseminating NAEP results; for developing standards and procedures for interstate, regional, and national comparisons; for determining the appropriateness of test items and ensuring they are free from bias; and for taking actions to improve the form and use of the National Assessment.

The National Assessment Governing Board

NATIONAL CENTER FOR EDUCATION STATISTICS

NAEP 1994 Reading Report Card for the Nation and the States

Findings from the National Assessment of Educational Progress and Trial State Assessment

Jay R. Campbell
Patricia L. Donahue
Clyde M. Reese
Gary W. Phillips

January 1996

Office of Educational Research and Improvement
U.S. Department of Education

Prepared by Educational Testing Service under contract
with the National Center for Education Statistics

U.S. Department of Education
Richard W. Riley
Secretary

Office of Educational Research and Improvement
Sharon P. Robinson
Assistant Secretary

National Center for Education Statistics
Jeanne E. Griffith
Acting Commissioner

Education Assessment Division
Gary W. Phillips
Associate Commissioner

January 1996

FOR MORE INFORMATION:

For ordering information on this report, write:

National Library of Education
Office of Educational Research and Improvement
U.S. Department of Education
555 New Jersey Avenue, NW
Washington, D.C. 20208-5641

or call 1-800-424-1616 (in the Washington, D.C. metropolitan area
call 202-219-1651).

The work upon which this publication is based was performed for the
National Center for Education Statistics, Office of Educational Research
and Improvement, by Educational Testing Service.

TABLE OF CONTENTS

TABLES

FIGURES

EXECUTIVE SUMMARY

For a quarter of a century, the National Assessment of Educational Progress (NAEP) has reported to policy-makers, educators, and the general public on the educational achievement of students in the United States. As the nation's only ongoing survey of students' educational progress, NAEP has become an important resource for obtaining information on what students know and can do.

The 1994 NAEP reading assessment continues the mandate to evaluate and report the educational progress of students at grades 4, 8, and 12. The national results provided herein describe students' reading achievement at each grade and within various subgroups of the general population. State-level results are presented for individual states that chose to participate in the 1994 Trial State Assessment. In addition, trends in performance since 1992 are reported for the nation and for jurisdictions that participated in both the 1992 and 1994 state assessments.

Students' reading performance is summarized on the NAEP reading proficiency scale, which ranges from 0 to 500. In addition, results for each grade are reported according to three achievement levels: *Basic*, *Proficient*, and *Advanced*. These achievement levels are based on collective judgments about what students should know and be able to do in reading. The *Basic* level denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade. The *Proficient* level represents solid academic performance and demonstrated competence over challenging subject matter. The *Advanced* level signifies superior performance.

Major Findings for the Nation, Regions, and States

- The most striking finding from the 1994 assessment is that the average reading proficiency of twelfth-grade students declined significantly from 1992 to 1994. This decline was observed across a broad range of subgroups. Significant changes in average proficiency were not observed in the national population of fourth or eighth graders.
- The decline in average proficiency among twelfth graders between 1992 and 1994 was concentrated among lower performing students — those scoring at the 10th, 25th, and 50th percentiles. No significant declines were observed among twelfth graders at the 75th or 90th percentiles.
- The percentage of twelfth-grade students who reached the *Proficient* level in reading declined from 1992 to 1994. There also was a decrease in the percentage of twelfth graders at or above the *Basic* level.
- In 1994, 30 percent of fourth graders, 30 percent of eighth graders, and 36 percent of twelfth graders attained the *Proficient* level in reading. Across the three grades, 3 to 7 percent reached the *Advanced* level.
- In 1994, twelfth graders in the Northeast, Central, and West regions displayed lower average reading proficiencies than their 1992 counterparts.
- The eight states with the highest average reading proficiencies in 1994 for fourth graders in public schools were Maine, North Dakota, Wisconsin, New Hampshire, Massachusetts, Iowa, Connecticut, and Montana.
- Between 1992 and 1994, the average reading proficiencies of fourth graders declined in eight jurisdictions: California, Delaware, Louisiana, New Hampshire, New Mexico, Pennsylvania, South Carolina, and Virginia.
- The decline in overall reading proficiency at the twelfth grade was evident in all three assessed purposes for reading: *reading for literary experience*, *reading to gain information*, and *reading to perform a task*.

Major Findings for Student Subgroups

- Across the nation, there were declines in average reading proficiency from 1992 to 1994 for Hispanic students in grade 4 as well as for White, Black, and Hispanic students in grade 12.
- Consistent with previous NAEP reports, reading proficiency at all three grades was higher on average for students whose parents had more education. Among twelfth graders, the decline in average reading proficiency since 1992 was evident for students reporting all levels of parental education.
- At all three grades, female students had higher average reading proficiencies than male students. At twelfth grade, the performance of both male and female students declined between 1992 and 1994.
- In 1994, fourth-, eighth-, and twelfth-grade students attending nonpublic schools displayed higher average reading proficiencies than their counterparts attending public schools. The performance of twelfth graders in public and nonpublic schools declined since 1992.

Contextual Factors Related to Reading Proficiency

Home and school factors can play important roles in the development of students' literacy abilities. Fourth, eighth, and twelfth graders who participated in the NAEP reading assessment were asked to complete questionnaires about their home and school experiences related to reading achievement and literacy development. Also, questionnaires about students' instructional experiences were completed by their teachers and school administrators. These instruments provide valuable information about students' literacy-related experiences at home and school.

- In 1994, students who reported having a greater array of literacy materials in their homes displayed higher average reading achievement. Among twelfth graders, there was a decline between 1992 and 1994 in the presence of these materials at home.
- At all three grades, students who more frequently read for fun on their own time had higher average proficiencies. Twelfth-grade students in 1994 reported reading for fun less frequently than their 1992 counterparts.
- At all three grades, students who reported more frequent home discussions about their studies demonstrated higher reading proficiencies. There was a decline in the frequency of this activity among twelfth graders between the 1992 and 1994 assessments.
- In 1994, students who reported watching less than four hours of television daily displayed higher average reading proficiencies than their peers who watched more television.
- At each grade in 1994, students who read five or fewer pages each day for school and homework had the lowest average reading proficiencies. Since 1992, there was an increase in the percentage of twelfth graders who reported reading five or fewer pages each day, and a decline in the percentage who reported reading 11 or more pages.
- Eighth and twelfth graders who reported being asked by their teachers at least once a week to explain or support their understanding of what they read had higher average reading proficiencies than students who were asked to do so less often. The reports of twelfth-grade students in 1994 indicated that they were not asked to do this as frequently as their counterparts in 1992.
- Eighth and twelfth graders who reported being asked by their teachers at least once a week to discuss various interpretations of what they read displayed higher average reading proficiencies than students who were asked to do so less often. According to eighth- and twelfth-grade students' reports, these discussions were less frequent in 1994 than in 1992.

About This Report

As the nation's report card in reading, this report provides a broad examination of students' reading achievement. In addition, specific aspects of students' reading performance and their experiences at home and school are reviewed in some depth. As such, this report provides a portrait of what students know and can do in reading, as well as the contexts in which they have developed their reading abilities.

Chapter 1 presents an overview of the 1994 NAEP reading assessment — its content framework, design, and administration. Also included in Chapter 1 are example questions from the 1994 reading assessment and sample student responses. Chapter 2 provides overall average proficiency results for the nation, regions, subgroups of students, and jurisdictions participating in the Trial State Assessment. Chapter 3 describes students' reading performance in terms of the achievement levels. Chapter 4 focuses on cross-state comparisons of proficiency results from the state-by-state assessment at grade 4. Chapter 5 describes contextual factors related to students' reading achievement. Finally, Chapter 6 describes specific abilities demonstrated by students in the NAEP reading assessment and reports student performance when reading for different purposes.

CHAPTER 1

NAEP's 1994 Assessment in Reading

I cannot live without books.

— Thomas Jefferson

The ability to read and understand is essential to each citizen's informed and full participation in a democratic society. That literacy is crucial to the proper working of a democracy was espoused early on in this country's history. In 1821, describing the knowledge to be gained from books, Thomas Jefferson spoke of "the security it gives to liberty, by enlightening the minds of its citizens."[1]

Beyond its importance for ensuring an enlightened citizenry, reading is integral to a broad range of daily activities. Interpreting the meaning of current events, learning the skills necessary for workplace success, evaluating the ideas expressed in various publications, or finding enjoyment in a book or magazine are examples of how reading affects what we do and who we are.

Because we value reading and recognize the major role it plays in much of what we do, it occupies an important place in the curriculum of our nation's schools. Learning to read is one of the primary goals for early elementary school students. Beyond early reading development, students continue to cultivate new and more effective reading processes and strategies throughout middle and secondary schools.

The importance of reading as a lifelong activity underlies the need to monitor the progress of students' reading achievement. The National Assessment of Educational Progress (NAEP) has fulfilled this need on a regular basis for more than a quarter of a century. In doing so, NAEP serves the vital function of reporting to educators, parents, policy makers, and the general public how well our students are achieving in the area of reading proficiency.

Overview of the 1994 National Assessment of Educational Progress (NAEP)

As a project of the National Center for Education Statistics (NCES), NAEP collects valuable information about what students know and can do. Since being initiated by Congress in 1969, NAEP has carried out its federally supported mandate as the only ongoing national assessment of student achievement. Both public and private school students in grades 4, 8, and 12 are regularly sampled and assessed in various subject areas — reading, history, geography, mathematics, and others. The assessments are based on content frameworks that are developed through a national consensus process involving teachers, curriculum experts, parents, and members of the general public. The content of the NAEP assessments attempts to maintain a balance between current instructional efforts, curriculum reform, research results, and desirable levels of achievement.

The 1994 NAEP Reading Assessment was administered to national samples of fourth-, eighth-, and twelfth-grade students attending public and nonpublic schools, and to samples of fourth graders in the 44 jurisdictions that participated in the 1994 Trial State Assessment.[2] Nearly 140,000 students were assessed in the national and jurisdiction samples. Students' reading performance is described on a proficiency scale ranging from 0 to 500, and in relation to three reading achievement levels: *Basic, Proficient,* and *Advanced.* The assessment results are reported based on the performance of students at each of the three grades and within specific subgroups of the population.

This report describes the results of NAEP's 1994 Reading Assessment, providing a portrait of reading achievement among the nation's fourth, eighth, and twelfth graders. In addition, this report compares students' 1994 achievement with results from the 1992 NAEP Reading Assessment. Making such a comparison is possible because both reading assessments share a common set of reading tasks and reflect the same reading framework.

Most of the jurisdictions that participated in the 1994 Trial State Assessment also participated in 1992, making it possible to report trend results for those individual jurisdictions. However, the 1994 assessment included both public and nonpublic school samples, while only public schools were involved in 1992. Consequently, trend results for jurisdictions are reported only for public school students.

Framework for the 1992 and 1994 Assessments

The *NAEP Reading Framework*[3] provided the operational specifications as well as the theoretical basis for developing the 1992 and 1994 reading assessments. The framework was the result of a national consensus effort in which ideas were sought from hundreds of individuals involved and interested in reading education in this country. This effort was managed by the Council of Chief State School Officers (CCSSO) under the direction of the National Assessment Governing Board (NAGB).

Grounded in current theories of reading, the *NAEP Reading Framework* views reading as a dynamic, complex interaction between and among the reader, the text, and the context of the reading experience. Readers, for example, bring to the reading situation their prior knowledge and reading experiences, their familiarity with the topic, their reasons for reading, their specific skills and strategies, and their knowledge of text structure.[4]

The framework specified that the assessment address three different purposes for reading: **reading for literary experience, reading to gain information,** and **reading to perform a task.** The latter was not assessed at grade 4. The framework also delineated four types of reading processes that characterize the ways in which readers interact with text and how they gain meaning from what they read. These processes are referred to as "reading stances." The purposes for reading, and the reading stances, are described in more detail in the following sections.

Purposes for Reading

Readers typically vary their approach depending on the type of text they are reading and their purpose for engaging in the activity.[5] The reason one is reading and the type of experience that is anticipated may influence the comprehension process, the types of strategies that are employed, and the aspects of text meaning that are integrated with personal knowledge.[6] Consequently, the purpose for reading associated with different types of texts and reading experiences may influence how and what a reader understands.

The NAEP reading assessment measured three purposes for reading as identified in the framework. Students were given various types of texts to read that are typically associated with each of the three purposes. Their abilities to read and understand were evaluated in terms of a single purpose for each type of text. The purposes are described in Figure 1.1.

Figure 1.1 Reading Purposes

Reading for Literary Experience

Reading for literary experience entails the reading of various literary texts to enlarge our experience of human events and emotions, and to enhance both our appreciation of the world and how it is depicted through language. Literary texts used in the NAEP reading assessment included adventure stories, poetry, science fiction, and folktales.

Reading to Gain Information

When reading to gain information, readers are usually focused on a specific topic or point of reference. They are trying to understand and retain the text information. Informative texts used in the NAEP reading assessment included science articles, primary and secondary historical sources, sections of textbook chapters, essays, and a speech.

Reading to Perform a Task

Reading to perform a task involves reading various types of materials for the purpose of applying the information or directions to complete a specific task. As such, readers must focus on how they will actually use the information. The materials used to assess this purpose in the NAEP reading assessment included classified advertisements, directions for completing various projects, and a tax form.

Reading Stances

Within each purpose for reading, the NAEP reading assessment questions asked students to demonstrate their comprehension through various stances, or orientations, to the texts. These stances are not considered to be a hierarchy of reading skills; rather, they describe reading processes that all readers utilize at any level of reading development. Furthermore, it is not intended that the stances represent a sequential routine of reading abilities. The process of reading typically involves a variety of changing stances that the reader takes toward the text, with each stance contributing a somewhat different dimension to the reader's comprehension.[7] The four stances are presented and described in Figure 1.2.

Figure 1.2 Reading Stances

Initial Understanding
preliminary consideration of the text as a whole
Readers are asked to consider the whole text in demonstrating an overall understanding of its meaning and function.

Developing an Interpretation
discerning connections and relationships among ideas within the text
Readers are asked to build upon their initial impressions to develop a more thorough understanding of the text and the interrelationship of its parts.

Personal Reflection and Response
relating personal knowledge to text ideas
Readers are asked to describe how ideas in the text confirm, contradict, or compare with prior knowledge and experiences.

Critical Stance
standing apart from the text to consider it objectively
Readers are asked to consider how the text conveys information, expresses ideas or feelings, and communicates a message.

The reading assessment questions were developed to reflect the four ways in which readers interact with text. The percentages of questions by stance within each reading purpose are displayed in Table 1.1.

TABLE 1.1

Distribution of Questions by Reading Stances

Grade	Purpose for Reading	Reading Stances: Initial Understanding & Developing an Interpretation	Reading Stances: Personal Response	Reading Stances: Critical Stance
4	Literary Experience	45%	22%	33%
	Gain Information	52%	27%	20%
	Perform a Task	*	*	*
	Total Assessment	49%	25%	27%
8	Literary Experience	41%	26%	34%
	Gain Information	56%	21%	23%
	Perform a Task	53%	11%	36%
	Total Assessment	50%	20%	30%
12	Literary Experience	44%	20%	37%
	Gain Information	44%	27%	29%
	Perform a Task	52%	5%	42%
	Total Assessment	46%	19%	35%

* Reading to Perform a Task was not assessed at Grade 4.

Percentages represent proportion of questions within purpose for reading subscale or within total grade-level assessments.

The Reading Assessment Instruments

The NAEP reading assessment is intended to provide useful information to a broad range of people. Therefore, it is imperative that the assessment reflect the perspectives and opinions about reading comprehension and its measurement currently held by educators and researchers. To that end, the assessment development process included an extensive series of reviews by reading and measurement experts, state officials, teachers, and reading researchers. All components of the assessment were evaluated for sensitivity concerns, curricular relevance, developmental appropriateness, and adherence to the framework and test specifications. In addition, the grade-level appropriateness of the reading material was determined through a nationwide review by teachers with corresponding grade-level experience.

Students were given reading materials that had been drawn from sources commonly available to students in and out of school. These materials were considered to be representative of typical reading experiences in that they were not written or abridged for the assessment. These were whole, intact stories, articles, and documents. Although presented to students in assessment booklets, they were reproduced to replicate as closely as possible their original format and presentation.

In some cases, students were given more than one passage at a time. With these reading activities, students were expected not only to demonstrate understanding of the individual texts, but also to integrate and synthesize ideas across the texts.

Each assessed student was asked to complete either one 50-minute set or two 25-minute sets of reading passages and questions. The majority of students' response time was devoted to answering constructed-response questions about what they had read. With this type of question, as opposed to multiple-choice formats, students must write their own answer based on their considerations of the text. By doing so, students demonstrate their abilities to produce personal reactions, generate conclusions, describe interpretations, or support critical evaluations.[8]

Across the three grades assessed — fourth, eighth, and twelfth — a total of 96 multiple-choice, 144 short constructed-response (scored using a two- or three-level scoring rubric), and 33 extended constructed-response (scored using a four-level scoring rubric) questions comprised the 1994 reading assessment. Many of these questions and their corresponding reading materials were administered at more than one grade to allow for across-grade comparisons. In terms of the amount of time students spent responding to these questions, the greatest emphasis was given to constructed-response questions. The proportion of response time students devoted to answering constructed-response questions was 63 percent at grade 4, 79 percent at grade 8, and 78 percent at grade 12. (The contribution of different question types to the NAEP reading scale is discussed in Appendix A.)

Description of School and Student Samples

As with all NAEP assessments, the schools and students participating in the 1994 reading assessment were selected through stratified random sampling procedures. Approximately 26,000 fourth, eighth, and twelfth graders in 1,500 public and nonpublic schools across the country participated in the national assessment. Separate from the national sample, representative samples of fourth graders within each of the 44 participating jurisdictions were selected for the Trial State Assessment. For a typical jurisdiction, this involved approximately 2,250 students sampled from approximately 100 public and nonpublic schools. Thus, NAEP's Trial State Assessment Program in reading involved approximately 120,000 students.

The national, regional, and jurisdictional results presented in this report are based on representative samples of students. Each selected school that participated in the assessment, and each student assessed, represents a portion of the population of interest. As a result, after adjusting for student and school nonresponses, the findings provided in this report pertain to all fourth, eighth, and twelfth graders in the nation and regions, and to all fourth graders in participating jurisdictions that met participation guidelines.

In carrying out the 1994 Trial State Assessment, NCES established participation rate standards that jurisdictions were required to meet in order for their results to be reported. Two states, Idaho and Michigan, failed to meet the initial school participation rate of 70 percent. In accordance with NCES guidelines, results for the fourth-grade public school students from these two states are not reported in this or any report of the 1994 NAEP Reading Assessment. Another jurisdiction, Washington. D.C., withdrew from the Trial State Assessment Program after the data collection phase. Consequently, neither public nor nonpublic school student results for Washington, D.C., are presented.

Additional standards were established that required the annotation of published results for jurisdictions whose sample participation rates were sufficiently low to raise concerns about the representativeness of their samples. In tables presenting state-level data, several jurisdictions are flagged to note the potential for nonresponse bias that may be associated with their school participation rates. (For a more detailed description of the sample and sampling procedures, see Appendix A.)

Reporting the Reading Assessment Results

The NAEP reading assessment provides a wealth of information on the reading abilities of the nation's fourth-, eighth-, and twelfth-grade students. To maximize the usefulness of these data to policy makers, educators, parents, and other interested parties, the NAEP results are presented as average scores on a reading proficiency scale and in terms of the proportion of students attaining NAEP reading achievement levels. Thus, NAEP results not only provide information about what students *know and can do,* but also indicate if their achievement meets expectations of what students *should know and should be able to do.* Furthermore, the descriptions of skills and abilities expected of students at each achievement level help make the reporting of assessment results more meaningful.

Reading Proficiency Scale. Results of the NAEP reading assessment are summarized on a reading proficiency scale that ranges from 0 to 500. This scale makes it possible to report and compare students' reading proficiency for the nation and across jurisdictions participating in the Trial State Assessment Program. In addition to the composite scale representing overall reading proficiency, three separate subscales are reported corresponding to the three reading purposes described earlier.

Responses to the 1994 NAEP Reading Assessment questions were analyzed to determine the percentages of students responding correctly to each multiple-choice question and the percentages of students responding in each of the score categories for constructed-response questions. Item response theory (IRT) methods were used to produce subscales that summarize results for each of the three purposes for reading. These subscales, which range from 0 to 500, are linked to their corresponding 1992 reading subscales through IRT equating procedures.

An overall composite scale was developed by weighting the separate purposes for reading scales based on the relative importance of each purpose in the NAEP reading framework. The resulting scale, which is also linked to the 1992 reading scale, is the reporting metric used in Chapters 2, 4, 5, and 6 to present results. (Details of the scaling procedures are presented in the *NAEP 1994 Technical Report* and the *NAEP 1994 Trial State Assessment Program Technical Report.*)

The relative contribution of each reading purpose to the overall proficiency score is presented in Table 1.2. As displayed, the weighting of each reading purpose subscale changes from grade to grade to reflect the changing demands made of students as they mature.

TABLE 1.2

Weighting of the Reading Purpose Subscales on the Composite Reading Scale

Grade	Literary Experience	To Gain Information	To Perform a Task
4	55%	45%	not assessed
8	40%	40%	20%
12	35%	45%	20%

Reading Achievement Levels. In addition to the NAEP proficiency scale, results are also reported using the reading achievement levels as authorized by the NAEP legislation and adopted by NAGB. The achievement levels are based on collective judgments, gathered from a broadly representative panel of teachers, education specialists, and members of the general public, about what students should know and be able to do relative to a body of content reflected in the NAEP assessment framework. For reporting purposes, the achievement level cut scores for each grade are placed on the NAEP reading proficiency scale resulting in four ranges: *Basic, Proficient, Advanced,* and the range *below Basic.* The definitions of the three achievement levels are presented below.

Figure 1.3 Achievement Level Definitions

Basic	This level denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade.
Proficient	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.
Advanced	This level signifies superior performance.

It should be noted that the setting of achievement levels for the national assessment is relatively new and in transition. Some evaluations have concluded that the percentages of students at certain levels may be underestimated.[9] On the other hand, critiques of those evaluations have found that such conclusions are not supported by the weight of the empirical evidence.[10]

The student achievement levels in this report have been developed carefully and responsibly, and have been subject to refinements and revisions in procedures as new technologies have become available. Upon reviewing the available information, the Commissioner of NCES has judged that the achievement levels are in a developmental status. However, the commissioner and the Governing Board also believe that the achievement levels are useful and valuable in reporting on the educational achievement of students in the United States. Results reported in terms of the reading achievement levels are presented in Chapter 3 of this report.

Interpreting NAEP Results

The average proficiencies and percentages presented in this report are estimates because they are based on samples rather than the entire population(s). As such, the results are subject to a measure of uncertainty, reflected in the standard errors of the estimates. These standard errors are presented in parentheses along with the estimated average proficiencies or percentages in tables throughout this report.

The significant differences discussed in the following chapters take into account the standard errors associated with the estimates. The comparisons are based on statistical tests that consider both the magnitude of the difference between the group average proficiencies or percentages and the standard errors of those statistics. The report presents significant differences (1) among the estimates for the reporting subgroups in the 1994 assessment and (2) between 1992 and 1994 results. Throughout this report, differences are defined as significant when they are significant from a statistical perspective. This means that observed differences are unlikely to be due to chance factors associated with sampling variability. All differences

reported are significant at the .05 level with appropriate adjustments for multiple comparisons. The term "significant," therefore, is not necessarily intended to imply judgment about the absolute magnitude or educational relevance of the differences. The term is intended to identify statistically dependable population differences as an aid in focusing subsequent dialogue among policymakers, educators, and the public.

Cautions in Interpretations. The reader is cautioned against using the NAEP results reported herein to make simple or causal inferences related to subgroup membership, effectiveness of public and nonpublic schools, and state educational systems. For example, performance differences observed among racial/ethnic subgroups are almost certainly associated with a broad range of socioeconomic and educational factors not discussed in this report and possibly not addressed by the NAEP assessment program. Similarly, differences between public and nonpublic schools may be better understood after accounting for factors such as composition of the student body, parents' educational levels, and parental interest. Finally, differences in reading performance among states most likely reflect an interaction between the effectiveness of the educational programs within the state and the challenges posed by economic constraints and student demographic demands.

Sample Assessment Questions and Student Responses

Sample questions and responses from the 1994 NAEP Reading Assessment are presented on the following pages. Three questions were selected for each grade to exemplify the range of reading abilities demonstrated by students. Reflecting the types of questions on the assessment, a combination of multiple-choice, short constructed-response, and extended constructed-response questions are included.

For each question, the reading purpose and reading stance being assessed are indicated. The stories or articles that were read by students before answering these questions appear in Appendix D along with additional sample questions and student responses. The correct answer is marked on the multiple-choice questions. For constructed-response questions, a summary of the scoring criteria used to rate students' answers is provided. Also, sample student responses have been reproduced from student assessment booklets to illustrate the typical answers that demonstrated at least adequate comprehension. The specific score assigned to each sample response is indicated.

The tables in this section present two types of percentages for each sample question: (1) the overall percentage of students within a grade who answered successfully, and (2) the conditional percentage representing the percentage of students within a specific score range on the NAEP reading composite scale who answered successfully. The score ranges correspond to the three achievement level intervals — *Basic*, *Proficient*, and *Advanced*. Conditional percentages for students within the *Advanced* achievement level interval are not presented, however, because of the small sample size. (Sample size criteria for reporting results are described in Appendix A.)

Story:

Hungry Spider and the Turtle

"Hungry Spider and the Turtle" is a West African folktale that humorously depicts hunger and hospitality through the actions and conversations of two very distinct characters. The ravenous and generous Turtle who is tricked out of a meal by the gluttonous and greedy Spider finds a way to turn the tables and teach the Spider a lesson.

Questions:

Who do you think would make a better friend, Spider or Turtle? Explain why.

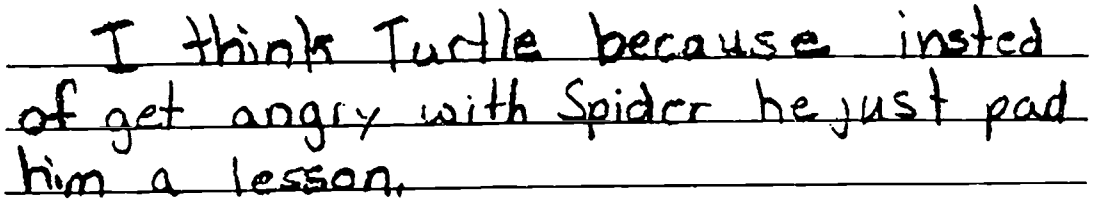
Reading Purpose: Literary Experience **Reading Stance:** Personal Response

Responses to this question were scored
1) Unacceptable, or 2) Acceptable.

Grade 4	Percentage "Acceptable" within Achievement Level Intervals		
Overall Percentage "Acceptable"	*Basic* 208-237*	*Proficient* 238-267*	*Advanced* 268 and above*
62 (1.4)	70 (2.7)	80 (2.1)	**

* NAEP Reading composite scale range. ** Sample size insufficient to permit reliable estimate. The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Sample Response (score of 2):



Acceptable responses (score of 2) indicated which character would make a better friend and provided appropriate evidence from the story in support of the selection.

Why did Spider invite Turtle to share his food?

A. To amuse himself

B. To be kind and helpful

C. To have company at dinner

▶D. To appear generous

Reading Purpose: Literary Experience **Reading Stance:** Developing an Interpretation

Grade 4	Percentage Correct within Achievement Level Intervals		
Overall Percentage Correct	***Basic*** **208-237***	***Proficient*** **238-267***	***Advanced*** **268 and above***
40 (1.2)	**45 (2.4)**	**73 (3.9)**	**

* NAEP Reading composite scale range. ** Sample size insufficient to permit reliable estimate. The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Think about Spider and Turtle in the story. Pick someone you know, have read about, or have seen in the movies or on television and explain how that person is like either Spider or Turtle.

Reading Purpose: Literary Experience **Reading Stance:** Personal Response

Responses to this question were scored according to a four-level rubric as 1) Unsatisfactory, 2) Partial, 3) Essential, or 4) Extensive.

Grade 4	Percentage "Essential" or Better within Achievement Level Intervals		
Overall Percentage "Essential" or Better	*Basic* 208-237*	*Proficient* 238-267*	*Advanced* 268 and above*
29 (1.3)	33 (2.8)	54 (3.0)	**

* NAEP Reading composite scale range. ** Sample size insufficient to permit reliable estimate. The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Sample response (score of 3):

a boy named Patrick
In the book called Indian in the
Cupboard, He is selfish like Spider.
He wants all the plastic toys.
A girl named Omri im that
book is not selfish. She's willing
to share the toys with Patrick.

Responses scored Essential (score of 3) demonstrated adequate understanding of the character of Spider or Turtle by providing any story-supported character trait and relating or linking that trait to a fictional character or real-life person.

Sample response (score of 4):

I think Spider reminds me of the rabbit in the book The Great Race because the rabbit thought that he could trick and beat the turtle easily. Turtle reminds me of the turtle in The Great Race because the turtle outsmarted the rabbit and won the race.

Responses that reached the Extensive level (score of 4) demonstrated a full understanding of the character of Spider or Turtle. In their comparison to a fictional character or real-life person, these responses often discussed both characters and the interaction between them.

Informative Article:

The Lost People of Mesa Verde

"The Lost People of Mesa Verde" refers to the Anasazi, Native Americans who lived peacefully for eight hundred years in Southwestern Colorado, and then disappeared. This informative article outlines their history, describes aspects of their ancient culture, and provides archeological and scientific explanations of their moves and disappearance.

Questions:

Which idea from the text about the Anasazi do the photographs support?

- ▶**A.** They were able to create many useful projects.
- **B.** Farming was probably their major source of food.
- **C.** Wood seems to have been their primary building material.
- **D.** Their life became much easier when they moved into the cliff dwellings.

Reading Purpose: To Gain Information

Reading Stance: Critical Stance

Grade 8	Percentage Correct within Achievement Level Intervals		
Overall Percentage Correct	*Basic* 243-280*	*Proficient* 281-322*	*Advanced* 323 and above*
70 (1.0)	75 (1.8)	88 (1.6)	**

* NAEP Reading composite scale range. ** Sample size insufficient to permit reliable estimate. The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Imagine that you are living with the people of Mesa Verde during the 1200's when they left the mesa. Some of your friends and neighbors do not want to leave the area. Based on information in the article, what would you tell these people to convince them to leave?

Reading Purpose: To Gain Information **Reading Stance:** Developing an Interpretation

Responses to this question were scored according to a three-level rubric as 1) Unsatisfactory, 2) Partial, or 3) Complete.

Grade 8	Percentage "Complete" within Achievement Level Intervals		
Overall Percentage "Complete"	*Basic* 243-280*	*Proficient* 281-322*	*Advanced* 323 and above*
41 (1.3)	43 (2.4)	59 (3.4)	**

* NAEP Reading composite scale range. ** Sample size insufficient to permit reliable estimate. The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Sample response (score of 3):

That the lands growing weak and we need to get of., Of it before it just disinagrates. That way the land can heal., and We can move back to here.

Responses rated as Complete (score of 3) used appropriate information from the text to convincingly argue one or more reasons for leaving the mesa.

The three moves made by the Anasazi are listed below. Explain the possible reasons that were suggested in the article for each move.

- 500-1200 A.D. The Anasazi moved from the alcoves to the top of Mesa Verde.
- 1200 A.D. The Anasazi moved back down into the alcoves in the cliffs.
- 1300 A.D. The Anasazi left Mesa Verde.

Reading Purpose: To Gain Information **Reading Stance:** Developing an Interpretation

Responses to this question were scored according to a four-level rubric as 1) Unsatisfactory, 2) Partial, 3) Essential, or 4) Extensive.

Grade 8	Percentage "Essential" or Better within Achievement Level Intervals		
Overall Percentage "Essential" or Better	*Basic* 243-280*	*Proficient* 281-322*	*Advanced* 323 and above*
25 (1.2)	22 (2.2)	49 (4.1)	**

* NAEP Reading composite scale range. ** Sample size insufficient to permit reliable estimate. The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Sample response (score of 3):

500-1200 A.D.—The Anasazi moved from the alcoves to the top of Mesa Verde.

I think they might of moved to the top of the mesa because they would be closer to their crops.

1200 A.D.—The Anasazi moved back down into the alcoves in the cliffs.

I think they moved back down because they might have not had good shelter or wild animals were getting them.

1300 A.D.—The Anasazi left Mesa Verde.

I think they left the mesa because there was no good land to farm on anymore

Essential comprehension (score of 3) was demonstrated in responses that identified a reason for each of the three moves by restating information from the article.

Sample response (score of 4):

500-1200 A.D.—The Anasazi moved from the alcoves to the top of Mesa Verde.
They may have wanted higher ground to prevent flood. Mesa Verde may have had more fertile land than the alcoves.

1200 A.D.—The Anasazi moved back down into the alcoves in the cliffs.
The cliffs may have provided some shelter from wind or rain. The mesa just sits there with no protection of anything.

1300 A.D.—The Anasazi left Mesa Verde.
Food shortage and the cold, harsh winters could have caused this. People didn't live to be very old either.

Responses reflecting Extensive comprehension (score of 4) went beyond simply restating information from the article to interpret that information and express how it related to the three moves.

Story:

The Flying Machine

"The Flying Machine" tells the story of a difficult decision made by Emperor Yuan one day in the year 400 A.D. To protect the peace of his dominion from the possibility of future invasion, the Emperor must sacrifice the momentary beauty provided by an invention. This story considers the nature of progress and explores the themes of political and personal responsibility.

Questions:

Which group of words best helps you to understand the message of this story?

A. Strength, joy, humor

B. Foolishness, anger, endurance

C. Communication, friendship, honesty

▶**D.** Fear, frustration, bewilderment

Reading Purpose: Literary Experience

Reading Stance: Initial Understanding

Grade 12	Percentage Correct within Achievement Level Intervals		
Overall Percentage Correct	*Basic* 265-301*	*Proficient* 302-345*	*Advanced* 346 and above*
62 (1.2)	65 (2.2)	82 (2.4)	**

* NAEP Reading composite scale range. ** Sample size insufficient to permit reliable estimate. The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Some people could believe that "The only circumstance in which we are justified in taking the life of another person is in self-defense." Would the Emperor agree with this statement? Explain why or why not, using the information contained in the story.

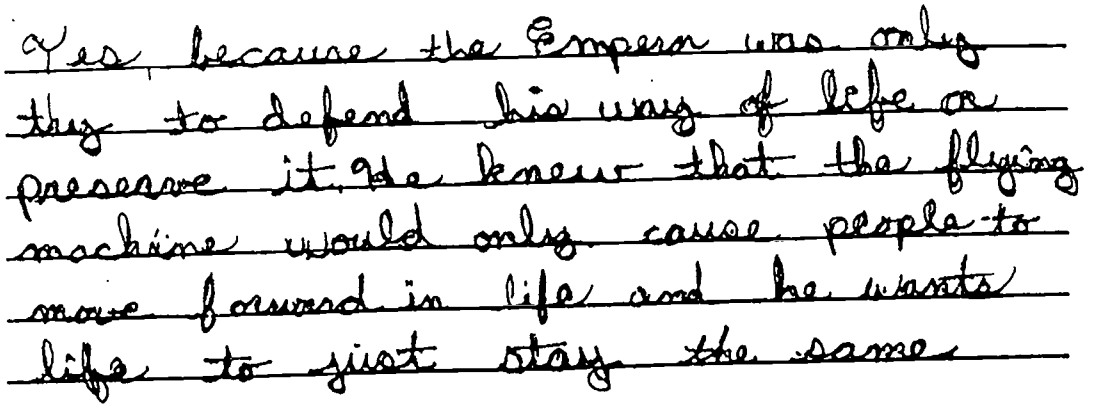
Reading Purpose: Literary Experience **Reading Stance:** Personal Response

Responses to this question were scored according to a four-level rubric as 1) Unsatisfactory, 2) Partial, 3) Essential, or 4) Extensive.

Grade 12	Percentage "Essential" or Better within Achievement Level Intervals		
Overall Percentage "Essential" or Better	*Basic* 265-301*	*Proficient* 302-345*	*Advanced* 346 and above*
38 (1.5)	30 (3.6)	72 (3.1)	**

* NAEP Reading composite scale range. ** Sample size insufficient to permit reliable estimate. The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Sample response (score of 3):



Responses rated Essential (score of 3) made explicit reference to some element of the story and demonstrated an understanding of the idea of justifiable killing in self-defense and of the character of the Emperor.

Sample response (score of 4):

I think that the Emporer agrees with this statement because he fears that the peace of his country will be destroyed. The Emporer sees the flying machine as a threat instead of a way of transportation or shear joy. The Emporer is perhaps against advancement because he feels that it only allows for a way for people to tear down the Great Wall.

The Emporer has the inventor executed because he fears the defense of his country. By allowing people to gain knowledge of this flying machine, the Emporer feels that the "evil" people will use it against the country. Therefore the Emporer feels justified in having the inventor put to death

Responses rated as Extensive (score of 4) went beyond the confines of the story to consider the Emperor's character and actions within a larger context of ideas such as fear of progress or the misuse of knowledge.

What is the major conflict in the story?

Reading Purpose: Literary Experience **Reading Stance:** Developing an Interpretation

Responses to this question were scored
1) Unacceptable, or 2) Acceptable.

Grade 12	Percentage "Acceptable" within Achievement Level Intervals		
Overall Percentage "Acceptable"	***Basic*** **265-301***	***Proficient*** **302-345***	***Advanced*** **346 and above***
29 (1.7)	**25 (2.4)**	**44 (3.3)**	**

* NAEP Reading composite scale range. ** Sample size insufficient to permit reliable estimate. The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Sample response (score of 2):

The major conflict in the story is the balance between the maintainence of existing harmony and the progression of technology through the ambitions of an individual.

Acceptable responses (score of 2) identified a conflict in the story's action or interpreted the action to provide a more abstract conflict inherent to the story's theme.

Endnotes

1. Peterson, M. D. (Ed.). (1984). *Jefferson*. New York, NY: Literary Classics of the United States. (p. 476).

2. The term "jurisdictions" refers to the states, territories, and Department of Defense Education Activity (DoDEA) Overseas schools that participated in the Trial State Assessment.

3. National Assessment Governing Board. *Reading framework for the 1992 and 1994 national assessment of educational progress.* Washington, DC: Author.

4. Anderson, R.C., & Pearson, P.D. (1984). A schema- theoretic view of basic processes in reading comprehension. In P.D. Pearson (Ed.), *Handbook of reading research* (pp. 255-292). New York: Longman.

   Pressley, M. & Afflerbach, P. (1995). *Verbal protocols of reading: The nature of constructively responsive reading*. Hillsdale, NJ: Lawrence Erlbaum Associates.

   Ruddell, R.B. & Unrau, N.J. (1994). Reading as a meaning-construction process: The reader, the text, and the teacher. In R.B. Ruddell, M.R. Ruddell, & H. Singer (Eds.), *Theoretical models and processes of reading* (pp. 864-894). Newark, DE: International Reading Association.

5. Taylor, B.M. (1992). Text structure, comprehension, and recall. In S.J. Samuels, & A.E. Farstrup (Eds.), *What research has to say about reading instruction* (pp. 220-235). Newark, DE: International Reading Association.

   Hynd, C.R. & Chase, N.D. (1991). The relation between text type, tone, and written response. *Journal of Reading Behavior, 23*, 281-306.

6. Mathewson, G.C. (1994). Model of attitude influence upon reading and learning to read. In R.B. Ruddell, M.R. Ruddell, & H. Singer (Eds.), *Theoretical models and processes of reading* (pp. 1131-1161). Newark, DE: International Reading Association.

   Rosenblatt L.M. (1994). The transactional theory of reading and writing. In R.B. Ruddell, M.R. Ruddell, & H. Singer (Eds.), *Theoretical models and processes of reading* (pp. 1057-1092). Newark DE: International Reading Association.

   Langer, J.A. (1993). *Approaches toward meaning in low- and high-rated readers* (Report No. 2-20). National Research Center on Literature Teaching and Learning. Washington, DC: Office of Educational Research and Improvement.

7. Langer, J.A. (1990). The processes of understanding: Reading for literary and informative purposes. *Research in the Teaching of English, 24* (3), 229-259.

8. Dole, J.A., Duffy, G.G., Roehler, L.R., & Pearson, P.D. (1991). Moving from the old to the new: Research on reading comprehension instruction. *Review of Educational Research, 61*(2), 239-264.

   Flood, J., & Lapp, D. (1994). Developing literary appreciation and literacy skills: A blueprint for success. *The Reading Teacher, 48*(1), 76-79.

   Spires, H.A., Huntley-Johnson, L., & Huffman, L.E. (1993). Developing a critical stance toward text through reading, writing, and speaking. *Journal of Reading, 37*(2), 114-122.

9. *Education achievement standards, NAGB's approach yields misleading interpretations,* United States General Accounting Office Report to Congressional Requestors (Washington, DC: United States General Accounting Office, June 1993.) GAO/PEMD-93-12 Educational Achievement Standards.

   Setting achievement levels for the nation, The second Report of the National Academy of Education Panel on the Evaluation of the NAEP Trial State Assessment, 1992 Trial State Assessment (Stanford, CA: National Academy of Education, 1993.)

10. American College Testing, *NAEP Reading revisited: An evaluation of the 1992 achievement levels descriptions* (Washington, DC: National Assessment Governing Board, 1995.)

    American College Testing, *Technical report on setting achievement levels on the 1992 National Assessment of Educational Progress in mathematics, reading, and writing* (Washington, DC: National Assessment Governing Board, 1993.)

    Cizek, G., *Reactions to national academy of education report* (Washington, DC: National Assessment Governing Board, 1993.)

    Kane, M., *Comments on the NAEP evaluation of the NAGB achievement levels* (Washington, DC: National Assessment Governing Board, 1993.)

CHAPTER 2

Reading Proficiency Results for the Nation, Regions, and States

Overview

This chapter presents the overall reading proficiencies of students in grades 4, 8, and 12. Findings from the 1992 and 1994 assessments in reading are presented for the nation, for regions of the country, and for selected subgroups of students. Results from the 1992 and 1994 Trial State Assessment Programs at grade 4 are also presented. The findings are summarized on the 0 to 500 NAEP composite reading proficiency scale.

In addition, the 1994 reading assessment data are explored in more depth by examining the interactions among several major reporting variables. Average reading proficiency is examined for subgroups of students within various demographic populations. By doing so, it is possible to determine if general patterns of reading performance for certain groups of students are related to additional background characteristics.

The differences reported between subgroups for the 1994 assessment and between the 1992 and 1994 assessments are statistically significant at the .05 level. In interpreting these results, the reader is reminded of the cautions described in Chapter 1 regarding simple or causal inferences.

Average Reading Proficiency Results for the Nation and Regions

Table 2.1 presents the average reading proficiencies of fourth-, eighth-, and twelfth-grade students across the nation, including those attending public and nonpublic schools. Results are presented for both the 1992 and 1994 reading assessments.

TABLE 2.1

Average Reading Proficiency by Percentile Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Average Proficiency	10th Percentile	25th Percentile	50th Percentile	75th Percentile	90th Percentile
Grade 4						
1992	217 (0.9)	170 (1.6)	194 (1.0)	219 (1.2)	242 (1.0)	261 (1.4)
1994	214 (1.0)	159 (1.6)<	189 (1.2)<	219 (1.1)	243 (1.1)	263 (1.5)
Grade 8						
1992	260 (0.9)	213 (1.1)	237 (1.1)	262 (0.9)	285 (1.0)	305 (1.3)
1994	260 (0.8)	211 (1.4)	236 (1.1)	262 (0.7)	286 (1.1)	305 (1.1)
Grade 12						
1992	292 (0.6)	249 (0.8)	271 (0.8)	294 (0.8)	315 (0.6)	333 (0.8)
1994	287 (0.7)<	239 (0.9)<	264 (0.9)<	290 (0.8)<	313 (0.9)	332 (1.3)

< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level.

The standard errors of the estimated percentages and proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

- In 1994 the average reading proficiency of students at grade 4 was 214. The bottom 10 percent of the fourth graders scored at or below 159 and the top 10 percent scored at or above 263. Average performance at grade 4 did not change significantly between the 1992 and 1994 reading assessments.
- At grade 8, the average proficiency in 1994 was 260. The bottom 10 percent of the population scored at or below 211 and the top 10 percent scored at or above 305. The average reading score at this grade did not change significantly between the two assessments.
- In 1994, the average reading proficiency of students at grade 12 was 287. The bottom 10 percent of the population scored at or below 239 and the top 10 percent scored at or above 332. Average proficiency at grade 12 decreased significantly by 5 points between 1992 and 1994. The decline is concentrated among lower performing students — those in the 10th, 25th, and 50th percentiles.

TABLE 2.2

Average Reading Proficiency by Region Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Grade 4		Grade 8		Grade 12	
	1992	1994	1992	1994	1992	1994
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
Nation	217 (0.9)	214 (1.0)	260 (0.9)	260 (0.8)	292 (0.6)	287 (0.7)<
Region						
Northeast	21 (1.1)	23 (0.9)	22 (0.7)	20 (0.8)	24 (0.6)	20 (0.5)<
	222 (3.6)	215 (2.1)	263 (1.7)	265 (2.3)	294 (1.1)	288 (1.7)<
Southeast	23 (1.0)	23 (1.1)	25 (0.5)	26 (1.0)	23 (0.6)	23 (0.7)
	213 (2.3)	210 (2.0)	254 (1.7)	252 (1.7)	285 (1.1)	282 (1.2)
Central	27 (0.5)	25 (0.7)<	25 (0.5)	24 (0.6)	26 (0.6)	27 (0.7)
	219 (1.4)	220 (2.4)	264 (2.2)	264 (1.7)	295 (1.1)	291 (1.2)<
West	28 (0.8)	29 (0.8)	28 (0.6)	30 (0.8)	27 (0.8)	29 (0.8)
	214 (1.4)	212 (2.0)	259 (1.2)	259 (1.2)	294 (1.5)	288 (1.4)<

Differences between regions may be partially explained by other factors not included in this table.

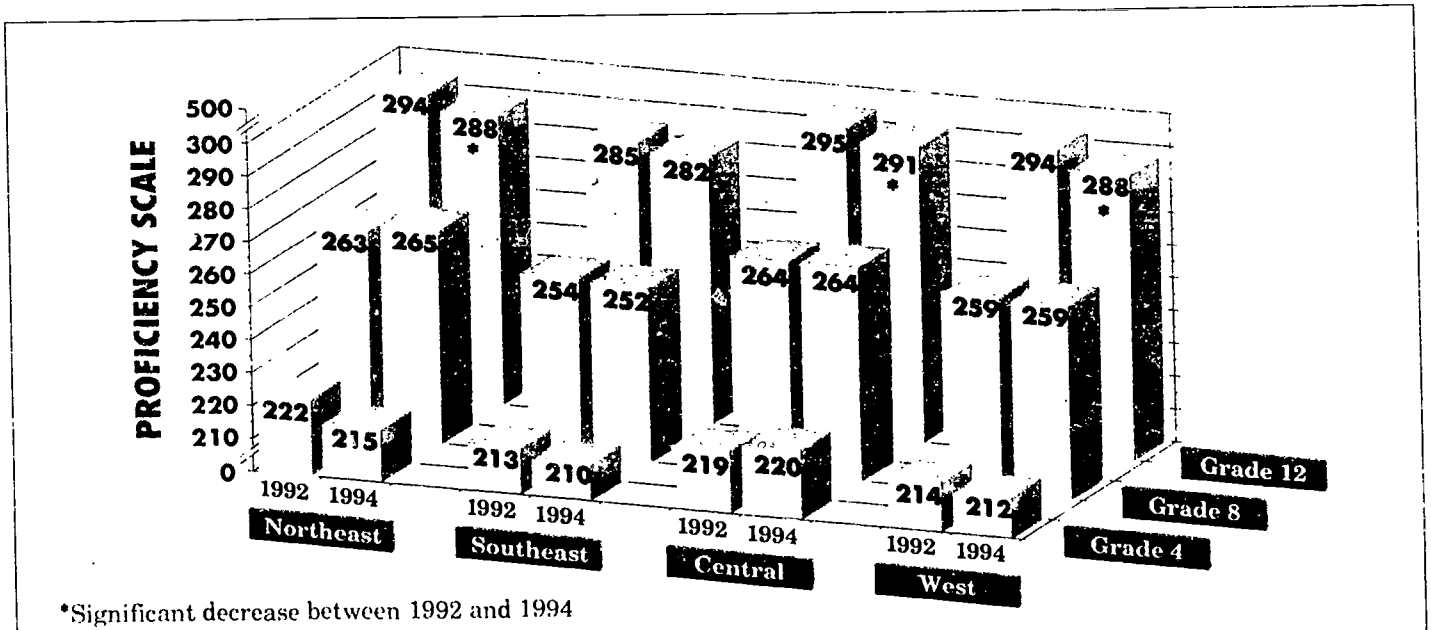
< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level.

The standard errors of the estimated percentages and proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Due to rounding, the percentages of students in the regions may not total 100 percent.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

Figure 2.1 Average Reading Proficiency by Grade and by Region — NAEP 1992 and 1994



*Significant decrease between 1992 and 1994

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

In addition to examining results for the nation as a whole, findings are also presented for the four regions of the country: Northeast, Southeast, Central, and West. The composition of the regions is described in Appendix A. Table 2.2 and Figure 2.1 present regional results for all three grades.

At grade 4, the average reading proficiency of students attending schools in the Central region was significantly higher than that of students in the Southeast region. At grades 8 and 12, students in the Southeast exhibited significantly lower average reading proficiencies than their counterparts in the other three regions of the country. In addition, the average reading proficiency of eighth-grade students attending schools in the Central region was significantly higher than that of students in the West.

- The decline in average reading proficiency between 1992 and 1994 for twelfth-grade students was evident in three of the four regions of the country: the West (six points), the Northeast (six points), and the Central region (five points).[1] In the Southeast, the 1994 average proficiency was not significantly different from 1992.
- Other regional changes in reading proficiency between the two assessments for grades 4 and 8 were not statistically significant, including the seven-point decline for fourth-grade students in the Northeast.

Average Reading Proficiency Results for the States

In addition to the national component of the 1992 and 1994 NAEP reading assessments, state-by-state reading assessments were conducted at grade 4. Table 2.3 presents the average reading proficiencies of fourth-grade public school students for each jurisdiction that participated in 1992 and 1994 NAEP Trial State Assessments. Overall, 44 jurisdictions participated in the 1994 state-level assessment. However, two states, Idaho and Michigan, did not meet minimum school participation guidelines for public schools; therefore, their public school results are not presented in this report. Several other states failed to meet more stringent participation rate standards; results for these jurisdictions are included in the report but are properly noted in the relevant tables and appendices. Results for Washington, DC, are not contained in this report because this jurisdiction withdrew from the Trial State Assessment Program after the data collection phase. Therefore, Table 2.3 presents results for 41 participating

TABLE 2.3 **Average Grade 4 Reading Proficiency NAEP Trial State Assessments in Reading Public Schools Only**

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	1992 Average Proficiency	1994 Average Proficiency
Nation	215 (1.0)	212 (1.1)
Region		
Northeast	220 (3.9)	212 (2.2)
Southeast	211 (2.5)	208 (2.0)
Central	218 (1.5)	218 (2.7)
West	212 (1.6)	212 (2.2)
State		
Alabama	207 (1.7)	208 (1.5)
Arizona	209 (1.2)	206 (1.9)
Arkansas	211 (1.2)	209 (1.7)
California	202 (2.0)	197 (1.8)<
Colorado	217 (1.1)	213 (1.3)
Connecticut	222 (1.3)	222 (1.6)
Delaware‡	213 (0.6)	206 (1.1)<<
Florida	208 (1.2)	205 (1.7)
Georgia	212 (1.5)	207 (2.4)
Hawaii	203 (1.7)	201 (1.7)
Indiana	221 (1.3)	220 (1.3)
Iowa	225 (1.1)	223 (1.3)
Kentucky	213 (1.3)	212 (1.6)
Louisiana	204 (1.2)	197 (1.3)<<
Maine‡	227 (1.1)	228 (1.3)
Maryland	211 (1.6)	210 (1.5)
Massachusetts	226 (0.9)	223 (1.3)
Minnesota	221 (1.2)	218 (1.4)
Mississippi	199 (1.3)	202 (1.6)
Missouri	220 (1.2)	217 (1.5)
Montana†	—	222 (1.4)
Nebraska†‡	221 (1.1)	220 (1.5)
New Hampshire†‡	228 (1.2)	223 (1.5)<
New Jersey‡	223 (1.4)	219 (1.2)
New Mexico	211 (1.5)	205 (1.7)<
New York‡	215 (1.4)	212 (1.4)
North Carolina	212 (1.1)	214 (1.5)
North Dakota	226 (1.1)	225 (1.2)
Pennsylvania†	221 (1.3)	215 (1.6)<
Rhode Island†	217 (1.8)	220 (1.3)
South Carolina	210 (1.3)	203 (1.4)<<
Tennessee†	212 (1.4)	213 (1.7)
Texas	213 (1.6)	212 (1.9)
Utah	220 (1.1)	217 (1.3)
Virginia	221 (1.4)	213 (1.5)<<
Washington	—	213 (1.5)
West Virginia	216 (1.3)	213 (1.1)
Wisconsin†	224 (1.0)	224 (1.1)
Wyoming	223 (1.1)	221 (1.2)
Other Jurisdictions		
DoDEA	—	218 (0.9)
Guam	182 (1.4)	181 (1.2)

Differences between states may be partially explained by other factors not included in this table.

<< The value for 1994 was significantly lower than the value for 1992 at or about the 95 percent certainty level. These notations indicate statistical significance from a multiple comparison procedure based on 38 jurisdictions participating in both 1994 and 1992. If looking at only one state, < indicates the value for 1994 was significantly lower than the value for 1992 at or about the 95 percent certainty level. Statistically significant differences between 1994 and 1992 for the state comparison samples for the nation and regions are not indicated.

† Did not satisfy one of the guidelines for school sample participation rates in 1994 (see Appendix A).

‡ Did not satisfy one of the guidelines for school sample participation rates in 1992.

The standard errors of the estimated proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

— Jurisdiction did not participate in 1992 Trial State Assessment.

DoDEA Department of Defense Education Activity Overseas Schools

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

jurisdictions. (Note that two states, Montana and Washington, and the Department of Defense Education Activity (DoDEA) Overseas Schools participated in the 1994 assessment but not the 1992 assessment.)

- Most jurisdictions reflected the national results displaying no change in fourth graders' reading proficiency between 1992 and 1994. Approximately 20 percent of those jurisdictions that participated in both assessments did show significant decreases in average reading proficiency.

The states that exhibited a significant decrease in average scores are indicated with a < or << notation next to the 1994 averages in Table 2.3. The difference between the two notations is explained in the footnote. (For detailed comparisons among the jurisdictions, readers should refer to Chapter 4 of this report.)

Average Reading Proficiency Results for Selected Groups

This section focuses on the national results for subgroups of students defined by race/ethnicity, gender, school's type of location, parents' education, Title I participation, and type of school. In addition, nonpublic school results are presented for jurisdictions that met minimum participation guidelines. The 1994 Trial State Assessment Program marked the first time that state-level data were collected for nonpublic schools (Catholic and other religious and private schools) as well as for public schools. State-level results by race/ethnicity, gender, school's type of location, parents' education, and Title I participation are presented in Appendix C.

Cautions in Interpretations. The reader is cautioned against using these data to make simple or causal inferences about subgroup membership or about the effectiveness of Title I programs or public and nonpublic schools. Average performance differences between groups of students may be due in part to socioeconomic and home background factors. For example, differences observed among racial/ethnic subgroups are almost certainly associated with a broad range of socioeconomic and educational factors. Similarly, differences between public and nonpublic schools may be better understood after accounting for factors such as composition of the student body, parents' education levels, and parental involvement. Subgroup performance is explored in greater depth later in this chapter, but this report does not provide an exhaustive inquiry into the many and diverse factors that help to explain the average reading performance of any given subgroup of students.

Race/Ethnicity. As part of the background questionnaire that was administered with the 1994 NAEP Reading Assessment, students were asked to indicate the racial/ethnic subgroup that best describes them. The mutually exclusive categories were White, Black, Hispanic, Asian, Pacific Islander, and American Indian (including Alaskan Native). A similar question was asked of students participating in the 1992 reading assessment, although in that questionnaire the Asian and Pacific Islander categories were combined into a single response option. Thus, trends can be reported for White, Black, Hispanic, and American Indian students, but not for students identifying themselves as Asian or Pacific Islander.

The 1992 and 1994 average reading proficiencies of students in various racial/ethnic subgroups are presented in Table 2.4. The 1994 assessment, like previous assessments, revealed substantial variation in average reading proficiency among the different racial/ethnic subgroups. At all three grades, the average proficiencies of Asian and White students were significantly higher than those of Black and Hispanic students; they were also higher than those of American Indian students at grades 4 and 8. At grade 12, White students outperformed Asian students.

- Consistent with the national and regional results, the average reading proficiencies of White, Black, and Hispanic students at grade 12 declined significantly between 1992 and 1994.
- At the other two grades, only fourth-grade Hispanic students exhibited a significant change (a 10 point decline) between the two assessments.

The national racial/ethnic subgroup results are summarized in Figure 2.2. The gaps in the scale scores are intended to highlight specific points on the NAEP 0 to 500 scale, but they are not representative of significant differences among the values. The subgroups highlighted in blue exhibited a significant change (in all cases a decline) between 1992 and 1994. Complete results, including standard errors, are presented in Table 2.4.

TABLE 2.4

Average Reading Proficiency by Race/Ethnicity Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Grade 4		Grade 8		Grade 12	
	1992	1994	1992	1994	1992	1994
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
Nation	217 (0.9)	214 (1.0)	260 (0.9)	260 (0.8)	292 (0.6)	287 (0.7)<
White	71 (0.2)	69 (0.2)<	70 (0.2)	70 (0.3)	72 (0.4)	73 (0.3)>
	225 (1.2)	224 (1.3)	267 (1.2)	268 (1.0)	298 (0.6)	294 (0.7)<
Black	16 (0.1)	15 (0.2)<	15 (0.2)	15 (0.2)	15 (0.4)	13 (0.3)<
	193 (1.6)	187 (1.7)	238 (1.6)	237 (1.7)	273 (1.4)	265 (1.6)<
Hispanic	9 (0.1)	12 (0.2)>	10 (0.2)	11 (0.2)	9 (0.4)	8 (0.3)
	201 (2.1)	191 (2.6)<	241 (1.4)	240 (1.4)	278 (2.3)	270 (1.5)<
Asian	—	2 (0.2)	—	2 (0.2)	—	3 (0.3)
	—	232 (5.5)	—	273 (2.6)	—	280 (2.8)
Pacific Islander	—	1 (0.1)	—	1 (0.4)	—	1 (0.3)
	—	219 (5.0)	—	259 (7.4)!	—	280 (3.9)!
American Indian	2 (0.2)	2 (0.2)	1 (0.2)	1 (0.2)	0 (0.1)	1 (0.4)
	207 (4.6)	201 (3.4)	251 (3.7)	251 (4.2)	***	275 (5.3)!

Differences between groups may be partially explained by other factors not included in this table.

— Due to significant changes in wording of the race/ethnicity question between the 1992 and 1994 assessments, the 1992 results for Asian and Pacific Islander students are not comparable to 1994 results.

! Interpret with caution any comparisons involving this statistic. The nature of the sample does not allow for accurate determination of the variability of this value.

The standard errors of the estimated percentages and proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level.

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

Percentages may not total 100 percent due to rounding or, in the case of the race/ethnicity variable, because some students categorized themselves as "other".

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

FIGURE 2.2

Summary of Average Reading Proficiency Results by Race/Ethnicity

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

Grade 4

1992		1994
	232	Asian
White	225	
	224	White
	219	Pacific Islander
NATION	217	
	214	**NATION**
American Indian	207	
Hispanic	201	American Indian
Black	193	
	191	Hispanic
	187	Black

◀ At grade 4, Asian and White students outperformed American Indian, Hispanic, and Black students in 1994.

◀ The average proficiency of Hispanic fourth-graders decreased significantly between 1992 and 1994. No other significant changes were observed among the racial/ethnic groups at grade 4.

Asian and White eighth graders exhibited ▶ significantly higher average reading proficiencies than American Indian, Hispanic, and Black students in 1994.

No significant changes were observed ▶ between the 1992 and 1994 assessments for any of the racial/ethnic subgroups at grade 8.

Grade 8

1992		1994
	273	Asian
	268	White
White	267	
NATION	260	**NATION**
	259	Pacific Islander
American Indian	251	American Indian
Hispanic	241	
	240	Hispanic
Black	238	
	237	Black

Grade 12

1992		1994
White	298	
	294	White
NATION	292	
	287	**NATION**
	280	Pacific Islander, Asian
Hispanic	278	
	275	American Indian
Black	273	
	270	Hispanic
	265	Black

◀ In the 1994 assessment, White students at grade 12 performed significantly better than Asian, Black, and Hispanic students. Asian students exhibited significantly higher average proficiencies than Hispanic and Black students.

◀ As with the nation, the performance of most racial/ethnic subgroups at grade 12 declined significantly between the 1992 and 1994 assessments.

Gender. Table 2.5 presents the average reading proficiencies of male and female students in grades 4, 8, and 12. At all three grades, female students had significantly higher average reading proficiencies than male students. Specifically, the differences in average proficiency between the two groups were 10 points at grade 4, 15 points at grade 8, and 14 points at grade 12. (See endnote 1.) Similar gender differences in reading proficiency were also observed in the 1992 assessment.[2]

- The overall decline in reading proficiency at grade 12 between 1992 and 1994 was reflected in the proficiency estimates of both male and female students.
- At the two lower grades, neither male or female students showed a significant change in performance over the two year period.

TABLE 2.5

Average Reading Proficiency by Gender Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Grade 4		Grade 8		Grade 12	
	1992	1994	1992	1994	1992	1994
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
Nation	217 (0.9)	214 (1.0)	260 (0.9)	260 (0.8)	292 (0.6)	287 (0.7)<
Male	51 (0.6)	51 (0.7)	51 (0.7)	50 (0.6)	49 (0.6)	50 (0.8)
	213 (1.2)	209 (1.3)	254 (1.1)	252 (1.0)	287 (0.7)	280 (0.8)<
Female	49 (0.6)	49 (0.7)	49 (0.7)	50 (0.6)	51 (0.6)	50 (0.8)
	221 (1.0)	220 (1.1)	267 (1.0)	267 (1.0)	297 (0.7)	294 (0.8)<

Differences between the two groups may be partially explained by other factors not included in this table.

< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level.

The standard errors of the estimated percentages and proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

Type of Location. Each participating school in the 1994 reading assessment was classified according to its type of location. The three categories of location — Central City, Urban Fringe/Large Town, and Rural/Small Town — are based on Census Bureau definitions of metropolitan statistical areas, population size, and density. These classifications are based solely on geographic characteristics. (The type of location classifications are described in Appendix A.) Table 2.6 presents results for all three grades by type of location.

In 1994, differences among the three types of locations were most evident at grade 4. Students attending schools in Urban Fringe/Large Town areas outperformed their counterparts in Central City and Rural/Small Town schools. Fourth graders in Rural/Small Town schools exhibited a higher average reading proficiency than those in Central City schools. At grade 8, students attending schools in Urban Fringe/Large Town areas outperformed students attending schools in Central City areas. However, the average reading proficiency of eighth graders in Rural/Small Town schools was not significantly different from the average of students in either Urban Fringe/Large Town or Central City schools. Finally, at grade 12, no significant differences in average reading performance were found among any of the three types of locations in 1994.

- Between 1992 and 1994, the only significant changes in reading performance observed were at grade 12. For students attending schools in Urban Fringe/Large Town and Rural/Small Town areas, average proficiencies declined significantly. There was no significant change for students attending Central City schools.
- At grades 4 and 8, no changes across assessments by type of location were found to be significant.

Parents' Level of Education. As part of the student background questionnaire, students were asked to report on the education level of their parents or guardians. The four levels were:

- Did not finish high school
- Graduated from high school
- Some education after high school
- Graduated from college

The parental education variable reported in this section is the highest level reported by students for either parent. Students could also respond "I don't know."

TABLE 2.6

Average Reading Proficiency by Type of Location Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Grade 4		Grade 8		Grade 12	
	1992	1994	1992	1994	1992	1994
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
Nation	217 (0.9)	214 (1.0)	260 (0.9)	260 (0.8)	292 (0.6)	287 (0.7)<
Central City	32 (2.6)	35 (2.0)	33 (2.6)	34 (2.2)	31 (2.3)	31 (2.1)
	210 (1.3)	207 (2.1)	253 (1.6)	257 (1.6)	290 (1.5)	288 (1.1)
Urban Fringe/Large Town	42 (3.2)	43 (2.3)	44 (3.3)	40 (2.6)	44 (2.7)	42 (2.6)
	221 (1.9)	221 (1.8)	265 (1.3)	262 (1.2)	294 (0.9)	289 (1.1)<
Rural/Small Town	26 (2.3)	21 (2.2)	24 (2.5)	26 (2.0)	25 (1.6)	26 (1.9)
	218 (2.4)	214 (1.8)	261 (2.4)	259 (1.7)	291 (1.4)	285 (1.4)<

Differences between types of location may be partially explained by other factors not included in this table.

< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level

The standard errors of the estimated percentages and proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Due to rounding, the percentages of students in the subgroup may not total 100 percent.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 1992 and 1994 Reading Assessments

It should be noted that approximately one-third of fourth graders and almost one in ten eighth graders reported not knowing the education level of either of their parents. Furthermore, some researchers have questioned the accuracy of student-reported data.[3] Despite these limitations, numerous NAEP assessments have found that increasing levels of parents' education are associated with higher average reading proficiencies. In fact, in 1994 as in the 1992 reading assessment, the average reading scores of students who reported that at least one parent had graduated from college were more than 30 points higher than those of students who reported that neither parent had graduated from high school.[4]

Table 2.7 and Figure 2.3 present the 1994 reading assessment results by parents' education level. In comparing the performance of students at all three grades who knew their parents' education level, those with at least one parent who had graduated from college or completed some education after high school displayed higher average reading proficiencies than did students who reported lower levels of parents' education. Furthermore, at all three grades, students who reported that neither parent finished high school had lower average proficiencies than those with at least one parent who graduated from high school.

Figure 2.3 Average Reading Proficiency by Parents' Highest Education Level Grades 4, 8, and 12 1994 Reading Assessment

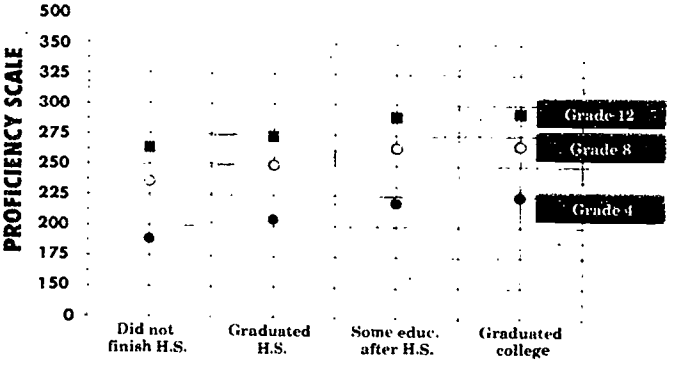


TABLE 2.7

Average Reading Proficiency by Parents' Highest Education Level Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Grade 4		Grade 8		Grade 12	
	1992	1994	1992	1994	1992	1994
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
Nation	217 (0.9)	214 (1.0)	260 (0.9)	260 (0.8)	292 (0.6)	287 (0.7)<
Parents' Education Level						
Graduated College	39 (1.1)	42 (0.9)	41 (1.2)	43 (1.1)	41 (0.9)	44 (1.0)
	225 (1.4)	224 (1.2)	271 (1.0)	270 (0.9)	301 (0.8)	298 (1.0)<
Some Education after High School	9 (0.5)	8 (0.5)	19 (0.5)	20 (0.5)	27 (0.6)	26 (0.7)
	223 (2.1)	223 (2.0)	265 (1.1)	266 (1.3)	294 (0.8)	289 (1.0)<
Graduated High School	12 (0.6)	13 (0.5)	24 (0.8)	22 (0.8)	22 (0.5)	21 (0.7)
	212 (1.7)	207 (1.8)	251 (1.4)	252 (1.2)	283 (0.8)	277 (1.3)<
Did Not Finish High School	4 (0.4)	4 (0.3)	8 (0.5)	7 (0.4)	8 (0.4)	7 (0.4)
	198 (2.6)	188 (3.4)	243 (1.4)	238 (1.9)	275 (1.4)	266 (1.5)<
I Don't Know	36 (1.0)	34 (0.8)	8 (0.4)	9 (0.4)	2 (0.2)	3 (0.2)
	210 (1.2)	206 (1.3)	238 (2.0)	238 (1.6)	258 (2.8)	248 (2.7)<

Differences between the groups may be partially explained by other factors not included in this table.

< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level.

The standard errors of the estimated percentages and proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Due to rounding, the percentages of students in the subgroup may not total 100 percent

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

Once again, a drop in reading proficiency at grade 12 is evident, to varying degrees, regardless of parents' education level.

- For all parent education levels (and for students who reported they did not know either parents' education level), the average reading proficiency of twelfth graders declined significantly between 1992 and 1994.
- For grades 4 and 8, the differences between 1992 and 1994 estimates, including the 10-point decrease found for fourth-grade students who reported that their parents did not finish high school, were not statistically significant for any of the parents' education levels.

Title I Participation. Staff members at each school that took part in the 1994 reading assessment were asked to identify which of the assessed students participated in Title I programs or received services funded by Title I grants.[5] The Title I legislation provides funds to state and local educational agencies to support programs aimed at assisting disadvantaged students (those who are failing or at risk of failing) in low income communities. The 1994 NAEP assessment marks the first time this information was collected at the student level. In prior assessments, principals or other school administrators were asked to report the percentage of students in their schools who received Title I services. Therefore, no trend results are available.

Table 2.8 presents the reading assessment results for students who received Title I services and for those who did not. As stated earlier, differences in performance between these participants and nonparticipants should not be viewed as evidence of the success or failure of Title I programs. Title I services are intended for students who typically score poorly on assessments.

As can be seen from the 1994 results, the percentage of students receiving Title I services is greatest in the elementary grades (14 percent at grade 4) and decreases as students progress through middle school (6 percent at grade 8) and high school (2 percent at grade 12). At all three grades, the average reading proficiency of students participating in Title I programs was significantly lower than that of nonparticipating students. The difference between participating and nonparticipating students is larger among fourth-grade students (45 scale points) than among eighth- and twelfth-grade students (32 scale points).

TABLE 2.8

Average Reading Proficiency by Title I Participation Grades 4, 8, and 12 1994 Reading Assessment

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Grade 4	Grade 8	Grade 12
	1994	1994	1994
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
Nation	214 (1.0)	260 (0.8)	287 (0.7)
Title I			
Participating	14 (1.2)	6 (0.8)	2 (0.7)
	175 (2.3)	230 (2.1)	256 (2.6)!
Nonparticipating	86 (1.2)	94 (0.8)	98 (0.7)
	220 (1.1)	262 (0.9)	288 (0.7)

Differences between the two groups may be partially explained by other factors not included in the table.

The standard errors of the estimated percentages and proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

! Interpret with caution any comparisons involving this statistic. The nature of the sample does not allow for accurate determination of the variability of this value.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP),1994 Reading Assessment.

Type of School. NAEP collects data on students in public and nonpublic schools, including Catholic, other religious, and private institutions. Past assessments have reported significant differences in the performance of students attending public and nonpublic schools.[6] As displayed in Table 2.9, students attending nonpublic schools in 1994 outperformed those in public schools by 19 points at grade 4, 22 points at grade 8, and 15 points at grade 12.

- The overall decline in twelfth-grade reading proficiency between 1992 and 1994 was reflected in the results for both public and nonpublic school students.
- At grades 4 and 8, no statistically significant changes in average reading performance from 1992 to 1994 were observed for either school type.

Public and Nonpublic School Results for the States

The 1994 Trial State Assessment Program marked the first time that NAEP collected state-level data in nonpublic schools. To assure that the reporting of these results met the same high standards as the reporting of results for public school students, the school and student participation guidelines set for public schools were also applied to nonpublic schools. Many states had difficulty recruiting nonpublic schools due to state legislation prohibiting contact between state education officials and nonpublic schools or because of the decentralized nature of such schools. Therefore, of the 44 jurisdictions that participated in the 1994 Trial State Assessment Program, only 24 met the school participation rate guidelines required to report nonpublic school results.[7]

TABLE 2.9

Average Reading Proficiency by Type of School Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Grade 4		Grade 8		Grade 12	
	1992	1994	1992	1994	1992	1994
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
Nation	217 (0.9)	214 (1.0)	260 (0.9)	260 (0.8)	292 (0.6)	287 (0.7)<
Type of School						
Public Schools	88 (1.3)	90 (0.9)	89 (0.8)	89 (1.0)	87 (1.2)	89 (1.1)
	215 (1.0)	212 (1.1)	258 (1.0)	257 (0.8)	290 (0.7)	286 (0.7)<
Nonpublic Schools	11 (1.0)	10 (0.9)	11 (0.8)	11 (1.0)	13 (1.2)	10 (1.0)
	232 (1.7)	231 (2.5)	278 (2.0)	279 (1.4)	308 (1.3)	301 (1.9)<
Catholic Schools	8 (0.8)	7 (0.8)	6 (0.6)	7 (0.6)	9 (1.2)	6 (0.9)
	229 (2.2)	229 (3.3)	275 (1.9)	279 (1.3)	307 (1.5)	298 (2.4)<
Other Nonpublic Schools	4 (0.7)	4 (0.6)	4 (0.8)	4 (0.7)	4 (0.7)	4 (0.6)
	238 (2.9)!	234 (3.7)	283 (3.0)	280 (2.4)	308 (2.9)	307 (2.2)

Differences between the types of schools may be partially explained by other factors not included in this table.

! Interpret with caution any comparisons involving this statistic. The nature of the sample does not allow for accurate determination of the variability of this value.

< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level.

The standard errors of the estimated percentages and proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Percentages of students in public school only and nonpublic school may not total 100 percent and the percentage of students in the two types of nonpublic schools may not total the percentage of nonpublic schools due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

Table 2.10 presents the public and nonpublic school results for these 24 jurisdictions as well as results for the public and nonpublic school samples combined. (Note that for one state, Idaho, the combined public and nonpublic school results are not presented since the public school sample for this state failed to meet minimum participation requirements.) Figure 2.4 compares the reading assessment results for public and nonpublic schools in the 23 jurisdictions where such comparisons are possible.

As was the case for the national results at grade 4, students attending nonpublic schools outperformed their counterparts in public schools in 16 of the 23 jurisdictions. When comparing the average performance of public and nonpublic school students, it is important to note the sample sizes of students in nonpublic schools are relatively small compared to the public school samples. As a result, the nonpublic school average proficiency estimates are subject to increased uncertainty and larger standard errors. The analyses presented in Figure 2.4, as well as the differences discussed above, consider the standard error of the difference between the two estimates.

The question "How did students attending nonpublic schools perform in the 1994 reading assessment in comparison to students attending public schools in a particular state?" can be answered by examining the findings presented in Figure 2.4.

TABLE 2.10

Average Reading Proficiency
Grade 4
1994 Trial State Assessment in Reading
Public Schools, Nonpublic Schools, and Combined

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Public Schools		Nonpublic Schools		Public/Nonpublic Schools Combined
	Percentage	Proficiency	Percentage	Proficiency	Proficiency
Nation		212 (1.1)		231 (2.5)	214 (1.0)
Region					
Northeast		212 (2.2)		233 (5.4)	215 (2.1)
Southeast		208 (2.0)		236 (5.8)	210 (2.0)
Central		218 (2.7)		230 (3.0)	220 (2.4)
West		212 (2.2)		223 (6.2)	212 (2.0)
State					
Alabama	93 (1.2)	208 (1.5)	6 (1.4)	237 (6.5)!	210 (1.6)
Arkansas	95 (0.9)	209 (1.7)	5 (0.9)	235 (3.2)	210 (1.6)
Colorado‡	94 (1.5)	213 (1.3)	6 (1.5)	239 (3.7)!	215 (1.3)
Connecticut‡	89 (1.0)	222 (1.6)	11 (1.0)	228 (3.4)	223 (1.5)
Delaware‡	82 (1.4)	206 (1.1)	18 (1.4)	233 (3.8)	211 (1.2)
Georgia‡	93 (0.9)	207 (2.4)	7 (0.9)	234 (5.3)	209 (2.3)
Hawaii‡	88 (0.9)	201 (1.7)	12 (0.9)	234 (3.8)	205 (1.7)
Idaho	96 (0.4)	—	4 (0.4)	218 (9.9)	—
Indiana	93 (1.0)	220 (1.3)	7 (1.0)	234 (4.1)	221 (1.3)
Iowa	88 (2.0)	223 (1.3)	12 (2.0)	232 (4.2)	224 (1.3)
Kentucky‡	90 (1.2)	212 (1.6)	8 (1.4)	237 (3.3)	213 (1.5)
Louisiana‡	84 (1.0)	197 (1.3)	16 (1.0)	227 (3.6)	202 (1.4)
Maine	97 (0.8)	228 (1.3)	3 (0.8)	238 (5.8)!	229 (1.3)
Massachusetts	90 (0.8)	223 (1.3)	10 (0.8)	238 (4.9)	225 (1.3)
Minnesota	88 (0.8)	218 (1.4)	12 (0.8)	234 (2.6)	220 (1.3)
Missouri	88 (1.2)	217 (1.5)	12 (1.2)	238 (3.6)	219 (1.5)
New Jersey‡	86 (1.2)	219 (1.2)	14 (1.2)	231 (4.4)	221 (1.3)
New Mexico	91 (2.3)	205 (1.7)	3 (0.8)	228 (6.9)!	203 (2.2)
North Dakota	90 (1.8)	225 (1.2)	6 (0.8)	238 (3.3)	224 (1.4)
Pennsylvania†‡	83 (1.3)	215 (1.6)	17 (1.3)	228 (4.8)	217 (1.6)
Rhode Island†	88 (1.2)	220 (1.3)	12 (1.2)	229 (3.6)	221 (1.2)
Virginia‡	94 (1.1)	213 (1.5)	5 (1.2)	240 (7.4)!	215 (1.5)
West Virginia	95 (0.9)	213 (1.1)	5 (0.9)	235 (3.0)	214 (1.0)
Other Jurisdiction					
Guam	85 (0.2)	181 (1.2)	15 (0.2)	213 (2.3)	186 (1.0)

† Did not satisfy one of the guidelines for public school sample participation rates in 1994 (see Appendix A).

‡ Did not satisfy one of the guidelines for nonpublic school sample participation rates in 1994 (see Appendix A).

— Did not meet minimum participation requirements for public schools.

! Interpret with caution any comparisons involving this statistic. The nature of the sample does not allow for accurate determination of the variability of this value.

The standard errors of the estimated percentages and proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 Reading Assessment.

As an example of how to read Figure 2.4, examine the average proficiencies of public and nonpublic school fourth graders in the states of North Dakota and Pennsylvania. For North Dakota, the confidence band representing the difference in average reading proficiencies between students in public and nonpublic schools is completely on the "Higher for Nonpublic" side of the dashed line. Thus, it can be said that in North Dakota fourth-grade students in nonpublic schools demonstrated higher average reading proficiency than their public school counterparts. For Pennsylvania, however, the confidence band crosses the dashed line (representing no difference). Consequently, the results indicate that there was no significant difference between the average proficiencies of Pennsylvania fourth graders attending public and nonpublic schools.

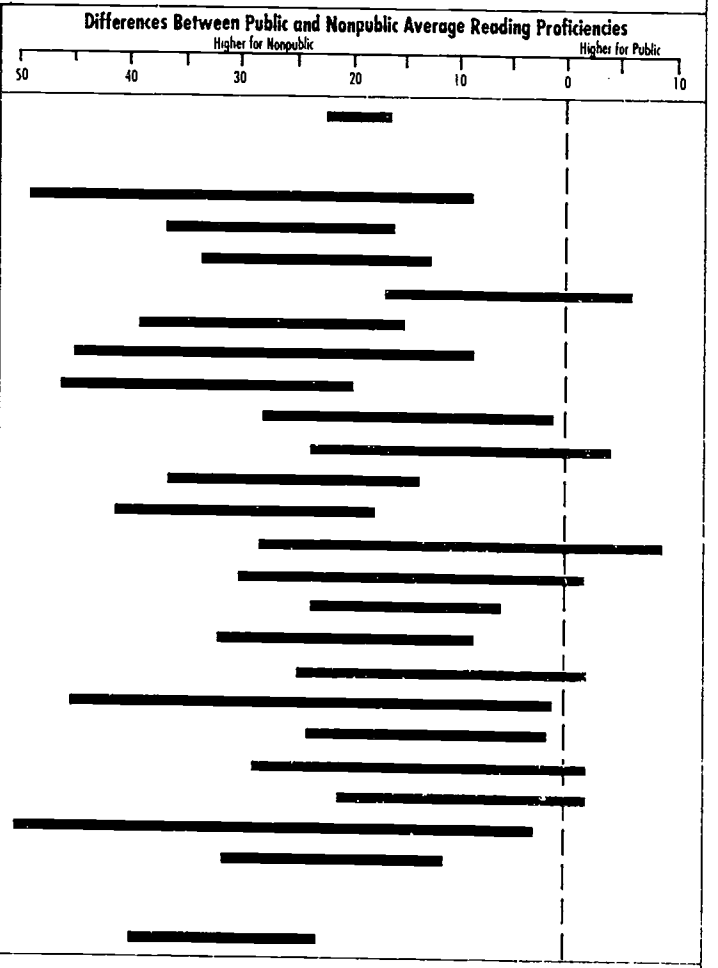
FIGURE 2.4

Comparison of Average Reading Proficiency for Public and Nonpublic Schools Grade 4 1994 Trial State Assessment in Reading

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

This figure presents average reading proficiencies for the 23 jurisdictions in which comparisons between students attending public and nonpublic schools are possible. The graphic to the right of the two averages illustrates *confidence bands* that, with 95 percent certainty, capture the true difference in average reading scores between the two types of schools within the state or jurisdiction. If the confidence band is completely on the "Higher for Nonpublic" or "Higher for Public" side of the dashed line, the difference between the two averages is significant. Therefore, it is correct to say that students from one type of school performed better or worse than the other on the NAEP reading assessment. However, if the confidence band crosses the dashed line (representing no difference), the average proficiencies of public and nonpublic school fourth graders are not significantly different. In the seven states with blue confidence bands, there was no significant difference in the performance of students attending public and nonpublic schools.

	Average Proficiency	
	Public	Nonpublic
Nation	212	231
State*		
Alabama††	208	237
Arkansas	209	235
Colorado‡††	213	239
Connecticut‡	222	228
Delaware‡	206	233
Georgia‡	207	234
Hawaii‡	201	234
Indiana	220	234
Iowa	223	232
Kentucky‡	212	237
Louisiana‡	197	227
Maine††	228	238
Massachusetts	223	238
Minnesota	218	234
Missouri	217	238
New Jersey‡	219	231
New Mexico††	205	228
North Dakota	225	238
Pennsylvania†‡	215	228
Rhode Island†	220	229
Virginia‡††	213	240
West Virginia	213	235
Other Jurisdiction		
Guam	181	213



* Only jurisdictions with reportable public and nonpublic results are presented
† Did not satisfy one of the guidelines for public school sample participation rates in 1994 (see Appendix A).
‡ Did not satisfy one of the guidelines for nonpublic school sample participation rates in 1994 (see Appendix A).
†† Interpret the difference between public and nonpublic average proficiencies with caution. The nature of the sample does not allow for accurate determination of the variability of the difference
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

56

As displayed in Figure 2.4, in 16 of the 23 jurisdictions for which comparisons are possible, the confidence band representing the difference between the two types of schools is completely on the "Higher for Nonpublic" side of the dashed line, indicating that students attending nonpublic schools had significantly higher average reading proficiency than students attending the public schools in those states. For seven states — Connecticut, Iowa, Maine, Massachusetts, New Jersey, Pennsylvania, and Rhode Island — there was no significant difference between the average proficiency of nonpublic and public school students.

An In-Depth Look at Selected Background Characteristics

One way to take a closer look at the performance of students within selected demographic populations is to see if the magnitude of the differences between groups of students varies when other background characteristics are also taken into account. This section presents reading proficiency results for subgroups of students within various demographic populations. Four specific background characteristics are explored with these analyses: gender, race/ethnicity, parents' highest level of education, and type of school.

The first two student characteristics examined are gender and race/ethnicity. As reported earlier in this chapter, female students, on average, consistently outperformed their male counterparts in all three grades assessed. Also at all grades, White students displayed higher average reading proficiency than Black or Hispanic students. (Asian, Pacific Islander, and American Indian students are not included in this analysis because of insufficient sample sizes.) One question that might be asked, however, is whether or not female students displayed higher reading proficiency than male students regardless of race/ethnicity. Further, was the difference in performance between male and female students larger in some racial/ethnic subgroups than in others?

Table 2.11 presents results of analyses carried out to answer these questions. Average proficiencies of male and female students and the differences between these proficiencies are presented separately for three racial/ethnic subgroups. As displayed in the table, female students in each grade had higher average proficiencies than male students across all three racial/ethnic subgroups examined. A comparison of the magnitude of the proficiency differences between male and female students yielded little or no evidence that these differences varied significantly across racial/ethnic groups of students.

TABLE 2.11 **Average Reading Proficiency of Male and Female Students by Race/Ethnicity Grades 4, 8, and 12 1994 Reading Assessment**

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	White	Black	Hispanic
Grade 4			
Female	229 (1.3)	194 (2.3)	197 (3.4)
Male	220 (1.6)	180 (2.1)	186 (2.8)
Female - Male =	*9 (2.0) **	*14 (3.1) **	*11 (4.4) **
Grade 8			
Female	275 (1.1)	243 (2.1)	247 (1.5)
Male	260 (1.1)	230 (2.2)	234 (2.2)
Female - Male =	*15 (1.6) **	*14 (3.0) **	*13 (2.7) **
Grade 12			
Female	302 (0.9)	270 (1.8)	276 (2.0)
Male	286 (0.9)	259 (1.8)	263 (1.9)
Female - Male =	*16 (1.3) **	*11 (2.6) **	*13 (2.8) **

* Indicates a significant difference between male and female students for specified racial/ethnic subgroup. Differences are calculated prior to rounding.

The standard errors of the estimated proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 Reading Assessment.

An analysis of gender differences in reading proficiency in relation to parents' highest level of education is presented in Table 2.12. Average proficiencies of male and female students and the differences between these proficiencies are presented separately for the different levels of parental education reported by students. One question that can be answered with these data is whether or not the difference in average reading proficiency between male and female students was evident for students at all levels of parental education. Further, were gender differences larger at some parental education levels than at others?

The performance of male and female fourth graders was significantly different for students whose parents graduated from high school or from college. Among eighth graders, the gender performance differences were all significant except for students whose parents did not graduate from high school. Twelfth-grade females consistently outperformed their male counterparts regardless of their parents' level of education.

At the fourth grade, the analysis revealed a larger gender difference in reading proficiency among students whose parents graduated from high school than among students whose parents had some education after high school or graduated from college. At grades 8 and 12, a comparison of the magnitude of the differences between male and female students' reading performance revealed no significant relationship with parents' education level: in other words, there was no evidence that the magnitude of gender differences in reading proficiency varied across levels of parental education.

TABLE 2.12 **Average Reading Proficiency of Male and Female Students in Relation to Parents' Highest Education Level Grades 4, 8, and 12 1994 Reading Assessment**

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Less than High School	Graduated High School	Some Education after High School	Graduated College
Grade 4				
Female	194 (4.5)	219 (2.3)	228 (2.3)	229 (1.4)
Male	179 (5.4)	196 (2.6)	219 (2.9)	220 (1.7)
Female - Male =	*15 (7.1)*	*23 (3.5) **	*9 (3.7)*	*9 (2.2) **
Grade 8				
Female	242 (2.5)	259 (1.3)	273 (1.5)	278 (1.2)
Male	232 (2.5)	244 (1.6)	257 (1.7)	262 (1.2)
Female - Male =	*9 (3.5)*	*15 (2.0) **	*17 (2.3) **	*16 (1.7) **
Grade 12				
Female	271 (2.2)	284 (1.8)	296 (1.1)	305 (1.3)
Male	259 (2.0)	269 (1.3)	282 (1.4)	291 (1.1)
Female - Male =	*12 (2.9) **	*15 (2.2) **	*14 (1.8) **	*14 (1.7) **

* Indicates a significant difference between male and female students for specified level of parental education. Differences are calculated prior to rounding.

The standard errors of the estimated proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 Reading Assessment.

In Table 2.13, racial/ethnic differences in twelfth grade average reading proficiency are presented in relation to parental education level. The average proficiencies of White, Black, and Hispanic students and the differences between those proficiencies are presented separately for the different levels of parents' education reported by students. One question that can be answered with these data is whether or not the differences in average reading proficiency between White, Black, and Hispanic students were evident for students at all levels of parental education. Also, were the differences between racial/ethnic groups larger at some parental education levels than at others?

At the twelfth grade, the average proficiency of White students was significantly higher than that of Black or Hispanic students across all levels of parental education. In addition, Hispanic twelfth graders whose parents had graduated from college outperformed Black students whose parents had also graduated from college. (Data for fourth and eighth graders are not presented in this tabulation because of wide variation among these groups in the accuracy of reporting parental education. See discussion in Appendix A under "Parents' Education Level" for further details.)

TABLE 2.13 **Average Reading Proficiency of White, Black, and Hispanic Students in Relation to Parents' Highest Education Level Grade 12 1994 Reading Assessment**

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Less than High School	Graduated High School	Some Education after High School	Graduated College
Grade 12				
White	274 (2.8)	283 (1.6)	294 (1.1)	302 (1.0)
Black	258 (2.8)	258 (2.3)	271 (2.5)	272 (2.0)
Hispanic	260 (2.0)	265 (2.3)	279 (3.1)	283 (2.9)
White - Black =	*16 (4.0) **	*25 (2.8) **	*23 (2.7) **	*30 (2.3) **
White - Hispanic =	*14 (3.4) **	*17 (2.8) **	*15 (3.3) **	*19 (3.0) **
Black - Hispanic =	*-2 (3.5)*	*-8 (3.2)*	*-8 (3.9)*	*-11 (3.5) **

* Indicates a significant difference between racial/ethnic subgroups for specified level of parental education. Differences are calculated prior to rounding.

The standard errors of the estimated proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 Reading Assessment.

For White students, there was a steady increase in achievement for each additional level of education attained by their parents. In contrast, for Black students, only one factor seemed to make a difference: having some education beyond high school. For Hispanic students, the pattern was more similar to that of Black students.

The data in Table 2.13 show that the racial and ethnic differences in reading proficiency persist across different levels of parental educational attainment. This runs somewhat counter to previous findings from other studies. The National Education Longitudinal Study of 1988, with more complete measures of socioeconomic status, found substantial reductions in achievement differences associated with racial/ethnic group membership after accounting for family resources.[8] In addition, the College Board has found that racial differences on the Scholastic Aptitude Test are diminished somewhat when family income differences are taken into account.[9] So, the NAEP findings should be interpreted carefully in relation to these other results.

In interpreting these findings, it is important to understand that student achievement is a result of multiple factors including educational experiences, resources from the home, and the larger social environment. These factors may also differ depending on the students' racial/ethnic groups and thus contribute — along with parents' educational level — to achievement differences. Such factors might contribute to reasonable explanations for why parents' educational levels might be associated differently with student achievement for different racial/ethnic groups.

Table 2.14 examines the differences between public and nonpublic school students' reading proficiency in relation to parental education level. The average reading proficiencies for students attending both types of schools are presented by parents' highest level of education as reported by students. Analysis of these data address the question of whether nonpublic school students displayed significantly higher average reading proficiency than public school students across all levels of parental education. Also, were these differences larger at some parental education levels than at others?

Differences between fourth-grade public and nonpublic school students' average reading proficiency were significant among students who reported that at least one of their parents had some education after high school or graduated from college. At the eighth and twelfth grades, differences between students attending the two types of schools were significant at each level of parental education for which data were available.

A comparison of the magnitude of the differences between public and nonpublic school students in average reading proficiency provided no indication that these differences varied significantly across levels of parental education.

TABLE 2.14 Average Reading Proficiency of Public and Nonpublic School Students in Relation to Parents' Highest Education Level Grades 4, 8, and 12 1994 Reading Assessment

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Less than High School	Graduated High School	Some Education after High School	Graduated College
Grade 4				
Nonpublic	***	217 (4.8)	240 (3.6)	238 (2.7)
Public	188 (3.5)	206 (1.9)	222 (2.2)	222 (1.4)
Nonpublic - Public =	***	*10 (5.2)*	*18 (4.2) **	*16 (3.1) **
Grade 8				
Nonpublic	***	271 (3.3)	280 (2.7)	283 (1.2)
Public	237 (1.9)	250 (1.2)	264 (1.3)	267 (1.0)
Nonpublic - Public =	***	*20 (3.5) **	*16 (3.0) **	*16 (1.6) **
Grade 12				
Nonpublic	***	294 (2.9)	297 (2.1)	306 (1.9)
Public	265 (1.5)	276 (1.4)	288 (1.0)	297 (1.1)
Nonpublic - Public =	***	*18 (3.2) **	*9 (2.3)*	*10 (2.2) **

* Indicates a significant difference between public and nonpublic subgroups for specified level of parents' education. Differences are calculated prior to rounding. The standard errors of the estimated proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

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

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 Reading Assessment.

Endnotes

1. The differences discussed in the text and presented in the tables are calculated from the unrounded means or percentages for the two groups being compared. Therefore, the differences between the rounded means or percentages presented in the tables and figures may not match those discussed in the text. For example, if Group A has a mean of 218.17 (rounded to 218) and Group B has a mean of 223.55 (rounded to 224), the appropriate difference between the two groups' means is 5.38 (rounded to 5).
2. Mullis, I.V.S., Campbell, J.R., & Farstrup, A.E. (1993). *NAEP 1992 reading report card for the nation and the states*. Washington, DC: National Center for Education Statistics, Government Printing Office.
3. Looker, E.D. (1989). Accuracy of proxy reports of parental status characteristics. *Sociology of Education, 62*(4), 257-276.
4. Mullis, I.V.S., Campbell, J.R., & Farstrup, A.E. (1993). *NAEP 1992 reading report card for the nation and the states*. Washington, DC: National Center for Education Statistics, Government Printing Office.
5. As a result of the Elementary and Secondary Education Act reauthorized by Congress in 1994, the federal program formerly referred to as Chapter One was renamed Title I.
6. Mullis, I.V.S., Campbell, J.R., & Farstrup, A.E. (1993). *NAEP 1992 reading report card for the nation and the states* Washington, DC: National Center for Education Statistics, Government Printing Office.
7. All Department of Defense Education Activity (DoDEA) Overseas Schools are classified as public schools. Washington, DC, withdrew from the 1994 Trial State Assessment after the data collection phase of the assessment.
8. Green, P.J., Dugone, B.L., Ingels, S.J., & Camburn, E. (1995). *A profile of the American high school senior in 1992.* Washington, DC: National Center for Education Statistics, NCES 95-384.
9. College Entrance Examination Board and Educational Testing Service (1995). *College bound seniors national profile report: SAT program test takers 1995.* Additional unpublished tables.

CHAPTER 3

Attainment of Reading Achievement Levels

The reading proficiency of our nation's students can be explored further by considering the proportion of students who attained specific achievement levels established by the National Assessment Governing Board (NAGB) in 1992 for the current reading assessment framework. Viewing reading performance from this perspective provides insight into the adequacy of students' reading abilities and the extent to which they are achieving expected levels of performance.

This chapter presents the reading achievement levels attained by fourth-, eighth-, and twelfth-grade students in the 1992 and 1994 NAEP Reading Assessments. Results are displayed for the nation, regions of the country, and major reporting subgroups. In addition, state-level reading achievement results from the 1992 and 1994 Trial State Assessments are presented. The differences reported between subgroups for the 1994 assessment and between the 1992 and 1994 assessments are statistically significant at the .05 level. The same cautions prescribed in Chapters 1 and 2 are warranted when interpreting differences among subgroups and among states.

Three reading achievement levels — *Basic*, *Proficient* and *Advanced* — are used to report the NAEP results. Definitions of the three levels of reading achievement are shown on the following page. For each grade, the definitions are cumulative from *Basic* through *Advanced*. One level builds on the previous level; that is, knowledge at the *Proficient* level presumes mastery of the *Basic* level, and knowledge at the *Advanced* level presumes mastery of both the *Basic* and *Proficient* levels.

It should be noted that the achievement levels, though developed for each grade, are not intended necessarily to reflect current grade-level achievement. Rather, they are statements of expectations, expressions of what students should know and be able to do, and may more accurately reflect performance standards toward which students should aspire.

GRADE 4

BASIC (208)

Fourth-grade students performing at the Basic 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.

PROFICIENT (238)

Fourth-grade students performing at the Proficient 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 connection between the text and what the student infers should be clear.

ADVANCED (268)

Fourth-grade students performing at the Advanced 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.

GRADE 8

BASIC (243)

Eighth-grade students performing at the Basic 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.

PROFICIENT (281)

Eighth-grade students performing at the Proficient 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. Proficient eighth graders should be able to identify some of the devices authors use in composing text.

ADVANCED (323)

Eighth-grade students performing at the Advanced 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; 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.

GRADE 12

BASIC (265)

Twelfth-grade students performing at the Basic 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.

PROFICIENT (302)

Twelfth-grade students performing at the Proficient 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.

ADVANCED (346)

Twelfth-grade students performing at the Advanced 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.

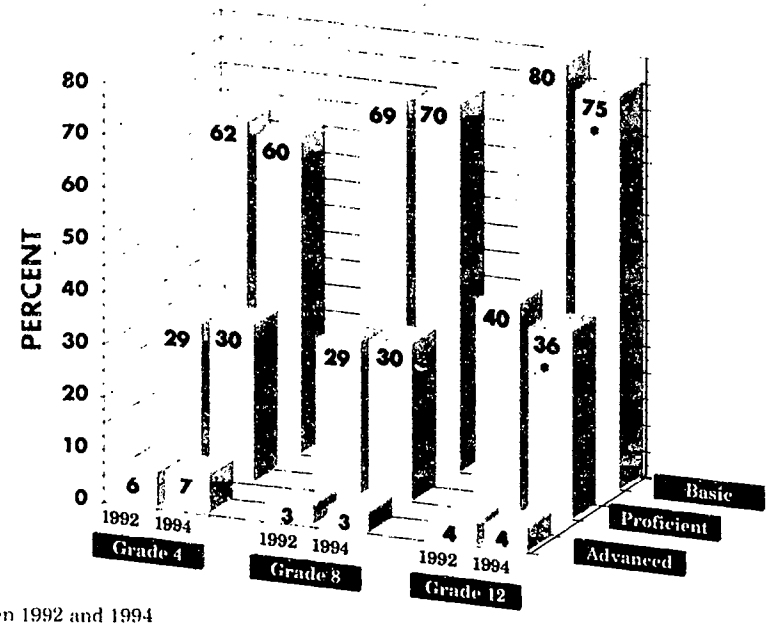
Reading Achievement Levels for the Nation

The percentages of fourth-, eighth-, and twelfth-grade students who performed at or above the three reading achievement levels in 1992 and 1994 are shown in Figure 3.1 and Table 3.1. In the 1994 reading assessment, the percentage of students at or above the *Basic* level ranged from 60 percent at grade 4 to 75 percent at grade 12. Performance at or above the *Proficient* level — the achievement level identified by NAGB as the level all students should reach — was demonstrated by less than one-third (30 percent) of fourth and eighth graders, and slightly more than one-third (36 percent) of twelfth graders. Few students at any grade were at or above the *Advanced* level: 7 percent at fourth grade, 3 percent at eighth grade, and 4 percent at twelfth grade.

Consistent with the results presented in Chapter 2, the achievement level results indicate a decline between 1992 and 1994 in reading performance at grade 12.

- There was a statistically significant decline of 4 percentage points between 1992 and 1994 in the proportion of twelfth graders at or above the *Proficient* level. The percentage of twelfth graders at or above the *Basic* level also declined significantly, by 5 percentage points.
- The fourth- and eighth-grade achievement level results indicated no statistically significant change from 1992 to 1994 in the percentage of students at or above any of the three achievement levels.

Figure 3.1 Percentage of Students At or Above the Reading Achievement Levels by Grade — NAEP 1992 and 1994



*Significant decrease between 1992 and 1994

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

TABLE 3.1

Reading Achievement Levels by Region
Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	1992					1994				
	Percentage of Students					Percentage of Students				
	Percentage of Students	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic	Percentage of Students	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic
Grade 4										
Nation		6 (0.6)	29 (1.2)	62 (1.1)	38 (1.1)		7 (0.7)	30 (1.1)	60 (1.0)	40 (1.0)
Region										
Northeast	21 (1.1)	9 (2.4)	34 (4.3)	66 (3.6)	34 (3.6)	23 (0.9)	8 (1.4)	31 (2.4)	61 (2.1)	39 (2.1)
Southeast	23 (1.0)	5 (1.0)	24 (2.6)	58 (3.1)	42 (3.1)	23 (1.1)	7 (0.9)	25 (2.1)	55 (2.3)	45 (2.3)
Central	27 (0.5)	6 (1.1)	30 (2.1)	66 (1.7)	34 (1.7)	25 (0.7)	8 (1.1)	34 (2.5)	66 (2.6)	34 (2.6)
West	28 (0.8)	6 (0.7)	27 (1.7)	59 (1.7)	41 (1.7)	29 (0.8)	7 (0.8)	29 (1.8)	59 (2.1)	41 (2.1)
Grade 8										
Nation		3 (0.3)	29 (1.0)	69 (1.0)	31 (1.0)		3 (0.3)	30 (0.9)	70 (0.9)	30 (0.9)
Region										
Northeast	22 (0.7)	4 (0.6)	33 (2.1)	72 (2.2)	28 (2.2)	20 (0.8)	4 (0.8)	35 (2.7)	74 (2.2)	26 (2.2)
Southeast	25 (0.5)	2 (0.5)	23 (2.5)	64 (1.8)	36 (1.8)	26 (1.0)	2 (0.4)	23 (1.4)	62 (1.9)	38 (1.9)
Central	25 (0.5)	4 (0.7)	32 (2.4)	74 (2.3)	26 (2.3)	24 (0.6)	3 (0.7)	33 (2.2)	75 (1.7)	25 (1.7)
West	28 (0.6)	3 (0.6)	29 (1.5)	69 (1.5)	31 (1.5)	30 (0.8)	3 (0.4)	29 (1.3)	69 (1.3)	31 (1.3)
Grade 12										
Nation		4 (0.3)	40 (0.8)	80 (0.6)	20 (0.6)		4 (0.5)	36 (1.0)<	75 (0.7)<	25 (0.7)>
Region										
Northeast	24 (0.6)	5 (0.6)	44 (1.7)	81 (1.5)	19 (1.5)	20 (0.5)	5 (1.0)	37 (1.9)	76 (1.7)	24 (1.7)
Southeast	23 (0.6)	2 (0.4)	31 (1.4)	73 (1.4)	27 (1.4)	23 (0.7)	3 (0.6)	30 (2.0)	70 (1.2)	30 (1.2)
Central	26 (0.6)	4 (0.5)	44 (1.7)	84 (1.1)	16 (1.1)	27 (0.7)	5 (0.6)	40 (1.6)	78 (1.5)<	22 (1.5)>
West	27 (0.8)	4 (0.6)	42 (2.5)	81 (1.5)	19 (1.5)	29 (0.8)	4 (1.1)	38 (1.9)	74 (1.3)<	26 (1.3)>

Differences between regions may be partially explained by other factors not included in this table.

< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at about the 95 percent confidence level.

The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

The percentages of students in the regions may not total 100 percent due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

Reading Achievement Levels for the Regions

The percentages of students in various regions who performed at or above each achievement level in the 1992 and 1994 reading assessments are presented in Table 3.1 and Figure 3.2. Across the three grades, there were no statistically significant differences among the regions in the percentages of students who were at or above the *Advanced* level in 1994. Some differences, however, were observed for the *Proficient* and *Basic* levels.

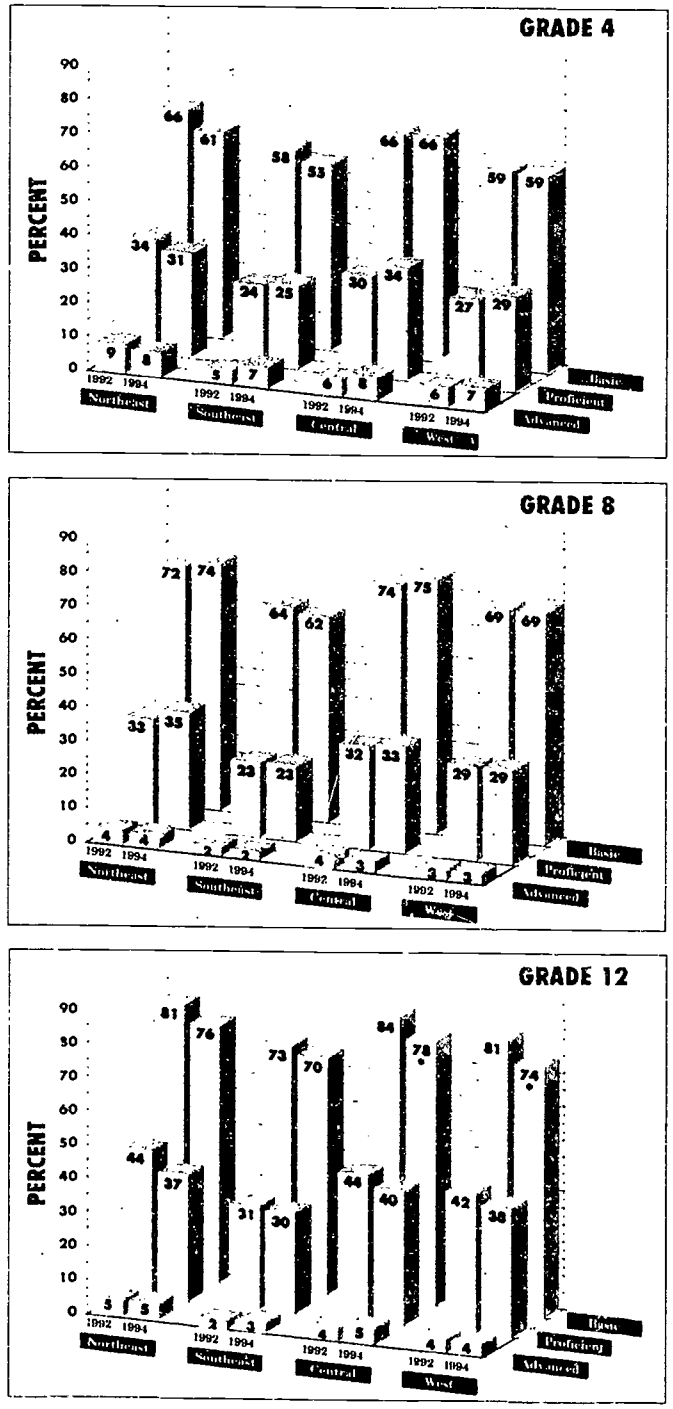
At the fourth grade, no statistically significant differences among the regions were found in the percentages of students at or above the *Proficient* level in 1994. However, significantly more fourth graders from the Central region attained at least *Basic* level achievement compared to their counterparts from the Southeast. There were no other significant regional differences among fourth graders at or above the *Basic* level.

Eighth-grade results for 1994 revealed that the percentage of students at or above the *Proficient* level was smaller in the Southeast than in the other three regions. Also, there were fewer eighth graders in the Southeast than in the other regions who attained at least *Basic* level achievement. The percentage of eighth graders at or above *Basic* was smaller in the West than in the Central region.

At the twelfth grade in 1994, the percentage of Southeast students who performed at or above the *Proficient* level was smaller than the corresponding percentages for the Central and West regions. The percentage of Southeast students at or above the *Basic* level was also smaller than the percentage for the Central region.

- The NAEP reading assessments results indicated no significant change between 1992 and 1994 in the percentage of fourth-, and eighth-grade students at each of the three achievement levels for any of the four regions of the country.
- Statistically significant decreases in the percentage of students at or above the *Basic* level at grade 12 were observed in the Central and West regions. The significant decrease observed nationally for grade 12 students was not reflected by significant changes in the Northeast and Southeast regions.

Figure 3.2 Percentage of Students At or Above the Reading Achievement Levels by Grade and by Region — NAEP 1992 and 1994



*Significant decrease between 1992 and 1994
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

Reading Achievement Levels for the States

Table 3.2 presents achievement level results from the 1992 and 1994 Trial State Assessments in Reading at grade 4 for 41 jurisdictions. [Note that two states, Montana and Washington, as well as the Department of Defense Education Activity (DoDEA) Overseas Schools, participated only in the 1994 assessment; therefore, only 1994 results are presented for these three jurisdictions.]

- Overall, seven states — Arizona, Connecticut, Florida, Kentucky, Maine, Maryland, and Mississippi — showed a significant increase between 1992 and 1994 in the percentage of fourth-grade students at or above the *Advanced* level.
- In Mississippi, a significantly higher percentage of students attained at least the *Proficient* level in 1994 than in 1992.
- Five states had a significant decrease in the percentage of fourth graders at or above *Basic*: Delaware, Louisiana, Massachusetts, Pennsylvania, and Virginia.

Reading Achievement Levels for Selected Groups

This section provides information about the percentages of students within major reporting subgroups in the nation who performed at or above the three reading achievement levels. Data are presented for subgroups defined by race/ethnicity, gender, school's type of location, level of parents' education, Title I participation, and type of school.

Race/Ethnicity. Achievement level results for fourth-, eighth-, and twelfth-grade students in six racial/ethnic groups are presented in Table 3.3. Consistent with past assessments, results from the 1994 reading assessment indicated large racial/ethnic differences in performance. Significant differences among the racial/ethnic groups were observed in the percentage of students at or above each of the three achievement levels — *Basic*, *Proficient*, and *Advanced*.

Across all three grades in 1994, only a small percentage of students in each of the racial/ethnic groups demonstrated the superior performance requisite to reach the *Advanced* achievement level. At all three grades, few significant differences were seen across the racial/ethnic groups in the percentages of students reaching the *Advanced* level. However, the percentage of White students at or above this level was significantly higher than the corresponding percentages of Black or Hispanic students at all three grades. No other significant differences were observed at the *Advanced* level.

The *Proficient* achievement level represents competency with challenging reading materials. When one compares the percentages of students from various racial/ethnic subgroups reaching or exceeding this level of solid academic achievement in 1994, one finds significant differences at all three grades. At grades 4, 8, and 12, the percentages of Asian and White students performing at or above the *Proficient* level were significantly greater than the percentages of Black or Hispanic students who did so. Also, at grade 4, the percentage of Pacific Islander students at or above the *Proficient* level was higher than the percentages for Black or Hispanic students. The percentage of White fourth graders at this achievement level was higher than that of their American Indian counterparts. At both the fourth and eighth grades, the percentage of Asian students performing at or above this level exceeded that of American Indian students. And among twelfth graders, the percentage of White students performing at or above the *Proficient* level was significantly greater than the percentage of Asian students.

The *Basic* level indicates partial mastery of skills fundamental to reading achievement. In 1994, 25 percent or more of the students in grades 4, 8, and 12 failed to reach this lowest level of achievement. The percentages of students at or above the *Basic* level differed among racial/ethnic subgroups. At all three grades, the percentage of White students at or above the *Basic* level was significantly higher than the percentages for Black or Hispanic students. At the two lower grades, the percentage of Asian students performing at or above *Basic* was also larger than that of Black and Hispanic students. At the twelfth grade, the percentage of Asian students at or above this level was significantly greater than that of Black students.

TABLE 3.2

Grade 4 Reading Achievement Levels
NAEP Trial State Assessments in Reading
Public Schools Only

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	1992 Assessment					1994 Assessment				
	Percentage of Students					Percentage of Students				
	Average Proficiency	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic	Average Proficiency	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic
Nation	215 (1.0)	6 (0.6)	27 (1.3)	60 (1.1)	40 (1.1)	212 (1.1)	7 (0.7)	28 (1.2)	59 (1.1)	41 (1.1)
Region										
Northeast	220 (3.9)	9 (2.6)	32 (4.7)	65 (3.9)	35 (3.9)	212 (2.2)	7 (1.5)	28 (2.6)	58 (2.3)	42 (2.3)
Southeast	211 (2.5)	4 (0.8)	22 (2.6)	55 (3.5)	45 (3.5)	208 (2.0)	6 (0.6)	23 (2.1)	53 (2.4)	47 (2.4)
Central	218 (1.5)	6 (1.2)	29 (2.4)	65 (1.9)	35 (1.9)	218 (2.7)	7 (1.4)	33 (2.8)	65 (3.0)	35 (3.0)
West	212 (1.6)	5 (0.7)	24 (1.8)	56 (1.9)	44 (1.9)	212 (2.2)	7 (0.8)	28 (2.0)	59 (2.2)	41 (2.2)
State										
Alabama	207 (1.7)	3 (0.4)	20 (1.5)	51 (2.1)	49 (2.1)	208 (1.5)	5 (0.7)	23 (1.3)	52 (1.6)	48 (1.6)
Arizona	209 (1.2)	3 (0.4)	21 (1.2)	54 (1.8)	46 (1.8)	206 (1.9)	6 (0.8)>	24 (1.5)	52 (1.9)	48 (1.9)
Arkansas	211 (1.2)	4 (0.6)	23 (1.2)	56 (1.5)	44 (1.5)	209 (1.7)	5 (0.6)	24 (1.4)	54 (1.8)	46 (1.8)
California	202 (2.0)	4 (0.7)	19 (1.7)	48 (2.2)	52 (2.2)	197 (1.8)<	3 (0.5)	18 (1.3)	44 (2.0)	56 (2.0)
Colorado	217 (1.1)	4 (0.6)	25 (1.4)	64 (1.6)	36 (1.6)	213 (1.3)	6 (0.7)	28 (1.5)	59 (1.4)	41 (1.4)
Connecticut	222 (1.3)	6 (1.0)	34 (1.4)	69 (1.7)	31 (1.7)	222 (1.6)	11 (1.1)>	38 (1.6)	68 (1.7)	32 (1.7)
Delaware‡	213 (0.6)	5 (0.5)	24 (1.1)	57 (1.2)	43 (1.2)	206 (1.1)<<	5 (0.8)	23 (1.1)	52 (1.3)<	48 (1.3)>
Florida	208 (1.2)	3 (0.4)	21 (1.1)	53 (1.6)	47 (1.6)	205 (1.7)	5 (0.6)>	23 (1.5)	50 (1.8)	50 (1.8)
Georgia	212 (1.5)	5 (0.8)	25 (1.5)	57 (1.7)	43 (1.7)	207 (2.4)	7 (1.0)	26 (2.0)	52 (2.3)	48 (2.3)
Hawaii	203 (1.7)	3 (0.5)	17 (1.5)	48 (1.9)	52 (1.9)	201 (1.7)	4 (0.5)	19 (1.4)	46 (1.8)	54 (1.8)
Indiana	221 (1.3)	6 (0.9)	30 (1.5)	68 (1.6)	32 (1.6)	220 (1.3)	7 (0.8)	33 (1.5)	66 (1.6)	34 (1.6)
Iowa	225 (1.1)	7 (0.7)	36 (1.6)	73 (1.4)	27 (1.4)	223 (1.3)	8 (1.0)	35 (1.5)	69 (1.6)	31 (1.6)
Kentucky	213 (1.3)	3 (0.5)	23 (1.6)	58 (1.7)	42 (1.7)	212 (1.6)	6 (0.8)>	26 (1.9)	56 (1.6)	44 (1.6)
Louisiana	204 (1.2)	2 (0.4)	15 (1.1)	46 (1.6)	54 (1.6)	197 (1.3)<<	2 (0.5)	15 (1.2)	40 (1.5)<	60 (1.5)>
Maine‡	227 (1.1)	6 (0.8)	36 (1.7)	75 (1.4)	25 (1.4)	228 (1.3)	10 (1.0)>	41 (1.5)	75 (1.6)	25 (1.6)
Maryland	211 (1.6)	4 (0.6)	24 (1.2)	57 (1.8)	43 (1.8)	210 (1.5)	7 (0.7)>	26 (1.4)	55 (1.6)	45 (1.6)
Massachusetts	226 (0.9)	7 (0.8)	36 (1.5)	74 (1.3)	26 (1.3)	223 (1.3)	8 (1.0)	36 (1.7)	69 (1.5)<	31 (1.5)>
Minnesota	221 (1.2)	6 (0.7)	31 (1.5)	68 (1.7)	32 (1.7)	218 (1.4)	7 (0.7)	33 (1.4)	65 (1.5)	35 (1.5)
Mississippi	199 (1.3)	2 (0.4)	14 (0.9)	41 (1.7)	59 (1.7)	202 (1.6)	4 (0.6)>	18 (1.3)>	45 (1.7)	55 (1.7)
Missouri	220 (1.2)	6 (0.7)	30 (1.5)	67 (1.5)	33 (1.5)	217 (1.5)	7 (0.9)	31 (1.6)	62 (1.8)	38 (1.8)
Montana†	—	—	—	—	—	222 (1.4)	7 (0.7)	35 (1.5)	69 (1.7)	31 (1.7)
Nebraska†‡	221 (1.1)	6 (0.7)	31 (1.5)	68 (1.5)	32 (1.5)	220 (1.5)	8 (0.9)	34 (1.8)	66 (1.6)	34 (1.6)
New Hampshire†‡	228 (1.2)	8 (1.1)	38 (1.6)	76 (1.8)	24 (1.8)	223 (1.5)<	9 (1.0)	36 (1.6)	70 (1.9)	30 (1.9)
New Jersey†	223 (1.4)	8 (1.0)	35 (1.8)	69 (1.8)	31 (1.8)	219 (1.2)	8 (0.8)	33 (1.6)	65 (1.5)	35 (1.5)
New Mexico	211 (1.5)	4 (0.7)	23 (1.7)	55 (1.7)	45 (1.7)	205 (1.7)<	4 (0.5)	21 (1.5)	49 (1.6)	51 (1.6)
New York‡	215 (1.4)	5 (0.6)	27 (1.3)	61 (1.4)	39 (1.4)	212 (1.4)	6 (0.8)	27 (1.5)	57 (1.7)	43 (1.7)
North Carolina	212 (1.1)	5 (0.7)	25 (1.3)	56 (1.4)	44 (1.4)	214 (1.5)	8 (0.8)	30 (1.7)	59 (1.5)	41 (1.5)
North Dakota	226 (1.1)	6 (0.8)	35 (1.5)	74 (1.8)	26 (1.8)	225 (1.2)	8 (0.8)	38 (1.5)	73 (1.4)	27 (1.4)
Pennsylvania†	221 (1.3)	6 (0.8)	32 (1.7)	68 (1.7)	32 (1.7)	215 (1.6)<	7 (0.8)	30 (1.3)	61 (1.6)<	39 (1.6)>
Rhode Island†	217 (1.8)	5 (0.7)	28 (1.7)	63 (2.2)	37 (2.2)	220 (1.3)	8 (1.0)	32 (1.4)	65 (1.6)	35 (1.6)
South Carolina	210 (1.3)	4 (0.7)	22 (1.4)	53 (1.9)	47 (1.9)	203 (1.4)<<	4 (0.6)	20 (1.3)	48 (1.5)	52 (1.5)
Tennessee†	212 (1.4)	4 (0.7)	23 (1.5)	57 (1.7)	43 (1.7)	213 (1.7)	6 (0.9)	27 (1.5)	58 (2.1)	42 (2.1)
Texas	213 (1.6)	4 (0.7)	24 (1.8)	57 (2.0)	43 (2.0)	212 (1.9)	6 (0.8)	26 (1.8)	58 (2.3)	42 (2.3)
Utah	220 (1.1)	5 (0.6)	30 (1.6)	67 (1.6)	33 (1.6)	217 (1.3)	6 (0.8)	30 (1.6)	64 (1.6)	36 (1.6)
Virginia	221 (1.4)	6 (1.0)	31 (1.6)	67 (1.8)	33 (1.8)	213 (1.5)<<	7 (0.7)	26 (1.7)	57 (1.8)<<	43 (1.8)>>
Washington	—	—	—	—	—	213 (1.5)	6 (0.7)	27 (1.2)	59 (1.6)	41 (1.6)
West Virginia	216 (1.3)	5 (0.7)	25 (1.4)	61 (1.4)	39 (1.4)	213 (1.1)	6 (0.6)	26 (1.4)	58 (1.4)	42 (1.4)
Wisconsin†	224 (1.0)	6 (0.6)	33 (1.3)	71 (1.3)	29 (1.3)	224 (1.1)	7 (0.7)	35 (1.6)	71 (1.6)	29 (1.6)
Wyoming	223 (1.1)	5 (0.6)	33 (1.5)	71 (1.6)	29 (1.6)	221 (1.2)	6 (0.6)	32 (1.4)	68 (1.7)	32 (1.7)
Other Jurisdictions										
DoDEA	—	—	—	—	—	218 (0.9)	6 (0.7)	28 (1.1)	63 (1.5)	37 (1.5)
Guam	182 (1.4)	1 (0.3)	8 (0.8)	28 (1.2)	72 (1.2)	181 (1.2)	1 (0.3)	8 (0.8)	27 (1.1)	73 (1.1)

Differences between groups may be partially explained by other factors not included in this table.

<< The value for the 1994 assessment was significantly lower (>> higher) than the value for 1992 at about the 95 percent confidence level. These notations indicate statistical significance from a multiple comparison procedure based on 38 jurisdictions participating in both 1994 and 1992. If looking at only one state, < indicated the value for 1994 was significantly lower (>higher) than the value for 1992 at or about the 95 percent certainty level. Statistically significant differences between 1994 and 1992 for the state comparison samples for the nation and regions are not indicated.

† Did not satisfy one of the guidelines for school sample participation rates in 1994 (see Appendix A).

‡ Did not satisfy one of the guidelines for school sample participation rates in 1992.

The standard errors of the estimated percentages and proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

— Jurisdiction did not participate in 1992 Trial State Assessment.

DoDEA Department of Defense Education Activity Overseas Schools

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

The percentage of American Indian students performing at or above the *Basic* level was greater than that of Black students at both fourth and eighth grades. The percentage of Pacific Islander fourth graders at or above *Basic* was also greater than that of Black or Hispanic students. Also, at grade 4, the percentage of White and Asian students at the *Basic* level or above was greater than that of American Indian students. Finally, among twelfth graders, the percentage of White students at or above the *Basic* achievement level was significantly higher than the corresponding percentage of Asian students.

The sample sizes of Pacific Islander students at grades 8 and 12, and of American Indian students at grade 12 do not allow accurate determination of the

TABLE 3.3

Reading Achievement Levels by Race/Ethnicity Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	1992					1994				
	Percentage of Students					Percentage of Students				
	Percentage of Students	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic	Percentage of Students	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic
Grade 4										
Notion		6 (0.6)	29 (1.2)	62 (1.1)	38 (1.1)		7 (0.7)	30 (1.1)	60 (1.0)	40 (1.0)
Race/Ethnicity										
White	71 (0.2)	8 (0.9)	35 (1.7)	71 (1.3)	29 (1.3)	69 (0.2)	9 (0.9)	37 (1.4)	71 (1.2)	29 (1.2)
Black	16 (0.1)	1 (0.4)	8 (1.4)	33 (2.3)	67 (2.3)	15 (0.2)	1 (0.4)	9 (1.0)	31 (2.5)	69 (2.5)
Hispanic	9 (0.1)	3 (0.8)	16 (1.8)	44 (2.2)	56 (2.2)	12 (0.2)	2 (0.6)	13 (1.6)	36 (2.6)	64 (2.6)
Asian	—	—	—	—	—	2 (0.2)	16 (5.7)	48 (7.1)	78 (5.1)	22 (5.1)
Pacific Islander	—	—	—	—	—	1 (0.1)	8 (3.6)	35 (4.6)	67 (6.9)	33 (6.9)
American Indian	2 (0.2)	3 (2.1)	18 (4.5)	53 (6.6)	47 (6.6)	2 (0.2)	3 (2.1)	18 (3.8)	48 (4.4)	52 (4.4)
Grade 8										
Notion		3 (0.3)	29 (1.1)	69 (1.0)	31 (1.0)		3 (0.3)	30 (0.9)	70 (0.9)	30 (0.9)
Race/Ethnicity										
White	70 (0.2)	4 (0.5)	36 (1.5)	78 (1.1)	22 (1.1)	70 (0.3)	4 (0.4)	36 (1.3)	78 (1.1)	22 (1.1)
Black	15 (0.2)	0 (0.2)	9 (1.1)	45 (1.8)	55 (1.8)	15 (0.2)	0 (0.3)	9 (1.2)	44 (1.9)	56 (1.9)
Hispanic	10 (0.2)	1 (0.3)	14 (1.3)	49 (2.2)	51 (2.2)	11 (0.2)	1 (0.3)	14 (1.5)	49 (1.6)	51 (1.6)
Asian	—	—	—	—	—	2 (0.2)	6 (1.8)	44 (3.7)	81 (2.9)	19 (2.9)
Pacific Islander	—	—	—	—	—	1 (0.4)	3 (3.1)!	26 (8.1)!	68 (9.9)!	32 (9.9)!
American Indian	1 (0.2)	1 (0.9)	20 (7.3)	61 (5.0)	39 (5.0)	1 (0.2)	1 (1.1)	20 (5.6)	63 (5.6)	37 (5.6)
Grade 12										
Notion		4 (0.3)	40 (0.8)	80 (0.6)	20 (0.6)		4 (0.5)	36 (1.0)<	75 (0.7)<	25 (0.7)>
Race/Ethnicity										
White	72 (0.4)	5 (0.4)	47 (1.0)	86 (0.7)	14 (0.7)	73 (0.3)	5 (0.7)	43 (1.1)	81 (0.7)<	19 (0.7)>
Black	15 (0.4)	1 (0.3)	18 (1.5)	61 (2.3)	39 (2.3)	13 (0.3)	1 (0.2)	13 (1.5)	52 (2.2)	48 (2.2)
Hispanic	9 (0.4)	2 (0.7)	24 (3 2)	66 (2.5)	34 (2.5)	8 (0.3)	1 (0.5)	20 (1.8)	58 (2.4)	42 (2.4)
Asian	—	—	—	—	—	3 (0.3)	3 (1.6)	33 (3.0)	67 (3.1)	33 (3.1)
Pacific Islander	—	—	—	—	—	1 (0.3)	3 (1.5)!	27 (5.0)!	71 (4.3)!	29 (4.3)!
American Indian	0 (0.1)	***	***	***	***	1 (0.4)	2 (2.8)!	20 (6.7)!	61 (6.5)!	39 (6.5)!

Differences between groups may be partially explained by other factors not included in this table.

< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at about the 95 percent confidence level.

The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

! Interpret with caution any comparison involving this statistic. The nature of the sample does not allow accurate determination of the variability of this value.

— Due to significant changes in the wording of the race/ethnicity question between the 1992 and 1994 assessments, the 1992 results for Asian and Pacific Islander students are not comparable to 1994 results. Therefore, 1992 results are not presented.

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

The percentages of students in the subgroups may not total 100 percent due to rounding or in the case of race/ethnicity variable, because some students categorized themselves as "other."

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

variability of the percentages. For this reason, comparisons among these samples and with other racial/ethnic subgroups are not discussed. Trends could not be estimated for Asian and Pacific Islander students because their race/ethnicity data were collected as a single category for the 1992 assessment.

- Between 1992 and 1994 there appeared to be decreases in reading performance for White, Black, and Hispanic twelfth-grade students, but only the difference among White students was statistically significant. Significantly fewer White twelfth graders in 1994 than in 1992 achieved at least the *Basic* level of reading performance.
- No significant changes between 1992 and 1994 were observed in the percentages of fourth and eighth graders in any racial/ethnic subgroup who performed at or above each of the achievement levels.

Gender. Achievement level results for male and female students are presented in Table 3.4. Consistent with results from the 1992 reading assessment, females outperformed males in the 1994 assessment. In all three grades, a significantly higher percentage of female students than male students were at or above each of the three achievement levels.

- A significant decrease was reported between 1992 and 1994 in the percentage of twelfth-grade males at or above the *Proficient* and *Basic* levels and in the percentage of twelfth-grade females at or above the *Basic* level. No significant change was seen in the percentages of either male or female students at or above the *Advanced* level.
- At grades 4 and 8, there were no significant differences between 1992 and 1994 in the percentages of male and female students at or above any of the achievement levels.

TABLE 3.4

Reading Achievement Levels by Gender Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	1992					1994				
	Percentage of Students					Percentage of Students				
	Percentage of Students	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic	Percentage of Students	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic
Grade 4										
Nation		6 (0.6)	29 (1.2)	62 (1.1)	38 (1.1)		7 (0.7)	30 (1.1)	60 (1.0)	40 (1.0)
Gender										
Male	51 (0.6)	5 (0.7)	25 (1.4)	58 (1.6)	42 (1.6)	51 (0.7)	6 (0.8)	26 (1.3)	55 (1.4)	45 (1.4)
Female	49 (0.6)	8 (0.8)	32 (1.4)	67 (1.3)	33 (1.3)	49 (0.7)	9 (0.9)	34 (1.5)	66 (1.2)	34 (1.2)
Grade 8										
Nation		3 (0.3)	29 (1.1)	69 (1.0)	31 (1.0)		3 (0.3)	30 (0.9)	70 (0.9)	30 (0.9)
Gender										
Male	51 (0.7)	2 (0.2)	23 (1.2)	64 (1.3)	36 (1.3)	50 (0.6)	2 (0.3)	23 (1.1)	62 (1.1)	38 (1.1)
Female	49 (0.7)	4 (0.6)	35 (1.4)	76 (1.1)	24 (1.1)	50 (0.6)	4 (0.5)	36 (1.3)	77 (1.1)	23 (1.1)
Grade 12										
Nation		4 (0.3)	40 (0.8)	80 (0.6)	20 (0.6)		4 (0.5)	36 (1.0)<	75 (0.7)<	25 (0.7)>
Gender										
Male	49 (0.6)	2 (0.4)	34 (1.1)	75 (1.0)	25 (1.0)	50 (0.8)	2 (0.3)	29 (1.1)<	69 (1.1)<	31 (1.1)>
Female	51 (0.6)	5 (0.4)	46 (1.3)	84 (0.7)	16 (0.7)	50 (0.8)	6 (0.9)	43 (1.1)	80 (1.0)<	20 (1.0)>

Differences between two groups may be partially explained by other factors not included in this table.

<The value for the 1994 ossessment was significantly lower (> higher) than the value for 1992 at obout the 95 percent confidence level.

The standard errors of the estimated percentages appear in pareniheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole populntion is within plus or minus two standard errors of the estimate for the sample.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

Type of Location. Achievement level results are presented in Table 3.5 for students attending schools in three types of location: Central City, Urban Fringe/Large Town, and Rural/Small Town. These classifications are based solely on geographic characteristics. (The type of location classifications are described in Appendix A.)

At grade 4, a greater percentage of students from Urban Fringe/Large Town schools were at or above the *Proficient* and *Basic* levels of achievement in 1994, compared to their counterparts from Central City and Rural/Small Town schools. Among eighth graders, the 1994 results also showed significantly higher percentages of students from schools in Urban Fringe/Large Town areas than students from Central City schools reaching at least the *Basic* level. There were no significant differences by school location in the percentages of twelfth graders reaching any of the three achievement levels.

- Corresponding with the decline in average proficiency at twelfth grade between 1992 and 1994, there was a statistically significant drop over the two-year period in the percentage of twelfth graders attending Urban Fringe/Large Town and Rural/Small Town schools who performed at or above the *Basic* achievement level.
- No other significant changes between the two assessments were observed at any grade in the percentages of students from different types of school locations attaining the three achievement levels.

TABLE 3.5

Reading Achievement Levels by Type of Location Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	1992					1994				
	Percentage of Students					Percentage of Students				
	Percentage of Students	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic	Percentage of Students	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic
Grade 4										
Nation		6 (0.6)	29 (1.2)	62 (1.1)	38 (1.1)		7 (0.7)	30 (1.1)	60 (1.0)	40 (1.0)
Type of Location										
Central City	33 (2.6)	5 (0.6)	23 (1.2)	54 (1.8)	46 (1.8)	35 (2.0)	6 (1.0)	25 (1.8)	53 (2.5)	47 (2.5)
Urban Fringe/Lg. Town	42 (3.2)	8 (1.1)	33 (2.4)	67 (2.2)	33 (2.2)	43 (2.3)	9 (1.1)	35 (1.9)	67 (1.6)	33 (1.6)
Rural/Small Town	26 (2.3)	6 (1.6)	29 (2.7)	65 (2.5)	35 (2.5)	21 (2.2)	6 (0.7)	28 (1.9)	60 (2.5)	40 (2.5)
Grade 8										
Nation		3 (0.3)	29 (1.1)	69 (1.0)	31 (1.0)		3 (0.3)	30 (0.9)	70 (0.9)	30 (0.9)
Type of Location										
Central City	32 (2.6)	2 (0.4)	23 (1.6)	62 (1.8)	38 (1.8)	34 (2.2)	3 (0.6)	27 (1.4)	66 (1.6)	34 (1.6)
Urban Fringe/Lg. Town	43 (3.3)	4 (0.5)	34 (1.5)	74 (1.5)	26 (1.5)	40 (2.6)	3 (0.3)	32 (1.4)	73 (1.4)	27 (1.4)
Rural/Small Town	24 (2.5)	2 (0.7)	29 (2.7)	71 (2.6)	29 (2.6)	26 (2.0)	3 (0.6)	29 (2.1)	69 (1.8)	31 (1.8)
Grade 12										
Nation		4 (0.3)	40 (0.8)	80 (0.6)	20 (0.6)		4 (0.5)	36 (1.0)<	75 (0.7)<	25 (0.7)>
Type of Location										
Central City	31 (2.3)	4 (0.5)	38 (2.3)	77 (1.4)	23 (1.4)	32 (2.1)	4 (0.7)	37 (1.5)	75 (1.2)	25 (1.2)
Urban Fringe/Lg. Town	43 (2.6)	4 (0.5)	43 (1.4)	81 (1.0)	19 (1.0)	42 (2.6)	5 (0.8)	38 (1.4)	76 (1.2)<	24 (1.2)>
Rural/Small Town	25 (1.6)	3 (0.6)	38 (2.0)	79 (1.4)	21 (1.4)	26 (1.9)	4 (0.5)	33 (1.8)	72 (1.4)<	28 (1.4)>

Differences between location types may be partially explained by other factors not included in this table.

< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at about the 95 percent confidence level.

The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

The percentages of students in the types of location may not total 100 percent due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

Parents' Education Level. As shown in Table 3.6, there is a positive relationship between levels of parents' education and the percentage of students at or above the three achievement levels. In general, the higher the level of education reported, the higher the percentage of students at each achievement level. This finding is consistent with prior assessments and with the proficiency results discussed in the previous chapter. At the fourth grade, however, it should be noted that a considerable number of students did not know their parents' education level.

At all three grades, the percentage at or above the *Advanced* level was higher among students who reported that at least one of their parents graduated from college than among students with at least one parent who had graduated from high school and among students whose parents had not graduated from high school. Also, at all three grades, the percentage at or above the *Advanced* level was higher for students who reported that at least one parent received some education after high school than for students who reported that neither parent graduated from high school.

TABLE 3.6

Reading Achievement Levels by Parents' Highest Education Level Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	1992					1994				
	Percentage of Students					Percentage of Students				
	Percentage of Students	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic	Percentage of Students	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic
Grade 4										
Nation		6 (0.6)	29 (1.2)	62 (1.1)	38 (1.1)		7 (0.7)	30 (1.1)	60 (1.0)	40 (1.0)
Parents' Education Level										
Graduated College	39 (1.1)	10 (1.1)	39 (1.8)	71 (1.6)	29 (1.6)	42 (0.9)	11 (1.2)	39 (1.7)	70 (1.3)	30 (1.3)
Some Education after H.S.	9 (0.5)	8 (1.9)	33 (3.4)	69 (3.0)	31 (3.0)	8 (0.5)	9 (1.8)	37 (2.6)	70 (2.9)	30 (2.9)
Graduated High School	12 (0.6)	3 (1.1)	22 (2.2)	58 (2.2)	42 (2.2)	13 (0.5)	4 (1.3)	22 (2.6)	54 (2.1)	46 (2.1)
Did Not Finish High School	4 (0.4)	1 (1.4)	12 (2.2)	39 (3.8)	61 (3.8)	4 (0.3)	1 (1.3)	9 (2.3)	32 (3.9)	68 (3.9)
I Don't Know	36 (1.0)	3 (0.8)	21 (1.4)	55 (1.6)	45 (1.6)	34 (0.8)	4 (0.6)	22 (1.6)	52 (1.3)	48 (1.3)
Grade 8										
Nation		3 (0.3)	29 (1.1)	69 (1.0)	31 (1.0)		3 (0.3)	30 (0.9)	70 (0.9)	30 (0.9)
Parents' Education Level										
Graduated College	41 (1.2)	5 (0.7)	40 (1.4)	80 (1.0)	20 (1.0)	43 (1.1)	5 (0.5)	40 (1.2)	79 (1.0)	21 (1.0)
Some Education after H.S.	19 (0.5)	3 (0.7)	32 (1.4)	76 (1.5)	24 (1.5)	20 (0.5)	3 (0.6)	33 (1.5)	77 (1.5)	23 (1.5)
Graduated High School	24 (0.8)	1 (0.3)	19 (1.5)	61 (1.8)	39 (1.8)	21 (0.8)	1 (0.4)	20 (1.6)	62 (1.7)	38 (1.7)
Did Not Finish High School	8 (0.5)	1 (0.3)	13 (1.9)	51 (2.2)	49 (2.2)	7 (0.4)	0 (0.3)	10 (1.8)	46 (3.0)	54 (3.0)
I Don't Know	8 (0.4)	0 (0.4)	12 (2.0)	45 (2.6)	55 (2.6)	9 (0.4)	0 (0.3)	12 (1.3)	48 (2.5)	52 (2.5)
Grade 12										
Nation		4 (0.3)	40 (0.8)	80 (0.6)	20 (0.6)		4 (0.5)	36 (1.0)<	75 (0.7)<	25 (0.7)>
Parents' Education Level										
Graduated College	41 (0.9)	6 (0.6)	52 (1.3)	87 (0.7)	13 (0.7)	43 (1.0)	7 (1.1)	48 (1.4)	84 (0.7)<	16 (0.7)>
Some Education after H.S.	27 (0.6)	3 (0.5)	41 (1.4)	83 (1.0)	17 (1.0)	25 (0.7)	3 (0.5)	36 (1.4)	78 (1.3)<	22 (1.3)>
Graduated High School	22 (0.5)	2 (0.3)	28 (1.4)	72 (1.2)	28 (1.2)	21 (0.7)	2 (0.5)	24 (1.7)	66 (1.7)<	34 (1.7)>
Did Not Finish High School	8 (0.4)	0 (0.3)	21 (2.1)	63 (2.2)	37 (2.2)	7 (0.4)	1 (0.4)	15 (1.5)	53 (2.5)<	47 (2.5)>
I Don't Know	2 (0.2)	0 (0.7)	10 (2.0)	44 (4.9)	56 (4.9)	3 (0.2)	0 (0.7)	6 (2.3)	32 (3.3)	68 (3.3)

Differences between levels may be partially explained by other factors not included in this table.

<The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at about the 95 percent confidence level.

The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

The percentages of students in the subgroups may not total 100 percent due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

Among groups of 1994 students that reported knowing their parents' education levels, the percentage at or above the *Proficient* level was lowest for students who said their parents did not finish high school. This result was evident at each of the three grade levels. In addition, across all three grades, significantly higher percentages of students were at or above the *Proficient* level among students reporting at least one of their parents graduated from college or received some education after high school than among those who reported having parents who only graduated from high school. At the two higher grades, the percentage of students attaining at least the *Proficient* level was greater among students who reported at least one parent graduated from college than among students who reported that at least one parent had some education after high school.

Of those students who reported that neither of their parents graduated from high school, a significantly smaller percentage was at or above *Basic* when compared to students reporting higher levels of parents' education. Students who reported that at least one parent graduated from high school had a lower percentage at or above *Basic* compared to students reporting that at least one of their parents continued their education after high school. Also, the percentage attaining the *Basic* level or above among students who reported high school graduation as the highest parental education level was lower than among students with at least one parent who had graduated from college. These results were observed for all three grades. Finally, for grade 12, the group of students who reported that at least one parent had some education after high school had a smaller percentage at or above *Basic* than did students who reported at least one parent graduated from college.

- Reflecting the overall decline at twelfth grade observed for the nation, there was a significant decrease between 1992 and 1994 in the percentage of twelfth-grade students at or above *Basic* for each level of parental education.
- No other significant differences between the 1992 and 1994 assessments were found for any reported level of parents' education in the percentages of fourth-, eighth-, and twelfth-grade students at or above the *Advanced* and *Proficient* levels.

Title I Participation. Achievement level results by Title I participation status are provided in Table 3.7 for only the 1994 assessment: information about participation in Title I programs was not collected in the same manner during the 1992 assessment.

Compared to their counterparts who did not participate in Title I programs, significantly fewer fourth-, eighth-, and twelfth-grade Title I participants performed at or above each of the reading achievement levels, except at grade 8 where the difference between participating and nonparticipating students reaching the *Advanced* level was not statistically significant.

Correspondingly, at all three grades, the percentage of Title I program participants performing *below Basic* was higher than that of their peers who were not Title I participants. The percentages of Title I students who performed *below Basic* ranged from 59 percent at twelfth grade to 80 percent at fourth grade. Conversely, only about one-third or fewer of students across the three grades who were not Title I participants performed below the *Basic* level.

TABLE 3.7

Reading Achievement Levels by Title I Participation Grades 4, 8, and 12 1994 Reading Assessment

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Percentage of Students				
	Percentage of Students	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic
Grade 4					
Nation		7 (0.7)	30 (1.1)	60 (1.0)	40 (1.0)
Title 1					
Participating	14 (1.2)	0 (0.2)	3 (0.9)	20 (2.2)	80 (2.2)
Nonparticipating	86 (1.2)	9 (0.8)	34 (1.2)	67 (1.1)	33 (1.1)
Grade 8					
Nation		3 (0.3)	30 (0.9)	70 (0.9)	30 (0.9)
Title 1					
Participating	6 (0.8)	0 (0.0)	5 (1.6)	35 (2.6)	65 (2.6)
Nonparticipating	94 (0.8)	3 (0.3)	31 (1.0)	72 (1.0)	28 (1.0)
Grade 12					
Nation		4 (0.5)	36 (1.0)<	75 (0.7)<	25 (0.7)>
Title 1					
Participating	2 (0.7)	0 (0.2)!	10 (2.1)!	41 (4.3)!	59 (4.3)!
Nonparticipating	98 (0.7)	4 (0.5)	37 (1.0)	75 (0.7)	25 (0.7)

Differences between the two groups may be partially explained by other factors not included in this table.

The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

! Interpret with caution any comparisons involving this statistic. The nature of the sample does not allow for accurate determination of the variability of this value.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 Reading Assessment

Type of School. The percentages of fourth-, eighth-, and twelfth-grade students at or above the three reading achievement levels are presented by type of school in Table 3.8. At each grade, the percentages of nonpublic school students who performed at or above each level in 1994 were significantly higher than the percentages of public school students who did so.

- Between 1992 and 1994, there were no significant differences in the percentages of public or nonpublic school students performing at or above the *Advanced* or *Proficient* levels at any of the grades.
- At grade 12, however, the percentage of students performing at or above the *Basic* level decreased over the two-year period for both types of schools.

TABLE 3.8

Reading Achievement Levels by Type of School Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	1992					1994				
	Percentage of Students					Percentage of Students				
	Percentage of Students	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic	Percentage of Students	At or Above Advanced	At or Above Proficient	At or Above Basic	Below Basic
Grade 4										
Nation		6 (0.6)	29 (1.2)	62 (1.1)	38 (1.1)		7 (0.7)	30 (1.1)	60 (1.0)	40 (1.0)
Type of School										
Public Schools Only	88 (1.3)	6 (0.6)	27 (1.3)	60 (1.1)	40 (1.1)	90 (0.9)	7 (0.7)	28 (1.2)	59 (1.1)	41 (1.1)
Nonpublic Schools Only	11 (1.0)	12 (1.3)	45 (2.4)	79 (1.9)	21 (1.9)	10 (0.9)	13 (1.8)	43 (3.0)	77 (2.4)	23 (2.4)
Catholic Schools	8 (0.8)	10 (1.5)	41 (2.7)	76 (2.7)	24 (2.7)	7 (0.8)	12 (2.2)	42 (3.9)	76 (3.2)	24 (3.2)
Other Nonpublic Schools	4 (0.7)	15 (2.9)!	53 (4.4)!	84 (2.7)!	16 (2.7)!	4 (0.6)	14 (2.9)	46 (4.0)	80 (4.2)	20 (4.2)
Grade 8										
Nation		3 (0.3)	29 (1.1)	69 (1.0)	31 (1.0)		3 (0.3)	30 (0.9)	70 (0.9)	30 (0.9)
Type of School										
Public Schools Only	89 (0.8)	2 (0.3)	27 (1.1)	67 (1.1)	33 (1.1)	89 (1.0)	2 (0.3)	27 (0.9)	67 (0.9)	33 (0.9)
Nonpublic Schools Only	11 (0.8)	7 (1.3)	48 (3.2)	87 (1.5)	13 (1.5)	11 (1.0)	6 (0.8)	49 (2.3)	89 (1.3)	11 (1.3)
Catholic Schools	6 (0.6)	6 (1.0)	45 (2.8)	84 (1.6)	16 (1.6)	7 (0.6)	6 (1.1)	49 (2.1)	88 (1.3)	12 (1.3)
Other Nonpublic Schools	4 (0.8)	10 (2.6)	54 (4.4)	90 (2.5)	10 (2.5)	4 (0.7)	7 (1.4)	50 (3.9)	89 (2.1)	11 (2.1)
Grade 12										
Nation		4 (0.3)	40 (0.8)	80 (0.6)	20 (0.6)		4 (0.5)	36 (1.0)<	75 (0.7)<	25 (0.7)>
Type of School										
Public Schools Only	87 (1.2)	3 (0.3)	37 (0.9)	78 (0.7)	22 (0.7)	89 (1.1)	4 (0.5)	35 (1.0)	73 (0.7)<	27 (0.7)>
Nonpublic Schools Only	13 (1.2)	9 (0.7)	60 (2.2)	92 (0.8)	8 (0.8)	10 (1.0)	8 (0.9)	52 (2.7)	87 (1.7)<	13 (1.7)>
Catholic Schools	9 (1.2)	8 (0.7)	59 (2.6)	93 (0.9)	7 (0.9)	6 (0.9)	6 (1.1)	47 (3.7)	85 (2.2)<	15 (2.2)>
Other Nonpublic Schools	4 (0.7)	12 (1.8)	61 (3.8)	89 (2.2)	11 (2.2)	4 (0.6)	11 (1.5)	59 (3.1)	89 (2.0)	11 (2.0)

Nonpublic schools includes Catholic and other types of nonpublic schools.

Differences between school types may be partially explained by other factors not included in this table.

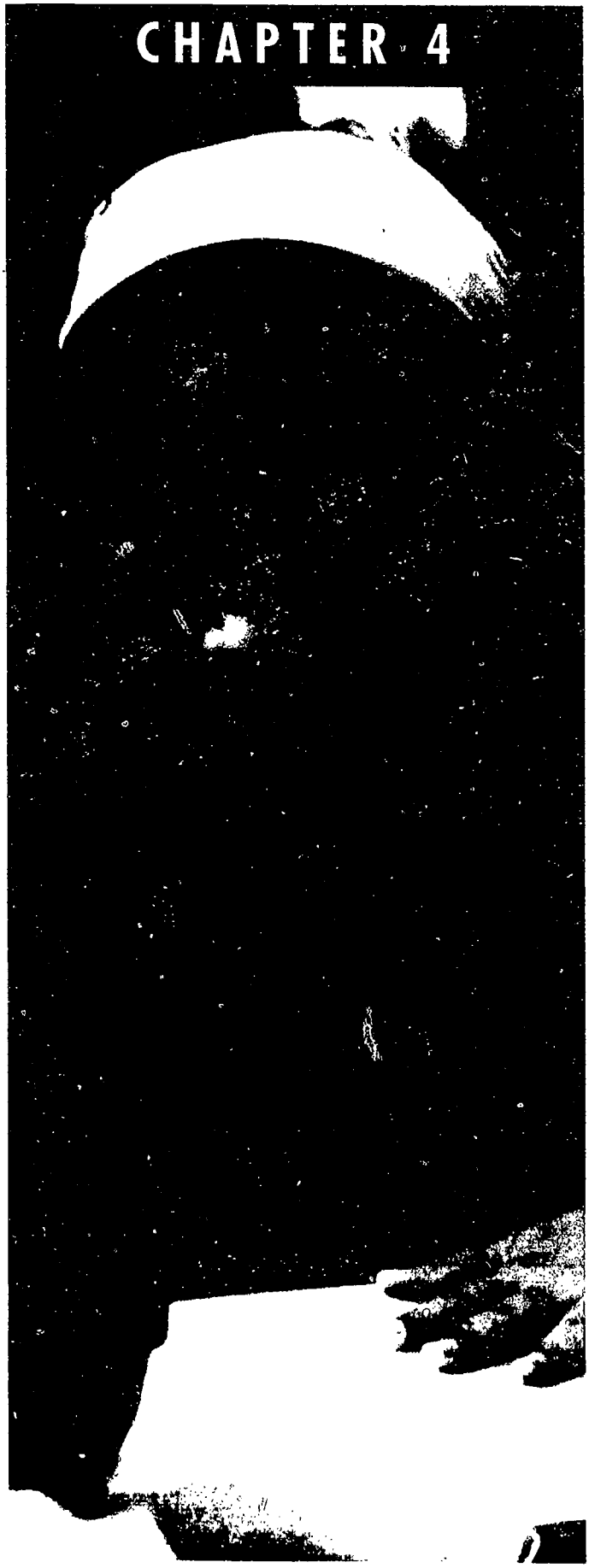
<The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at about the 95 percent confidence level.

The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

! Interpret with caution any comparisons involving this statistic. The nature of the sample does not allow accurate determination of the variability of this value.

Percentages of students in public school only and nonpublic school only may not total 100 percent and the percentages of students in the two types of nonpublic schools may not total the percentage of nonpublic schools due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments



Cross-State Comparisons of Fourth-Grade Reading Proficiency

Average reading proficiency results for fourth graders from jurisdictions participating in the 1992 and 1994 Trial State Assessments were presented in Chapter 2. This chapter focuses on comparisons between those jurisdictions. When the average proficiencies for jurisdictions are compared, it is essential to take the standard error into account, rather than to rely solely on observed similarities or differences.[1] In addition to comparing the average proficiencies of all fourth graders, considering how the proficiencies of subgroups of students within a particular state compare to those of similar subgroups from other states provides yet another perspective on state-level results.

This chapter addresses these considerations by presenting results of statistical analyses comparing the reading performance of students in various states, and comparing the performance of subgroups of students across states. The goal of these analyses is to make state comparisons more informative and meaningful.

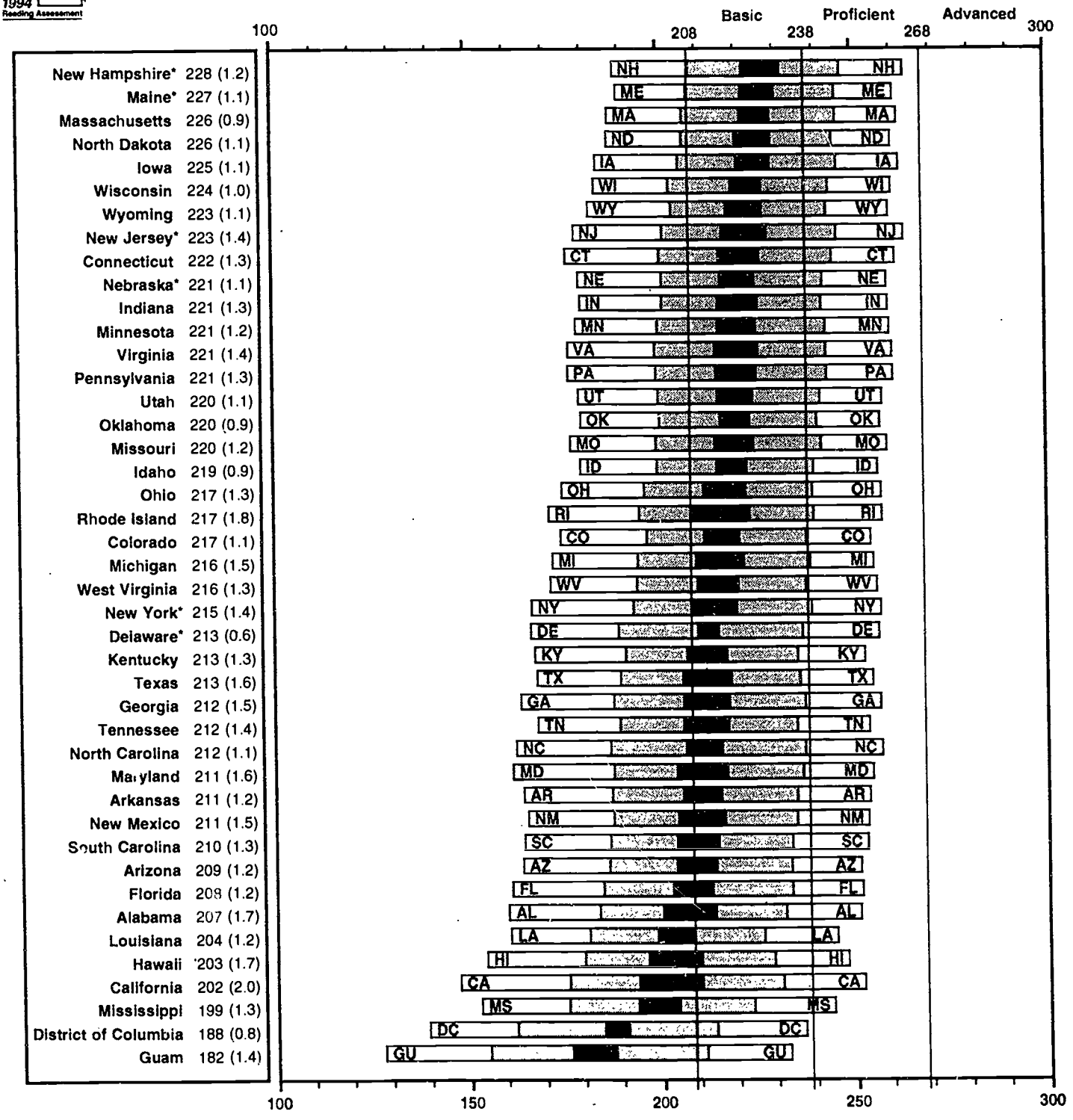
Distribution of Reading Proficiency for the States

Figures 4.1 and 4.2 provide a visual representation of the distribution of reading proficiency results for each participating jurisdiction. Figure 4.1 presents 1992 results and, for comparison, Figure 4.2 gives results from the 1994 assessment. In the figures, the black box at the midpoint of the performance distribution for each state shows the 95 percent confidence interval around the average proficiency. This represents the range of scores within which the states' average reading proficiency score falls with 95 percent certainty. (A more detailed explanation of confidence intervals is provided in Appendix A).

The shaded boxes indicate the ranges between selected percentiles — 10th, 25th, 75th, and 90th — of each jurisdiction's performance distribution. In general, the variation within states tended to exceed the variation in average performance across states, leading to considerable overlap in performance across states.

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

Figure 4.1 Distribution of Overall Reading Proficiency Organized by Average Proficiency for the 1992 Trial State Reading Assessment, Grade 4, Public Schools Only

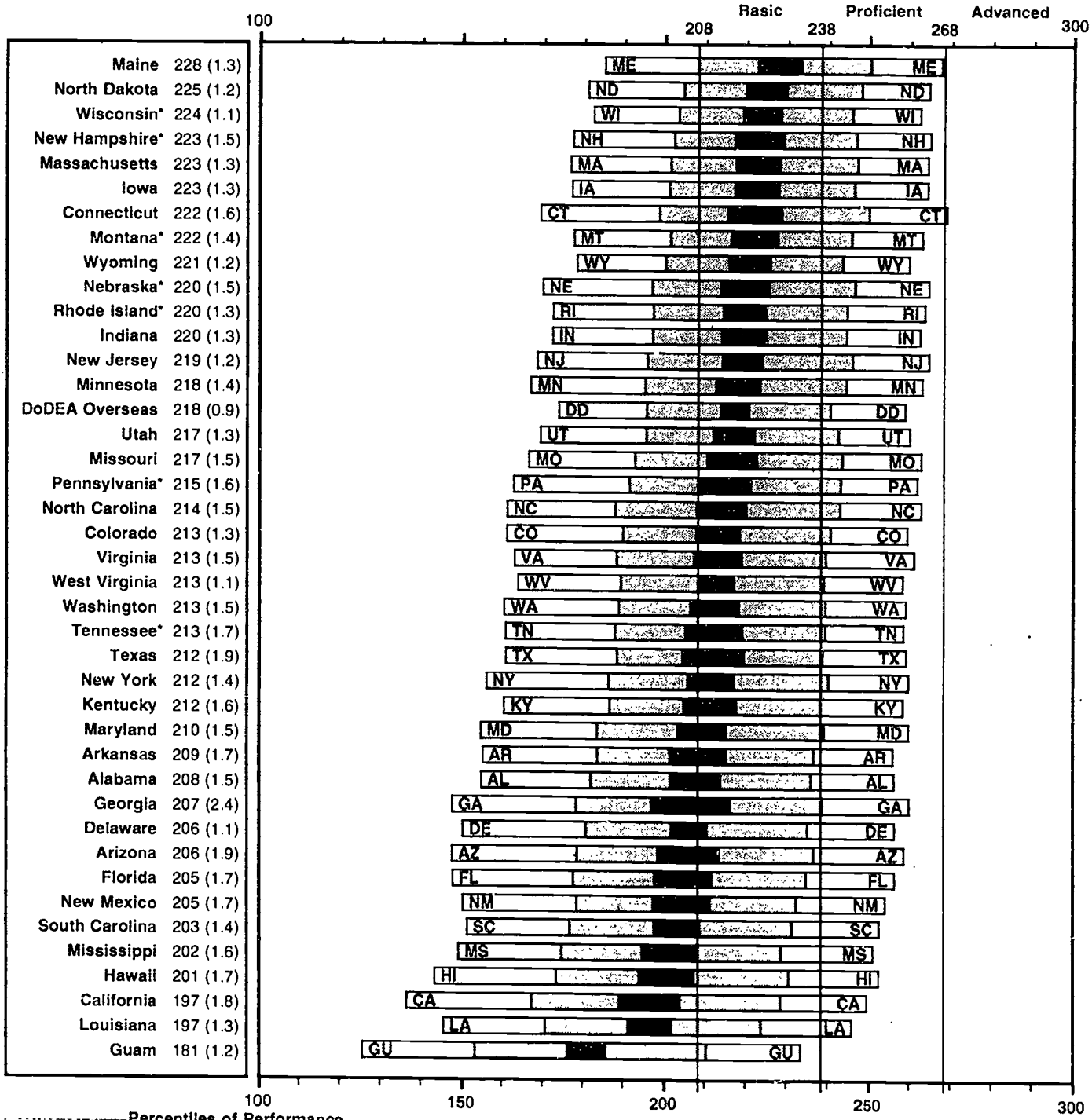


The center ***darkest*** box indicates a simultaneous confidence interval around the average reading proficiency for the state based on the Bonferroni procedure for multiple comparisons. The ***darker shaded*** boxes indicate the ranges between the 25th and 75th percentiles of the reading proficiency distribution, and the ***lighter shaded*** boxes the ranges between the 10th to 25th percentiles and the 75th to 90th percentiles of the distribution.

*Did not satisfy one or more of the guidelines for sample participation rates (see Appendix for details).

THE NATION'S REPORT CARD
1992 1994 Reading Assessment

Figure 4.2 Distribution of Overall Reading Proficiency Organized by Average Proficiency for the 1994 Trial State Reading Assessment, Grade 4, Public Schools Only



The center ***darkest*** box indicates a simultaneous confidence interval around the average reading proficiency for the state based on the Bonferroni procedure for multiple comparisons. The ***darker shaded*** boxes indicate the ranges between the 25th and 75th percentiles of the reading proficiency distribution, and the ***lighter shaded*** boxes the ranges between the 10th to 25th percentiles and the 75th to 90th percentiles of the distribution.

*Did not satisfy one or more of the guidelines for sample participation rates (see Appendix for details).

Comparisons of Average Reading Proficiency Between States

Figures 4.3 and 4.4 present another way to make valid performance comparisons across states. Figure 4.3 shows comparisons for the 1992 Trial State Assessment and Figure 4.4 shows the corresponding 1994 comparisons. The computations underlying these figures take into account the confidence intervals, or degree of sampling error, associated with the average proficiency estimates. The computations were based on unrounded data. These figures indicate whether or not differences between pairs of participating jurisdictions are statistically significant.[2] For example, Figure 4.4 shows that although average fourth-grade reading proficiencies in 1994 appear to be different between Maine (228) and Montana (222), the difference is not statistically significant and may be due to chance factors such as sampling and/or measurement error.

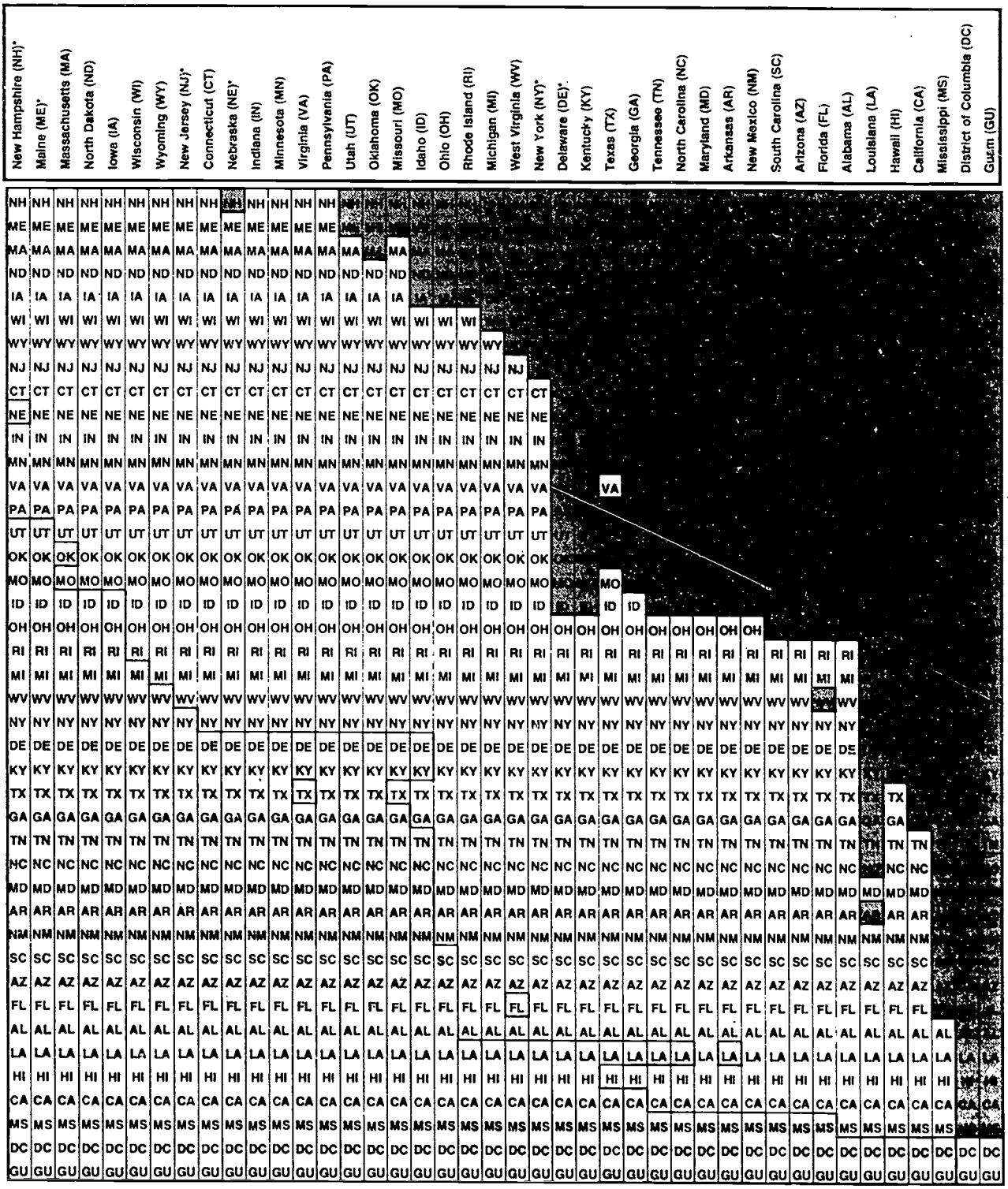
As another example, compare the 1994 average reading proficiency for the state of Virginia to that for each of the other 38 participating states, the DoDEA Overseas Schools, and Guam. Reading vertically down the column labeled "Virginia," one sees that, on average, fourth graders in Virginia scored lower than students in the states listed from Maine through Wyoming (shaded dark gray), about the same as students listed from Nebraska through New Mexico (white or unshaded), and higher than students in the jurisdictions listed from South Carolina through Guam (light gray shading).

From Figure 4.4, we also see that the cluster of highest performing states in 1994 consisted of eight states. The states whose fourth graders had the highest average reading proficiencies were Maine, North Dakota, Wisconsin, New Hampshire, Massachusetts, Iowa, Connecticut, and Montana. For comparison, the cluster of highest performing states in 1992 (displayed in Figure 4.3) consisted of 13 states: New Hampshire, Maine, Massachusetts, North Dakota, Iowa, Wisconsin, Wyoming, New Jersey, Connecticut, Indiana, Minnesota, Virginia, and Pennsylvania.

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

Figure 4.3 Comparisons of Average Overall Reading Proficiency for the 1992 Trial State Reading Assessment, Grade 4, Public Schools Only

Instructions: Read *down* the column directly under a state name listed in the heading at the top of the chart. Match the shading intensity surrounding a state postal abbreviation to the key below to determine whether the average reading performance of this state is higher than, the same as, or lower than the state in the column heading.



- State has statistically significantly higher average proficiency than the state listed at the top of the chart.
- No statistically significant difference from the state listed at the top of the chart
- State has statistically significantly lower average proficiency than the state listed at the top of the chart

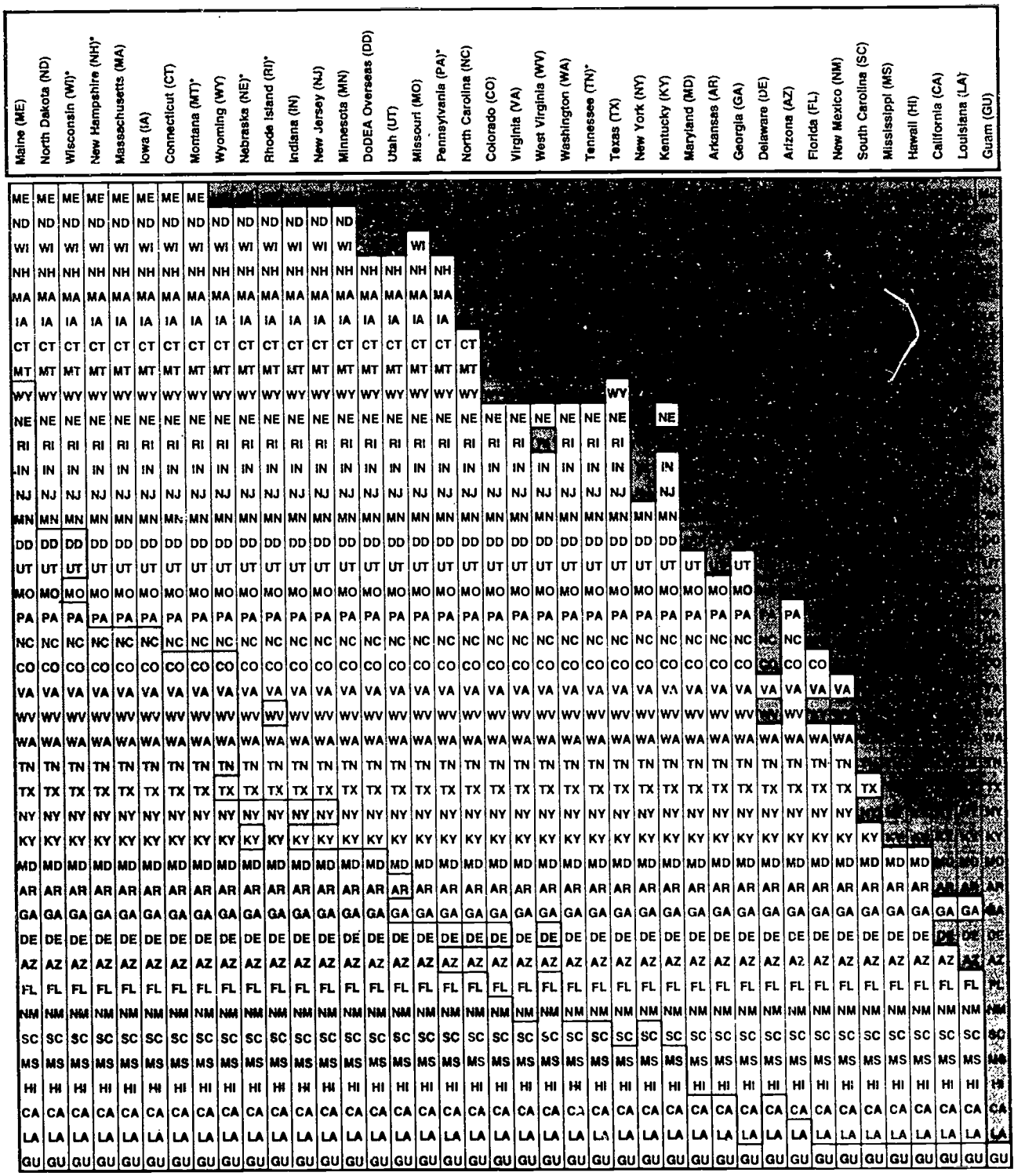
The between state comparisons take into account sampling and measurement error and that each state is being compared with every other state. Significance is determined by an application of the Bonferroni procedure.

*Did not satisfy one or more of the guidelines for sample participation rates (see Appendix for details).

THE NATION'S REPORT CARD
1992
1994
Reading Assessment

Figure 4.4 Comparisons of Average Overall Reading Proficiency for the 1994 Trial State Reading Assessment, Grade 4, Public Schools Only

Instructions: Read *down* the column directly under a state name listed in the heading at the top of the chart. Match the shading intensity surrounding a state postal abbreviation to the key below to determine whether the average reading performance of this state is higher than, the same as, or lower than the state in the column heading.



- State has statistically significantly higher average proficiency than the state listed at the top of the chart.
- No statistically significant difference from the state listed at the top of the chart.
- State has statistically significantly lower average proficiency than the state listed at the top of the chart.

The between state comparisons take into account sampling and measurement error and that each state is being compared with every other state. Significance is determined by an application of the Bonferroni procedure.

*Did not satisfy one or more of the guidelines for sample participation rates (see Appendix for details).

Comparisons of Average Reading Proficiency Across the States for Selected Demographic Subgroups

Figures 4.5 and 4.6 present another way to compare the performance of students across participating jurisdictions in the 1992 and 1994 reading assessments. For each demographic characteristic identified at the top of the columns, the states are ranked from highest to lowest in terms of average reading proficiencies and are grouped in performance bands established according to quintiles, or bands that represent approximately 20 percent of the performance distribution.

Grouped within the highest, or fifth, quintile for each of the demographic subgroups are the states in which the average reading proficiency for that subgroup was in the top 20 percent across all participating jurisdictions. Conversely, located within the lowest, or first, quintile for each subgroup of students are the states in which the average reading proficiency for those students was in the lowest 20 percent across jurisdictions. The second, third, and fourth quintiles can be interpreted in a similar manner. The list of states within each quintile is arranged in alphabetical order.

This information is useful for making cross-state comparisons of students who share a particular demographic characteristic. For example, the 1994 average reading proficiency of White students in the state of Washington was in the lowest quintile for White students across all participating jurisdictions (Figure 4.6). However, the average proficiency for Washington's Black students was in the highest quintile.

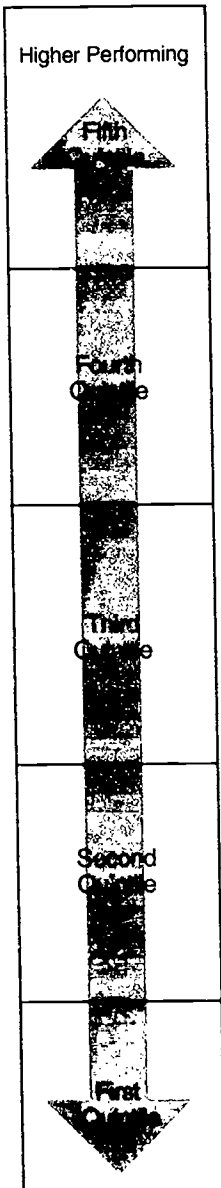
The data in Figures 4.5 and 4.6 cannot be used to compare average reading proficiencies across subgroups within a state. Information about the average performance of subgroups within states is presented in Appendix C.

When examining the information presented in Figures 4.5 and 4.6, it is essential to keep in mind the proximity of average scale scores for states in different quintile bands. The range of average scale scores for each state's subgroup is in parentheses at the top of each band. In some cases, the average score associated with a state near a quintile cutoff differs little from that of another state appearing in an adjacent quintile band. Consequently, it is possible that two states may fall in different quintiles, yet be relatively close in average proficiency. For example, among White students from all participating jurisdictions, White students in Montana, with an average proficiency of 226.3 (rounded to 226), appear in the top quintile. However, White students in New York, with an average proficiency of 225.9 (also rounded to 226), appear in the fourth, or next to the highest, quintile.

The division of states into quintile bands for each demographic subgroup is based solely on their ranking in the performance distribution of states. The breaks between quintiles should not be interpreted as indicating statistically significant differences between states. Also, it is important to keep in mind that the ranking of jurisdictions, and the subsequent grouping into quintiles, are based on unrounded averages. Throughout this report, average proficiencies are reported to the nearest whole number.

FIGURE 4.5 **Average Overall Reading Proficiency for Five Performance Bands (Quintiles)**

1992 Assessment Grade 4



	RACE/ETHNICITY			PARENTS' EDUCATION			
	White	Black	Hispanic	College Graduate	Some Ed. After H.S.	High School Graduate	Less than High School
Fifth Quintile	(227-232) CT MA ME* NH* NJ* PA VA WI	(202-209) CO IA MA NM NY* VA WV	(205-221) IA IN ME* ND NE* NH* WI WY	(231-235) CT IA MA ME* ND NH* NJ* WI	(230-235) IA MA ME* NE* NH* PA WI WY	(218-224) IA IN MA ME* MN ND NH* WI	(209-213) IN ME* MO NH* PA WI WY
Fourth Quintile	(225-227) IA IN MO ND NE* NY* WY	(197-200) AZ IN NE* NJ* TX WI	(201-204) CO FL MA MN MO UT VA	(227-230) IN MO NE* PA UT VA WY	(228-230) CT IN MN ND NJ* RI UT	(215-218) MO NE* NJ* PA UT VA WY	(203-208) IA MA NJ* RI UT VA WV
Third Quintile	(222-224) CO DE* GA MN NM RI TX UT	(194-197) CT DE* GA KY MO NC SC	(196-201) AZ MD NJ* NM PA TN TX WV	(221-227) CO GA MN NM NY* RI TX WV	(221-227) AR CO DE* KY MO TN VA WV	(209-214) AR CO CT KY NM RI TN WV	(200-202) AR CO CT GA KY TN TX
Second Quintile	(219-221) AR AZ FL MD NC SC TN	(190-193) AR HI LA MD MN TN	(191-195) CT GA HI KY NC RI SC	(218-220) AZ DE* KY MD NC SC TN	(218-221) GA MD NC NM NY* SC TX	(206-209) AL FL GA MD NC NY* TX	(196-200) AL DE* FL HI LA NY* SC
First Quintile	(195-218) AL CA GU HI KY LA MS WV	(166-190) AL CA FL GU MS PA RI	(165-190) AL AR CA DE* GU LA MS NY*	(183-217) AL AR CA FL GU HI LA MS	(192-217) AL AZ CA FL GU HI LA MS	(182-205) AZ CA DE* GU HI LA MS SC	(175-196) AZ CA GU MD MS NC NM
States with sample sizes too small for reporting		ND ME* NH* UT WY					ND NE* MN

* Did not satisfy one or more of the guidelines for sample participation rates (See Appendix A).

Montana, Washington, and the Department of Defense Education Activity Overseas Schools did not participate in the 1992 Trial State Assessment

FIGURE 4.5 Average Overall Reading Proficiency for Five Performance Bands (Quintiles)

1992 Assessment Grade 4 (continued)

GENDER		TYPE OF LOCATION		
Male	Female	Central City	Urban Fringe/ Large Town	Rural/ Small Town
(220-225)	(226-231)	(219-229)	(227-232)	(225-231)
IA	IA	IA	CT	CT
MA	MA	ND	IA	MA
ME*	ME*	NE*	MA	ME*
ND	ND	NH*	ME*	NH*
NH*	NH*	UT	NH*	NY*
NJ*	NJ*	WI	NJ*	PA
WI	WI	WY	VA	RI
WY	WY			
(217-219)	(223-225)	(213-217)	(223-226)	(222-224)
CT	CT	DE*	IN	IA
IN	IN	IN	MN	IN
MN	MN	KY	MO	MO
MO	NE*	NC	ND	ND
NE*	PA	NM	NY*	UT
PA	UT	VA	PA	WI
VA	VA	WV	WI	WY
(209-217)	(216-223)	(209-213)	(218-222)	(212-221)
CO	CO	AZ	CO	CO
GA	DE*	CO	GA	DE*
KY	KY	HI	NE*	MN
NY*	MO	MA	RI	NE*
RI	NY*	MN	SC	TN
TN	RI	MO	TX	VA
UT	TX	SC	UT	WV
WV	WV	TX	WV	
(206-209)	(213-215)	(203-209)	(212-218)	(208-211)
AR	AR	AL	AL	AR
DE*	AZ	AR	AR	FL
MD	GA	CT	DE*	GA
NC	MD	GA	KY	KY
NM	NC	PA	MD	NC
SC	SC	RI	NC	NM
TX	TN	TN	TN	TX
(175-206)	(190-213)	(194-202)	(199-212)	(182-205)
AL	AL	CA	AZ	AL
AZ	CA	FL	CA	AZ
CA	FL	LA	FL	GU
FL	GU	MD	HI	HI
GU	HI	MS	LA	LA
HI	LA	NJ*	MS	MS
LA	MS	NY*	NM	SC
MS	NM			
		GU	GU	CA
		ME*	WY	MD
				NJ*

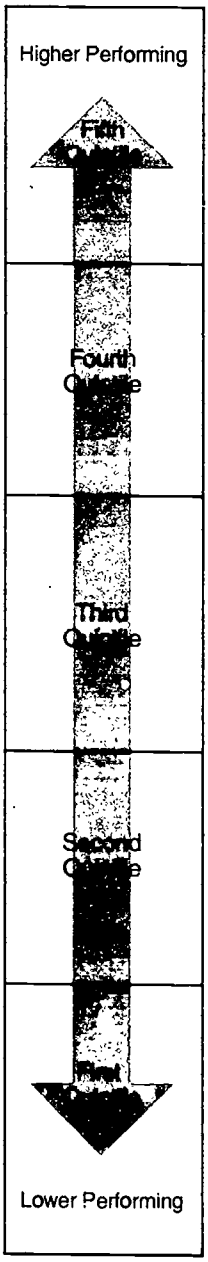


FIGURE 4.6 **Average Overall Reading Proficiency for Five Performance Bands (Quintiles)**

1994 Assessment Grade 4

	RACE/ETHNICITY			PARENTS' EDUCATION			
	White	Black	Hispanic	College Graduate	Some Ed. After H.S.	High School Graduate	Less than High School
Higher Performing — Fifth Quintile	(226-234) CT MA ME MT* ND NJ TX WI*	(196-205) DD MA NM RI* WA WI* WV	(205-218) DD ME MT* ND NE* NH* VA WY	(230-236) CT MA ME MT* ND NE* NH* WI*	(230-237) CT IA ME ND NE* NH* RI* WY	(216-225) IA IN ME MT* ND NH* RI* WI*	(204-214) CT IA MA ME MT* NH* WI*
Fourth Quintile	(224-226) DD IA IN NC NH* NY PA* RI*	(191-193) CO IN MO NC NJ TX VA	(198-204) IA IN MN MO NJ TX UT WI*	(225-230) IA IN MN MO NJ RI* UT WY	(226-230) DD IN MA MO MT* NC WI* WV	(212-216) CO MA MN MO NE* TN* WV WY	(197-203) AL IN MO RI* TN* WA WY
Third Quintile	(221-224) CO GA MD MN MO NE* UT VA WY	(188-191) CT DE HI KY NE* NY TN*	(192-197) CO KY MA MD NM NY RI* TN* WV	(220-224) CO DD NC NY PA* TX VA WA WV	(220-225) AR CO KY NJ NY PA* TN* TX UT	(207-212) CT DD KY NJ NY PA* TX UT WA	(195-196) AR KY MD NC NY TX VA WV
Second Quintile	(218-220) AL AZ FL HI MS NM SC TN*	(183-188) AL FL GA IA MD MS SC	(187-192) AR AZ CT DE FL NC PA* WA	(215-219) AL AR AZ DE GA KY MD NM TN*	(217-220) AL AZ DE FL GA MN NM VA	(200-207) AL AR AZ DE MD NC NM VA	(188-193) AZ CO HI LA MS NJ SC
First Quintile — Lower Performing	(192-218) AR CA DE GU KY LA WA WV	(171-183) AR AZ CA GU LA MN PA*	(171-185) AL CA GA GU HI LA MS SC	(185-214) CA DE FL GU HI LA MS SC	(189-216) CA GU HI LA MD MS SC WA	(176-199) CA FL GA GU HI LA MS SC	(164-188) CA DE FL GA GU NM PA*
States with sample sizes too small for reporting		ME MT* NH* ND UT WY					DD MN NE* ND UT

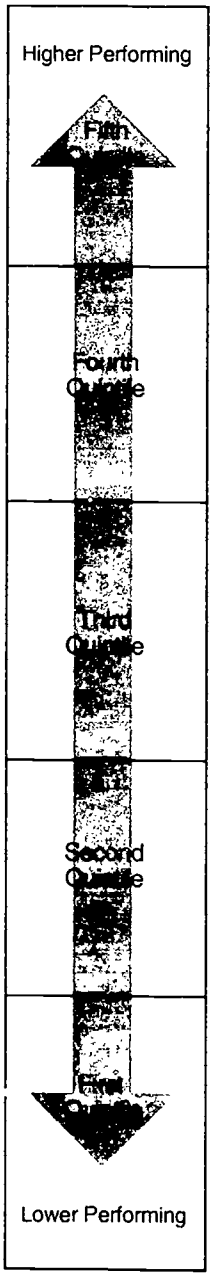
* Did not satisfy one or more of the guidelines for sample participation rates (See Appendix A).

FIGURE 4.6 **Average Overall Reading Proficiency for Five Performance Bands (Quintiles)**

1994 Assessment Grade 4 (continued)

THE NATION'S REPORT CARD

GENDER		TYPE OF LOCATION		
Male	Female	Central City	Urban Fringe/ Large Town	Rural/ Small Town
(218-225)	(226-231)	(218-224)	(226-231)	(225-238)
CT	CT	IA	CT	CT
IA	IA	MT*	IN	MA
MA	MA	NC	MA	ME
ME	ME	ND	ME	ND
ND	MT*	NE*	ND	NY
NH*	ND	NH*	NH*	RI*
WI*	NH*	WI*	WI*	WI*
WY	WI*	WY		
(213-218)	(222-225)	(210-215)	(221-225)	(220-225)
IN	DD	HI	IA	IA
MN	IN	IN	MN	IN
MO	MN	KY	MO	MT*
MT*	NE*	MO	MT*	NE*
NE*	NJ	RI*	NJ	NH*
NJ	RI*	UT	NY	PA*
RI*	UT	WV	PA*	WY
UT	WY		RI*	
(208-213)	(217-221)	(207-210)	(216-221)	(211-217)
CO	CO	AR	AL	CO
DD	KY	CO	CO	MN
NC	MO	DE	KY	MO
PA*	NC	SC	TN*	NC
TN*	PA*	TN*	TX	TN*
TX	TN*	TX	UT	TX
VA	VA	VA	VA	UT
WA	WA	WA		WV
WV	WV			
(201-207)	(211-216)	(201-207)	(211-216)	(206-210)
AL	AL	AL	AR	AL
AR	AR	AZ	GA	AR
AZ	AZ	CT	MD	DE
GA	DE	MA	MS	GA
KY	GA	MN	NC	KY
MD	MD	MS	SC	VA
NM	NY	NM	WA	WA
NY	TX		WV	
(172-200)	(190-210)	(190-200)	(198-210)	(196-202)
CA	CA	CA	AZ	AZ
DE	FL	FL	CA	FL
FL	GU	GA	DE	HI
GU	HI	LA	FL	LA
HI	LA	MD	HI	MS
LA	MS	NJ	LA	NM
MS	NM	NY	NM	SC
SC	SC	PA*		
		DD	DD	DD
		GU	GU	CA
		ME	NE*	GU
			WY	MD
				NJ



Endnote

1. Because the average proficiencies are based on samples — rather than on the entire populations of fourth graders in the jurisdictions — the numbers reported are necessarily estimates. As such, they are subject to a measure of uncertainty, reflected in the standard error of the estimate.
2. The significance tests used in these figures are based on a Bonferroni procedure for multiple comparisons. This procedure takes into account all possible comparisons between states in declaring the differences between any two states to be statistically significant. The Bonferroni procedure holds across all possible comparisons to 5 percent the probability of erroneously declaring the averages for any two states to be different when they are not.

CHAPTER 5

School and Home Contexts for Reading

The two most important contexts in which students' literacy abilities can be nurtured and guided are school and home. Students' exposure to various instructional activities and materials at school has a significant impact on their opportunities for achievement.[1] Family support for students' efforts and the modeling of literacy habits at home can also play a critical role in students' growth as readers.[2] Furthermore, it is possible that the influences of home and school on students' literacy development are not completely independent. For example, school factors such as the amount of reading assigned by teachers or the degree of parental involvement sought by administrators may be important contributors to the literacy environment in students' homes.

Given the importance of these contexts for literacy development, a complete picture of students' achievement in reading is not possible without also considering information about their school and home environments. Such consideration brings into focus the relationship between reading proficiency and students' background and instructional experiences.

This chapter contains contextual information related to instructional activities and home support for reading. In 1994, information regarding students' instructional experiences was collected from their reading teachers at grades 4 and 8, and from the students themselves at grades 4, 8, and 12. The 1992 assessment did not include a survey of eighth-grade students' teachers; consequently, only 1994 results are presented for the teachers of eighth graders. Reading is not typically taught as a separate subject in high school; therefore, information from teachers was not collected at the twelfth grade. Information concerning home support for reading was collected from students at all three grades.

Changes between 1992 and 1994 are reported only for students' reports about their instructional and home experiences. No trend analyses are presented in this chapter for results based on the reports of fourth graders' teachers because the reading teacher questionnaire was reformatted between the 1992 and 1994 assessments. In 1992, teachers were asked to describe the specific approaches they used for up to five different reading classes. In 1994, teachers reported on the typical approaches they used across all of their reading classes. Because of this reformatting, teacher reported data are presented for both assessments, but trend analyses were not conducted.

Instructional Materials

The type of materials that students are asked to read during instruction is one important factor in their reading development. Students' perceptions of literacy as a lifelong pursuit, rather than just a school activity, can be affected by their early exposure to different types of materials and reading experiences.[3] Two major types of reading material — basal readers and trade books — have been predominant in classrooms for some time.

For the last several decades, basal readers have been the major component of instruction in elementary and junior high school reading programs.[4] These publications are developed for the specific purpose of teaching students how to read, and typically they include passages and exercises that are designed to be grade-appropriate in topic and difficulty. Some critics of basal readers argue that reading experiences may be contrived and fragmented when students are taught with these types of materials.[5] Other educators suggest that basals can be effective tools in reading instruction when used wisely and selectively by knowledgeable teachers.[6] As many basal programs have made substantial changes in their materials, such as developing a more literature-based focus, they may now provide teachers with a wider range of literacy-rich activities.[7]

Trade books, as primary sources of instructional material, have received increased attention in recent years. It has been suggested that using trade books, or books that are not published specifically for reading instruction, may provide students with more genuine and more diverse literacy experiences.[8] As a result, students may develop reading abilities that are adaptable to "real-world" situations and applicable to a broader scope of reading materials.[9]

Teachers of fourth- and eighth-grade students in the NAEP reading assessment were asked about the type of materials that form the core of their reading program. Table 5.1 presents the 1992 and 1994 results for fourth graders, and the 1994 results for eighth graders. Average reading proficiency at either grade was not significantly related to teachers' reported use of basals, trade books, or a combination of the two.

In 1994, 21 percent of fourth-grade students and 14 percent of eighth graders were being taught primarily with basal readers. More than one-half (57 percent) of fourth graders and almost half (46 percent) of eighth graders were being taught by teachers who reported using both basals and trade books as the core of their reading program.

Instructional Activities

Teachers may implement a wide array of activities in their classrooms to give students the practice and experiences they need to develop as readers. These activities range from isolated skill exercises that ask students to demonstrate a particular ability out of context to more purposeful and integrative reading and writing activities.[10]

The appropriateness of individual activities may depend on the unique characteristics of the learner and the nature of the learning goal. Nevertheless, most educators today recognize the desirability of having students integrate various language processes in the development of literacy skills, and of providing students with purposeful, or goal-oriented, activities.[11]

TABLE 5.1

Teachers' Reports on Which Type of Material Forms the Core of Their Reading Program Grades 4 and 8

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Grade 4		Grade 8
	1992	1994	1994
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
Primarily Basal	36 (2.4) 216 (1.9)	21 (2.2) 212 (2.1)	14 (1.6) 261 (2.3)
Primarily Trade Books	12 (2.1) 223 (4.3)	19 (2.5) 219 (2.9)	18 (2.1) 261 (2.3)
Both Basal and Trade Books	49 (3.4) 218 (1.4)	57 (2.6) 215 (1.6)	46 (2.0) 261 (1.3)
Other	3 (1.0) 208 (6.3)	3 (0.7) 202 (5.0)	22 (2.1) 260 (2.2)

The question associated with this variable was reformatted in 1994. No trend comparison tests were conducted. Differences between groups may be partially explained by other factors not included in this table.

The standard errors of the estimated percentages and proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Due to rounding, the percentages of students in the subgroups may not total 100 percent.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

Workbooks, Worksheets, and Writing in Response to Reading. Workbooks and worksheets play a prominent role in the reading curriculum of our nation's schools.[12] They are often used as supplementary material in published instructional programs. In the past, many of the activities associated with workbooks and worksheets focused on specific skills or subskills, with little attention to integrating reading, writing, and thinking in a meaningful manner.[13] More recently, however, some publishers have produced materials that support the development of strategic, integrative, and thoughtful reading abilities.[14]

In part, this change has been in response to a growing recognition among educators and researchers that reading development is supported and enhanced through integrative reading and writing activities. Increasingly, district and state curricular initiatives reflect an awareness that reading development does not take place in isolation from other developing language abilities. Students develop simultaneously as readers, listeners, speakers, and writers, as they learn to interact with and participate in the literacy community.[15]

Table 5.2a presents teachers' reports on the frequency with which they use workbook and worksheet activities, and ask their students to provide written responses to reading. At both the fourth and eighth grades, less frequent use of workbooks and worksheets was associated with higher average proficiencies.

According to their teachers, fourth graders in 1994 were asked to write in response to reading at least as frequently as they were completing workbooks or worksheets. Eighth graders, on the other hand, were asked to write in response to reading more frequently than they were asked to complete workbooks or worksheets.

TABLE 5.2a

Teachers' Reports on Workbooks, Worksheets, and Writing in Response to Reading Grades 4 and 8

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Grade 4		Grade 8
	1992	1994	1994
	Percentage and Proficiency	Percentage and Proficiency	Percentage and Proficiency
Ask students to work in a reading workbook or on a worksheet*			
Almost Every Day	33 (2.6) 215 (1.7)	27 (2.3) 210 (2.1)	10 (1.4) 252 (3.5)
Once or Twice a Week	48 (3.2) 218 (1.6)	48 (2.2) 216 (1.2)	36 (2.4) 256 (1.5)
Less Than Weekly	20 (2.5) 221 (3.3)	25 (2.6) 218 (1.9)	54 (2.4) 265 (1.1)
Ask students to write about something they have read*			
Almost Every Day	23 (1.8) 220 (2.6)	29 (2.2) 214 (2.4)	18 (1.9) 262 (2.2)
Once or Twice a Week	49 (2.5) 217 (1.8)	56 (2.2) 215 (1.4)	62 (2.3) 261 (1.1)
Less Than Weekly	27 (2.4) 216 (2.1)	15 (1.9) 219 (2.3)	20 (2.2) 259 (1.9)

*The question associated with this variable was reformatted in 1994. No trend comparison tests were conducted.

Differences between groups may be partially explained by other factors not included in this table.

The standard errors of the estimated percentages and proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Due to rounding, the percentages of students in the subgroups may not total 100 percent.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

Table 5.2b presents students' reports on the same instructional activities. It is evident from these data that fourth- and eighth-grade students' perceptions of the frequency of certain instructional activities differ somewhat from the perceptions of their teachers. It is also important to keep in mind that, in 1994, teachers were asked to describe the typical approaches they used for all of their reading classes, whereas the reports of students represent their individual experiences in reading instruction.

Fourth graders' reports on workbook and worksheet usage displayed a different relationship with average reading proficiency than did the reports of their teachers. More frequent use of these materials was reported by higher performing students. At grade 12, however, the pattern was reversed — higher performing students reported less frequent use of workbooks and worksheets.

The relationship between reading proficiency and students' reports of being asked by their teachers to write in response to reading varied across the three grades. Contrary to some research, at fourth grade more frequent writing was associated with lower average proficiency. At eighth grade, students who were asked to write about reading with moderate frequency (at least once a week) had the highest average proficiency. And at grade 12, the pattern observed in the fourth grade was reversed — higher average proficiency was associated with more frequent writing about reading.

- Significantly fewer fourth graders in 1994 than in 1992 reported using workbooks or worksheets once or twice a week. However, the percentage of fourth graders reporting daily use of these materials remained at 51 percent.
- Less frequent use of workbooks or worksheets was reported by twelfth graders in 1994 than in 1992. A significantly greater percentage in 1994 reported using them less than weekly, while fewer students reported weekly use.
- There were no significant changes between 1992 and 1994 in eighth graders' reports on the frequency of workbook and worksheet use.
- There were no significant changes between 1992 and 1994 at any grade in students' reports on the frequency with which they were asked to write about something they read.

TABLE 5.2b

Students' Reports on Workbooks, Worksheets, and Writing in Response to Reading Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Grade 4		Grade 8		Grade 12	
	1992	1994	1992	1994	1992	1994
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
Ask you to work in a reading workbook or on a worksheet						
Almost Every Day	51 (1.5) 219 (1.0)	51 (1.2) 220 (1.1)	27 (0.7) 259 (1.3)	26 (0.9) 259 (1.5)	16 (0.4) 288 (1.1)	15 (0.5) 282 (1.5) <
Once or Twice a Week	29 (0.9) 220 (1.6)	25 (0.8) < 216 (1.2)	35 (0.8) 263 (0.9)	33 (0.7) 263 (1.1)	33 (0.7) 291 (0.7)	30 (0.7) < 286 (1.0) <
Less Than Weekly	20 (1.0) 211 (1.6)	24 (1.0) 205 (1.8) <	38 (0.8) 259 (1.2)	41 (1.1) 259 (1.1)	51 (0.8) 295 (0.7)	55 (0.9) > 291 (0.9)<
Ask you to write about something you have read						
Almost Every Day	22 (0.8) 212 (1.5)	23 (0.9) 209 (1.7)	18 (0.5) 259 (1.4)	19 (0.8) 259 (1.5)	20 (0.7) 295 (1.0)	20 (0.7) 291 (1.3)
Once or Twice a Week	34 (0.8) 219 (1.2)	33 (0.6) 217 (1.2)	38 (0.7) 263 (1.2)	39 (0.8) 265 (1.0)	46 (0.6) 295 (0.7)	44 (0.7) 292 (1.0) <
Less Than Weekly	43 (1.0) 219 (1.1)	44 (0.9) 218 (1.2)	45 (0.9) 259 (1.1)	42 (1.1) 257 (1.2)	35 (0.7) 287 (0.8)	36 (0.8) 281 (1.2) <

Differences between groups may be partially explained by other factors not included in this table.
< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level.
The standard errors of the estimated percentages and proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.
Due to rounding, the percentages of students in the subgroups may not total 100 percent.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

Pages Read Each Day In School and for Homework. Most students are required to read on a daily basis for school and for homework. Developing into capable readers may, in fact, require daily practice.[16] The amount of reading that is appropriate for any given student, however, varies according to the nature of the text being read, the goals for reading the material, and the student's current ability level.

As displayed in Table 5.3, many students at each grade reported reading five or fewer pages each day for school and homework combined. Moreover, there was evidence of a decline from 1992 to 1994 in the number of pages read each day in school and for homework by twelfth graders. These findings, along with other aspects of students' instructional and home experiences discussed later in this chapter, may provide an important context in which to view the decline in average reading proficiency among twelfth graders discussed in Chapter 2.

A consistent relationship between reading proficiency and the amount of reading done for school and homework was apparent across the grades. At each grade in 1994, students who read no more than five pages each day had the lowest average reading proficiency.

- Between 1992 and 1994, a significant decline was observed in the percentage of twelfth-grade students who reported reading 11 or more pages each day. This was accompanied by a significant increase in the percentage of twelfth graders who reported reading five or fewer pages.
- At grades 4 and 8, there were no significant changes from 1992 to 1994 in students' reports on the number of pages read each day.

TABLE 5.3

Students' Reports on Number of Pages Read Each Day in School and for Homework Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Grade 4		Grade 8		Grade 12	
	1992	1994	1992	1994	1992	1994
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
11 or More Pages	56 (1.2) 222 (1.1)	54 (1.1) 220 (1.3)	22 (0.6) 268 (1.5)	21 (0.8) 266 (1.7)	45 (0.9) 302 (0.8)	39 (1.1) < 298 (1.0) <
6 to 10 Pages	23 (0.7) 217 (1.3)	23 (0.7) 214 (1.3)	16 (0.4) 266 (1.3)	16 (0.5) 269 (1.6)	24 (0.4) 290 (0.9)	24 (0.6) 288 (1.1)
5 or Fewer Pages	21 (1.0) 203 (1.4)	23 (0.8) 201 (1.2)	62 (0.7) 256 (1.0)	63 (1.0) 256 (0.9)	31 (0.7) 281 (0.8)	36 (0.8) > 276 (0.9) <

Differences between groups may be partially explained by other factors not included in this table.

< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level.

The standard errors of the estimated percentages and proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Due to rounding, the percentages of students in the subgroups may not total 100 percent.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

Explaining and Discussing Reading in School. Having students explain or support their understanding of what they read can help them become more thoughtful readers.[17] For example, students might be asked how they came to a particular conclusion or what additional information would have increased their understanding of the text's topic. Also, by discussing various interpretations of what they read, students can be encouraged to think critically about what they are reading or to consider different points of view.

In 1992 and 1994, eighth- and twelfth-grade students were asked how frequently their teachers have them explain or support their understanding and discuss various interpretations of what they read. A summary of students' responses is presented in Table 5.4.

Both types of instructional activities showed a relationship to students' reading proficiency. At both grades, students who reported engaging in either type of activity less than weekly had the lowest average reading proficiency.

- Between 1992 and 1994, there was a significant decline in the percentage of twelfth graders who reported being asked on a weekly basis to explain their understanding of what they read, and a significant increase in the percentage of students who said their teachers ask them to do this less than weekly.
- At the eighth grade, a significant decline in the percentage of students who reported being asked to explain their understanding on a weekly basis was observed. It was not clear, however, whether the trend was toward more or less frequent use of this activity at this grade.
- According to the reports of both eighth and twelfth graders, there was a significant decline from 1992 to 1994 in the percentage of students who were asked to discuss various interpretations on a weekly basis. At both grades, this was accompanied by a significant increase in the percentage of students who were reportedly asked to do this less than weekly.

TABLE 5.4

Students' Reports on How Frequently Their Teachers Ask Them to Explain Their Understanding and Discuss Various Interpretations of What They Read in School Grades 8 and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Grade 8		Grade 12	
	1992	1994	1992	1994
	Percentage and Proficiency		Percentage and Proficiency	
Explain Your Understanding of What You Have Read				
Almost Every Day	20 (0.5) 262 (1.3)	21 (0.7) 263 (1.3)	29 (0.8) 302 (1.0)	28 (0.9) 298 (1.2)
Once or Twice a Week	37 (0.7) 264 (1.3)	35 (0.7)< 264 (1.0)	40 (0.6) 294 (0.6)	37 (0.6)< 289 (1.0)<
Less Than Weekly	43 (0.7) 257 (1.2)	45 (1.0) 257 (1.1)	31 (0.7) 282 (0.9)	35 (0.8)> 279 (1.1)<
Discuss Various Interpretations of What You Have Read				
Almost Every Day	16 (0.5) 261 (1.5)	16 (0.7) 264 (1.6)	27 (0.8) 302 (0.9)	27 (0.9) 299 (1.4)
Once or Twice a Week	33 (0.6) 263 (1.0)	30 (0.7)< 262 (1.0)	36 (0.6) 294 (0.8)	34 (0.5)< 289 (0.9)<
Less Than Weekly	51 (0.7) 259 (1.2)	54 (0.9)> 259 (0.9)	36 (0.9) 284 (0.9)	39 (0.9)> 280 (0.9)<

Differences between groups may be partially explained by other factors not included in this table.
< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level.
The standard errors of the estimated percentages and proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.
Due to rounding, the percentages of students in the subgroups may not total 100 percent.
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

Students' Home Support for Literacy

The support for literacy development that students experience at home may be at least as important as their instructional experiences in school. Having access to assorted literacy materials, experiencing family support for literacy as a priority, and being encouraged to pursue reading as a leisure activity are all ways in which students' home environment can influence their development as readers.[18] Some educators and researchers propose that failing to attend to the home environment in addressing students' literacy needs may weaken efforts that schools make to help children become better readers.[19]

Literacy Materials in the Home. Access to literacy materials, both in and out of school, is essential for students' reading development. Numerous studies have demonstrated the benefits of increasing students' exposure to literacy materials in their homes, especially for lower-achieving students.[20] A relationship between students' access to home literacy materials and their reading achievement is supported by findings from the NAEP 1994 reading assessment.

Students were asked about the presence of four different types of literacy materials in their homes: magazines, newspapers, encyclopedias, and at least 25 books. The percentages and average proficiencies of students reporting all four types, only three types, or two or fewer types of literacy materials are presented in Table 5.5. On average, students who reported having more types of literacy materials in their homes also had higher reading proficiencies.

- A significantly smaller proportion of twelfth graders in 1994 than in 1992 reported having all four types of literacy materials in their homes. There was a corresponding significant increase in the percentage of twelfth-grade students who reported having two or fewer types of literacy materials at home.
- No significant changes in students' reports about home literacy materials were found at the fourth or eighth grades.

TABLE 5.5

Students' Reports on Number of Different Types of Literacy Materials in Their Homes Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Grade 4		Grade 8		Grade 12	
	1992	1994	1992	1994	1992	1994
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
Four	37 (0.9) 226 (1.3)	38 (0.8) 227 (1.1)	51 (0.8) 268 (0.9)	50 (0.8) 270 (0.9)	60 (0.7) 298 (0.6)	55 (0.7)< 295 (0.9)<
Three	32 (0.7) 219 (1.3)	34 (0.7) 216 (1.2)	29 (0.5) 259 (1.3)	29 (0.5) 258 (1.1)	26 (0.6) 290 (0.9)	28 (0.6) 286 (1.1)<
Two or Fewer	31 (0.8) 204 (0.9)	29 (0.9) 197 (1.4)<	20 (0.7) 241 (1.2)	21 (0.6) 239 (1.3)	14 (0.4) 274 (1.1)	17 (0.5)> 269 (1.1)<

Differences between groups may be partially explained by other factors not included in this table.

< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level.

The standard errors of the estimated percentages and proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Due to rounding, the percentages of students in the subgroups may not total 100 percent.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

Reading for Fun. The connection between leisure reading activities and reading achievement has been established by numerous studies.[21] Part of the reason for this connection may be that students who read frequently for fun not only gain practice in the process of reading, but also are likely to be exposed to a broad scope of topics and situations in their reading that can provide an experiential base from which future reading experiences are enriched and made more meaningful.

In both the 1992 and 1994 reading assessments, students at all three grades were asked how often they read for fun on their own time. Their responses are summarized in Table 5.6. A clear connection between frequent reading for fun and higher average reading proficiency is suggested by the NAEP results. At all three grades in 1994, more frequent leisure reading was associated with higher average proficiences. Given this connection, it may be of some concern that more than one-fourth of eighth and twelfth graders in 1994 reported never or hardly ever reading for fun on their own time.

- Compared to their counterparts in 1992, a significantly smaller portion of twelfth-grade students in 1994 reported reading for fun once or twice a week. There was a significant increase between the two assessments in the percentage of twelfth graders who reported never or hardly ever reading for fun on their own time.
- No significant changes in fourth or eighth graders' reports on reading for fun were observed.

Literacy Discussions with Family and Friends. One indication that reading and schoolwork are a priority for students and their families is the extent to which they discuss these topics at home and with friends. When students discuss their schoolwork at home, they establish an important link between home and school. Several recent studies have documented the increased achievement of students whose parents have become more involved in their schooling.[22] Such a link has become the objective of many recent education reform efforts, including *Goals 2000*, which seeks to increase cooperation between parents and schools.[23]

Students in the 1992 and 1994 NAEP reading assessments were asked how frequently they discuss their studies with people at home and how frequently they talk about their reading with family or friends. Their responses are summarized in Table 5.7. These data suggest that a substantial portion of students across the three grades were not engaged in literacy discussions on a regular basis.

TABLE 5.6

Students' Reports on the Frequency with Which They Read for Fun on Their Own Time Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Grade 4		Grade 8		Grade 12	
	1992	1994	1992	1994	1992	1994
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
Almost Every Day	44 (0.9) 223 (1.2)	45 (0.7) 223 (1.2)	22 (0.5) 277 (1.1)	21 (0.7) 277 (1.4)	23 (0.6) 304 (0.9)	24 (0.5) 302 (1.1)
Once or Twice a Week	32 (0.8) 218 (1.2)	32 (0.7) 213 (1.1)<	28 (0.6) 263 (1.0)	26 (0.5) 264 (1.1)	28 (0.7) 296 (0.7)	24 (0.6) < 294 (1.0)
Once or Twice a Month	12 (0.4) 210 (1.6)	12 (0.5) 208 (2.1)	25 (0.5) 258 (1.2)	25 (0.5) 257 (0.8)	26 (0.5) 290 (0.9)	24 (0.5) 285 (1.0) <
Never or Hardly Ever	13 (0.5) 199 (1.8)	12 (0.4) 197 (1.9)	25 (0.7) 246 (1.4)	27 (0.7) 246 (1.1)	24 (0.6) 279 (1.0)	27 (0.6) > 273 (1.1) <

Differences between groups may be partially explained by other factors not included in this table.

< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level.

The standard errors of the estimated percentages and proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Due to rounding, the percentages of students in the subgroups may not total 100 percent.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

At grades 8 and 12, at least one-third of students reported having discussions at home about their studies no more than about once or twice a month. This was true for slightly less than a quarter of fourth graders. Talking about reading with family or friends was reported by students even less frequently. One-half or more of eighth and twelfth graders, and more than one-third of fourth graders, said they talk to family or friends about their reading no more than once or twice a month.

As might be expected, students at all three grades who reported more frequent home discussions about their studies displayed higher reading proficiency. A similar pattern was seen in the data on talking about reading with family or friends. With the exception of having daily discussions of this type, more frequently talking about reading was associated with higher average reading proficiency.

- Twelfth graders' reports on home discussions about studies indicated a decline in the frequency of this activity between the 1992 and 1994 assessments. There was a significant decline in the percentage of twelfth-grade students who reported discussing studies at home once or twice a month. Also, a significantly higher proportion of twelfth graders in 1994 than in 1992 reported never or hardly ever having these discussions.

- A significantly smaller percentage of twelfth-grade students in 1994 than in 1992 reported talking about reading with family or friends once or twice a week. At the same time, a significantly greater percentage of these students in 1994 than in 1992 reported that they never or hardly ever talked about what they read.

- There were no significant changes at the fourth or eighth grade in students' reports on discussing studies or talking about reading.

TABLE 5.7

Students' Reports on the Frequency with Which They Discuss Their Studies at Home and Talk About Their Reading with Family or Friends Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Grade 4		Grade 8		Grade 12	
	1992	1994	1992	1994	1992	1994
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
Discuss Studies at Home						
Almost Every Day	54 (0.8) 221 (1.0)	55 (0.8) 219 (1.0)	37 (0.7) 269 (1.0)	38 (0.8) 269 (0.9)	30 (0.5) 298 (0.9)	30 (0.6) 296 (1.0)
Once or Twice a Week	22 (0.7) 220 (1.5)	22 (0.5) 215 (1.7)	30 (0.4) 263 (1.0)	29 (0.6) 264 (0.9)	34 (0.5) 295 (0.7)	33 (0.6) 292 (1.1)
Once or Twice a Month	6 (0.3) 215 (1.8)	6 (0.4) 208 (2.3)	11 (0.4) 257 (2.0)	12 (0.5) 257 (2.2)	16 (0.4) 292 (1.0)	14 (0.4) < 287 (1.0) <
Never or Hardly Ever	17 (0.6) 202 (1.5)	17 (0.5) 199 (1.7)	21 (0.6) 247 (1.4)	21 (0.6) 250 (1.2)	20 (0.5) 280 (1.1)	23 (0.6) > 274 (1.1) <
Talk About Reading with Family or Friends						
Almost Every Day	26 (0.6) 215 (1.4)	28 (0.6) 213 (1.3)	13 (0.6) 263 (1.3)	12 (0.4) 262 (1.6)	17 (0.5) 298 (1.1)	16 (0.4) 296 (1.3)
Once or Twice a Week	36 (0.9) 224 (1.1)	36 (0.6) 223 (1.2)	28 (0.5) 269 (1.1)	28 (0.6) 269 (1.0)	37 (0.5) 299 (0.7)	34 (0.6) < 296 (1.0)
Once or Twice a Month	15 (0.6) 219 (1.6)	15 (0.5) 214 (2.1)	26 (0.4) 263 (1.2)	26 (0.6) 264 (1.2)	27 (0.5) 291 (0.8)	28 (0.6) 288 (0.8)
Never or Hardly Ever	23 (0.8) 209 (1.4)	21 (0.6) 207 (1.6)	32 (0.7) 249 (1.2)	34 (0.6) 249 (0.9)	19 (0.4) 278 (1.0)	22 (0.6) > 270 (1.1) <

Differences between groups may be partially explained by other factors not included in this table.

< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level

The standard errors of the estimated percentages and proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Due to rounding, the percentages of students in the subgroups may not total 100 percent

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

Television Viewing Habits. While recent advances in technology and the increasing availability of technological tools have made it necessary to broaden our perspective of what constitutes literacy activities,[24] there continues to be concern for the amount of time students spend watching television. Many past studies, including NAEP reports, have indicated a negative relationship between television viewing and reading achievement.[25] One major concern has been that time spent watching television may be displacing time that students could spend on literacy-related activities.[26]

Students' reports of their television viewing habits are presented in Table 5.8. Clearly, a large amount of students' daily time continues to be devoted to watching television. In 1994, the percentages of students who reported watching four or more hours of television each day were 43 percent at the fourth grade, 41 percent at the eighth grade, and 25 percent at the twelfth grade.

At grades 8 and 12 in 1994, more frequent television viewing was associated with lower reading proficiencies. Among fourth graders, there was no significant difference in the average reading proficiency of students who reported watching up to three hours of television each day. However, fourth graders watching four to five hours had lower average proficiency than those who reported two to three hours of viewing; and students watching six hours or more had the lowest average reading proficiency.

- There were no significant changes between 1992 and 1994 in students' reports on the amount of time they spent watching television each day.

TABLE 5.8

Students' Reports on Amount of Time Spent Watching Television Each Day Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Grade 4		Grade 8		Grade 12	
	1992	1994	1992	1994	1992	1994
	Percentage and Proficiency		Percentage and Proficiency		Percentage and Proficiency	
Six Hours or More	20 (0.7) 199 (1.5)	21 (0.7) 194 (1.4)	14 (0.5) 241 (1.6)	14 (0.5) 239 (1.4)	6 (0.3) 271 (1.7)	7 (0.3) 264 (1.7) <
Four to Five Hours	22 (0.8) 216 (1.3)	22 (0.7) 216 (1.7)	27 (0.5) 258 (1.2)	27 (0.6) 257 (1.0)	20 (0.4) 284 (0.9)	18 (0.6) 280 (1.1) <
Two to Three Hours	40 (0.8) 224 (1.0)	38 (0.7) 222 (1.1)	46 (0.5) 265 (1.1)	45 (0.8) 265 (1.0)	47 (0.6) 293 (0.7)	46 (0.6) 289 (0.7) <
One Hour or Less	19 (0.8) 221 (1.6)	19 (0.7) 220 (1.9)	13 (0.5) 270 (1.5)	14 (0.4) 270 (1.7)	27 (0.8) 301 (1.0)	29 (0.5) 297 (1.0) <

Differences between groups may be partially explained by other factors not included in this table.

< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level.

The standard errors of the estimated percentages and proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Due to rounding, the percentages of students in the subgroups may not total 100 percent.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

Summary

Although it is not possible to establish causal links between reading proficiency and contextual variables using NAEP background and instructional data alone, it is possible to gain insight into certain patterns of students' home and school experiences. When reviewed in light of current research, these findings can contribute to understanding and interpreting reading performance results. In 1994, at all three grades assessed, a positive relationship was evident between certain contextual variables and reading proficiency.

Students who reported reading only five or fewer pages each day for school and homework combined had lower average reading proficiency than those who read more. Similarly, at all three grades in 1994, students who reported that they read for fun almost every day demonstrated the highest average reading proficiency.

Several home contextual factors showed a significant relation to reading proficiency. Fourth, eighth, and twelfth graders who reported having four types of literacy materials in their homes had the highest average reading proficiency. As the number of home literacy materials declined, so did demonstrated reading ability. Students who reported never or rarely having discussions at home about school studies displayed the lowest average proficiency. And, at all three grades, students who reported watching the most television per day had the lowest average reading proficiency.

The observed decline in twelfth-grade reading performance between the 1992 and 1994 assessments might be partly explained by changes in their literacy related activities. Compared with their counterparts in 1992, twelfth-grade students in 1994 reported reading fewer pages on a daily basis at home and at school. A significantly lower percentage reported reading for fun once or twice a week, and a significantly higher proportion reported never or hardly ever reading for fun on their own time.

Twelfth graders in 1994 reported having fewer literacy materials available to them: the percentage who reported having four types of materials in their homes was significantly lower than in 1992, and the percentage of students who reported having two or fewer types of materials was higher. More twelfth graders in 1994 than in 1992 reported never discussing their studies or reading experiences with other people.

At grades four and eight, where reading proficiency showed no significant decline between assessments, few changes in literacy related activities were observed. No single contextual variable or combination thereof can fully account for reading proficiency. Still, as contributing factors, they can help teachers and parents to more fully understand the contexts in which students become readers.

Endnotes

1. Sweet, A.P. (1993). *Transforming ideas for teaching and learning*. Office of Educational Research and Improvement. Washington, DC: Government Printing Office.

   Samuels, S.J., & Farstrup, A.E. (1992). *What research has to say about reading instruction*. Newark, DE: International Reading Association.

2. Morrow, L.M. (Ed.) (1995). *Family literacy: Connections in schools and communities*. Newark, DE: International Reading Association.

   Snow, C.E., Barnes, W.S., Chandler, J., Goodman, I.F., & Hemphill, L. (1991). *Unfulfilled expectations: Home and school influences on literacy*. Cambridge, MA: Harvard University Press.

3. Hiebert, E.H. (1994). Becoming literate through authentic tasks: Evidence and adaption. In R.R. Ruddell, M.R. Ruddell, & H. Singer (Eds.), *Theoretical models and processes of reading* (pp. 391-413). Newark, DE: International Reading Association.

   Marlow, E. (1994). Meaning in the reading curriculum. *Reading Improvement, 31*(1), 49-51.

   Harris, V.J. (1993). Literature-based approaches to reading instruction. In L. Darling-Hammond (Ed.), *Review of research in education* (pp. 269-297).

   Huck, C.S. (1992). Developing lifetime readers. *Journal of Youth Services in Libraries, 5*(4), 371-382.

4. Chall, J.S., & Squire, J.R. (1991). The publishing industry and textbooks. In R. Barr, M.L. Kamil, P.B. Mosenthall, & P. David Pearson (Eds.), *Handbook of reading research: Volume II* (pp. 120-146). New York: Longman.

5. Travers, R.R. (1993). Baiting the book hook. *Principal, 72*(4), 40-41, 43.

   Miller, S.D. (1993). Characteristics of tasks used for skill instruction in two basal readers. *Elementary School Journal, 94*(1), 33-47.

   Goodman, K.S. (1992). Whole language research: Foundations and development. In S.J. Samuels & A.E. Farstrup (Eds.), *What research has to say about reading instruction* (pp. 46-69). Newark, DE: International Reading Association.

6. Wiggins, R.A. (1994). Large group/small group follow-up: Flexible grouping in a basal reading program. *Reading Teacher, 47*(6), 450-460.

   Payne, B.D., & Manning, B.H. (1992). Basal reader instruction: Effects of comprehension monitoring training on reading comprehension, strategy use and attitude. *Reading Research and Instruction, 32*(1), 29-38.

7. Barron, B.G., Henderson, M., & Edwards, L. (1992, Summer). An analysis of changes in a selected basal reading series. *Education, 112*, 606-608.

   Goodman, K.S., Shannon, P., Freeman, Y.S., & Murphy, S. (1988). *Report card on basal readers*. Katonah, NY: Richard C. Owen.

8. Thames, D.G., & Reeves, C.K. (1994). Poor readers' attitudes: Effects of using interests and trade books in an integrated language arts approach. *Reading Research and Instruction, 33*(4), 293-308.

   Mayer, K.V. (1989). Primary teachers: Complement your basals. *Ohio Reading Teacher, 24*(1), 16-21.

9. Lipka, C., & Gaskill, P. (1992, Fall/Winter). Literature-based reading instruction: Research and recommendations. *Michigan Reading Journal, 25*, 20-31.

10. Barnett, J.E., & Irwin, L. (1994). The effects of classroom activities on elementary students' reading attitudes. *Reading Improvement, 31*(2), 113-121.

    Blanton, W.E., & Moorman, G.B. (1990). The presentation of reading lessons. *Reading Research and Instruction, 29*(1), 69-93.

11. Block, C.C. (1993). Strategy instruction in a literature-based reading program. *Elementary School Journal, 94*(2), 139-151.

    Pearson, P.D., Roehler, L.R., Dole, J.A., & Duffy, G.G. (1992). Developing expertise in reading comprehension. In S.J. Samuels & A.E. Farstrup (Eds.), *What research has to say about reading instruction* (pp. 145-199). Newark, DE: International Reading Association.

12. Campbell, J.R., Kapinus, B.A., & Beatty, A.S. (1995). *Interviewing children about their literacy experiences*. National Center for Education Statistics. Washington, DC: Government Printing Office.

    Sosniak, L.A., & Stodolsky, S.S. (1993). Teachers and textbooks: Materials use in four fourth-grade classrooms. *Elementary School Journal, 93*(3), 249-275.

13. Ford, M.P. (1991). Worksheets anonymous: On the road to recovery. *Language Arts, 68*(7), 563-566.

Sharp, B. (1989). Why aren't you using the phonics workbook? (When the principal asks). *Reading Teacher, 42*(4), 326-327.

14. Hoffman, J.V., McCarthey, S.J., Abbott, J., Christian, C., Corman, L., Curry, C., Dressman, E.B., Matherne, D., & Stahle, D. (1994). So what's new in the new basals? A focus on first grade. *Journal of Reading Behavior, 26*(1), 47-73.

15. Farough, D. (1994). Launching ships. *Reading Teacher, 47*(8), 626-630.

Miller, T. (1994). Improving the schoolwide language arts program: A priority for all middle school teachers. *Middle School Journal, 25*(4), 26-29.

16. Fielding, L.G., & Pearson, P.D. (1994). Reading comprehension: What works. *Educational Leadership, 51*(5), 62-68.

Guice, S., & Allington, R. (1994). *It's more than reading real books! Ten ways to enhance the implementation of literature-based instruction.* National Research Center on Literature Teaching and Learning. Washington, DC: Office of Educational Research and Improvement.

17. Nystrand, M., Gamoran, A., & Heck, M.J. (1993, January). Using small groups for response to and thinking about literature. *English Journal, 82*, 14-32.

Durrant, C., Goodwin, L., & Watson, K. (1990, December). Encouraging young readers to reflect on their processes of response: Can it be done, is it worth doing? *English Education, 22*, 211-219.

18. Hildebrand, V.L., & Bader, L.A. (1992). An exploratory study of parents' involvement in their child's emerging literacy skills. *Reading Improvement, 29*(3), 163-170.

DeTemple, J.M., & Beals, D.E. (1991). Family talk: Sources of support for the development of decontextualized language skills. *Journal of Research in Childhood Education, 6*(1), 11-19.

19. Morrow, L.M., & Neuman, S.B. (Eds.). (1995). Family literacy [Themed issue]. *Reading Teacher, 48*(7).

20. Goldenbery, C., Reese, L., & Gallimore, R. (1992). Effects of literacy materials from school on Latino children's home experiences and early reading achievement. *American Journal of Education* (100) 497-536.

Koskinen, P.S., Blum, I.H., Tennant, N., Parker, E.M., Straub, M.W., & Curry, C. (1995). Have you heard any good books lately?: Encouraging shared reading at home with books and audiotapes. In Morrow, L.M. (Ed.), *Family literacy: Connections in schools and communities* (pp. 87-103). Newark, DE: International Reading Association.

21. Watkins, M.W., & Ewards, V.A. (1992). Extracurricular reading and reading achievement: The rich stay rich and the poor don't read. *Reading Improvement, 29*(4), 236-242.

Mullis, I.V.S., Campbell, J.R., & Farstrup, A.E. (1993). *NAEP 1992 reading report card for the nation and the states.* National Center for Education Statistics, Washington, DC: Government Printing Office.

22. Heller, L.R., & Fantuzzo, J.W. (1993). Reciprocal peer tutoring and parent partnership: Does parent involvement make a difference? *School Psychology Review, 22*(3), 517-34.

Christenson, S.L. (1992). Family factors and student achievement: An avenue to increase students' success. *School Psychology Quarterly, 7*(3), 178-206.

23. *The National Education Goals Report: Building a Nation of Learners.* (Report of the National Education Goals Panel: U.S. Government Printing Office, 1994).

24. Flood, J., & Lapp, D. (1995). *Next generation literacy instruction: Broadening the lens.* Paper presented at the 40th annual meeting of the International Reading Association, Anaheim, CA.

25. Mullis, I.V.S., Campbell, J.R., & Farstrup, A.E. (1993). *NAEP 1992 reading report card for the nation and the states.* National Center for Education Statistics. Washington, DC: Government Printing Office.

Beentjes, J.W.J., & Van der Voort, T.H.A. (1988). Television's impact on children's reading skills: A review of the research. *Reading Research Quarterly, 23*, 389-413.

26. Macias, A.H. (1993). Hide your TV and seek other interests. *PTA Today. 18*(7), 10-11.

Trelease, J. (1993). Turn on books and turn off television! *Dimensions of Early Childhood, 21*(3), 17-20.

CHAPTER 6

What Students Know and Can Do in Reading

This chapter sharpens the focus on what students know and can do in reading. First, the reading abilities of students performing at various points on the composite reading scale are described. The literary practices of lower, middle, and higher performing students are then profiled. Average proficiency results are presented for the nation and for selected subgroups of students based on the subscales that correspond to the three reading purposes. Finally, item maps are presented to indicate the types of assessment questions likely to be answered successfully by students scoring at various levels on the reading purpose subscales.

Overview of Students' Performance on NAEP's Reading Composite Scale

In Chapters 2 and 4 of this report, the NAEP composite reading scale provided a numerical summary of fourth-, eighth-, and twelfth-grade students' overall reading proficiencies. A more descriptive summary is possible by examining the specific reading abilities demonstrated by students in their answers to the assessment questions. The types of questions that students could answer correctly and the nature of their answers to constructed-response questions provide important information about their reading abilities, thus illuminating our understanding of what fourth, eighth, and twelfth graders know and can do in reading.

The following descriptions of students' abilities are based on sets of questions that were answered successfully by students performing at three points on the composite reading scale. These points represent lower, middle, and higher performance based on the percentile distribution. The sets of questions identified were analyzed by reading education experts to characterize the nature of students' reading abilities at each of the three points on the scale. (The procedures used to generate these performance descriptions are described further in Appendix B.)

Fourth-Grade Reading Abilities. Fourth-grade students who performed between approximately the 20th and 30th percentiles (scale range 187-200) demonstrated that they could comprehend at least surface meaning in stories and in story-like informative passages. The students within this scale range had the most success with realistic fictions about familiar topics and informative articles about animals. These students were able to identify character traits and could recognize the central problem facing a character. In response to informative articles, they could locate specific facts and make a comparison. With both types of texts, their understanding was mostly of explicitly stated ideas and information.

Fourth graders between approximately the 45th and 55th percentiles (scale range 214-224) could comprehend a variety of texts. They worked equally well with realistic fiction and fable, and were beginning to demonstrate competence with expository material. These students were able to connect some ideas across texts to make generalizations about character traits not explicitly stated in the narrative or to make a simple inference from information. They could describe the motivation of a character in a story and the feelings of an historical figure from an informative account. Most of the students within this range were able to support their interpretations and personal responses with a single text-based example.

Fourth-grade students within approximately the 85th to 95th percentiles (scale range 253-272) were able to comprehend a wider range of materials that used more difficult vocabulary. In addition to realistic fiction and fable, these students could respond to a culturally diverse folktale and an historical narrative composed of many episodes. These students were able to identify character motivation and perspective implicit in the narratives and to identify cause-effect relationships in plot and character development. Students in this percentile range were able to make connective inferences in order to determine causal relations in an historical narrative. They could recognize a device such as specific details used by an author to convey information.

Eighth-Grade Reading Abilities. Eighth-grade students who performed between approximately the 20th and 30th percentiles (scale range 230-243) were most successful when responding to informative materials. They could specify and identify explicitly stated information in a highly detailed and illustrated article about an animal. When reading historical accounts, they could recognize the main topic and use text information to make a simple inference. These students were able to provide a general explanation for their personal response to an historical situation. Students within this scale range could follow straightforward directions to compose a formal letter and could express a personal opinion about writing the letter in a real-life situation.

Eighth graders between approximately the 45th and 55th percentiles (scale range 258-267) were able to respond to fiction and poetry, a variety of informative texts, and diverse procedural documents. They could infer a character's perspective and explain character motivation. These students could infer an author's attitude toward a poet's work and showed some ability to critique an author's presentation of information. Responding to a scientific article, students within this scale range were successful at using text information and prior knowledge to make comparisons. These students could read a timetable to solve a simple problem and infer from written directions to explain the importance of performing a task in a specified manner.

Eighth-grade students within approximately the 85th and 95th percentiles (scale range 297-316) moved beyond merely literal interpretations of fiction and poetry. They were able to recognize a more abstract trait implicit in a character's motivation and to infer and identify an abstract theme from concrete poetic images. They were able to identify implicit traits of an historical group and infer and explain a causal relation between an historical situation and an individual's action. These students could interpret and use a variety of procedural documents and were able to suggest a general improvement or alternative organizational pattern.

Twelfth-Grade Reading Abilities. Twelfth-grade students who performed between approximately the 20th and 30th percentiles (scale range 264-275) responded successfully to literary materials that included a folktale and a narrative poem. They were able to use their understanding of human nature to express a generalization about characters and make connections between story elements and relevant prior experiences. In response to a biographical account of an historical situation, they could describe the connections between important events. When reading conflicting editorials on the same topic, they were able to identify the major argument of each. These students could follow directions to write a formal letter. In reading documents that included tables, graphs, and text, they were able to locate embedded information and use tabular information to solve a simple problem.

Twelfth graders between approximately the 45th and 55th percentiles (scale range 289-298) were able to infer connections between ideas across different parts of literary texts in order to explain characters' motives and actions. Their use of prior knowledge went beyond simply making connections between text ideas to constructing interpretations and explaining the significance of story elements. Students within this scale range were able to develop interpretations and draw conclusions from diverse informational texts including biographical accounts, historical sources, and a scientific article. They demonstrated an understanding of how different types of texts contribute different types of information on a given topic, and they could use information from different texts to compose a brief summary of an historical event. These students successfully related symbols and meanings from different parts of a document to verify information. They also used specific instructions for an advertisement form and a tax schedule to complete multi-step tasks.

Twelfth-grade students within approximately the 85th and 95th percentiles (scale range 325-343) demonstrated reflective understanding of literary texts that included a narrative poem and stories with unfamiliar language and settings. They were able to extend the meaning of these texts by integrating various elements such as dialogue and theme to construct interpretive responses and could use textual evidence to support and explain their interpretations. Twelfth graders within this scale range were capable of using more than one informational text to examine an issue or event. They compared texts to determine commonalities or distinctions in content, perspective, and purpose. These students could explain these comparisons and provide complete summaries of a biographical account, a speech, and an editorial. Students within this percentile range were able to manage different types of document organization. In completing a tax form, these students could locate relevant information across several different forms and could successfully integrate written directions with visual cues.

Profiles of Students' Literacy Practices and Reading Abilities

The following three figures (6.1, 6.2, and 6.3) represent profiles of the lower, middle, and higher performing students whose reading performance was described in the previous section. The profiles link the reading abilities of these students with their self-reported literacy practices. The reading abilities presented in these figures summarize the performance descriptions from the previous section. The literacy practices presented in the figures are based on students' self-reports about three literacy-related activities: reading for fun, discussing studies at home, and reading for school and homework. As discussed in Chapter 5, all three of these practices were significantly related to reading achievement in the 1994 NAEP Reading Assessment.

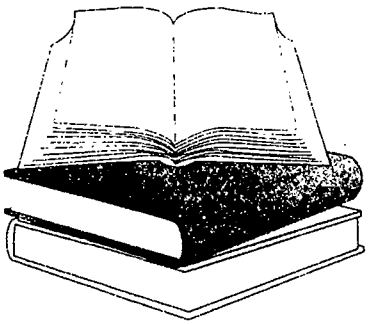
By examining all three profiles, a common pattern becomes apparent at each grade: students with higher levels of reading proficiency were more likely to read for fun daily (or almost daily), discuss studies at home daily (or almost daily), and read more than 10 pages each day for school and homework. It is also evident that the degree of involvement in these activities varies across the three grades. For example, at grade 4 (Figure 6.1) nearly two-thirds of the higher performing students reported reading for fun daily or almost daily. Their counterparts at grades 8 and 12 (Figures 6.2 and 6.3) differed considerably in their reports on this activity. Only 38 percent of the higher performing students in both grades reported reading for fun on a daily basis.

Figure 6.1 Profiles of Lower, Middle, and Higher Performing Fourth Graders: Reading Abilities and Literacy Practices

25th Percentile

Fourth-grade students who were approximately between the 20th and 30th percentiles could:

- comprehend at least surface meaning in stories and story-like informative passages
- understand explicitly stated ideas and information
- read literary texts on familiar topics



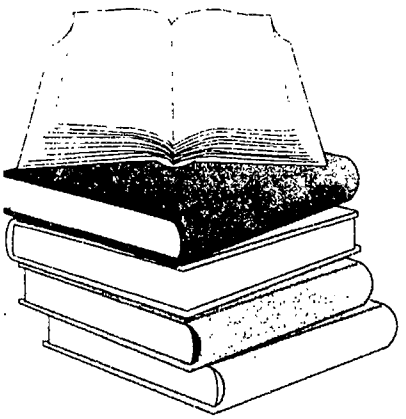
Literacy practices of fourth graders who were approximately between the 20th and 30th percentiles:

- 36 percent read for fun daily or almost daily
- 50 percent discussed studies at home daily or almost daily
- 52 percent read more than 10 pages each day for school or homework

50th Percentile

Fourth-grade students who were approximately between the 45th and 55th percentiles could:

- connect some ideas across the text to make generalizations and simple inferences about story events or find out information in expository texts
- describe story characters or historical figures presented in text
- provide some support for their ideas about what they read with single text-based examples



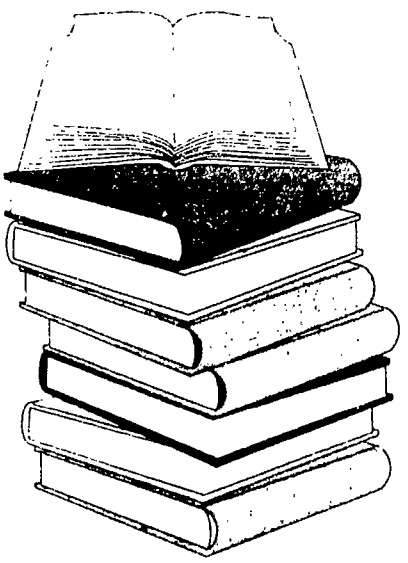
Literacy practices of fourth graders who were approximately between the 45th and 55th percentiles:

- 41 percent read for fun daily or almost daily
- 54 percent discussed studies at home daily or almost daily
- 54 percent read more than 10 pages each day for school or homework

90th Percentile

Fourth-grade students who were approximately between the 85th and 95th percentiles could:

- understand a wider range of materials containing more difficult vocabulary and about less familiar topics
- identify textual elements such as characters' perspectives and causal relationships
- understand the author's use of specific devices



Literacy practices of fourth graders who were approximately between the 85th and 95th percentiles:

- 60 percent read for fun daily or almost daily
- 66 percent discussed studies at home daily or almost daily
- 63 percent read more than 10 pages each day for school or homework

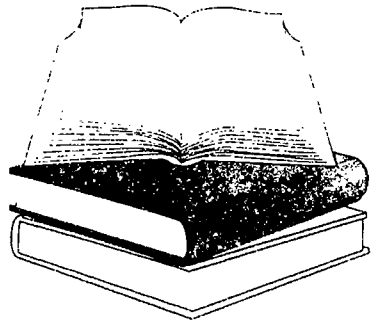
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 1994 Reading Assessment

Figure 6.2 Profiles of Lower, Middle, and Higher Performing Eighth Graders: Reading Abilities and Literacy Practices

25th Percentile

Eighth-grade students who were approximately between the 20th and 30th percentiles could:

- identify explicitly stated information, recognize main topics, and make simple inferences
- express a personal reaction to a text and provide a general explanation
- use uncomplicated directions to perform a straightforward task



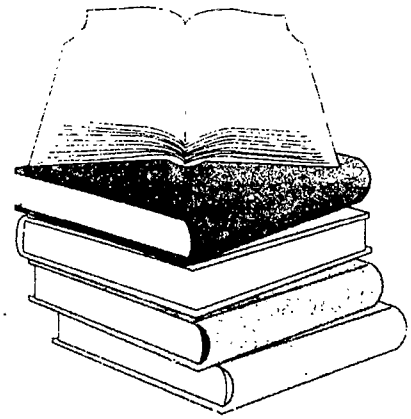
Literacy practices of eighth graders who were approximately between the 20th and 30th percentiles:

- 12 percent read for fun daily or almost daily
- 32 percent discussed studies at home daily or almost daily
- 31 percent read more than 10 pages each day for school or homework

50th Percentile

Eighth-grade students who were approximately between the 45th and 55th percentiles could:

- infer and explain aspects of characters in stories and critique an author
- integrate informative text with prior knowledge to make a comparison
- use document information to solve simple problems or explain a task



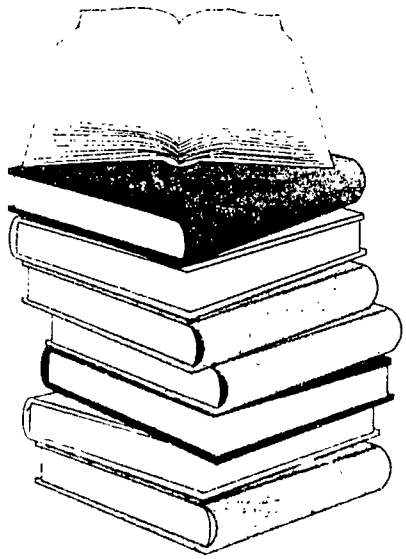
Literacy practices of eighth graders who were approximately between the 45th and 55th percentiles:

- 19 percent read for fun daily or almost daily
- 37 percent discussed studies at home daily or almost daily
- 36 percent read more than 10 pages each day for school or homework

90th Percentile

Eighth-grade students who were approximately between the 85th and 95th percentiles could:

- understand abstract themes and character traits implicit in texts
- infer and explain a causal relation between events
- think critically about an author's use of language and about organizational patterns in documents



Literacy practices of eighth graders who were approximately between the 85th and 95th percentiles:

- 38 percent read for fun daily or almost daily
- 47 percent discussed studies at home daily or almost daily
- 47 percent read more than 10 pages each day for school or homework

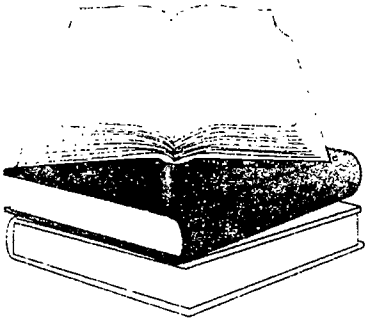
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 1994 Reading Assessment

Figure 6.3 Profiles of Lower, Middle, and Higher Performing Twelfth Graders: Reading Abilities and Literacy Practices

25th Percentile

Twelfth-grade students who were approximately between the 20th and 30th percentiles could:

- use prior knowledge to make inferences, connections, and generalizations
- identify specific facts and main points in informative text
- use written directions and tabular information to complete straightforward tasks and solve problems



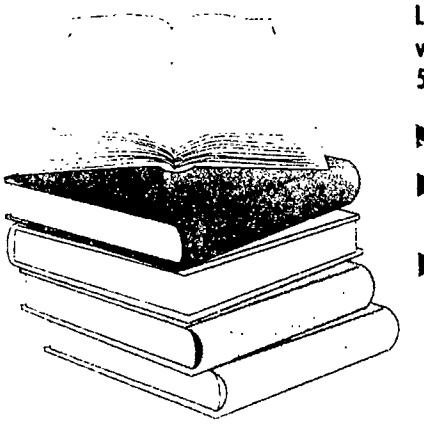
Literacy practices of twelfth graders who were approximately between the 20th and 30th percentiles:

- 18 percent read for fun daily or almost daily
- 27 percent discussed studies at home daily or almost daily
- 30 percent read more than 10 pages each day for school or homework

50th Percentile

Twelfth-grade students who were approximately between the 45th and 55th percentiles could:

- infer and explain connections between ideas in a text and integrate ideas from multiple texts
- develop interpretations and draw conclusions from informative materials
- use documents and written directions to complete multi-step tasks



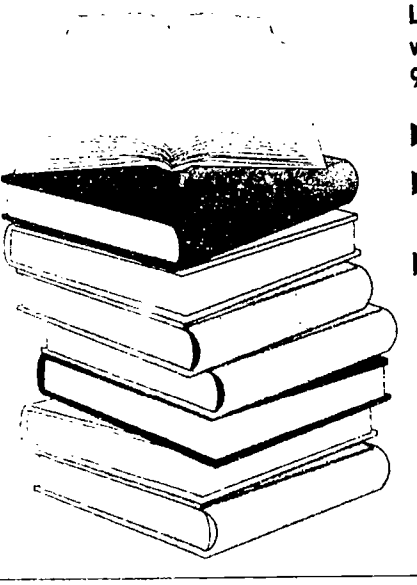
Literacy practices of twelfth graders who were approximately between the 45th and 55th percentiles:

- 24 percent read for fun daily or almost daily
- 32 percent discussed studies at home daily or almost daily
- 39 percent read more than 10 pages each day for school or homework

90th Percentile

Twelfth-grade students who were approximately between the 85th and 95th percentiles could:

- integrate story elements to explain and support literary interpretations
- summarize single or multiple texts and compare and evaluate informative texts
- use information from multiple sources to complete highly detailed tasks



Literacy practices of twelfth graders who were approximately between the 85th and 95th percentiles:

- 38 percent read for fun daily or almost daily
- 39 percent discussed studies at home daily or almost daily
- 58 percent read more than 10 pages each day for school or homework

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 1994 Reading Assessment

Average Proficiency in Reading for Different Purposes

As expressed in the *NAEP 1992 and 1994 Reading Framework*, "because reading is not considered to be a simple unidimensional skill, reading achievement cannot be represented adequately by a single score."[1] Accordingly, the 1992 and 1994 NAEP Reading Assessments looked at students' abilities with three different types of texts corresponding to different purposes for reading. The three purposes for reading assessed in the 1992 and 1994 NAEP Reading Assessments were:

- *Reading for Literary Experience*
- *Reading to Gain Information*
- *Reading to Perform a Task*

At grades 8 and 12, all three purposes for reading were assessed. At grade 4, only literary and informative purposes were examined.

Different types of texts are typically associated with specific purposes for reading. For example, a fictional short story is usually associated with reading for literary experience, while the reading of a newspaper article may be geared toward gaining information. Across the different text types and reading purposes, readers may vary their strategies for gaining meaning or may focus on different types of information in the text.[2] Thus, it is important to look at students' performance in reading various types of texts for different purposes in order to gain a more complete understanding of what they can do in reading. This section presents the 1992 and 1994 average proficiency results in the three purposes for reading assessed.

Performance in Reading Purposes for the Nation. Table 6.1 presents the 1992 and 1994 average proficiencies by reading purpose for students at grades 4, 8, and 12, and for comparison, their overall average proficiencies on the composite scale.

- ▶ Corresponding to the decline between 1992 and 1994 in overall average proficiency at the twelfth grade, the subscale results for these students revealed a significant decline in reading performance for each of the three purposes for reading.
- ▶ At the eighth grade, no significant changes occurred between 1992 and 1994 in students' average proficiency by purposes for reading.
- ▶ Subscale results for fourth-grade students revealed no significant change between 1992 and 1994 in reading for different purposes.

TABLE 6.1

Average Proficiency in Purposes for Reading Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Grade 4		Grade 8		Grade 12	
	1992	1994	1992	1994	1992	1994
Average Proficiency (Composite Scale)	217 (0.9)	214 (1.0)	260 (0.9)	260 (0.8)	292 (0.6)	287 (0.7)<
Reading for Literary Experience	219 (0.9)	216 (1.1)	259 (1.0)	259 (1.0)	290 (0.7)	286 (0.9)<
Reading to Gain Information	214 (1.2)	212 (1.0)	261 (0.9)	260 (0.8)	293 (0.6)	290 (0.7)<
Reading to Perform a Task	**	**	261 (1.0)	261 (0.9)	293 (0.8)	285 (1.0)<

Differences between groups may be partially explained by other factors not included in this table.

** Reading to Perform a Task was not assessed at grade 4.

< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level.

The standard errors of the estimated proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

Performance in Reading Purposes by Race/Ethnicity. Table 6.2 displays the reading purposes subscale results as well as the overall average proficiency for racial/ethnic groups. Racial/ethnic classifications are based on self-reported information provided by students.

The significant decline between 1992 and 1994 in overall average reading proficiency that was observed across racial/ethnic groups at grade 12 was also evident, to varying degrees, in the three purposes for reading subscales.

- The performance of White twelfth-grade students declined significantly on all three reading purpose subscales.
- Black twelfth-grade students exhibited a significant decline on the *reading for literary experience* and *reading to perform a task* subscales but not on the *reading to gain information* subscale.
- Hispanic twelfth-grade students' average proficiencies declined significantly on the *reading to gain information* and *reading to perform a task* subscales but not on the *reading for literary experience* subscale.

As with the overall average reading proficiencies for grades 4 and 8, there were few significant subscale differences among racial/ethnic groups between the 1992 and 1994 assessments.

- At grade 8, there were no significant declines between the two assessment years in any of the purposes for reading for any of the racial/ethnic groups.
- The only changes in performance between 1992 and 1994 at the fourth grade were among Hispanic students who demonstrated significantly lower performance on the *reading for literary experience* subscale, and among Black students who declined significantly on the *reading to gain information* subscale.

TABLE 6.2

Average Proficiency in Purposes for Reading by Race/Ethnicity Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Average Proficiency		Reading for Literary Experience		Reading to Gain Information		Reading to Perform a Task	
	1992	1994	1992	1994	1992	1994	1992	1994
Grade 4								
White	225 (1.2)	224 (1.3)	226 (1.1)	226 (1.3)	222 (1.4)	222 (1.3)	**	**
Black	193 (1.6)	187 (1.7)	195 (1.6)	191 (2.0)	189 (1.9)	183 (1.6)<	**	**
Hispanic	201 (2.1)	191 (2.6)<	206 (2.4)	193 (2.6)<	195 (2.1)	188 (2.6)	**	**
Asian	—	232 (5.5)	—	231 (4.8)	—	234 (6.8)	**	**
Pacific Islander	—	219 (5.0)	—	223 (5.0)	—	215 (6.6)	**	**
American Indian	207 (4.6)	201 (3.4)	210 (4.6)	203 (3.3)	203 (4.9)	199 (4.1)	**	**
Grade 8								
White	267 (1.2)	268 (1.0)	265 (1.3)	266 (1.2)	268 (1.2)	268 (1.0)	270 (1.2)	271 (1.0)
Black	238 (1.6)	237 (1.7)	238 (1.6)	238 (2.0)	239 (1.5)	237 (1.8)	235 (1.8)	232 (2.0)
Hispanic	241 (1.4)	240 (1.4)	241 (1.4)	243 (1.5)	242 (1.3)	239 (2.0)	240 (2.1)	238 (1.8)
Asian	—	273 (2.6)	—	276 (2.6)	—	272 (3.4)	—	272 (2.8)
Pacific Islander	—	259 (7.4)!	—	253 (10.5)!	—	265 (4.7)!	—	260 (8.0)!
American Indian	251 (3.7)	251 (4.2)	249 (3.2)	251 (4.9)	253 (4.1)	251 (4.3)	252 (5.3)	251 (4.5)
Grade 12								
White	298 (0.6)	294 (0.7)<	297 (0.8)	294 (0.8)<	298 (0.6)	295 (0.7)<	299 (0.9)	292 (1.1)<
Black	273 (1.4)	265 (1.6)<	268 (1.7)	258 (2.5)<	276 (1.4)	272 (1.6)	275 (1.5)	261 (1.6)<
Hispanic	278 (2.3)	270 (1.5)<	275 (3.3)	266 (2.0)	281 (1.9)	275 (1.4)<	277 (2.7)	264 (1.8)<
Asian	—	280 (2.8)	—	276 (4.5)	—	284 (2.4)	—	279 (3.2)
Pacific Islander	—	280 (3.9)!	—	279 (5.2)!	—	285 (3.8)!	—	272 (5.3)!
American Indian	***	275 (5.3)!	***	271 (10.0)!	***	278 (4.4)!	***	273 (4.7)!

Differences between racial/ethnic groups may be partially explained by other factors not included in this table.

** Reading to Perform a Task was not assessed at grade 4.

— Due to significant changes in wording of the race/ethnicity question between the 1992 and 1994 assessments, the 1992 results for Asian and Pacific Islander students are not comparable to 1994 results.

< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level.

! Interpret with caution any comparisons involving this statistic. The nature of the sample does not allow for accurate determination of the variability of this value.

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

The standard errors of the estimated proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

Performance in Reading Purposes by Gender. Male and female students' performance in reading for different purposes is presented in Table 6.3.

- Similar to their overall decline in reading proficiency, male and female twelfth-grade students showed a decline between 1992 and 1994 on the *reading for literary experience* and *reading to perform a task* subscales. However, only male twelfth graders declined significantly on the *reading to gain information* subscale.
- No significant changes in reading proficiency were observed at the eighth grade for either male or female students across the three purposes.
- At grade 4, although males did not decline in overall average proficiency between the two assessments, they did demonstrate a significant decline on the *reading for literary experience* subscale.

TABLE 6.3

Average Proficiency in Purposes for Reading by Gender Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Average Proficiency		Reading for Literary Experience		Reading to Gain Information		Reading to Perform a Task	
	1992	1994	1992	1994	1992	1994	1992	1994
Grade 4								
Male	213 (1.2)	209 (1.3)	215 (1.3)	210 (1.3)<	211 (1.4)	208 (1.4)	**	**
Female	221 (1.0)	220 (1.1)	224 (1.0)	223 (1.2)	217 (1.2)	216 (1.2)	**	**
Grade 8								
Male	254 (1.1)	252 (1.0)	252 (1.3)	251 (1.2)	255 (1.2)	254 (1.1)	254 (1.1)	252 (1.2)
Female	267 (1.0)	267 (1.0)	265 (1.2)	267 (1.1)	267 (1.0)	266 (1.1)	269 (1.3)	270 (1.2)
Grade 12								
Male	287 (0.7)	280 (0.8)<	284 (0.9)	279 (1.1)<	289 (0.8)	284 (0.9)<	288 (0.9)	276 (1.4)<
Female	297 (0.7)	294 (0.8)<	297 (0.8)	293 (1.1)<	297 (0.8)	296 (0.8)	298 (1.0)	293 (1.1)<

Differences between the two groups may be partially explained by other factors not included in this table.

** Reading to Perform a Task was not assessed at grade 4.

< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level.

The standard errors of the estimated proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

Performance in Reading Purposes by Type of School. The performance of students attending public and nonpublic schools in reading purposes is presented in Table 6.4.

At grade 12, both public and nonpublic school students had lower overall reading proficiencies in 1994 than in 1992. When examining performance on the three purposes for reading subscales, however, the pattern was not as uniform.

- On the *reading to perform a task* subscale, the average proficiencies of both public and nonpublic school twelfth-grade students declined significantly from 1992 to 1994.
- On the *reading for literary experience* subscale, only public school twelfth-graders showed a significant decline in performance.
- On the *reading to gain information* subscale, only the average proficiencies of nonpublic school twelfth-grade students declined significantly over the two-year period.
- At grades 4 and 8, no significant differences in average subscale performance were found for either type of school.

Average Proficiency at Various Percentiles by Purposes for Reading

This section describes the national performance distribution for each reading purpose subscale in 1992 and 1994. Proficiency scores of students at the 10th, 25th, 50th, 75th, and 90th percentile points are provided to illustrate the range of performance on the different subscales at each grade.

TABLE 6.4

Average Proficiency in Purposes for Reading by Type of School Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Average Proficiency		Reading for Literary Experience		Reading to Gain Information		Reading to Perform a Task	
	1992	1994	1992	1994	1992	1994	1992	1994
Grade 4								
Public	215 (1.0)	212 (1.1)	217 (1.0)	215 (1.2)	212 (1.2)	210 (1.2)	**	**
Nonpublic	232 (1.7)	231 (2.5)	233 (1.7)	233 (2.5)	230 (2.0)	229 (2.6)	**	**
Grade 8								
Public	258 (1.0)	257 (0.8)	256 (1.0)	257 (1.0)	259 (1.0)	257 (0.9)	259 (1.1)	258 (1.0)
Nonpublic	278 (2.0)	279 (1.4)	276 (1.9)	279 (1.8)	279 (2.1)	280 (1.6)	281 (2.6)	281 (1.4)
Grade 12								
Public	290 (0.7)	286 (0.7)<	288 (0.8)	284 (0.8)<	291 (0.7)	288 (0.8)	291 (0.9)	283 (1.1)<
Nonpublic	308 (1.3)	301 (1.9)<	306 (1.8)	302 (2.9)	309 (1.2)	304 (1.7)<	308 (1.3)	296 (2.1)<

Differences between the two groups may be partially explained by other factors not included in this table.

** Reading to Perform a Task was not assessed at grade 4.

< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at or above the 95 percent confidence level.

The standard errors of the estimated proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

Table 6.5 presents the average proficiences of fourth-, eighth-, and twelfth-grade students at various percentiles by purposes for reading.

- At grade 4, there was a significant decline between 1992 and 1994 on the *reading for literary experience* subscale among the lower performing students (those at the 10th and 25th percentiles).
- A significant decline between 1992 and 1994 was observed on the *reading to gain information* subscale among the lowest performing fourth graders (those at the 10th percentile).
- At grade 8, there was a significant decline between 1992 and 1994 on the *reading to gain information* subscale among the lowest performing students (those at the 10th percentile).
- Corresponding to the average subscale declines, twelfth graders at the 10th, 25th, and 50th percentiles displayed a significant decline in proficiency on each purpose for reading subscale.
- On the *reading to perform a task* subscale, the average scores of twelfth-grade students at the 75th percentile also declined significantly between 1992 and 1994.

TABLE 6.5

Average Proficiency at Various Percentiles by Purposes for Reading Grades 4, 8, and 12

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Reading for Literary Experience		Reading to Gain Information		Reading to Perform a Task	
	1992	1994	1992	1994	1992	1994
Grade 4						
Average Subscale Proficiency	219 (0.9)	216 (1.1)	214 (1.2)	212 (1.0)	..	..
90th Percentile	264 (1.2)	265 (1.2)	261 (2.0)	263 (1.4)	..	..
75th Percentile	244 (1.1)	245 (1.4)	240 (1.4)	242 (1.0)	..	..
50th Percentile	221 (1.2)	221 (1.2)	216 (1.2)	216 (1.0)	..	..
25th Percentile	196 (1.2)	191 (1.2)<	190 (1.5)	185 (1.8)	..	..
10th Percentile	171 (1.7)	160 (1.6)<	164 (1.8)	154 (2.3)<	..	..
Grade 8						
Average Subscale Proficiency	259 (1.0)	259 (1.0)	261 (0.9)	260 (0.8)	261 (1.0)	261 (0.9)
90th Percentile	305 (1.1)	307 (1.3)	305 (1.0)	306 (1.0)	312 (1.2)	312 (0.9)
75th Percentile	284 (1.3)	286 (1.1)	286 (1.1)	286 (1.1)	290 (1.4)	290 (1.5)
50th Percentile	260 (1.3)	261 (1.0)	263 (1.0)	263 (0.8)	263 (1.1)	264 (1.0)
25th Percentile	234 (1.4)	234 (1.2)	238 (1.4)	236 (0.9)	235 (1.4)	234 (1.4)
10th Percentile	209 (1.2)	209 (1.5)	213 (1.0)	209 (1.2)<	208 (1.5)	205 (1.9)
Grade 12						
Average Subscale Proficiency	290 (0.7)	286 (0.9)<	293 (0.6)	290 (0.7)<	293 (0.8)	285 (1.0)<
90th Percentile	342 (1.0)	343 (1.4)	330 (0.8)	330 (1.0)	337 (1.0)	334 (1.1)
75th Percentile	320 (1.0)	318 (0.9)	314 (0.7)	312 (0.8)	318 (0.9)	312 (1.1)<
50th Percentile	292 (0.8)	288 (1.1)<	295 (0.7)	292 (0.7)<	294 (1.0)	287 (1.3)<
25th Percentile	263 (1.0)	256 (1.3)<	274 (0.7)	269 (1.0)<	270 (0.9)	260 (1.1)<
10th Percentile	235 (1.3)	225 (1.6)<	254 (1.1)	246 (1.1)<	248 (0.8)	232 (1.6)<

Differences between groups may be partially explained by other factors not included in this table.

< The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level.

.. Reading to Perform a Task was not assessed at Grade 4

The standard errors of the estimated proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

Students' Abilities in Reading for Different Purposes

A more in-depth understanding of students' performance with respect to the three purposes for reading can be gained by examining reading abilities associated with specific score levels on the NAEP reading subscales. Each question in the reading assessment was written to assess a particular aspect of reading comprehension. The questions also ranged in difficulty. Questions that could be answered by students with lower scores were relatively easy, while other questions proved to be more difficult and were likely to be answered successfully only by students with higher scale scores. In looking at the questions that were answered by students performing at various points along the reading subscales, it is possible to determine what students with different subscale proficiencies could do as they read for different purposes.

Figures 6.4, 6.5, and 6.6 highlight some of the reading abilities associated with students' answers to specific questions in the assessment. The figures can be thought of as maps that identify where, on each subscale, individual comprehension questions were answered successfully by at least 65 percent of the students (74 percent for multiple-choice questions).[3] For each question, students who scored above the designated scale value had a higher probability of successfully answering the question. Likewise, students with lower scale scores had a lower probability of success in answering the question.

For example, looking at the literary item map (Figure 6.4), 65 percent of fourth graders with a score of 241 on the *reading for literary experience* subscale were able to identify a character's perspective on a story event. Fourth graders higher on this subscale were even more likely to demonstrate this ability, while students lower on the subscale were less likely to do so. In interpreting the item map information, it should be kept in mind that students at different grades demonstrated these reading abilities with grade-appropriate reading materials. (Selection and review of assessment reading materials is described in Chapter 1.)

Figure 6.4 Map of Selected Items on the Reading for Literary Experience Subscale for Grades 4, 8, and 12

Each reading question was mapped onto the NAEP literary subscale based on students' performance. The point on the subscale at which a question is positioned on the map represents the subscale score attained by students who had a 65 percent probability of successfully answering the question. Thus, it can be said for each question and its corresponding subscale score -- students with proficiency scores above that point on the subscale have a greater than 65 percent chance of successfully answering the question, while those below that point on the subscale have a less than 65 percent chance. (The probability was set at 74 percent for multiple-choice questions.) In interpreting the item map information it should be kept in mind that students at different grades demonstrated these reading abilities with grade-appropriate reading materials.

GRADE 4	GRADE 8	GRADE 12
		(384) Interpret metaphoric statement and relate to theme
		(363) Explain symbolic significance of setting
		(351) Specify language that depicts character's emotional state
		(342) Identify underlying dilemma confronted by character
		(336) Infer from context underlying meaning of character's statement
	(329) Explain thematic difference between poems	(333) Infer and explain thematic significance of character's action
		(323) Relate problematic issue to story event or character trait
	(314) Explain symbolism of story element	(315) Explain character's perspective
	(309) Make intertextual connection to interpret character	(315) Identify text feature defining relationship between characters
(306) Provide and explain an alternative ending	(306) Recognize implicit aspect of character	
(303) Describe important lesson learned by characters	(304) Explain character's perspective	(303) Explain character's motivation
		(291) Understand character's motivation
	(288) Use metaphor to interpret character	
		(285) Compare seemingly disparate text elements
(277) Provide textual support for a story level theme		(277) Identify character's motivation
(277) Interpret and relate a metaphor to story character		
	(270) Identify/infer character trait from story event	
	(260) Identify application of story theme	(262) Explain personal opinion about character's action
(266) Relate another person to story character	(258) Connect text ideas to describe character motivation	
(265) Make a judgment by relating text to prior knowledge	(255) Identify character's main dilemma	(256) Explain personal reaction to character's statement
	(250) Infer reason for character's perspective	(252) Identify character's perspective
(241) Identify character's perspective on story event	(245) Recognize cause of character's feelings	
(237) Understand cause and effect in character's action	(243) Use narrative context to define a specific phrase	
(234) Explain character's motivation	(240) Identify character's perspective on story event	
(225) Interpret character by providing possible dialogue	(235) Recognize reason for character's feelings	
(222) Explain personal reaction to story character	(226) Identify explicitly stated cause of action	
(216) Explain personal reaction to story event		
(213) Explain personal opinion of story		
(212) Identify appropriate description of character's feelings		
(210) Recognize a character's feelings		
(204) Identify appropriate description of major character trait		
(191) Provide personal reaction to story event		

NOTE: In this graphic illustration, the locations of scale points are necessarily *approximate* for questions clustered closely together

Source: National Center for Education Statistics
National Assessment of Educational Progress (NAEP).
1992 and 1994 Reading Assessments

Figure 6.5 Map of Selected Items on the Reading to Gain Information Subscale for Grades 4, 8, and 12

Each reading question was mapped onto the NAEP informational subscale based on students' performance. The point on the subscale at which a question is positioned on the map represents the subscale score attained by students who had a 65 percent probability of successfully answering the question. Thus, it can be said for each question and its corresponding subscale score -- students with proficiency scores above that point on the subscale have a greater than 65 percent chance of successfully answering the question, while those below that point on the subscale have a less than 65 percent chance. (The probability was set at 74 percent for multiple-choice questions.) In interpreting the item map information it should be kept in mind that students at different grades demonstrated these reading abilities with grade-appropriate reading materials.

GRADE 4

(304) Summarize major information

(296) Compare article information to present day

(275) Make a causal inference based on text ideas

(274) Provide text information to support a generalization

(266) Explain the purpose of specific text elements

(247) Describe the major ideas in an informative article

(244) Use specific text details to explain personal reaction

(238) Recognize a text element used by author to convey information

(237) Infer and identify a connection between text ideas

(227) Select specific text information to make a comparison

(222) Identify major topic of article

(214) Use text information to make a description

(209) Retrieve relevant information stated in article

(200) Recognize information explicitly stated in text

(188) Identify main reason for reading an article

GRADE 8

(306) Discuss author's presentation of information with supporting examples

(302) Restate text information as persuasive argument

(290) Use text and prior knowledge to describe personal reaction to historical events

(273) Explain importance of supporting idea to main topic

(265) Identify causal relation between historical events

(262) Provide specific text information to support a generalization

(261) Explain author's purpose for using direct quotations

(260) Explain reason for major event

(252) Recognize text element that contributes to its credibility

(246) Recognize information included by author to persuade reader

(244) Describe explicitly stated supporting ideas about one topic

(244) Recognize significance of article's central idea

(240) Use text and/or illustration to define a specific term

(230) Use explicitly stated text information to provide a description

(209) Explain major idea in article

(173) Retrieve two explicitly stated facts from article

GRADE 12

(341) Interpret author's belief and provide appropriate supporting example

(340) Explain relevance of major issue in a speech to present day

(327) Interpret text of a speech to infer and describe the character of its author

(322) Describe different perspectives in varying accounts of an event

(317) Use highly-detailed text information and prior knowledge to describe a similarity and a difference

(306) Provide example of difference between two editorials

(303) Contrast content of two varying accounts of an event

(297) Interpret historical text to make causal inference

(291) Describe topic common to different passages

(290) Describe purpose for reading multiple sources

(281) Explain usefulness of two specific sources

(278) Identify generalization that best describes major topic

(261) Explain causal relationship between major (historical) events

(259) Identify supporting idea of editorial's argument

(206) Use text information to provide personal reaction

NOTE: In this graphic illustration, the locations of scale points are necessarily *approximate* for questions clustered closely together.

Source: National Center for Education Statistics National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

Figure 6.6 Map of Selected Items on the Reading to Perform a Task Subscale for Grades 8 and 12

Each reading question was mapped onto the NAEP task subscale based on students' performance. The point on the subscale at which a question is positioned on the map represents the subscale score attained by students who had a 65 percent probability of successfully answering the question. Thus, it can be said for each question and its corresponding subscale score -- students with proficiency scores above that point on the subscale have a greater than 65 percent chance of successfully answering the question, while those below that point on the subscale have a less than 65 percent chance. (The probability was set at 74 percent for multiple-choice questions.) In interpreting the item map information it should be kept in mind that students at different grades demonstrated these reading abilities with grade-appropriate reading materials.

GRADE 4	GRADE 8	GRADE 12
(Reading to Perform a Task was not assessed at grade 4.)		(351) Interpret schedule to explain discrepancy
		(336) Explain reason for document organization
	(313) Suggest improvements to a document's form	(324) Summarize information to describe a task
	(312) Interpret embedded information to provide explanation	(316) Intepret context for use of a specific form
	(311) Summarize information to describe a task	(312) Locate qualifying information in a highly-detailed document
	(306) Suggest organizing mode/principle and explain	(306) Suggest improvements to a document's form
	(304) Use information in article to write a formal letter	(305) Follow form and content directions to compose a letter
	(290) Recognize author's device to convey information	(298) Recognize author's device to convey information
		(285) Relate text information to hypothetical situation
	(287) Relate text information to hypothetical situation	
	(279) Describe difficulty of a task in a different context	(276) Follow directions to completely fill out a form
	(269) Extract embedded tabular information from a schedule	(270) Recognize organizational structure of document
	(268) Use task direction and prior knowledge to make a comparison	(263) Extract embedded tabular information from a schedule
	(259) Infer and explain reason for structural feature of a document	(260) Use task directions and prior knowledge to make a comparison
	(255) Recognize key information about how to complete a task	
	(248) Recognize usefulness of document's key feature	
	(237) Explain major purpose for performing a task	(239) Recognize usefulness of document's key feature
		(227) Explain personal reaction to performing a task
	(220) Explain personal reaction to performing a task	(220) Extract information from a schedule

NOTE: In this graphic illustration, the locations of some points are necessarily *approximate* for questions clustered closely together

Source: National Center for Education Statistics
National Assessment of Educational Progress (NAEP),
1992 and 1994 Reading Assessments

Endnotes

1. *Reading Framework for the 1992 and 1994 National Assessment of Educational Progress.* National Assessment Governing Board. Washington, DC: Government Printing Office. (p. 6)

2. Rosenblatt, L. M. (1994). The transactional theory of reading and writing. In R.B. Ruddell, M.R. Ruddell, & H. Singer (Eds.), *Theoretical models and processes of reading* (pp. 1057-1092). Newark DE: International Reading Association.

   Langer, J. A. (1990). The processes of understanding: Reading for literary and informative purposes. *Research in the Teaching of English,* 24(3), 229-259.

3. The 65 percent criteria (74 percent for multiple-choice questions) was selected because of its potential for yielding the most appropriate information about students' reading abilities. See Appendix B for further details.

APPENDIX A

Overview of Procedures Used in NAEP's 1994 Reading Assessment

Introduction

The conduct of a large-scale assessment of educational progress entails the successful coordination of a multitude of projects, committees, procedures, and tasks. This appendix provides an overview of the 1994 reading assessment's primary components — framework, development, administration, scoring, and analysis. A more extensive review of procedures and methods utilized in the reading assessment will be included in two subsequent technical reports: *The NAEP 1994 Technical Report* and *Technical Report of the NAEP 1994 Trial State Assessment Program in Reading.*

NAEP's Reading Assessment Framework

The reading framework underlying NAEP's 1994 assessment embodies a view of reading that reflects current consensus among educators and researchers about the nature of reading comprehension. This framework was the same as that used in the 1992 NAEP reading assessment, permitting analyses of trends in reading performance.

The framework's purpose was to provide a definition of reading on which to base the NAEP assessment. Developing this framework and the specifications that guided development of the assessment involved the critical input of hundreds of individuals across the country, including representatives of national education organizations, teachers, parents, policy makers, business leaders, and the interested general public. This consensus process was managed by the Council of Chief State School Officers for the National Assessment Governing Board.

The framework sets forth a broad definition of "reading literacy" that entails not only being able to read but also knowing when to read, how to read, and how to reflect on what has been read. In addition, the framework views reading as an interactive process in which the reader's abilities, interests, and prior knowledge interact with the text and the context of the reading situation as meaning construction occurs.

The aspects of reading literacy described by the reading framework, including purposes for reading and reading stances, are presented in Figure A.1. This figure also provides examples of questions that were used to assess the different purposes for reading via the four reading stances.

Figure A.1 1992 and 1994 NAEP Framework — Aspects of Reading Literacy

	Constructing, Extending, and Examining Meaning			
	Initial Understanding	**Developing an Interpretation**	**Personal Reflection and Response**	**Demonstrating a Critical Stance**
	Requires the reader to provide an initial impression or unreflected understanding of what was read.	Requires the reader to go beyond the initial impression to develop a more complete understanding of what was read.	Requires the reader to connect knowledge from the text with his/her own personal background knowledge. The focus here is on how the text relates to personal knowledge.	Requires the reader to stand apart from the text and consider it.
Reading for Literary Experience	What is the story/plot about?	How did the plot develop?	How did this character change your idea of _____?	Rewrite this story with _____ as a setting or _____ as a character.
	How would you describe the main character?	How did this character change from the beginning to the end of the story?	Is this story similar to or different from your own experiences?	How does this author's use of _____ (irony, personification, humor) contribute to _____?
Reading to Gain Information	What does this article tell you about _____?	What caused this event?	What current event does this remind you of?	How useful would this article be for _____? Explain.
	What does the author think about this topic?	In what ways are these ideas important to the topic or theme?	Does this description fit what you know about _____? Why?	What could be added to improve the author's argument?
Reading to Perform a Task	What is this supposed to help you do?	What will be the result of this step in the directions?	In order to _____, what information would you need to find that you don't know right now?	Why is this information needed?
	What time can you get a non-stop flight to X?	What must you do before this step?	Describe a situation where you could leave out step X.	What would happen if you omitted this?

The assessment framework specified not only the particular aspects of reading literacy to be measured, but also the percentage of the assessment questions that should be devoted to each. The target percentage distributions of reading purposes and reading stances as specified in the framework, along with the actual percentage distributions in the assessment are presented in Tables A.1 and \.2. The actual content of the assessment was highly consistent with the targeted distribution with one exception: the proportion of Personal Response questions fell below the target proportion in the framework. The Reading Instrument Development Panel overseeing the development of the assessment recognized this difference, but felt strongly that the questions developed for the assessment must be sensitive to the unique elements of each piece of authentic reading material being used. Thus, the distribution of question classifications will vary across reading passages, reading purposes, and grades.

The Assessment Design

Students participating in the assessment received booklets containing general background questions, reading materials and comprehension questions, reading-specific background questions, and questions about their motivation and familiarity with the assessment tasks. The same booklets were used for the national and state assessments. Reading materials that served as stimuli and their corresponding questions were assembled into sets or "blocks". Students were given either two 25-minute blocks or one 50-minute block of reading passages and questions. At the fourth grade, only 25-minute blocks were used.

The grade 4 assessment consisted of eight 25-minute blocks: four blocks of literary materials and questions and four blocks of informative materials and questions. Each block contained at least one passage corresponding to one of the reading purposes and 9 to 12 multiple-choice and constructed-response questions. In each block, one of the constructed-response questions required an extended response. As a whole, the fourth-grade assessment consisted of 39 multiple-choice questions, 37 short constructed-response questions, and 8 extended response questions.

The grade 8 assessment consisted of nine 25-minute blocks (three literary, three informative, and three task) and two 50-minute blocks (one literary and one informative). As with the fourth-grade blocks, each contained at least one passage corresponding to one of the reading purposes and 8 to 13 multiple-choice and constructed-response questions. Each block contained at least one extended-response question. As a whole, the eighth-grade assessment consisted of 41 multiple-choice questions, 65 short constructed-response questions, and 16 extended response questions.

The grade 12 assessment consisted of nine 25-minute blocks (three literary, three informative, and three task) and three 50-minute blocks (one literary and two informative). The blocks contained at least one

TABLE A.1 **Target and Actual Percentage Distribution of Questions by Grade and Reading Purpose**

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Reading Purpose		
	Literary Experience	Gain Information	Perform Task
Grade 4			
Target	55	45	**
Actual	50	50	**
Grade 8			
Target	40	40	20
Actual	36	36	28
Grade 12			
Target	35	45	20
Actual	33	42	25

** Reading to Perform a Task was not assessed at grade 4

TABLE A.2 **Target and Actual Percentage Distribution of Questions by Grade and Reading Stance**

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Reading Stance		
	Inital Understanding/ Developing an Interpretation	Personal Response	Critical Stance
Grade 4			
Target	33	33	33
Actual	49	25	27
Grade 8			
Target	33	33	33
Actual	50	20	30
Grade 12			
Target	33	33	33
Actual	46	19	35

Actual percentages are based on the classifications agreed upon by NAEP's Instrument Development Panel. It is recognized that making discrete classifications for these categories is difficult and that independent efforts to classify NAEP questions have led to different results.

passage and 8 to 16 multiple-choice and constructed-response questions. Similar to the eighth grade assessment, each block contained at least one extended response question. As a whole, the twelfth-grade assessment contained 44 multiple-choice questions, 72 short constructed-response questions, and 16 extended response questions.

The 50-minute literary blocks at grades 8 and 12 were part of a special study called *The NAEP Reader*, in which students were given a compendium of seven short stories and allowed to select one to read for the assessment. The design of this study made it possible to examine the effects of choice on an assessment of reading comprehension. The results from this special study are not included as part of the 1994 NAEP reading scaling. However, a subsequent report is planned that will present the study findings.

The assessment design allowed for maximum coverage of reading abilities at each grade, while minimizing the time burden for any one student. This was accomplished through the use of matrix sampling, in which representative samples of students take various portions of the entire pool of assessment questions. Individual students are required to take only a small part, but the aggregate results across the entire assessment allow for broad reporting of reading abilities for the targeted population.

In addition to matrix sampling, the assessment design utilized a procedure for distributing booklets that controlled for position and balance effects. Students received different blocks of passages and comprehension questions in their booklets according to a procedure called "partially balanced incomplete block (BIB) spiraling." This procedure assigned blocks of questions in a manner that balanced the positioning of blocks across booklets and balanced the pairing of blocks within booklets according to reading purposes. Blocks were balanced within each reading purpose and were partially balanced across reading purposes. The spiraling aspect of this procedure cycles the booklets for administration, so that typically only a few students in any assessment session receive the same booklet.

Teacher and School Questionnaires

One of the most important parts of NAEP's efforts to document the nature of students' achievement is the collection of contextual information regarding students' school experiences. As a part of the 1994 reading assessment, NAEP administered a questionnaire to teachers responsible for teaching reading to students who participated in the fourth- or eighth-grade reading assessments. In addition, the principals or other administrators of sampled schools at all grades were asked to complete a school questionnaire. These questionnaires were developed under the oversight of an expert panel. These instruments focused on five areas: instructional content, instructional practices and experiences, teacher characteristics, school conditions and contexts, and conditions outside the school (i.e., home support, out-of-school activities, and attitudes).

The fourth- and eighth-grade reading teacher questionnaires were composed of two sections each. One section contained questions about teachers' background, education, and resources. Another section posed questions to teachers about their recent exposure to training in various areas of reading, the structure and nature of their classroom instruction, and the types of materials and approaches they use in teaching reading.

Because the sampling of teachers for the teacher questionnaires was based on participating students, the teachers' questionnaire responses do not necessarily represent all fourth- and eighth-grade teachers in the nation, or in a region, or in a participating jurisdiction for the Trial State Assessment. Rather, they represent teachers of the representative sample of students in the assessment. Consequently, these findings portray the nature of students' instructional experiences and the background of their teachers.

It is important to note that in this report, as in all NAEP reports, the student is the unit of analysis — even when information from teacher or school questionnaires is being reported. Using the student as the unit of analysis makes it possible to link students' performance with their instructional and background experiences, thus providing a rich source of relevant information for educators and researchers. Although this approach may provide a different perspective from other studies that simply report information about teachers or schools, it is consistent with NAEP's goal of providing information about the educational context and performance of students.

Some students selected for the assessment were judged by school authorities to be incapable of participating in the assessment because they had limited English language proficiency, were mildly mentally retarded (educable), or were functionally disabled. (See *Limited English Proficient and Individualized Education Plan* section in this Appendix.) For each student excluded from the assessment, schools were required to complete a questionnaire about the characteristics of that student and the reason for exclusion.

Tables A.3a and A.3b present the questionnaire response rates for each participating jurisdiction.

TABLE A.3a

Questionnaire Response Rates, Grade 4, 1994 Reading Assessment – Public Schools

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

Public Schools	Weighted Percentage of Students Matched to Reading Teacher Questionnaires	Percentage of Reading Teacher Questionnaires Returned	Weighted Percentage of Students Matched to School Characteristics/ Policies Questionnaire	Percentage of School Characteristics/ Policies Questionnaires Returned	Percentage of Excluded Student Questionnaires Returned
Nation	94.7	95.0	94.5	95.1	93.3
Northeast	94.5	93.5	91.2	91.7	92.8
Southeast	96.2	96.3	97.7	96.7	95.4
Central	94.7	96.6	100.0	100.0	95.1
West	93.5	93.8	90.1	92.4	91.6
States					
Alabama	99.0	99.0	100.0	100.0	98.4
Arizona	98.8	98.7	99.2	99.0	99.7
Arkansas	99.3	99.4	99.0	99.0	99.1
California	96.8	96.2	99.0	99.0	97.3
Colorado	96.7	98.1	97.8	98.0	97.6
Connecticut	98.0	98.7	98.1	97.9	99.4
Delaware	98.3	98.2	100.0	100.0	98.4
Florida	94.0	98.4	99.4	99.4	99.5
Georgia	98.0	99.8	100.0	100.0	98.2
Hawaii	98.2	99.2	97.9	97.9	99.4
Idaho	97.7	98.5	100.0	100.0	99.4
Indiana	97.8	99.7	100.0	100.0	98.8
Iowa	96.5	99.7	100.0	100.0	100.0
Kentucky	97.1	98.6	100.0	100.0	99.2
Louisiana	98.9	99.5	100.0	100.0	99.7
Maine	98.7	99.5	100.0	100.0	99.6
Maryland	97.6	99.0	100.0	100.0	100.0
Massachusetts	98.7	98.4	100.0	100.0	99.8
Michigan	96.0	98.1	97.9	97.7	100.0
Minnesota	95.5	97.3	100.0	100.0	95.0
Mississippi	98.4	99.4	100.0	100.0	98.8
Missouri	98.7	99.8	99.2	99.3	100.0
Montana	99.2	99.1	100.0	100.0	95.3
Nebraska	97.7	100.0	99.2	99.4	99.8
New Hampshire	99.3	98.5	100.0	100.0	99.7
New Jersey	97.9	98.7	100.0	100.0	98.8
New Mexico	96.4	98.3	98.8	99.0	100.0
New York	99.8	99.8	100.0	100.0	100.0
North Carolina	95.7	99.5	98.9	98.8	99.8
North Dakota	99.0	99.6	100.0	100.0	98.9
Pennsylvania	97.2	99.4	100.0	100.0	99.6
Rhode Island	98.1	99.4	97.9	97.6	99.7
South Carolina	96.7	99.4	100.0	100.0	99.7
Tennessee	99.2	99.4	98.9	98.5	100.0
Texas	98.0	99.0	100.0	100.0	98.3
Utah	99.4	98.7	98.2	98.5	99.4
Virginia	98.6	99.1	100.0	100.0	97.4
Washington	94.4	99.3	100.0	100.0	98.8
West Virginia	95.2	99.0	100.0	100.0	100.0
Wisconsin	97.1	96.9	100.0	100.0	99.7
Wyoming	96.2	99.7	97.9	96.2	99.4
Other Jurisdictions					
Guam	76.5	100.0	100.0	100.0	98.2
DoDEA Overseas	96.8	99.1	96.5	96.1	99.2

Note. For the nation and regions, the percentage of excluded student questionnaires returned is based on students sampled for all subjects assessed in 1994 (reading, U.S. history, and world geography). However, based on the sampling design, these rates also are the best estimates of the comparable rates for the reading assessment

DoDEA — Department of Defense Education Activity Overseas Schools

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 Reading Assessment.

TABLE A.3b

Questionnaire Response Rates, Grade 4, 1994 Reading Assessment – Nonpublic Schools

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

Nonpublic Schools	Weighted Percentage of Students Matched to Reading Teacher Questionnaires	Percentage of Reading Teacher Questionnaires Returned	Weighted Percentage of Students Matched to School Characteristics/ Policies Questionnaire	Percentage of School Characteristics/ Policies Questionnaires Returned	Percentage of Excluded Student Questionnaires Returned
Nation	95.9	97.7	100.0	100.0	95.1
Northeast	100.0	97.2	100.0	100.0	91.9
Southeast	92.9	100.0	100.0	100.0	85.7
Central	96.8	97.2	100.0	100.0	99.1
West	91.5	96.5	100.0	100.0	100.0
States					
Alabama	99.7	100.0	100.0	100.0	100.0
Arizona	*	100.0	*	100.0	100.0
Arkansas	100.0	100.0	100.0	100.0	100.0
California	99.5	100.0	100.0	100.0	—
Colorado	100.0	100.0	100.0	100.0	—
Connecticut	99.7	100.0	100.0	100.0	100.0
Delaware	100.0	100.0	100.0	100.0	100.0
Florida	92.7	100.0	100.0	100.0	100.0
Georgia	99.8	100.0	100.0	100.0	100.0
Hawaii	94.4	97.1	94.3	92.1	100.0
Idaho	100.0	100.0	100.0	100.0	100.0
Indiana	100.0	100.0	100.0	100.0	100.0
Iowa	94.3	100.0	100.0	100.0	100.0
Kentucky	97.6	100.0	100.0	100.0	100.0
Louisiana	100.0	97.1	100.0	100.0	100.0
Maine	100.0	100.0	100.0	100.0	100.0
Maryland	100.0	100.0	100.0	100.0	100.0
Massachusetts	93.4	96.0	100.0	100.0	100.0
Michigan	*	—	*	—	—
Minnesota	100.0	100.0	100.0	100.0	100.0
Mississippi	100.0	100.0	100.0	100.0	100.0
Missouri	99.8	100.0	100.0	100.0	100.0
Montana	100.0	100.0	100.0	100.0	100.0
Nebraska	100.0	100.0	100.0	100.0	100.0
New Hampshire	*	100.0	*	100.0	100.0
New Jersey	95.3	95.7	100.0	100.0	100.0
New Mexico	83.1	100.0	100.0	100.0	100.0
New York	100.0	100.0	100.0	100.0	100.0
North Carolina	*	100.0	*	100.0	—
North Dakota	99.2	100.0	100.0	100.0	100.0
Pennsylvania	97.7	100.0	100.0	100.0	100.0
Rhode Island	87.4	100.0	100.0	100.0	100.0
South Carolina	100.0	100.0	100.0	100.0	—
Tennessee	*	100.0	*	100.0	—
Texas	*	100.0	*	100.0	—
Utah	*	100.0	*	100.0	—
Virginia	99.6	100.0	100.0	100.0	100.0
Washington	*	—	*	—	—
West Virginia	100.0	100.0	100.0	100.0	100.0
Wisconsin	100.0	87.5	100.0	100.0	100.0
Wyoming	*	—	*	—	—
Other Jurisdictions					
Guam	67.5	100.0	100.0	100.0	—

Note For the nation and regions, the percentage of excluded student questionnaires returned is based on students sampled for all subjects assessed in 1994 (reading, U.S. history, and world geography). However, based on the sampling design, these rates also are the best estimates of the comparable rates for the reading assessment. *Due to the small number of schools comprising the state's nonpublic school sample, weighted student participation rates are not calculated. For DoDEA (Department of Defense Education Activity Overseas Schools), all non-domestic schools are considered public schools.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 Reading Assessment.

National and State Sampling

The national and regional results presented in this report are based on nationally representative probability samples of fourth-, eighth-, and twelfth-grade students. The samples were selected using a complex multistage sampling design involving the sampling of students from selected schools within selected geographic areas across the country. The sample design had the following stages:

1) selection of geographic areas (counties or groups of counties);
2) selection of schools (both public and nonpublic) within the selected areas; and
3) selection of students within selected schools.

Each selected school that participated in the assessment, and each student assessed, represents a portion of the population of interest. To make valid inferences from the student samples to the respective populations from which they were drawn, sampling weights are needed. Sampling weights account for disproportionate representation due to oversampling of students attending schools with a high concentration of Black and/or Hispanic students, and from nonpublic schools. Lower sampling rates for very small schools must also be accounted for with the sampling weights.

Table A.4 provides a summary of the weighted and unweighted student sample sizes for the national reading assessment. The numbers reported include both public and nonpublic school students.

The results of the 1994 Trial State Assessment Program provided in this report are based on state-level samples of fourth graders. The samples of both public and nonpublic school fourth-grade students were selected based on a two-stage sample design that entailed selecting schools within participating states and selecting students within schools. The first-stage samples of schools were selected with probability proportional to the fourth-grade enrollment in the schools. Special procedures were used for states with many small schools and for jurisdictions with a small number of schools.

As with the national samples, the state samples were weighted to allow for valid inferences about the populations of interest. Table A.5 contains the unweighted number of participating schools and students as well as weighted school and student participation rates. Two weighted school participation rates are provided for each jurisdiction. The first is the weighted percentage of schools participating in the assessment **before** substitution. This rate is based only on those schools that were initially selected for the

TABLE A.4

Unweighted and Weighted Sample Size by Grade for the 1994 Reading Assessment, Public and Nonpublic Schools

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Unweighted Sample Size (and Percent of Total)		
	Grade 4	Grade 8	Grade 12
Nation	7,382 (100.0%)	10,135 (100.0%)	9,935 (100.0%)
Region			
Northeast	1,816 (24.6%)	1,918 (18.9%)	2,289 (23.0%)
Southeast	1,888 (25.6%)	3,132 (30.9%)	2,777 (28.0%)
Central	1,571 (21.3%)	2,149 (21.2%)	2,005 (20.2%)
West	2,107 (28.6%)	2,936 (29.0%)	2,864 (28.8%)
	Weighted Sample Size (and Percent of Total)		
	Grade 4	Grade 8	Grade 12
Nation	3,527,410 (100.0%)	2,245,276 (100.0%)	1,811,014 (100.0%)
Region			
Northeast	800,903 (22.7%)	459,134 (20.5%)	366,999 (20.3%)
Southeast	826,167 (23.4%)	581,039 (25.9%)	423,235 (23.4%)
Central	870,268 (24.7%)	542,615 (24.2%)	488,863 (27.0%)
West	1,030,072 (29.2%)	662,489 (29.5%)	531,917 (29.4%)

Percentages may not total 100 percent due to rounding.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

assessment. The numerator of this rate is the sum of the number of students represented by each initially selected school that participated in the assessment. The denominator is the sum of the number of students represented by each of the initially selected schools found to have eligible students enrolled. This included both participating and nonparticipating schools.

The second school participation rate is the weighted participation rate after substitution. The numerator of this rate is the sum of the number of students represented by each of the participating schools, whether originally selected or substituted. The denominator is the same as that for the weighted participation rate for the initial sample. This means that, for a given jurisdiction, the weighted participation rate after substitution is always at least as great as the weighted participation rate before substitutions.

Also presented in Tables A.5a and A.5b are the weighted percentages of students participating after make-up sessions. This rate reflects the percentage of the eligible student population from participating schools within the jurisdiction that are represented by the students who participated in the assessment (in either an initial session or a make-up session). The numerator of this rate is the sum, across all assessed students, of the number of students represented by each assessed student. The denominator is the sum of the number of students represented by each selected student who was invited and eligible to participate, including students who did not participate.

In carrying out the 1994 Trial State Assessment, the National Center for Education Statistics established participation rate standards that jurisdictions were required to meet in order for their results to be reported. (See footnoted jurisdictions in Table A.5.) Additional standards were also established that required the annotation of published results for jurisdictions whose sample participation rates were low enough to raise concerns about their representativeness.

Two states, Idaho and Michigan, failed to meet the initial public school participation rate of 70 percent. For these two states, results for fourth-grade public school students are not reported in this or any report of 1994 NAEP findings. Several other jurisdictions for which results are published are flagged to note the potential for non-response bias associated with school-level non-response.

The following eighteen states failed to meet the initial nonpublic school participation rate of 70 percent: Arizona, California, Florida, Maryland, Michigan, Mississippi, Montana, Nebraska, New Hampshire, New York, North Carolina, South Carolina, Tennessee, Texas, Utah, Washington, Wisconsin, and Wyoming. For these states, results for fourth-grade nonpublic school students are not reported in this or any report of 1994 NAEP findings. As with public schools, several other jurisdictions for which nonpublic school results are published are flagged to note the potential for non-response bias associated with school-level non-response.

NCES standards specify weighted school participation rates of at least 85 percent to guard against potential bias due to school non-response.

A jurisdiction will receive a notation if its weighted participation rate for the initial sample of schools was below 85 percent AND the weighted school participation rate after substitution was below 90 percent.

Six states did not meet this guideline for public schools: Nebraska, New Hampshire, Pennsylvania, Rhode Island, Tennessee, and Wisconsin. Nine states did not meet this guideline for nonpublic schools: Colorado, Connecticut, Delaware, Georgia, Hawaii, Kentucky, New Jersey, Pennsylvania, and Virginia.

For jurisdictions that did not use substitute schools, the participation rates were based on participating schools from the original sample. The first part of this guideline, referring to the weighted school participation rate for the initial sample of schools, is in direct accordance with NCES standards. To help ensure adequate sample representation for each jurisdiction participating in the 1994 Trial State Assessment Program, NAEP provided substitutes for nonparticipating public and nonpublic schools. When possible, a substitute school was provided for each initially selected school that declined participation before November 15, 1993. For jurisdictions that used substitute schools, the assessment results were based on the student data from all schools participating from both the original sample and the list of substitutes (unless both an initial school and its substitute eventually participated, in which case only the data from the initial school were used).

The NCES standards do not explicitly address the use of substitute schools to replace initially selected schools that decide not to participate in the assessment. However, considerable technical consideration was given to this issue. Even though the characteristics of the substitute schools were matched as closely as possible to the characteristics of the initially selected schools, substitution does not entirely eliminate bias due to the nonparticipation of initially selected schools. Thus, for the weighted school participation rates including substitute schools, the guideline was set at 90 percent.

TABLE A.5a

School and Student Participation Rates by State for the 1994 Trial State Assessment, Grade 4, Public Schools Only

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

Public Schools	Weighted Percentage School Participation Before Substitution	Weighted Percentage School Participation After Substitution	Total Number of Schools That Participated	Weighted Percentage Student Participation After Make-ups	Total Number of Students Assessed
Nation	86	87	227	95	6,030
Region					
Northeast	93	93	49	94	1,367
Southeast	91	93	61	95	1,649
Central	85	87	52	95	1,184
West	77	77	65	95	1,830
States					
Alabama	87	93	99	96	2,646
Arizona	99	99	104	94	2,651
Arkansas	86	94	97	96	2,535
California	80	91	97	94	2,252
Colorado	100	100	108	94	2,730
Connecticut	96	96	101	96	2,577
Delaware	100	100	51	96	2,239
Florida	100	100	107	94	2,666
Georgia	99	99	105	95	2,766
Hawaii	99	99	104	95	2,732
Idaho[1]	69	91	98	96	2,598
Indiana	83	92	100	96	2,655
Iowa	85	99	107	96	2,759
Kentucky	88	96	101	97	2,758
Louisiana	100	100	103	96	2,713
Maine	94	97	104	94	2,436
Maryland	94	96	100	95	2,555
Massachusetts	97	97	99	95	2,517
Michigan[1]	63	80	82	95	2,142
Minnesota	86	95	100	95	2,655
Mississippi	95	99	103	97	2,762
Missouri	96	98	105	95	2,670
Montana[3]	85	89	111	96	2,501
Nebraska[2]	71	77	109	95	2,395
New Hampshire[2]	71	79	86	96	2,197
New Jersey	85	91	96	95	2,509
New Mexico	100	100	105	95	2,635
New York	75	91	96	95	2,495
North Carolina	99	99	105	96	2,832
North Dakota	80	91	117	97	2,544
Pennsylvania[2]	80	84	89	94	2,290
Rhode Island[2]	80	86	92	95	2,341
South Carolina	95	97	102	96	2,707
Tennessee[2]	72	74	76	96	1,998
Texas	91	93	98	96	2,454
Utah	100	100	105	95	2,733
Virginia	98	99	105	95	2,719
Washington	100	100	104	94	2,737
West Virginia	99	100	111	96	2,757
Wisconsin[2]	79	86	91	96	2,331
Wyoming	98	98	112	96	2,699
Other Jurisdictions					
Guam	100	100	21	96	2,203
DoDEA	99	99	81	95	2,413

[1] State's public school weighted participation rate for the initial sample was less than 70 percent. NCES reporting guidelines prohibit the reporting of results for these two states.
[2] The state's public school weighted participation rate for the initial sample of schools was below 85 percent AND the weighted school participation rate after substitution was below 90 percent
[3] The nonparticipating public schools included a class of schools with similar characteristics, which together account for more than 5 percent of the state's total fourth-grade weighted sample of public schools.
DoDEA — Department of Defense Education Activity Overseas Schools
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

TABLE A.5b

School and Student Participation Rates by State for the 1994 Trial State Assessment, Grade 4, Nonpublic Schools Only

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

Nonpublic Schools	Weighted Percentage School[3] Participation Before Substitution	Weighted Percentage School Participation After Substitution	Total Number of Schools That Participated	Weighted Percentage Student Participation After Make-ups	Total Number of Students Assessed
Nation	87	87	89	97	1,352
Region					
Northeast	82	82	26	98	449
Southeast	90	90	17	94	239
Central	97	97	27	97	387
West	80	80	19	98	277
States					
Alabama	92	96	9	95	199
Arizona[1]	35	35	3	*	69
Arkansas	81	94	7	95	154
California[1]	42	51	6	97	149
Colorado[2]	71	85	8	94	130
Connecticut[2]	73	82	13	95	290
Delaware[2]	73	73	22	98	544
Florida[1]	52	73	11	98	267
Georgia[2]	74	84	9	97	217
Hawaii[2]	80	88	19	96	415
Idaho	89	89	7	96	94
Indiana	85	85	10	95	219
Iowa	100	100	16	99	327
Kentucky[2]	70	85	12	97	278
Louisiana[3]	82	91	19	97	457
Maine	79	100	8	95	95
Maryland[1]	63	70	11	97	275
Massachusetts	95	100	15	96	302
Michigan[1]	0	0	0	*	0
Minnesota	91	99	20	96	390
Mississippi[1]	64	64	7	96	156
Missouri	90	90	19	95	372
Montana[1]	65	65	7	94	148
Nebraska[1]	48	48	11	97	211
New Hampshire[1]	54	54	5	*	116
New Jersey[2]	76	76	17	96	379
New Mexico	100	100	9	92	191
New York[1]	40	62	15	96	369
North Carolina[1]	32	32	2	*	49
North Dakota	77	91	14	93	253
Pennsylvania[2]	72	72	17	94	427
Rhode Island	93	93	17	96	354
South Carolina[1]	69	86	7	98	156
Tennessee[1]	41	41	4	*	83
Texas[1]	24	39	3	*	79
Utah[1]	23	23	1	*	32
Virginia[2]	81	81	8	96	151
Washington[1]	0	0	0	*	0
West Virginia	86	86	7	97	130
Wisconsin[1]	66	66	20	95	388
Wyoming[1]	0	0	0	*	0
Other Jurisdictions					
Guam	96	96	9	98	372

[1] State's nonpublic school weighted participation rate for the initial sample was less than 70 percent. NCES reporting guidelines prohibit the reporting of results for these eighteen states.

[2] The state's nonpublic school weighted participation rate for the initial sample of schools was below 85 percent AND the weighted school participation rate after substitution was below 90 percent.

[3] The nonparticipating nonpublic schools included a class of schools with similar characteristics, which together account for more than 5 percent of the state's total fourth grade weighted sample of nonpublic schools.

*Due to the small number of schools comprising the state's nonpublic school sample, weighted student participation rates are not calculated. For DoDEA (Department of Defense Education Activity Overseas Schools) all non domestic schools are considered public schools.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

The NCES standards specify that attention should be given to the representativeness of the sample coverage. Thus, if some important segment of the jurisdiction's population was not adequately represented, this was of concern, regardless of the overall participation rate. Montana (for public schools) and Louisiana (for nonpublic schools) failed to meet the following NCES guideline concerning strata-specific participation rates.

A jurisdiction with otherwise adequate weighted school participation will receive a notation if the nonparticipating schools included a class of schools with similar characteristics, which together accounted for more than five percent of the jurisdiction's total fourth-grade weighted sample of schools. The classes of schools from each of which a jurisdiction needed minimum school participation levels were by degree of urbanization, minority enrollment, and median household income of the area in which the school is located.

This guideline addresses the concern that, if nonparticipating schools were concentrated within a particular class of schools, the potential for substantial bias remained, even if the overall level of school participation appeared to be satisfactory. Nonresponse adjustment cells for schools were formed within each jurisdiction, and the schools within each cell were similar with respect to minority enrollment, degree of urbanization, and/or median household income, as appropriate for each jurisdiction. If more than 5 percent (weighted) of the sample schools (after substitution) were nonparticipants from a single adjustment cell, then the potential for nonresponse bias was too great.

Limited English Proficient (LEP) and Individualized Education Plan (IEP) Students

It is NAEP's intent to assess all selected students. Therefore, every effort is made to ensure that all selected students who are capable of participating in the assessment are assessed. Some students sampled for participation in NAEP can be excused from the sample according to carefully defined criteria, however. Specifically, some students identified as having Limited English Proficiency (LEP) or having an Individualized Education Plan (IEP) may be incapable of participating meaningfully in the assessment. These students are identified as follows:

LEP students may be excluded from the assessment if

- the student is a native speaker of a language other than English; AND
- the student has been enrolled in an English-speaking school less than two years; AND
- the student is judged to be incapable of taking part in the assessment.

IEP students may be excluded if

- the student is mainstreamed less than 50 percent of the time in academic subjects and is judged to be incapable of taking part in the assessment, OR
- the IEP team has determined that the student is incapable of taking part meaningfully in the assessment.

When there is doubt, the student is included in the assessment.

For each student excused from the assessment, including those in the 1994 Trial State Assessment, school personnel complete a questionnaire about the characteristics of that student and the reason for exclusion. Tables A.6 to A.9 present percentages of public school and nonpublic school students excluded (IEP and LEP) based on the original sample and based on those invited to participate in the assessment.

Data Collection

The 1994 reading assessment was conducted from January through March 1994, with some make-up sessions in early April. As with all NAEP assessments, data collection for the 1994 assessment was conducted by a trained field staff. For the national assessment, this was accomplished by Westat, Inc., staff. In keeping with the legislative requirements of the Trial State Assessment Program, the state reading assessments were conducted by personnel from each of the participating states. NAEP's responsibilities included selecting the sample of schools and students for each participating state, developing the administration procedures and manuals, training the personnel who would conduct the assessments, and conducting an extensive quality assurance program.

Each participating state and territory was asked to appoint a state coordinator to be the liaison between NAEP and participating schools. The state coordinator was asked to gain the cooperation of selected schools, assist in scheduling, provide information necessary for sampling, and notify personnel about training. At the local school level, the administrators — usually school or district staff — were responsible for attending training, identifying excluded students, distributing school and teacher questionnaires, notifying sampled students and their teachers, administering the assessment session, completing the necessary paperwork, and preparing the materials for shipment.

TABLE A.6

Weighted Percentages of Students Excluded (IEP and LEP) from Original Sample, Grade 4 1994 Reading Assessment – Public Schools

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

Public Schools	Total Percentage Students Identified IEP and LEP	Total Percentage Students Excluded	Percentage Students Identified IEP	Percentage Students Excluded IEP	Percentage Students Identified LEP	Percentage Students Excluded LEP
Nation	17	9	12	6	6	3
Northeast	14	8	13	7	1	1
Southeast	14	8	14	8	1	0
Central	14	8	12	7	2	1
West	25	11	10	5	15	7
States						
Alabama	11	5	11	5	0	0
Arizona	21	7	11	5	11	3
Arkansas	12	6	12	6	0	0
California	31	12	10	5	23	9
Colorado	15	7	12	6	4	2
Connecticut	17	8	13	6	4	3
Delaware	15	6	14	6	1	1
Florida	22	10	18	9	5	2
Georgia	11	5	10	5	2	1
Hawaii	12	5	8	4	5	1
Idaho	13	5	10	4	3	1
Indiana	11	5	11	5	0	0
Iowa	11	5	11	4	1	0
Kentucky	8	4	8	4	0	0
Louisiana	11	6	11	6	1	0
Maine	17	10	16	9	1	1
Maryland	15	7	14	7	1	1
Massachusetts	18	8	15	5	5	3
Michigan	10	6	9	6	1	0
Minnesota	12	4	10	4	2	1
Mississippi	9	6	9	6	0	0
Missouri	12	5	12	5	0	0
Montana	11	4	11	3	1	0
Nebraska	16	4	15	4	1	1
New Hampshire	15	6	15	6	0	0
New Jersey	12	6	9	4	3	2
New Mexico	18	8	14	6	4	2
New York	15	8	9	5	6	3
North Carolina	15	5	14	5	1	1
North Dakota	10	2	9	2	1	0
Pennsylvania	11	6	10	5	1	1
Rhode Island	15	5	12	4	3	1
South Carolina	13	7	13	7	0	0
Tennessee	13	6	13	6	0	0
Texas	24	11	13	7	13	5
Utah	12	5	11	5	2	1
Virginia	13	7	12	6	2	1
Washington	14	5	11	4	4	1
West Virginia	12	7	12	7	0	0
Wisconsin	13	7	11	7	2	1
Wyoming	11	4	11	4	1	0
Other Jurisdictions						
Guam	12	9	5	5	7	4
DoDEA Overseas	10	5	8	4	2	1

IEP = Individual Education Plan and LEP = Limited English Proficiency. To be excluded, a student was supposed to be IEP or LEP *and* judged incapable of participating in the assessment. A student reported as both IEP and LEP is counted once in the overall rate (first column), once in the overall excluded rate (second column), and separately in the remaining columns. Note: Weighted percentages for the nation and region are based on students sampled for all subject areas assessed in 1994 (reading, U.S. history, and world geography). However, based on the national sampling design, the rates shown also are the best estimates for the reading assessment.

DoDEA — Department of Defense Education Activity Overseas Schools

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 Reading Assessment.

TABLE A.7

Weighted Percentages of Students Excluded (IEP and LEP) from Original Sample, Grade 4 1994 Reading Assessment – Nonpublic Schools

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

Nonpublic Schools	Total Percentage Students Identified IEP and LEP	Total Percentage Students Excluded	Percentage Students Identified IEP	Percentage Students Excluded IEP	Percentage Students Identified LEP	Percentage Students Excluded LEP
Nation	2	1	2	1	0	0
Northeast	2	1	2	1	0	0
Southeast	6	1	5	1	0	0
Central	0	0	0	0	0	0
West	2	1	1	1	1	0
States						
Alabama	2	1	2	1	0	0
Arizona	.	.	.	.	.	.
Arkansas	5	1	3	1	1	0
California	0	0	0	0	0	0
Colorado	1	0	1	0	0	0
Connecticut	7	2	4	1	3	1
Delaware	2	0	2	0	0	0
Florida	4	1	3	1	1	0
Georgia	3	0	3	0	0	0
Hawaii	2	1	1	0	1	0
Idaho	14	0	14	0	0	0
Indiana	3	1	2	1	1	0
Iowa	5	1	5	1	0	0
Kentucky	1	0	1	0	0	0
Louisiana	1	0	1	0	0	0
Maine	2	0	2	0	0	0
Maryland	2	1	2	1	0	0
Massachusetts	5	2	5	2	0	0
Michigan	.	.	.	.	.	.
Minnesota	4	2	4	2	0	0
Mississippi	6	3	6	3	0	0
Missouri	4	0	4	0	0	0
Montana	1	0	1	0	0	0
Nebraska	2	0	2	0	0	0
New Hampshire	.	.	.	.	.	.
New Jersey	6	1	5	0	1	0
New Mexico	22	13	14	11	11	3
New York	2	2	1	1	1	1
North Carolina	.	.	.	.	.	.
North Dakota	17	4	11	3	9	1
Pennsylvania	3	0	1	0	2	0
Rhode Island	5	0	2	0	2	0
South Carolina	0	0	0	0	0	0
Tennessee	.	.	.	.	.	.
Texas	.	.	.	.	.	.
Utah	.	.	.	.	.	.
Virginia	1	1	1	1	1	0
Washington	.	.	.	.	.	.
West Virginia	2	1	2	1	1	1
Wisconsin	2	0	2	0	0	0
Wyoming	.	.	.	.	.	.
Other Jurisdictions						
Guam	0	0	0	0	0	0

IEP = Individual Education Plan and LEP = Limited English Proficiency. To be excluded, a student was supposed to be IEP or LEP *and* judged incapable of participating in the assessment. A student reported as both IEP and LEP is counted once in the overall rate (first column), once in the overall excluded rate (second column), and separately in the remaining columns. Note: Weighted percentages for the nation and region are based on students sampled for all subject areas assessed in 1994 (reading, U.S. history, and world geography). However, based on the national sampling design, the rates shown also are the best estimates for the reading assessment. *Due to the small number of schools comprising the state's nonpublic school sample, weighted student participation rates are not calculated. For DoDEA (Department of Defense Education Activity Overseas Schools), all non-domestic schools are considered public schools.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 Reading Assessment.

TABLE A.8

Weighted Percentages of Absent, IEP, and LEP Students Based on Those Invited to Participate in the Assessment, Grade 4, 1994 Reading Assessment – Public Schools

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

Public Schools	Weighted Percentage Student Participation After Make-up	Weighted Percentage Absent	Weighted Percentage Assessed IEP	Weighted Percentage Absent IEP	Weighted Percentage Assessed LEP	Weighted Percentage Absent LEP
Nation	95	5	92	8	92	8
Northeast	94	6	91	9	87	13
Southeast	95	5	93	7	100	0
Central	95	5	96	4	100	0
West	95	5	91	9	92	8
States						
Alabama	96	4	94	6	67	33
Arizona	94	6	94	6	96	4
Arkansas	96	4	94	6	100	0
California	94	6	82	18	95	5
Colorado	94	6	93	7	95	5
Connecticut	96	4	95	5	97	3
Delaware	96	4	95	5	100	0
Florida	94	6	93	7	93	7
Georgia	95	5	98	2	88	12
Hawaii	95	5	91	9	99	1
Idaho	96	4	94	6	93	7
Indiana	96	4	96	4	86	14
Iowa	96	4	92	8	100	0
Kentucky	97	3	95	5	100	0
Louisiana	96	4	94	6	100	0
Maine	94	6	94	6	100	0
Maryland	95	5	96	4	100	0
Massachusetts	95	5	93	7	95	5
Michigan	95	5	96	4	84	16
Minnesota	95	5	98	2	97	3
Mississippi	97	3	99	1	100	0
Missouri	95	5	93	7	100	0
Montana	96	4	93	7	97	3
Nebraska	95	5	95	5	92	8
New Hampshire	96	4	95	5	100	0
New Jersey	95	5	93	7	98	2
New Mexico	95	5	93	7	97	3
New York	95	5	96	4	93	7
North Carolina	96	4	93	7	93	7
North Dakota	97	3	96	4	100	0
Pennsylvania	94	6	94	6	97	3
Rhode Island	95	5	93	7	97	3
South Carolina	96	4	95	5	100	0
Tennessee	96	4	88	12	100	0
Texas	96	4	97	3	98	2
Utah	95	5	92	8	97	3
Virginia	95	5	93	7	97	3
Washington	94	6	94	6	97	3
West Virginia	96	4	96	4	100	0
Wisconsin	96	4	94	6	100	0
Wyoming	96	4	96	4	88	12
Other Jurisdictions						
Guam	96	4	100	0	91	9
DoDEA Overseas	95	5	88	12	95	5

IEP = Individual Education Plan and LEP = Limited English Proficiency. Note: Weighted percentages for the nation and region are based on students sampled for all subject areas assessed in 1994 (reading, U S history, and world geography). However, based on the national sampling design, the rates shown also are the best estimates for the reading assessment.

DoDEA — Department of Defense Education Activity Overseas Schools

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 Reading Assessment.

TABLE A.9

Weighted Percentages of Absent, IEP, and LEP Students Based on Those Invited to Participate in the Assessment, Grade 4, 1994 Reading Assessment – Nonpublic Schools

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

Nonpublic Schools	Weighted Percentage Student Participation After Make-up	Weighted Percentage Absent	Weighted Percentage Assessed IEP	Weighted Percentage Absent IEP	Weighted Percentage Assessed LEP	Weighted Percentage Absent LEP
Nation	97	3	69	31	100	0
Northeast	98	2	82	18	100	0
Southeast	94	6	63	37	—	—
Central	97	3	100	0	—	—
West	98	2	50	50	100	0
States						
Alabama	95	5	100	0	—	—
Arizona	*	*	—	—	—	—
Arkansas	95	5	80	20	100	0
California	97	3	—	—	—	—
Colorado	94	6	100	0	—	—
Connecticut	95	5	100	0	100	0
Delaware	98	2	87	13	—	—
Florida	98	2	67	33	100	0
Georgia	97	3	86	14	—	—
Hawaii	96	4	100	0	100	0
Idaho	96	4	89	11	—	—
Indiana	95	5	100	0	63	37
Iowa	99	1	94	6	—	—
Kentucky	97	3	100	0	—	—
Louisiana	97	3	100	0	100	0
Maine	95	5	100	0	—	—
Maryland	97	3	100	0	—	—
Massachusetts	96	4	100	0	—	—
Michigan	*	*	—	—	—	—
Minnesota	96	4	100	0	—	—
Mississippi	96	4	63	37	—	—
Missouri	96	4	100	0	100	0
Montana	94	6	100	0	—	—
Nebraska	97	3	100	0	—	—
New Hampshire	*	*	—	—	—	—
New Jersey	96	4	83	17	100	0
New Mexico	92	8	89	11	92	8
New York	96	4	100	0	—	—
North Carolina	*	*	—	—	—	—
North Dakota	93	7	86	14	94	6
Pennsylvania	94	6	100	0	90	10
Rhode Island	96	4	100	0	100	0
South Carolina	98	2	—	—	—	—
Tennessee	*	*	—	—	—	—
Texas	*	*	—	—	—	—
Utah	*	*	—	—	—	—
Virginia	96	4	—	—	100	0
Washington	*	*	—	—	—	—
West Virginia	97	3	100	0	—	—
Wisconsin	95	5	75	25	—	—
Wyoming	*	*	—	—	—	—
Other Jurisdictions						
Guam	98	2	—	—	—	—

IEP = Individual Education Plan and LEP = Limited English Proficiency. Note: Weighted percentages for the nation and region are based on students sampled for all subject areas assessed in 1994 (reading, U.S. history, and world geography). However, based on the national sampling design, the rates shown also are the best estimates for the reading assessment. *Due to the small number of schools comprising the state's nonpublic school sample, weighted student participation rates are not calculated. For DoDEA (Department of Defense Education Activity Overseas Schools), all non-domestic schools are considered public schools.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 Reading Assessment.

Westat staff trained assessment administrators within the states in three and one-half hour sessions that included videotape and practice exercises to provide uniformity in procedures.

To provide quality control across states, a randomly selected 25 percent of the state assessment sessions were overseen by quality control monitors who were trained Westat staff. For nonpublic schools and for states that had not participated in the previous assessment, the percent of monitored sessions was 50 percent. The identity of the schools to be monitored was not revealed to state, district, or school personnel until shortly before the assessment was to commence. The analysis of the results for the unmonitored schools as compared to the monitored schools yielded no systematic differences that would suggest different procedures were used. See the *Technical Report of the NAEP 1994 Trial State Assessment in Reading* for details and results of this analysis.

Scoring

Materials from the 1994 assessment, including the Trial State Assessment Program, were shipped to National Computer Systems in Iowa City for processing. Receipt and quality control were managed through a sophisticated bar-coding and tracking system. After all appropriate materials were received from a school, they were forwarded to the professional scoring area where the responses to the constructed-response question were evaluated by trained staff using guidelines prepared by NAEP. Each constructed-response question had a unique scoring guide that defined the criteria to be used in evaluating students' responses. The extended response questions were evaluated with four-level rubrics, and many of the short response questions were rated according to three-level rubrics that permit partial credit to be given. Other short response questions were scored as either acceptable or unacceptable.

For the national reading assessment and the Trial State Assessment Program, approximately 2 million student responses were scored. This figure includes a 25 percent rescore to monitor interrater reliability, and a rescore of approximately 500 responses per question to monitor trend reliability. In other words, scoring reliability was calculated both within year (1994) and across years (1992 and 1994). The overall within-year percentages of agreement between scorers for the 1994 national reliability samples were 90 percent at grade 4, 90 percent at grade 8, and 89 percent at grade 12. For the 1994 Trial State Assessment at grade 4, the within-year percentage of agreement between scorers was 90 percent. The percentages of agreement between the two assessment years (1992 and 1994) for the national inter-year reliability sample were 90 percent at grade 4, 82 percent at grade 8, and 76 percent at grade 12. The percentage of agreement between the two assessment years for the Trial State Assessment at grade 4 was 89 percent.

Data Analysis and IRT Scaling

Subsequent to the professional scoring, all information was transcribed to the NAEP database at ETS. Each processing activity was conducted with rigorous quality control. After the assessment information had been compiled in the database, the data were weighted according to the population structure. The weighting for the national and state samples reflected the probability of selection for each student as a result of the sampling design, adjusted for nonresponse. Through stratification, the weighting assured that the representation of certain subpopulations corresponded to figures from the U.S. Census and the Current Population Survey.[2]

Analyses were then conducted to determine the percentages of students who gave various responses to each cognitive and background question. In determining these percentages for the cognitive questions, a distinction was made between missing responses at the end of a block (i.e., missing responses subsequent to the last question the student answered) and missing responses prior to the last observed response. Missing responses before the last observed response were considered intentional omissions. Missing responses at the end of the block were considered "not reached" and treated as if the questions had not been presented to the student. In calculating response percentages for each question, only students classified as having been presented the question were included in the denominator of the statistic.

It is standard ETS practice to treat all nonrespondents to the last question in a block as if they had not reached the question. For multiple-choice and short response questions, this practice produces a reasonable pattern of results in that the proportion reaching the last question is not dramatically smaller than the proportion reaching the next-to-last question. However, for blocks that ended with extended-response questions, the standard ETS practice would result in extremely large drops in the proportion of students attempting the final question. A drop of such magnitude seemed somewhat implausible. Therefore, for blocks ending with an extended-response question, students who answered the next-to-last question but did not

respond to the extended-response question were classified as having intentionally omitted the last question.

Item response theory (IRT) was used to estimate average scale-score reading proficiencies for the nation, for various subgroups of interest within the nation, and for the states and territories. IRT models the probability of answering a question in a certain way as a mathematical function of proficiency or skill. The main purpose of IRT analysis is to provide a common scale on which performance can be compared across groups such as those defined by grades and characteristics, including race/ethnicity and gender.

Because of the BIB-spiraling design used by NAEP, students do not receive enough questions about a specific topic to provide reliable information about individual performance. Traditional test scores for individual students, even those based on IRT, would lead to misleading estimates of population characteristics, such as subgroup means and percentages of students at or above a certain proficiency level. Consequently, NAEP constructs sets of plausible values designed to represent the distribution of proficiency in the population. A plausible value for an individual is not a scale score for that individual but may be regarded as a representative value from the distribution of potential scale scores for all students in the population with similar characteristics and identical patterns of item response. Statistics describing performance on the NAEP proficiency scale are based on the plausible values. They estimate values that would have been obtained had individual proficiencies been observed — that is, had each student responded to a sufficient number of cognitive questions so that proficiency could be precisely estimated.[3]

For the 1992 and 1994 assessments, a scale ranging from 0 to 500 was created to report performance for each reading purpose — literary and informational at grade 4, and literary, informational, and task at grades 8 and 12. The scales summarize student performance across all three question types in the assessment (multiple choice, short response, and extended response).

Each reading scale is based on the distribution of student performance across all three grades in the national assessment (grades 4, 8, and 12). The scales have a mean of 250 and a standard deviation of 50. In addition, a composite scale was created as an overall measure of students' reading proficiency. This composite scale is a weighted average of the separate scales for the reading purposes. The weight for each reading purpose is proportional to the relative importance assigned to the reading purpose by the specifications developed through the consensus planning process.

In producing the reading scales, three distinct IRT models were used. Multiple-choice items were scaled using the three-parameter logistic (3PL) model; short response questions rated as acceptable or unacceptable were scaled using the two-parameter logistic (2PL) model; and short response questions rated according to a three-level rubric, as well as extended-response questions rated on a four-level rubric, were scaled using a generalized partial-credit (GPC) model.[4] Developed by ETS and first used in 1992, the GPC model permits the scaling of questions scored according to multipoint rating schemes. The model takes full advantage of the information available from each of the student response categories used for these more complex constructed-response questions.

The reading scale is composed of three types of questions: multiple-choice, constructed-response (scored dichotomously as correct or incorrect) and constructed-response (scored according to a partial-credit model). One natural question about the scale concerns the amount of information contributed by each type of question. Unfortunately, this question has no simple answer for the NAEP reading assessment, due to the complex procedures used to form the composite reading scale.

The information provided by a given question is determined by the IRT model used to scale the question and is a function of its item parameters.[5] Thus, the answer to the query "How much information do the different types of questions provide?" will differ for each level of reading proficiency. When considering the composite reading scale, the answer is even more complicated. The reading data are scaled separately by the purposes of reading (Reading for Literary Experience, Reading to Gain Information, and Reading to Perform a Task). The composite scale is a weighted combination of these subscales. IRT information functions are only strictly comparable when they are derived from the same calibration. Because the composite scale is based on three separate calibrations, there is no direct way to compare the information provided by the questions on the composite scale.

NAEP Reporting Groups

Findings from the 1994 NAEP reading assessment are presented for groups of students defined by shared characteristics. Data are reported for subpopulation only where sufficient numbers of students and adequate

school representation are present. For public school students, there must be at least 62 students in a particular subgroup from at least 10 different schools; for nonpublic school students, the minimum requirement is 62 students representing at least six different schools. Data for all students, regardless of whether their subgroup was reported separately, were included in computing overall national and regional results.

The reporting subgroups presented in this report include: region, race/ethnicity, gender, parents' education level, type of school, and school's type of location. Definitions of these subgroups are provided below.

Region. Results are reported for four regions of the nation: Northeast, Southeast, Central, and West. States included in each region are shown in the Figure A.2. All 50 states and the District of Columbia are listed. Guam and the Department of Defense Education Activity (DoDEA) Overseas Schools were not assigned to a region.

States that participated in the 1994 Trial State Assessment appear in boldface type. Note that the part of Virginia that is included in the Washington, DC, metropolitan area is included in the Northeast region; the remainder of the state is included in the Southeast region. The regional results are based on a separate sample from that used to report the state results. Regional results are based on national assessment samples, not on aggregated Trial State Assessment samples.

Race/Ethnicity. Results are presented for students in different racial/ethnic groups based on the students' self-identification of their race/ethnicity according to the following mutually exclusive categories: White, Black, Hispanic, Asian, Pacific Islander, and American Indian (including Alaskan Native). For the 1992 assessment, it was not possible to report separate results for Asian and Pacific Islander students. Consequently, 1992 data and trend results for the separate categories are not presented in this report.

Gender. Results are reported separately for males and females.

Parents' Education Level. Results are presented by students' report of the highest level of schooling attained by each of their parents: did not finish high school, graduated from high school, some education after high school, graduated from college, or did not know. The response indicating the higher level of education was selected for reporting. It should be noted that approximately one-third of fourth graders and almost one-tenth of eighth graders reported not knowing the education level of either of their parents. The percentages of students who reported not knowing their parents' education level were larger for fourth-grade Hispanic students and for eighth-grade Black and Hispanic students compared to their White counterparts. (See Table A.10.)

In addition, evidence from other NCES surveys that gather data from both students and parents indicates larger discrepancies between students' and parents' reports for Black and Hispanic students compared to White students. These differences between racial/ethnic groups are most evident at grade 8. As shown in Table A.11, the correlations between students' and parents' reports of parental education were lower for Black and Hispanic students than for White students at both grades 8 and 12, although all correlations were higher in twelfth grade.

Figure A.2 States Included in the Four Regions

NORTHEAST	SOUTHEAST	CENTRAL	WEST
Connecticut	**Alabama**	Illinois	Alaska
Delaware	**Arkansas**	**Indiana**	**Arizona**
District of Columbia	**Florida**	**Iowa**	**California**
Maine	**Georgia**	Kansas	**Colorado**
Maryland	**Kentucky**	**Michigan**	**Hawaii**
Massachusetts	**Louisiana**	**Minnesota**	**Idaho**
New Hampshire	**Mississippi**	**Missouri**	**Montana**
New Jersey	**North Carolina**	**Nebraska**	Nevada
New York	**South Carolina**	**North Dakota**	**New Mexico**
Pennsylvania	**Tennessee**	Ohio	Oklahoma
Rhode Island	**Virginia**	South Dakota	Oregon
Vermont	**West Virginia**	**Wisconsin**	**Texas**
Virginia			**Utah**
			Washington
			Wyoming

TABLE A.10

Percentage of Students Who Reported Not Knowing Their Parents' Education Level, by Race/Ethnicity Grades 4, 8, and 12 1994 Reading Assessment

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Total	White	Black	Hispanic
Grade 4	34 (0.8)	32 (1.0)	31 (1.4)	43 (2.4)
Grade 8	9 (0.4)	6 (0.4)	11 (1.0)	20 (1.3)
Grade 12	3 (0.2)	1 (0.2)	4 (0.6)	9 (0.9)

The standard errors of the percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 Reading Assessment.

TABLE A.11

Correlations Between Students' and Parents' Reports of Parents' Education Level, by Race/Ethnicity Grades 8 and 12

	White	Black	Hispanic
Grade 8			
Father's Education	0.84	0.67	0.75
Mother's Education	0.79	0.62	0.65
Grade 12			
Father's Education	0.90	0.80	0.85
Mother's Education	0.87	0.78	0.74

SOURCE: **For grade 8** – P. Kaufman and R.A. Rasinski, *Quality of Responses of Eighth-Grade Students in NELS: 88*, Washington, DC: National Center for Education Statistics, NCES 91-487; **For grade 12** – W. F. Fetters, P.S. Stowe, and J.A. Owings, *Quality of Responses of High School Students to Questionnaire Items*, Washington, DC: National Center for Education Statistics, NCES 84-342.

Type of School. Results are reported by the type of school that the student attends: public or nonpublic. Nonpublic schools include Catholic and other nonpublic schools. Bureau of Indian Affairs (BIA) schools and domestic Department of Defense (DoD) schools are not included in either the public or nonpublic categories, but are included in the overall national results.

Type of Location. Results are reported for students attending schools in three mutually exclusive location types: central city, urban fringe/large town, and rural/small town:

Central City: This category includes central cities of all Standard Metropolitan Statistical Areas (SMSA's).[6] Central City is a geographic term and is not synonymous with "inner city."

Urban Fringe/Large Town: The urban fringe category includes all densely settled places and areas within SMSA's that are classified as urban by the Bureau of the Census. A Large Town is defined as a place outside a SMSA with a population greater than or equal to 25,000.

Rural/Small Town: Rural includes all places and areas with populations of less than 2,500 that are classified as rural by the Bureau of the Census. A Small Town is defined as a place outside a SMSA with a population of less than 25,000 but greater than or equal to 2,500.

As described earlier, the NAEP proficiency scales make it possible to examine relationships between students' performance and a variety of background factors measured by NAEP. However, the fact that a relationship exists between achievement and another variable does not reveal the underlying cause of the relationship, which may be influenced by a number of other variables. Similarly, the assessments do not capture the influence of unmeasured variables. The results are most useful when they are considered in combination with other knowledge about the student population and the educational system, such as trends in instruction, changes in the school-age population, and societal demands and expectations.

Estimating Variability

Because the statistics presented in this report are estimates of group and subgroup performance based on samples of students, rather than the values that could be calculated if every student in the nation answered every question, it is important to account for the degree of uncertainty associated with the estimates. Two components of uncertainty are accounted for in the variability of statistics based on proficiency: 1) the uncertainty due to sampling only a relatively small number of students, and 2) the uncertainty due to sampling only a relatively small number of reading comprehension questions. The variability associated with the estimated percentages of students with certain background characteristics or who answered a certain cognitive question correctly is accounted for by the first component alone.

In addition to providing estimates of percentages of students and their average proficiencies, this report provides information about the uncertainty of each statistic. Because NAEP uses complex sampling procedures, conventional formulas for estimating sampling variability that assume simple random

sampling are inappropriate. NAEP uses a jackknife replication procedure to estimate standard errors. The jackknife standard error provides a reasonable measure of uncertainty for any information about students that can be observed without error. However, each student typically responds to so few questions within any content area that the proficiency measurement for any single student would be imprecise. In this case, using plausible values technology makes it possible to describe the performance of groups and subgroups of students, but the underlying imprecision that makes this step necessary adds an additional component of variability to statistics based on NAEP proficiencies.[7]

The reader is reminded that, like findings from all surveys, NAEP results are also subject to other kinds of error including the effects of imperfect adjustment for student and school nonresponse, and other unknowable effects associated with the particular instrumentation and data collection methods. Nonsampling errors can be attributed to a number of sources: inability to obtain complete information about all selected schools in the sample (some students or schools refused to participate, or students participated but answered only certain questions); ambiguous definitions; differences in interpreting questions; inability or unwillingness to give correct information; mistakes in recording, coding, or scoring data; and other errors of collecting, processing, sampling, and estimating missing data. The extent of nonsampling error is difficult to estimate. By their nature, the impact of such errors cannot be reflected in the data-based estimates of uncertainty provided in NAEP reports.

Drawing Inferences from the Results

The use of *confidence intervals*, based on the standard errors, provides a way to make inferences about the population means and percentages in a manner that reflects the uncertainty associated with the sample estimates.

An estimated sample mean proficiency ± 2 standard errors represents a 95 percent confidence interval for the corresponding population quantity. This means that with approximately 95 percent certainty, the average performance of the entire population of interest is within ± 2 standard errors of the sample mean.

As an example, suppose that the average reading proficiency of students in a particular group was 256, with a standard error of 1.2. A 95 percent confidence interval for the population quantity would be as follows:

Mean ± 2 standard errors

$256 \pm 2 \times 1.2$

256 ± 2.4

253.6, 258.4

Thus, one can conclude with 95 percent certainty that the average proficiency for the entire population of students in that group is between 253.6 and 258.4.

Similar confidence intervals can be constructed for percentages, provided that the percentages are not extremely large (greater than 90) or extremely small (less than 10). For extreme percentages, confidence intervals constructed in the above manner may not be appropriate. However, procedures for obtaining accurate confidence intervals are quite complicated. Thus, comparisons involving extreme percentages should be interpreted with this in mind.

To determine whether there is a real difference between the mean proficiency (or percentage of a certain attribute) for two groups in the population, one needs to obtain an estimate of the degree of uncertainty associated with the difference between the proficiency means or percentages of these groups for the sample. This estimate of the degree of uncertainty — called the standard error of the difference between the groups — is obtained by taking the square of each group's standard error, summing these squared standard errors, and then taking the square root of this sum.

$$SE_{AB} = \sqrt{SE_A^2 + SE_B^2}$$

Similar to the manner in which the standard error for an individual group mean or percentage is used, the standard error of the difference can be used to help determine whether differences between groups in the population are real. The difference between the mean proficiency or percentage of the two groups ± 2 standard errors of the difference represents an approximate 95 percent confidence interval. If the resulting interval includes zero, there is insufficient evidence to claim a real difference between groups in the population. If the interval does not contain zero, the difference between groups is statistically significant (different) at the .05 level.

The procedures described in this section, and the certainty ascribed to intervals (e.g., a 95 percent confidence interval) are based on statistical theory that assumes that only one confidence interval or test of

statistical significance is being performed. When one considers sets of confidence intervals, like those for the average proficiency of all participating states and territories, statistical theory indicates that the certainty associated with the entire set of intervals is less than that attributable to each individual comparison from the set. If one wants to hold the certainty level for a specific set of comparisons at a particular level (e.g., 95), adjustments (called multiple-comparisons procedures) need to be made.

The standard errors for means and percentages reported by NAEP are statistics and subject to a certain degree of uncertainty. In certain cases, typically when the standard error is based on a small number of students (or when the group of students is enrolled in a small number of schools), the amount of uncertainty associated with the standard errors may be quite large. Throughout this report, estimates of standard errors subject to a large degree of uncertainty are designated by the symbol "!". In such cases, the standard errors — and any confidence intervals or significance tests involving these standard errors — should be interpreted cautiously.

Revisions to the 1992 and 1994 Findings

In April 1995, results from the 1994 National and Trial State Assessment of reading were released as part of the report *NAEP 1994 Reading: A First Look*. Subsequently, ETS/NAEP discovered an error in the documentation for the ETS program used to compute NAEP scale score results. The error affected how omitted responses were treated in the IRT scaling of the extended constructed-response questions that received partial-credit scoring. The error affected only those questions; omitted multiple-choice and omitted short constructed responses were treated appropriately.

The conventional treatment in NAEP subjects has been to treat omitted responses (blank responses to a question that are followed by valid responses to questions that appear later in the block) as the lowest possible score category in the production of NAEP scale scores. In contrast, not-reached responses (blank responses that are not followed by any further student responses) are treated as missing data. As a result of the documentation error, for a number of the polytomous constructed-response questions and across several subject areas, *all* blank responses (both omitted and not-reached responses) to affected questions were treated as missing — an *acceptable* treatment but *not* the *conventional* option of choice for NAEP.

The error affected a number of the NAEP scales constructed since 1992. Specifically, the 1992 and 1994 national and state reading results were affected by the error. Results from these two assessments have been released to the public in a number of NAEP publications. The 1992 data are also available to the public through NCES's secondary-use data files.

It should be noted that this processing error also impacted the location of the National Assessment Governing Board (NAGB) achievement levels in reading, which were set on the 1992 scales.

NCES and ETS felt that the most technically correct plan of action would be to recalculate all affected NAEP scales, no matter how slight the change, and to issue revised results. ETS was therefore instructed by NCES to recalculate all affected scales and to work with American College Testing (ACT) in the recomputation of the achievement level cutpoints.

In recomputing the cutpoints, an additional error was discovered in the procedures used by ACT in 1992 to "map" the achievement level cutpoints onto the NAEP scale. The procedures contained an incorrectly derived formula. ACT used revised procedures with the correct formula to map the achievement level cutpoints for the 1994 history and geography scales. However, the error in the earlier procedures did affect achievement level cutpoints for reading, which were established during the 1992 assessment. The 1992 national and state reading achievement level results were further impacted by this additional error.

A new version of the *NAEP 1994 Reading: A First Look* report, containing the revised reading results, was issued by NCES in the fall of 1995. The main release of NAEP reading results, including the *Reading Report Card, Cross-state Data Compendium*, individual state reports, almanacs, technical report, and data files, originally scheduled for the end of September, took place instead in late fall.

While some *small* changes in scale score results were found, the revised numbers for reading are quite similar to the results released in 1992 and to those published in the NCES April release of the reading *First Look* report. More specifically, the revised reading results are *substantively equivalent* to the originally published 1992 results and to the results released in the *First Look*. Regarding the 1992 and 1994 national assessment data, fourth-grade results are about 1 point lower than originally reported, while twelfth-grade results are about 1 point higher. These changes are

small and not substantively meaningful. The eighth-grade numbers are essentially unchanged. The revised numbers indicate the same relative distances between reporting subgroups (i.e., race/ethnicity subgroups, male, females, etc.). The significant national score decline at grade 12 is totally unaffected by the revision, as is the absence of significant changes at grades 4 and 8.

With regard to the state assessment data, all jurisdictions were affected to roughly the same degree. Thus, the revised rank ordering of state performance in both 1992 and 1994 is essentially identical to that originally published. Original and revised trend results (i.e., the change in scores between 1992 and 1994) are extremely close for all the jurisdictions. However, in four instances (for Massachusetts, New Jersey, Utah, and California), the small changes engendered by the revision are sufficient to affect the statistical significance of the change. For Massachusetts, New Jersey, and Utah, the revised decline in scores is between 0.3 and 0.5 points smaller than the originally released results — a magnitude of change that was typical across all participants. When rounded to an integer, the original and revised declines for Massachusetts and New Jersey are of identical size and the decline for Utah went from 4 points to 3 points. Despite this similarity, the revised results for these states are no longer statistically significant since the original results were right on the margin of statistical significance. In California, the revised decline in scores is 0.4 points larger than the originally released results and is now statistically significant.

In the results for state assessment achievement levels, there is little difference in the revised and original numbers from an interpretive standpoint. As expected, correction of the ACT error generally results in lower achievement level cutpoints and, hence, slightly higher percentages above the various cutpoints. The revised achievement level results in this report and in the technical report reflect the change in the formula used in setting the achievement levels. There is one notable aspect of the revised state assessment achievement level results. Prior to the revision, only one state, Arizona, had shown a statistically significant increase from 1992 to 1994 in the percentage of students at the *Advanced* level. Based on the revised results, six more states — Connecticut, Florida, Kentucky, Maine, Mississippi, and Maryland — also showed a statistically significant increase at that level.

Endnotes

1. National Center for Education Statistics. (1992). *NCES Statistical Standards*, NCES 92-021. Washington, DC: Government Printing Office.
2. For additional information about the use of weighting procedures in NAEP, see Johnson, E. G. (1989, December). Considerations and techniques for the analysis of NAEP data. *Journal of Educational Statistics, 14*(4), 303-334.
3. For theoretical and empirical justification of the procedures employed, see Mislevy, R. J. (1988). Randomization-based inferences about latent variables from complex samples. *Pyschometrika, 56*(2), 177-196.

   For computational details, see National Assessment of Educational Progress. (1990). *Focusing the new design: NAEP 1988 technical report,* and the *1990 NAEP technical report.* Princeton, NJ: Educational Testing Service.
4. Muraki, E. (1992). A generalized partial credit model: Application of an EM algorithm. *Applied Psychological Measurement, 16*(2), 159-176.
5. Donoghue, J. R. (1994). An empirical examination of the IRT information of polytomously scored reading items under the generalized partial credit model. *Journal of Educational Measurement, 31*(4), 295-311.

   Muraki, E. (1993). Information functions of the generalized partial credit model. *Applied Psychological Measurement, 17*(4), 351-363.
6. Standard Metropolitan Statistical Area (SMSA) as defined by the Office of Management and Budget.
7. For further details, see Johnson, E.G., & Rust, K. F. (1992). Population inferences and variance estimation for NAEP data. *Journal of Educational Statistics, 17*(2). 175-190.

APPENDIX B

Describing Students' Reading Performance

This appendix contains detailed information about the procedures used for describing students' reading performance and profiling students' literacy practices. The results of these procedures are presented in Chapter 6 of this report.

Performance Descriptions Based on the Reading Composite Scale

A procedure known as scale anchoring was used to develop descriptions of student performance at selected points on the NAEP reading composite scale. The scale points that were selected for anchoring reflect three levels of reading proficiency corresponding to lower-, middle-, and higher-performing students. These levels correspond to the 25th, 50th, and 90th percentile points on the composite scale as established by the performance of students in 1992 — the first assessment administered under NAEP's current reading framework.

Around each percentile point, a band was built to define a range of scale scores. Students described as being at a particular level were within a five percentile point range on either side of the specified scale point. For example, the 50th percentile was defined as the region between the 45th and 55th percentile points on the scale. A question was identified as anchoring at a percentile point on the scale if it was answered successfully by at least 65 percent of the students within that percentile band. (The criterion was set at 74 percent for multiple-choice questions to correct for the possibility of answering correctly by guessing.)

After defining the bands of the scale to be anchored, the next step in the process was to identify those questions that were (1) answered correctly for dichotomously scored questions, or (2) answered at a particular score level for partial credit constructed-response questions. Because the extended constructed-response questions were scored according to four levels of performance, each extended constructed-response question was treated as three distinct questions corresponding to scores of Partial or better, Essential or better, and Extensive. These distinct score levels were then analyzed in the same manner as questions scored dichotomously, as either correct or incorrect. Thus, for example, an extended constructed-response question might anchor at the 50th percentile for Partial or better responses **and** at the 90th percentile for Essential or better responses.

A committee of reading education experts, including teachers for the grades involved, college professors, state curriculum supervisors, and researchers, was assembled to review the sets of questions identified for each percentile band. The committee was divided into three groups, one for each grade. Each group examined and analyzed questions that anchored at the 25th, 50th, and 90th percentiles to determine the specific reading abilities associated with each question.

Committee members were also provided with the sets of questions at each grade that "did not anchor" to inform their decisions about what students could do by seeing examples of what they could not do. Drawing on their knowledge of reading, committee members were asked to summarize student performance, by describing the knowledge, skills and abilities demonstrated by students in each of the score bands.

The performance descriptions are cumulative. that is, the abilities described for the lower performing students are considered to be among the abilities of students performing at higher points on the scale. Therefore, the full description of students' reading abilities in the middle scale band would include those abilities described at the lower band. Similarly, the abilities of students performing at the higher scale band include the reading abilities described for students at the middle and lower bands.

Profiling Students' Literacy Practices

Using the scale bands defined for the anchoring process described above, the profiling of students' literacy practices was accomplished by examining the responses of students within those bands to selected background questions. A complete presentation of students' responses to the three background variables highlighted in Chapter 6 are presented in Tables B.1 to B.3. The percentages that appear in the tables are conditional on the anchor scale point. That is, they are percentages of students who scored within a five percentile point range on either side of the specified scale point.

Item Mapping Procedures

In order to map items to particular points on the reading proficiency subscales, a response probability convention had to be adopted that would divide those who had a higher probability of success from those who had a lower probability. Establishing a response probability convention has an impact on the mapping of test items onto the reading scales. A lower boundary convention maps the reading items at lower points along the reading scales, and a higher boundary convention maps the same items at higher points along the scales. The underlying distribution of reading skills in the population does not change, but the choice of a response probability convention does have an impact on the proportion of the student population that is reported as "able to do" the items on the reading scales.

There is no obvious choice of a point along the probability scale that is clearly superior to any other point. If the convention were set with a boundary at 50 percent, those above the boundary would be more likely to get an item right than get it wrong, while those below that boundary would be more likely to get the item wrong than right. While this convention has some intuitive appeal, it was rejected on the grounds that having a 50/50 chance of getting the item right shows an insufficient degree of mastery. If the convention were set with a boundary at 80 percent, students above the criterion would have a high probability of success with an item. However, many of the students below this criterion show some level of reading ability that would be ignored by such a stringent criterion. In particular, those in the range between 50 and 80 percent correct would be more likely to get the item right than wrong, yet would not be in the group described as "able to do" the item.

In a compromise between the 50 percent and the 80 percent conventions, NAEP has adopted two related response probability conventions: 74 percent for multiple-choice questions (to correct for the possibility of answering correctly by guessing) and 65 percent for constructed response questions (where guessing is not a factor). These probability conventions were established, in part, based on an intuitive judgment that they would provide the best picture of students' reading skills.

Some additional support for the dual conventions adopted by NAEP was provided by Huynh.[1] He examined the IRT information provided by items, according to the IRT model used in scaling NAEP questions. ("Information" is used here in a technical sense. See *The NAEP 1994 Technical Report* for details.) Following Bock,[2] Huynh decomposed the item information into that provided by a correct response [$P(\theta) * I(\theta)$] and that provided by an incorrect response [$(1-P(\theta)) * I(\theta)$]. Huynh showed that the item information provided by a correct response to a constructed-response item is maximized at the point along the reading scale at which two-thirds of the students get the question correct (for multiple-choice questions, information is maximized at the point at which 74 percent get the question correct). It should be noted, however, that maximizing the *item* information $I(\theta)$, rather than the information provided by a *correct response* [$P(\theta) * I(\theta)$], would imply an item mapping criterion closer to 50 percent.

Endnotes

1. Huynh, H. (1994, October). *Some technical aspects of standard setting.* Paper presented at the Joint Conference on Standard Setting for Large-Scale Assessment, Washington, DC.
2. Bock, R. D. (1972). Estimating item parameters and latent ability when responses are scored in two or more latent categories. *Psychometrika, 37,* 29-51.

TABLE B.1

Responses of Students at Percentile Points to Selected Background Questions Grade 4 1994 Reading Assessment

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	25th Percentile* Scale Range 187-200	50th Percentile* Scale Range 214-224	90th Percentile* Scale Range 253-272
Reading For Fun on Own Time			
Daily/Almost Daily	36 (2.9)	41 (2.7)	60 (4.3)
Once/Twice a Week	33 (2.7)	35 (2.9)	27 (3.1)
Once/Twice a Month	13 (2.2)	14 (1.9)	9 (1.9)
Never/Hardly Ever	18 (2.0)	11 (2.1)	4 (1.2)
Discuss Studies at Home			
Daily/Almost Daily	50 (3.4)	54 (3.3)	66 (2.6)
Once/Twice a Week	21 (2.3)	22 (2.1)	22 (1.8)
Once/Twice a Month	6 (1.4)	7 (1.5)	4 (1.1)
Never/Hardly Ever	22 (2.6)	17 (2.3)	8 (1.4)
Pages Read Each Day for School and Homework			
More Than 20	23 (2.1)	24 (3.2)	27 (2.8)
16 to 20	15 (1.6)	15 (2.7)	15 (2.9)
11 to 15	14 (2.3)	15 (1.9)	21 (2.1)
6 to 10	23 (2.5)	25 (2.8)	23 (2.6)
5 or Fewer	25 (2.4)	21 (2.8)	15 (1.9)

Percentages may not sum to 100 percent due to rounding.

Differences between groups may be partially explained by other factors not included in this table.

* Percentile points on the composite scale as established by the performance of students in 1992.

The standard errors of the estimated proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

TABLE B.2

Responses of Students at Percentile Points to Selected Background Questions Grade 8 1994 Reading Assessment

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	25th Percentile* Scale Range 230-243	50th Percentile* Scale Range 258-267	90th Percentile* Scale Range 297-316
Reading For Fun on Own Time			
Daily/Almost Daily	12 (1.5)	19 (1.9)	38 (2.1)
Once/Twice a Week	24 (2.1)	27 (2.0)	30 (2.7)
Once/Twice a Month	28 (2.0)	27 (2.0)	21 (2.4)
Never/Hardly Ever	36 (2.3)	27 (2.0)	12 (1.6)
Discuss Studies at Home			
Daily/Almost Daily	32 (2.0)	37 (2.6)	47 (2.9)
Once/Twice a Week	28 (2.1)	30 (3.4)	30 (2.7)
Once/Twice a Month	12 (1.9)	12 (1.5)	10 (1.4)
Never/Hardly Ever	27 (1.9)	21 (2.9)	12 (1.9)
Pages Read Each Day for School and Homework			
More Than 20	9 (1.0)	12 (1.5)	15 (2.5)
16 to 20	8 (1.4)	9 (1.4)	11 (1.3)
11 to 15	13 (1.3)	15 (1.9)	21 (2.1)
6 to 10	29 (2.1)	29 (2.0)	29 (1.7)
5 or Fewer	40 (2.3)	35 (2.9)	24 (2.7)

Percentages may not sum to 100 percent due to rounding.

Differences between groups may be partially explained by other factors not included in this table

* Percentile points on the composite scale as established by the performance of students in 1992.

The standard errors of the estimated proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

TABLE B.3

Responses of Students at Percentile Points to Selected Background Questions Grade 12 1994 Reading Assessment

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	25th Percentile* Scale Range 264-275	50th Percentile* Scale Range 289-298	90th Percentile* Scale Range 325-343
Reading For Fun on Own Time			
Daily/Almost Daily	18 (1.6)	24 (2.7)	38 (2.1)
Once/Twice a Week	20 (1.9)	25 (2.5)	30 (2.7)
Once/Twice a Month	27 (2.3)	25 (2.7)	21 (3.1)
Never/Hardly Ever	35 (2.4)	27 (2.1)	12 (2.3)
Discuss Studies at Home			
Daily/Almost Daily	27 (2.7)	32 (2.1)	39 (2.5)
Once/Twice a Week	30 (2.6)	35 (2.1)	36 (2.2)
Once/Twice a Month	15 (1.4)	13 (1.3)	13 (2.2)
Never/Hardly Ever	28 (2.2)	20 (2.4)	12 (1.6)
Pages Read Each Day for School and Homework			
More Than 20	9 (1.7)	14 (2.1)	27 (2.3)
16 to 20	9 (1.3)	11 (1.5)	14 (1.5)
11 to 15	11 (1.1)	14 (1.8)	17 (1.5)
6 to 10	26 (2.1)	26 (2.3)	22 (3.5)
5 or Fewer	44 (2.7)	35 (3.2)	20 (2.6)

Percentages may not sum to 100 percent due to rounding

Differences between groups may be partially explained by other factors not included in this table.

* Percentile points on the composite scale as established by the performance of students in 1992.

The standard errors of the estimated proficiencies appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

APPENDIX C

Cross State Proficiency and Achievement Level Results

TABLE C.1A

1992 Average Grade 4 Reading Proficiency by Gender Public Schools Only

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Male		Female	
	Percentage of Students	Average Proficiency	Percentage of Students	Average Proficiency
Nation	51 (0.7)	211 (1.3)	49 (0.7)	219 (1.1)
Region				
Northeast	50 (2.0)	217 (4.6)	50 (2.0)	223 (3.6)
Southeast	49 (1.3)	205 (2.9)	51 (1.3)	216 (2.5)
Central	54 (1.1)	216 (1.6)	46 (1.1)	220 (2.4)
West	52 (1.4)	207 (2.6)	48 (1.4)	216 (1.3)
State				
Alabama	52 (1.1)	204 (1.7)	48 (1.1)	211 (2.0)
Arizona	48 (1.0)	206 (1.5)	52 (1.0)	213 (1.4)
Arkansas	50 (1.0)	208 (1.5)	50 (1.0)	214 (1.4)
California	49 (1.1)	198 (2.3)	51 (1.1)	207 (2.1)
Colorado	51 (1.0)	214 (1.3)	49 (1.0)	219 (1.4)
Connecticut	51 (1.3)	219 (1.5)	49 (1.3)	224 (1.6)
Delaware‡	50 (1.1)	209 (1.2)	50 (1.1)	217 (1.0)
Florida	51 (0.9)	205 (1.5)	49 (0.9)	211 (1.4)
Georgia	51 (1.1)	210 (1.7)	49 (1.1)	215 (1.7)
Hawaii	51 (0.9)	198 (2.0)	49 (0.9)	209 (1.7)
Indiana	50 (1.2)	219 (1.4)	50 (1.2)	224 (1.5)
Iowa	50 (0.8)	222 (1.3)	50 (0.8)	229 (1.1)
Kentucky	53 (1.0)	209 (1.6)	47 (1.0)	216 (1.4)
Louisiana	50 (0.9)	200 (1.5)	50 (0.9)	207 (1.3)
Maine‡	48 (1.4)	225 (1.1)	52 (1.4)	229 (1.4)
Maryland	49 (1.0)	207 (1.8)	51 (1.0)	215 (1.8)
Massachusetts	50 (0.9)	225 (1.2)	50 (0.9)	227 (1.1)
Minnesota	51 (1.3)	217 (1.5)	49 (1.3)	225 (1.3)
Mississippi	52 (1.0)	196 (1.8)	48 (1.0)	202 (1.3)
Missouri	50 (0.9)	217 (1.4)	50 (0.9)	223 (1.5)
Montana	— (—)	— (—)	— (—)	— (—)
Nebraska‡	52 (1.3)	218 (1.4)	48 (1.3)	225 (1.3)
New Hampshire‡	51 (1.0)	224 (1.4)	49 (1.0)	231 (1.2)
New Jersey‡	50 (1.1)	220 (1.7)	50 (1.1)	226 (1.7)
New Mexico	50 (0.8)	209 (1.5)	50 (0.8)	213 (1.8)
New York‡	52 (1.1)	212 (1.9)	48 (1.1)	218 (1.7)
North Carolina	51 (0.9)	209 (1.4)	49 (0.9)	214 (1.3)
North Dakota	51 (1.2)	224 (1.4)	49 (1.2)	227 (1.4)
Pennsylvania	48 (1.2)	218 (1.5)	52 (1.2)	223 (1.4)
Rhode Island	51 (1.3)	215 (2.1)	49 (1.3)	218 (2.0)
South Carolina	48 (0.9)	206 (1.5)	52 (0.9)	213 (1.5)
Tennessee	50 (1.1)	209 (1.6)	50 (1.1)	215 (1.6)
Texas	52 (1.2)	209 (1.7)	48 (1.2)	216 (1.8)
Utah	48 (1.0)	217 (1.5)	52 (1.0)	224 (1.2)
Virginia	51 (0.9)	217 (1.8)	49 (0.9)	225 (1.4)
Washington	— (—)	— (—)	— (—)	— (—)
West Virginia	51 (0.8)	211 (1.4)	49 (0.8)	220 (1.6)
Wisconsin	50 (0.9)	221 (1.2)	50 (0.9)	226 (1.2)
Wyoming	51 (0.9)	220 (1.5)	49 (0.9)	226 (1.0)
Other Jurisdictions				
DoDEA	— (—)	— (—)	— (—)	— (—)
Guam	52 (1.2)	175 (1.9)	48 (1.2)	190 (1.5)

— Jurisdiction did not participate in 1992 Trial State Assessment

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 Reading Assessment

TABLE C.1B

1994 Average Grade 4 Reading Proficiency by Gender Public Schools Only

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Male		Female	
	Percentage of Students	Average Proficiency	Percentage of Students	Average Proficiency
Nation	51 (0.7)	207 (1.3)	49 (0.7)	218 (1.2)
Region				
Northeast	50 (1.1)	207 (3.0)	50 (1.1)	216 (2.2)
Southeast	52 (1.8)	202 (2.5)	48 (1.8)	215 (2.2)
Central	53 (1.4)	212 (2.6)	47 (1.4)	225 (3.0)
West	51 (1.5)	207 (2.5)	49 (1.5)	217 (2.5)
State				
Alabama	51 (0.8)	203 (1.9)	49 (0.8)	213 (1.6)
Arizona	50 (1.0)	201 (2.2)	50 (1.0)	211 (2.1)
Arkansas	50 (1.3)	204 (1.9)	50 (1.3)	213 (1.8)
California	51 (1.2)	194 (1.9)	49 (1.2)	200 (2.2)<
Colorado	50 (0.9)	209 (1.8)	50 (0.9)	218 (1.5)
Connecticut	50 (1.1)	218 (1.8)	50 (1.1)	226 (2.0)
Delaware	49 (1.2)	200 (2.1)<<	51 (1.2)	212 (1.5)<
Florida	49 (1.1)	199 (2.1)<	51 (1.1)	210 (1.8)
Georgia	48 (1.0)	201 (3.0)<	52 (1.0)	212 (2.2)
Hawaii	51 (1.0)	194 (2.1)	49 (1.0)	208 (1.7)
Indiana	49 (0.8)	216 (1.5)	51 (0.8)	223 (1.5)
Iowa	51 (1.0)	219 (1.6)	49 (1.0)	227 (1.5)
Kentucky	51 (1.1)	206 (1.8)	49 (1.1)	217 (2.0)
Louisiana	49 (1.0)	193 (1.6)<	51 (1.0)	200 (1.7)<
Maine	50 (1.3)	225 (1.6)	50 (1.3)	231 (1.6)
Maryland	52 (1.0)	205 (1.8)	48 (1.0)	214 (1.8)
Massachusetts	50 (0.9)	221 (1.5)	50 (0.9)	226 (1.5)
Minnesota	51 (0.9)	214 (1.5)	49 (0.9)	223 (1.9)
Mississippi	49 (0.8)<	196 (1.6)	51 (0.8)>	207 (1.9)
Missouri	51 (1.2)	213 (1.9)	49 (1.2)	221 (1.8)
Montana†	51 (1.0)	218 (1.6)	49 (1.0)	227 (1.7)
Nebraska†	51 (1.3)	216 (1.5)	49 (1.3)	224 (1.9)
New Hampshire†	50 (1.6)	218 (1.6)<	50 (1.6)	229 (1.8)
New Jersey	49 (1.0)	216 (1.5)	51 (1.0)	222 (1.3)
New Mexico	48 (0.9)	201 (2.1)<	52 (0.9)	208 (1.8)
New York	50 (1.0)	207 (1.8)	50 (1.0)	216 (1.6)
North Carolina	51 (1.1)	209 (1.7)	49 (1.1)	220 (1.8)>
North Dakota	50 (0.8)	221 (1.5)	50 (0.8)	230 (1.5)
Pennsylvania†	50 (0.9)	211 (1.8)<	50 (0.9)	220 (1.9)
Rhode Island†	49 (1.5)	215 (1.5)	51 (1.5)	225 (1.5)>
South Carolina	51 (0.9)>	199 (1.7)<	49 (0.9)<	208 (1.6)<
Tennessee†	49 (1.0)	208 (2.1)	51 (1.0)	217 (1.9)
Texas	50 (1.2)	210 (2.0)	50 (1.2)	214 (2.1)
Utah	50 (1.1)	213 (1.7)	50 (1.1)	222 (1.3)
Virginia	50 (1.0)	208 (1.8)<<	50 (1.0)	219 (1.5)<
Washington	52 (0.8)	209 (1.8)	48 (0.8)	217 (1.7)
West Virginia	51 (1.1)	208 (1.4)	49 (1.1)	218 (1.4)
Wisconsin†	49 (1.1)	221 (1.2)	51 (1.1)	227 (1.5)
Wyoming	51 (1.1)	218 (1.3)	49 (1.1)	224 (1.6)
Other Jurisdictions				
DoDEA	50 (0.9)	213 (1.3)	50 (0.9)	223 (1.0)
Guam	51 (1.2)	172 (1.4)	49 (1.2)	190 (1.7)

<< The value for the 1994 assessment was significantly lower (>> higher) than the value for 1992 at or about the 95 percent confidence level. These notations indicate statistical significance from a multiple comparison procedure based on 38 jurisdictions participating in both 1992 and 1994. If looking at only one state, < indicates the value for 1994 was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level. Statistically significant differences between 1994 and 1992 for the state comparison samples for the nation and regions are not indicated.

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 Reading Assessment

TABLE C.2A

1992 Average Grade 4 Reading Proficiency by Race/Ethnicity Public Schools Only

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	White		Black		Hispanic		American Indian	
	Percentage of Students	Average Proficiency	Percentage of Students	Average Proficiency	Percentage of Students	Average Proficiency	Percentage of Students	Average Proficiency
Nation	69 (0.5)	223 (1.3)	17 (0.4)	192 (1.6)	10 (0.3)	199 (2.2)	2 (0.3)	205 (4.9)
Region								
Northeast	68 (3.4)	229 (3.9)	20 (3.2)	197 (3.8)	9 (1.3)	200 (4.9)	1 (0.4)	*** (***)
Southeast	63 (2.7)	220 (3.4)	29 (2.6)	194 (2.4)	5 (1.1)	194 (5.0)!	1 (0.4)	*** (***)
Central	79 (1.5)	224 (1.8)	11 (1.3)	187 (3.3)	7 (1.0)	209 (4.7)	2 (0.4)	*** (***)
West	65 (2.1)	220 (1.7)	11 (1.6)	185 (4.4)	16 (1.9)	196 (2.7)	2 (0.6)	*** (***)
State								
Alabama	61 (2.4)	218 (1.5)	31 (2.2)	188 (2.2)	5 (0.7)	190 (3.7)	2 (0.7)	*** (***)
Arizona	56 (1.9)	220 (1.1)	4 (0.6)	200 (4.3)	29 (1.6)	198 (2.0)	10 (1.8)	185 (3.1)
Arkansas	70 (1.8)	219 (1.1)	21 (1.5)	190 (1.7)	7 (0.7)	188 (3.8)	2 (0.3)	206 (4.8)
California	46 (1.9)	218 (2.0)	7 (0.8)	184 (3.2)	35 (1.6)	183 (2.7)	2 (0.3)	*** (***)
Colorado	70 (1.3)	222 (1.1)	4 (0.9)	202 (3.4)!	21 (0.9)	202 (1.9)	2 (0.3)	203 (4.7)
Connecticut	73 (1.7)	230 (1.0)	11 (1.3)	196 (3.1)	13 (1.1)	193 (3.4)	1 (0.3)	*** (***)
Delaware‡	64 (1.1)	222 (0.8)	25 (1.0)	195 (1.6)	8 (0.5)	188 (3.2)	2 (0.4)	*** (***)
Florida	57 (1.9)	219 (1.1)	21 (2.0)	186 (2.7)	18 (1.4)	201 (2.7)	2 (0.3)	*** (***)
Georgia	57 (1.9)	224 (1.4)	34 (1.8)	196 (2.2)	5 (0.5)	192 (4.8)	1 (0.2)	*** (***)
Hawaii	20 (1.5)	215 (2.7)	5 (0.6)	192 (4.6)	11 (0.9)	193 (2.8)	2 (0.3)	*** (***)
Indiana	82 (1.4)	225 (1.2)	11 (1.4)	200 (2.3)	5 (0.6)	211 (3.7)	1 (0.3)	*** (***)
Iowa	88 (0.9)	227 (1.0)	3 (0.6)	209 (3.1)	6 (0.5)	211 (3.1)	1 (0.3)	*** (***)
Kentucky	86 (1.1)	215 (1.2)	9 (1.0)	197 (3.3)	3 (0.4)	195 (5.1)	1 (0.2)	*** (***)
Louisiana	51 (1.9)	216 (1.2)	41 (1.9)	191 (1.5)	5 (0.5)	188 (4.4)	1 (0.3)	*** (***)
Maine‡	92 (0.6)	228 (1.1)	0 (0.1)	*** (***)	4 (0.7)	209 (3.2)	2 (0.3)	*** (***)
Maryland	60 (1.7)	221 (1.5)	29 (1.3)	193 (2.6)	6 (0.6)	197 (3.0)	1 (0.3)	*** (***)
Massachusetts	81 (1.2)	231 (0.9)	7 (0.6)	205 (2.7)	7 (0.6)	201 (2.2)	1 (0.2)	*** (***)
Minnesota	87 (1.2)	224 (1.1)	3 (0.5)	191 (5.9)	6 (0.6)	203 (3.5)	2 (0.2)	*** (***)
Mississippi	41 (2.0)	217 (1.4)	52 (2.2)	186 (1.6)	5 (1.0)	185 (3.7)	1 (0.3)	*** (***)
Missouri	77 (1.7)	226 (1.1)	14 (1.7)	196 (3.1)	5 (0.7)	202 (3.2)	2 (0.3)	*** (***)
Montana	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)
Nebraska‡	83 (1.2)	225 (1.2)	6 (0.6)	197 (3.2)	8 (1.1)	205 (2.9)	2 (0.3)	*** (***)
New Hampshire‡	90 (1.0)	229 (1.2)	1 (0.2)	*** (***)	5 (0.6)	215 (3.1)	2 (0.3)	*** (***)
New Jersey‡	67 (2.2)	232 (1.4)	14 (1.6)	200 (2.7)	13 (1.4)	199 (2.8)	1 (0.2)	*** (***)
New Mexico	45 (2.0)	223 (1.8)	3 (0.4)	202 (5.6)	46 (1.7)	200 (1.5)	5 (1.2)	200 (3.8)!
New York‡	61 (2.0)	226 (1.1)	14 (1.8)	202 (2.7)	20 (1.8)	187 (4.0)	2 (0.3)	*** (***)
North Carolina	63 (2.0)	221 (1.3)	28 (1.6)	194 (2.2)	5 (0.6)	192 (3.5)	3 (1.2)	204 (6.2)!
North Dakota	93 (1.1)	226 (1.1)	0 (0.1)	*** (***)	3 (0.5)	221 (4.8)	3 (0.8)	211 (4.7)!
Pennsylvania	79 (1.7)	227 (1.2)	11 (1.6)	190 (2.4)	8 (1.0)	200 (3.8)	1 (0.2)	*** (***)
Rhode Island	76 (2.2)	224 (1.3)	6 (1.0)	187 (3.7)	12 (1.3)	191 (4.3)	2 (0.3)	*** (***)
South Carolina	55 (1.9)	221 (1.4)	38 (2.0)	195 (1.6)	5 (0.7)	195 (2.4)	2 (0.3)	*** (***)
Tennessee	71 (1.8)	219 (1.3)	21 (1.6)	193 (2.2)	5 (0.7)	196 (4.4)	2 (0.3)	*** (***)
Texas	49 (2.1)	224 (2.1)	14 (1.7)	200 (2.5)	34 (2.3)	201 (1.8)	1 (0.2)	*** (***)
Utah	86 (1.1)	223 (1.0)	1 (0.1)	*** (***)	10 (0.9)	204 (2.3)	2 (0.5)	*** (***)
Virginia	67 (1.6)	228 (1.5)	24 (1.3)	203 (2.1)	5 (0.5)	202 (4.3)	2 (0.3)	*** (***)
Washington	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)
West Virginia	91 (0.7)	217 (1.2)	2 (0.4)	204 (6.4)	4 (0.5)	196 (6.9)	2 (0.3)	*** (***)
Wisconsin	83 (1.4)	227 (1.0)	6 (0.8)	200 (2.4)	8 (0.9)	210 (3.3)	2 (0.8)	206 (5.0)!
Wyoming	83 (1.3)	226 (1.1)	1 (0.1)	*** (***)	12 (0.9)	209 (2.5)	4 (0.9)	211 (4.6)!
Other Jurisdictions								
DoDEA	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)
Guam	12 (0.8)	195 (3.1)	4 (0.4)	166 (5.5)	18 (0.8)	165 (2.9)	1 (0.3)	*** (***)

The percentage for race/ethnicity may not add to 100 percent because a small percentage of students categorized themselves as "other."

Due to significant changes in the wording of the race/ethnicity question between the 1992 and 1994 assessments, the 1992 results for Asian and Pacific Islander students are not comparable to 1994 results. Therefore, 1992 results for these two groups are not presented.

*** Sample size in the 1992 assessment is insufficient to permit a reliable estimate. — Jurisdiction did not participate in 1992 Trial State Assessment

! Interpret with caution any comparison involving this statistic. The nature of the sample does not allow accurate determination of the variability of this value.

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading)

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 Reading Assessment

TABLE C.2B

1994 Average Grade 4 Reading Proficiency by Race/Ethnicity Public Schools Only

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	White		Black		Hispanic		American Indian	
	Percentage of Students	Average Proficiency	Percentage of Students	Average Proficiency	Percentage of Students	Average Proficiency	Percentage of Students	Average Proficiency
Nation	68 (0.5)	223 (1.3)	16 (0.4)	186 (1.7)	12 (0.3)	188 (2.7)	2 (0.1)	200 (3.6)
Region								
Northeast	62 (2.4)	224 (2.5)	22 (2.5)	184 (2.1)	10 (1.4)	191 (4.2)	1 (0.3)	*** (***)
Southeast	63 (3.6)	219 (2.4)	26 (2.9)	188 (2.5)	8 (1.2)	184 (4.1)	1 (0.3)	*** (***)
Central	80 (2.2)	225 (2.8)	11 (1.6)	182 (6.4)	6 (0.8)	199 (6.7)	1 (0.3)	*** (***)
West	66 (2.0)	222 (2.0)	7 (1.4)	186 (4.8)!	20 (1.5)	186 (4.4)	2 (0.3)	*** (***)
State								
Alabama	62 (1.7)	220 (1.5)	29 (1.6)	188 (1.9)	6 (0.6)	178 (4.3)	2 (0.4)	*** (***)
Arizona	58 (1.9)	220 (1.6)	4 (0.4)	183 (5.7)	29 (1.6)	188 (2.6)<	8 (1.4)	181 (5.1)
Arkansas	70 (1.7)	218 (1.7)	21 (1.6)	183 (2.3)<	6 (0.7)	192 (4.2)	2 (0.3)	*** (***)
California	44 (2.3)	211 (2.0)	7 (1.0)	182 (4.9)	33 (1.9)	174 (2.4)<	2 (0.4)	*** (***)
Colorado	67 (1.4)	222 (1.3)	5 (0.7)	191 (4.7)	21 (1.1)	193 (2.1)<	4 (0.4)	204 (5.2)
Connecticut	70 (1.4)	234 (1.3)	12 (1.1)	190 (4.8)	14 (1.1)	190 (3.9)	1 (0.2)	*** (***)
Delaware	63 (1.1)	215 (1.3)<<	23 (1.0)	188 (2.4)<	9 (0.6)	190 (3.1)	3 (0.4)	*** (***)
Florida	57 (1.8)	218 (1.6)	21 (1.8)	183 (2.4)	19 (1.6)	189 (3.1)<	2 (0.2)	*** (***)
Georgia	56 (2.6)	222 (1.9)	32 (2.2)	185 (3.2)<	9 (0.8)>	184 (5.7)	1 (0.2)	*** (***)
Hawaii	17 (1.1)	219 (2.1)	3 (0.5)	189 (4.5)	11 (0.8)	185 (4.0)	2 (0.2)	*** (***)
Indiana	81 (1.1)	225 (1.4)	10 (0.8)	193 (2.5)	7 (0.7)	201 (3.5)	1 (0.3)	*** (***)
Iowa	88 (1.1)	225 (1.2)	3 (0.6)	186 (7.0)!	6 (0.7)	204 (4.1)	2 (0.3)	*** (***)
Kentucky	83 (1.2)	215 (1.6)	10 (1.0)	190 (3.4)	5 (0.6)	196 (4.1)	1 (0.2)	*** (***)
Louisiana	51 (1.8)	213 (1.4)	38 (1.9)	180 (1.6)<<	8 (0.9)>	175 (5.0)	2 (0.3)	*** (***)
Maine	92 (0.6)	229 (1.3)	1 (0.2)	*** (***)	5 (0.4)	218 (4.6)	2 (0.3)	*** (***)
Maryland	57 (1.8)	223 (1.5)	32 (1.8)	185 (2.3)	6 (0.7)	197 (3.5)	2 (0.3)	*** (***)
Massachusetts	77 (1.6)	231 (1.2)	7 (1.0)	199 (3.1)	11 (0.9)>>	194 (2.8)	2 (0.3)	*** (***)
Minnesota	84 (1.1)	222 (1.1)	3 (0.5)	173 (8.0)	8 (0.6)>	202 (4.4)	3 (0.5)	196 (6.7)
Mississippi	46 (1.7)	220 (2.0)	45 (1.8)<	187 (2.1)	7 (0.8)	181 (3.9)	1 (0.3)	*** (***)
Missouri	75 (2.1)	223 (1.3)	14 (1.7)	192 (4.1)	7 (0.7)	200 (3.9)	2 (0.3)	212 (4.9)
Montana†	79 (1.8)	226 (1.3)	1 (0.2)	*** (***)	10 (0.8)	208 (3.2)	9 (1.3)	203 (2.8)
Nebraska†	82 (1.8)	224 (1.4)	4 (1.1)	190 (5.5)!	10 (1.4)	205 (3.9)	3 (0.4)	202 (6.2)
New Hampshire†	91 (1.1)	224 (1.5)	1 (0.2)	*** (***)	5 (0.7)	213 (4.8)	2 (0.6)	*** (***)
New Jersey	60 (1.9)	231 (1.2)	16 (1.9)	193 (3.4)	17 (1.5)	200 (2.5)	1 (0.2)	*** (***)
New Mexico	41 (1.8)	219 (1.7)	3 (0.5)	196 (7.0)	44 (1.4)	196 (2.2)	10 (1.6)>	185 (5.3)
New York	54 (2.2)	226 (1.7)	21 (1.7)>	191 (1.9)<	19 (1.5)	193 (2.6)	2 (0.3)	*** (***)
North Carolina	65 (2.1)	225 (1.6)	26 (1.6)	193 (1.9)	4 (0.5)	189 (4.4)	3 (1.2)	201 (4.1)!
North Dakota	88 (1.4)<	228 (1.2)	1 (0.2)>	*** (***)	6 (0.6)>	212 (2.9)	4 (1.1)	197 (6.2)!
Pennsylvania†	76 (1.9)	224 (1.3)	14 (1.9)	180 (3.8)	7 (0.7)	187 (3.9)	1 (0.3)	*** (***)
Rhode Island†	80 (1.1)	226 (1.4)	6 (0.6)	197 (2.4)	9 (0.8)	195 (2.8)	1 (0.2)	*** (***)
South Carolina	53 (1.8)	219 (1.4)	37 (1.5)	184 (1.7)<<	8 (0.7)	182 (3.3)<	2 (0.3)	*** (***)
Tennessee†	74 (1.8)	220 (1.8)	19 (1.7)	188 (3.0)	4 (0.6)	196 (6.7)	1 (0.3)	*** (***)
Texas	50 (2.0)	227 (1.7)	12 (1.9)	191 (4.4)	34 (2.3)	198 (1.9)	1 (0.3)	*** (***)
Utah	82 (1.2)	221 (1.3)	1 (0.1)	*** (***)	12 (0.9)	199 (2.5)	3 (0.4)	195 (5.3)
Virginia	59 (2.0)<	224 (1.6)	29 (1.7)	192 (1.9)<<	7 (0.8)>	206 (3.4)	1 (0.2)	*** (***)
Washington	73 (1.7)	217 (1.5)	5 (0.8)	198 (3.1)	11 (1.1)	190 (3.6)	4 (0.4)	207 (4.2)
West Virginia	90 (0.8)	215 (1.0)	3 (0.5)	202 (4.2)	4 (0.5)	192 (4.8)	1 (0.2)	*** (***)
Wisconsin†	84 (1.4)	228 (1.1)	5 (0.9)	197 (3.5)	7 (0.8)	203 (4.3)	2 (0.4)	*** (***)
Wyoming	82 (1.6)	224 (1.2)	1 (0.2)	*** (***)	13 (1.0)	209 (3.1)	4 (1.0)	210 (3.3)!
Other Jurisdictions								
DoDEA	47 (1.1)	224 (1.2)	19 (0.7)	205 (1.9)	18 (0.9)	211 (1.7)	3 (0.4)	210 (4.2)
Guam	9 (0.6)<	192 (4.2)	4 (0.4)	171 (8.0)	18 (0.9)	171 (2.3)	1 (0.2)	*** (***)

The percentage for race/ethnicity may not add to 100 percent because a small percentage of students categorized themselves as "other."

<< The value for the 1994 assessment was significantly lower (>> higher) than the value for 1992 at or about the 95 percent confidence level. These notations indicate statistical significance from a multiple comparison procedure based on 38 jurisdictions participating in both 1992 and 1994. If looking at only one state, < indicates the value for 1994 was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level. Statistically significant differences between 1994 and 1992 for the state comparison samples for the nation and regions are not indicated.

*** Sample size in the 1994 assessment is insufficient to permit a reliable estimate.

! Interpret with caution any comparison involving this statistic. The nature of the sample does not allow accurate determination of the variability of this value.

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 Reading Assessment.

TABLE C.2C

1994 Average Grade 4 Reading Proficiency by Race/Ethnicity Public Schools Only (continued)

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Asian		Pacific Islander	
	Percentage of Students	Average Proficiency	Percentage of Students	Average Proficiency
Nation	2 (0.2)	231 (6.1)	1 (0.1)	216 (5.9)
Region				
Northeast	2 (0.6)	*** (***)	1 (0.3)	*** (***)
Southeast	1 (0.2)	*** (***)	0 (0.1)	*** (***)
Central	1 (0.3)	*** (***)	0 (0.2)	*** (***)
West	3 (0.6)	226 (7.0)!	1 (0.3)	*** (***)
State				
Alabama	1 (0.2)	*** (***)	0 (0.1)	*** (***)
Arizona	1 (0.2)	*** (***)	1 (0.2)	*** (***)
Arkansas	1 (0.2)	*** (***)	0 (0.1)	*** (***)
California	8 (1.1)	211 (6.0)	5 (1.0)	213 (4.5)!
Colorado	2 (0.3)	*** (***)	1 (0.2)	*** (***)
Connecticut	2 (0.3)	*** (***)	0 (0.1)	*** (***)
Delaware	1 (0.3)	*** (***)	0 (0.1)	*** (***)
Florida	1 (0.2)	*** (***)	1 (0.2)	*** (***)
Georgia	2 (0.3)	*** (***)	0 (0.1)	*** (***)
Hawaii	19 (1.3)	219 (2.6)	46 (1.6)	191 (2.0)
Indiana	1 (0.2)	*** (***)	0 (0.1)	*** (***)
Iowa	1 (0.2)	*** (***)	0 (0.1)	*** (***)
Kentucky	1 (0.1)	*** (***)	0 (0.1)	*** (***)
Louisiana	1 (0.7)	*** (***)	0 (0.0)	*** (***)
Maine	1 (0.1)	*** (***)	0 (0.1)	*** (***)
Maryland	3 (0.4)	232 (4.1)	1 (0.2)	*** (***)
Massachusetts	2 (0.6)	201 (9.2)!	0 (0.1)	*** (***)
Minnesota	2 (0.4)	*** (***)	0 (0.1)	*** (***)
Mississippi	0 (0.2)	*** (***)	0 (0.1)	*** (***)
Missouri	1 (0.3)	*** (***)	0 (0.1)	*** (***)
Montana†	1 (0.1)	*** (***)	0 (0.1)	*** (***)
Nebraska†	1 (0.2)	*** (***)	1 (0.1)	*** (***)
New Hampshire†	1 (0.2)	*** (***)	0 (0.1)	*** (***)
New Jersey	4 (0.6)	237 (4.0)	1 (0.3)	*** (***)
New Mexico	1 (0.3)	*** (***)	0 (0.1)	*** (***)
New York	3 (0.5)	230 (6.3)	1 (0.2)	*** (***)
North Carolina	1 (0.3)	*** (***)	0 (0.1)	*** (***)
North Dakota	1 (0.2)	*** (***)	0 (0.1)	*** (***)
Pennsylvania†	1 (0.4)	*** (***)	1 (0.2)	*** (***)
Rhode Island†	3 (0.4)	203 (5.8)	0 (0.2)	*** (***)
South Carolina	0 (0.1)	*** (***)	1 (0.2)	*** (***)
Tennessee†	1 (0.2)	*** (***)	0 (0.1)	*** (***)
Texas	2 (0.4)	*** (***)	0 (0.2)	*** (***)
Utah	1 (0.2)	*** (***)	1 (0.3)	*** (***)
Virginia	2 (0.4)	*** (***)	1 (0.2)	*** (***)
Washington	4 (0.7)	220 (5.7)	2 (0.4)	208 (6.2)
West Virginia	1 (0.2)	*** (***)	0 (0.1)	*** (***)
Wisconsin†	2 (0.5)	*** (***)	0 (0.1)	*** (***)
Wyoming	1 (0.1)	*** (***)	0 (0.1)	*** (***)
Other Jurisdictions				
DoDEA	5 (0.5)	222 (3.6)	5 (0.6)	215 (3.8)
Guam	3 (0.4)	180 (6.0)	64 (0.9)	183 (1.3)

The percentage for race/ethnicity may not add to 100 percent because a small percentage of students categorized themselves as "other."

Due to significant changes in the wording of the race/ethnicity question between the 1992 and 1994 assessments, the 1992 results for Asian and Pacific Islander students are not comparable to 1994 results. Therefore, 1992 results for these two groups are not presented.

*** Sample size in the 1994 assessment is insufficient to permit a reliable estimate.

! Interpret with caution any comparison involving this statistic. The nature of the sample does not allow accurate determination of the variability of this value.

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 Reading Assessment.

TABLE C.3A

1992 Average Grade 4 Reading Proficiency by Parents' Education Level Public Schools Only

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Graduated College		Some Education After High School		Graduated High School	
	Percentage of Students	Average Proficiency	Percentage of Students	Average Proficiency	Percentage of Students	Average Proficiency
Nation	37 (1.1)	223 (1.6)	9 (0.6)	221 (2.4)	13 (0.6)	211 (1.8)
Region						
Northeast	40 (3.3)	232 (5.2)	7 (0.8)	221 (9.2)	12 (1.8)	212 (3.4)
Southeast	36 (2.2)	218 (2.8)	8 (0.9)	216 (4.7)	16 (1.2)	207 (4.3)
Central	38 (2.1)	223 (2.6)	13 (1.5)	224 (4.0)	13 (1.0)	214 (3.7)
West	35 (2.0)	219 (2.8)	7 (1.0)	223 (3.6)	10 (1.1)	210 (4.1)
State						
Alabama	36 (1.4)	215 (2.2)	8 (0.7)	217 (2.9)	20 (1.0)	207 (2.3)
Arizona	34 (1.4)	218 (1.5)	8 (0.6)	216 (2.8)	9 (0.6)	204 (2.4)
Arkansas	32 (1.3)	217 (1.9)	10 (0.7)	223 (2.1)	20 (0.9)	211 (1.9)
California	37 (1.5)	216 (2.5)	7 (0.6)	206 (4.1)	8 (0.7)	198 (4.2)
Colorado	40 (1.1)	225 (1.2)	11 (0.6)	224 (2.2)	12 (0.7)	210 (2.3)
Connecticut	43 (1.2)	233 (1.5)	9 (0.7)	230 (2.9)	11 (0.6)	213 (2.7)
Delaware‡	38 (0.7)	220 (1.4)	7 (0.6)	221 (2.3)	14 (0.7)	205 (2.1)
Florida	36 (1.3)	213 (1.5)	9 (0.6)	215 (2.7)	13 (0.7)	206 (2.6)
Georgia	38 (1.3)	221 (2.2)	8 (0.5)	219 (3.1)	17 (0.8)	206 (2.1)
Hawaii	38 (1.3)	209 (2.0)	7 (0.5)	208 (3.7)	13 (0.8)	195 (2.5)
Indiana	35 (1.4)	227 (1.7)	10 (0.7)	229 (2.4)	16 (1.0)	218 (1.9)
Iowa	41 (1.5)	234 (1.3)	10 (0.5)	231 (1.8)	15 (0.8)	222 (1.7)
Kentucky	30 (1.7)	220 (2.0)	10 (0.7)	222 (2.4)	20 (0.9)	214 (1.8)
Louisiana	33 (1.3)	206 (2.1)	9 (0.6)	215 (2.3)	18 (0.9)	201 (1.8)
Maine‡	41 (1.7)	234 (1.4)	9 (0.8)	235 (2.2)	17 (1.2)	223 (1.8)
Maryland	44 (1.4)	218 (1.9)	8 (0.6)	218 (2.3)	12 (0.7)	207 (2.7)
Massachusetts	46 (1.5)	235 (1.0)	8 (0.5)	232 (2.2)	11 (0.6)	222 (2.4)
Minnesota	40 (1.5)	227 (1.7)	9 (0.7)	230 (2.7)	13 (0.9)	218 (2.2)
Mississippi	34 (1.5)	204 (1.7)	7 (0.5)	209 (2.8)	16 (1.0)	197 (2.3)
Missouri	36 (1.3)	228 (1.8)	10 (0.7)	227 (2.5)	17 (0.9)	215 (2.0)
Montana	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)
Nebraska‡	44 (1.2)	228 (1.5)	10 (0.8)	230 (3.2)	12 (0.7)	217 (2.3)
New Hampshire‡	43 (1.7)	234 (1.5)	9 (0.7)	234 (2.5)	14 (1.0)	221 (2.4)
New Jersey‡	45 (1.8)	232 (1.8)	8 (0.7)	230 (2.7)	10 (0.7)	216 (2.6)
New Mexico	31 (1.8)	222 (1.9)	10 (0.9)	218 (2.8)	16 (1.1)	210 (2.1)
New York‡	39 (1.5)	226 (1.4)	8 (0.8)	221 (2.3)	13 (0.7)	209 (2.3)
North Carolina	39 (1.3)	220 (1.6)	8 (0.6)	218 (2.5)	16 (0.8)	206 (2.2)
North Dakota	47 (1.5)	233 (1.2)	9 (0.7)	229 (2.7)	11 (0.8)	224 (2.2)
Pennsylvania	38 (1.7)	229 (1.7)	8 (0.6)	231 (2.2)	15 (0.8)	216 (1.8)
Rhode Island	36 (1.8)	226 (2.4)	8 (0.7)	228 (2.6)	11 (0.8)	209 (2.5)
South Carolina	37 (1.5)	218 (1.6)	8 (0.6)	221 (3.0)	19 (1.0)	200 (2.0)
Tennessee	34 (1.8)	220 (2.2)	9 (0.5)	222 (3.8)	19 (1.1)	210 (2.4)
Texas	34 (1.6)	222 (2.2)	9 (0.8)	219 (2.7)	14 (0.9)	208 (2.1)
Utah	40 (1.4)	227 (1.4)	9 (0.6)	228 (2.5)	10 (0.6)	215 (1.9)
Virginia	42 (1.8)	229 (2.0)	9 (0.7)	225 (2.7)	14 (0.7)	215 (1.7)
Washington	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)
West Virginia	33 (1.4)	225 (1.5)	10 (0.6)	224 (2.1)	20 (0.8)	212 (1.9)
Wisconsin	35 (1.2)	231 (1.6)	11 (0.6)	232 (1.9)	16 (1.0)	219 (1.4)
Wyoming	39 (1.2)	230 (1.3)	11 (0.7)	231 (2.3)	13 (0.7)	218 (2.4)
Other Jurisdictions						
DoDEA	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)
Guam	32 (1.2)	183 (2.1)	6 (0.5)	192 (4.9)	14 (0.8)	182 (3.2)

— Jurisdiction did not participate in 1992 Trial State Assessment.

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 Reading Assessment

TABLE C.3A

1992 Average Grade 4 Reading Proficiency by Parents' Education Level Public Schools Only (continued)

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Did Not Finish High School		I Don't Know	
	Percentage of Students	Average Proficiency	Percentage of Students	Average Proficiency
Nation	4 (0.4)	197 (2.7)	37 (1.1)	209 (1.3)
Region				
Northeast	3 (0.5)	*** (***)	37 (2.8)	212 (3.6)
Southeast	5 (0.7)	197 (3.6)	35 (2.0)	205 (2.5)
Central	3 (0.7)	*** (***)	34 (2.1)	213 (2.1)
West	6 (1.0)	195 (5.4)	41 (1.8)	207 (1.6)
State				
Alabama	9 (0.7)	197 (2.6)	27 (1.2)	199 (2.1)
Arizona	5 (0.4)	195 (3.6)	43 (1.5)	204 (1.6)
Arkansas	9 (0.6)	202 (2.6)	30 (1.0)	203 (1.6)
California	5 (0.5)	178 (4.2)	43 (1.2)	193 (2.4)
Colorado	4 (0.3)	202 (3.2)	34 (1.2)	209 (1.6)
Connecticut	3 (0.3)	201 (3.6)	34 (1.3)	210 (1.6)
Delaware‡	4 (0.4)	198 (4.5)	37 (0.8)	209 (1.7)
Florida	5 (0.5)	200 (3.4)	36 (1.4)	204 (1.6)
Georgia	6 (0.5)	201 (3.2)	31 (1.2)	206 (1.4)
Hawaii	3 (0.3)	198 (4.4)	38 (1.2)	200 (2.0)
Indiana	6 (0.6)	211 (3.7)	33 (1.4)	216 (1.6)
Iowa	3 (0.4)	206 (3.4)	32 (1.1)	217 (1.3)
Kentucky	10 (0.7)	200 (2.2)	31 (1.3)	206 (1.5)
Louisiana	8 (0.6)	196 (2.2)	33 (1.4)	201 (1.2)
Maine‡	3 (0.4)	213 (3.9)	30 (1.4)	218 (1.6)
Maryland	4 (0.4)	196 (4.9)	32 (1.2)	204 (2.0)
Massachusetts	3 (0.4)	205 (3.5)	33 (1.4)	215 (1.9)
Minnesota	2 (0.3)	*** (***)	36 (1.3)	214 (1.6)
Mississippi	8 (0.7)	189 (2.6)	35 (1.4)	195 (1.9)
Missouri	6 (0.5)	211 (2.6)	32 (1.2)	213 (1.3)
Montana	— (—)	— (—)	— (—)	— (—)
Nebraska‡	3 (0.4)	*** (***)	31 (1.3)	211 (1.5)
New Hampshire‡	4 (0.4)	212 (3.5)	30 (1.2)	222 (1.8)
New Jersey‡	4 (0.4)	205 (4.2)	33 (1.6)	212 (1.8)
New Mexico	6 (0.7)	193 (3.2)	37 (1.7)	203 (2.2)
New York‡	4 (0.5)	197 (3.7)	36 (1.5)	208 (1.7)
North Carolina	7 (0.5)	196 (2.6)	29 (0.9)	206 (1.5)
North Dakota	3 (0.4)	*** (***)	30 (1.3)	215 (1.4)
Pennsylvania	4 (0.4)	209 (2.8)	34 (1.1)	213 (1.6)
Rhode Island	5 (0.5)	203 (4.8)	40 (1.6)	209 (2.2)
South Carolina	5 (0.6)	198 (2.8)	31 (1.2)	205 (1.7)
Tennessee	8 (0.6)	232 (2.6)	30 (1.3)	204 (1.4)
Texas	7 (0.8)	200 (2.8)	35 (1.4)	207 (1.6)
Utah	3 (0.4)	208 (4.5)	39 (1.3)	214 (1.5)
Virginia	6 (0.6)	207 (2.8)	29 (1.1)	213 (1.5)
Washington	— (—)	— (—)	— (—)	— (—)
West Virginia	8 (0.6)	203 (2.7)	29 (1.0)	207 (1.8)
Wisconsin	3 (0.3)	212 (3.8)	36 (1.2)	217 (1.5)
Wyoming	4 (0.3)	210 (4.2)	33 (1.1)	216 (1.5)
Other Jurisdictions				
DoDEA	— (—)	— (—)	— (—)	— (—)
Guam	5 (0.4)	175 (5.4)	44 (1.2)	182 (2.0)

*** Sample size in the 1992 assessment is insufficient to permit a reliable estimate.

— Jurisdiction did not participate in 1992 Trial State Assessment.

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 Reading Assessment

TABLE C.3B

1994 Average Grade 4 Reading Proficiency by Parents' Education Level Public Schools Only

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Graduated College		Some Education After High School		Graduated High School	
	Percentage of Students	Average Proficiency	Percentage of Students	Average Proficiency	Percentage of Students	Average Proficiency
Nation	41 (1.0)	222 (1.4)	8 (0.5)	222 (2.2)	13 (0.5)	206 (1.9)
Region						
Northeast	43 (1.8)	221 (3.1)	6 (0.5)	222 (4.4)	14 (1.3)	202 (3.3)
Southeast	35 (2.0)	216 (3.0)	9 (1.1)	222 (3.0)	17 (1.0)	207 (3.9)
Central	45 (1.6)	226 (3.0)	8 (1.6)	221 (5.1)	12 (1.1)	215 (4.0)
West	40 (2.1)	223 (2.4)	7 (0.8)	221 (5.1)	10 (0.5)	201 (3.9)
State						
Alabama	37 (1.5)	217 (1.9)	9 (0.8)	217 (3.2)	18 (1.0)	201 (2.6)
Arizona	34 (1.5)	218 (2.3)	9 (0.8)	219 (3.5)	10 (0.7)	200 (3.3)
Arkansas	33 (1.6)	215 (2.0)	10 (0.8)	221 (3.1)	19 (1.1)	203 (2.6)
California	39 (1.9)	207 (2.1)	8 (0.7)	207 (3.4)	9 (0.7)	191 (4.2)
Colorado	44 (1.5)	222 (1.4)	8 (0.6)<	220 (2.7)	10 (0.7)	213 (3.0)
Connecticut	49 (1.4)>	231 (1.7)	8 (0.6)	234 (2.9)	9 (0.6)	209 (3.6)
Delaware	40 (1.0)	214 (1.4)<	8 (0.4)	217 (3.3)	12 (0.7)	202 (3.2)
Florida	40 (1.3)	212 (2.3)	8 (0.7)	219 (3.3)	12 (0.8)	195 (3.2)<
Georgia	40 (1.7)	217 (2.9)	8 (0.8)	219 (3.2)	15 (1.1)	199 (3.4)
Hawaii	38 (1.3)	208 (1.9)	7 (0.5)	215 (5.0)	13 (0.8)	194 (2.7)
Indiana	37 (1.6)	229 (1.5)	10 (0.7)	230 (2.8)	18 (1.0)	216 (2.6)
Iowa	43 (1.7)	229 (1.6)	8 (0.6)	232 (2.9)	13 (0.9)	219 (2.1)
Kentucky	30 (1.2)	218 (2.1)	11 (0.7)	222 (2.9)	19 (0.9)	212 (2.0)
Louisiana	34 (1.5)	200 (2.2)	8 (0.7)	209 (2.6)	18 (0.9)	196 (2.1)
Maine	44 (1.2)	236 (1.5)	9 (0.5)	237 (2.4)	14 (0.8)	225 (2.5)
Maryland	48 (1.6)	217 (2.2)	7 (0.6)	215 (3.3)	11 (0.7)	202 (4.1)
Massachusetts	49 (1.7)	232 (1.6)	9 (0.7)	230 (2.3)	10 (0.7)	212 (3.1)
Minnesota	42 (1.5)	229 (1.6)	8 (0.6)	220 (2.8)<	11 (0.7)	212 (3.2)
Mississippi	37 (1.3)	207 (2.1)	7 (0.6)	213 (3.8)	17 (0.9)	199 (2.8)
Missouri	37 (1.6)	225 (2.0)	9 (0.6)	227 (3.3)	17 (1.2)	216 (2.4)
Montana†	39 (1.3)	230 (1.8)	10 (0.6)	227 (2.8)	13 (0.9)	219 (2.2)
Nebraska†	43 (1.8)	231 (1.5)	7 (0.7)	232 (2.9)	13 (0.8)	215 (2.5)
New Hampshire†	41 (1.7)	231 (2.0)	9 (0.6)	236 (2.7)	11 (1.0)	220 (2.6)
New Jersey	46 (1.5)	230 (1.4)	10 (0.8)	225 (2.8)	11 (0.8)	209 (3.1)
New Mexico	34 (1.3)	215 (1.9)	9 (0.7)	220 (2.9)	14 (0.8)	200 (3.2)<
New York	42 (1.8)	220 (2.0)	7 (0.7)	224 (3.3)	11 (0.6)	208 (2.7)
North Carolina	44 (1.4)>	223 (2.0)	8 (0.6)	226 (2.6)	13 (0.8)<	204 (2.2)
North Dakota	46 (1.4)	233 (1.3)	8 (0.6)	232 (2.9)	11 (0.7)	217 (2.5)
Pennsylvania†	37 (2.0)	224 (2.3)	12 (0.9)>>	221 (2.9)<	18 (1.2)	210 (2.2)
Rhode Island†	40 (1.3)	228 (1.6)	11 (0.8)	230 (2.6)	10 (0.7)	217 (2.5)
South Carolina	40 (1.6)	213 (2.0)	7 (0.6)	216 (4.1)	17 (1.0)	193 (2.5)
Tennessee†	36 (1.8)	219 (2.7)	9 (0.7)	225 (3.9)	18 (1.0)	213 (3.3)
Texas	37 (1.8)	222 (3.0)	9 (0.6)	224 (2.7)	13 (1.1)	207 (3.1)
Utah	42 (1.3)	226 (1.5)	9 (0.8)	225 (2.5)	10 (0.7)	211 (2.6)
Virginia	41 (1.7)	221 (1.9)<	8 (0.6)	220 (3.1)	13 (0.9)	207 (2.6)
Washington	40 (1.4)	223 (1.7)	8 (0.6)	216 (2.4)	10 (0.5)	209 (2.7)
West Virginia	33 (1.3)	221 (1.5)	9 (0.7)	226 (2.9)	21 (0.9)	213 (2.2)
Wisconsin†	37 (1.4)	233 (1.6)	9 (0.7)	228 (2.5)	14 (0.8)	223 (2.5)
Wyoming	39 (1.3)	228 (1.5)	9 (0.7)	230 (2.1)	13 (0.7)	215 (2.1)
Other Jurisdictions						
DoDEA	42 (1.1)	223 (1.4)	11 (0.8)	226 (2.3)	9 (0.7)	209 (2.3)
Guam	36 (1.1)	185 (1.8)	6 (0.5)	189 (4.3)	13 (0.7)	176 (2.6)

<< The value for the 1994 assessment was significantly lower (>> higher) than the value for 1992 at or about the 95 percent confidence level. These notations indicate statistical significance from a multiple comparison procedure based on 38 jurisdictions participating in both 1992 and 1994. If looking at only one state, < indicates the value for 1994 was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level Statistically significant differences between 1994 and 1992 for the state comparison samples for the nation and regions are not indicated.

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 Reading Assessment

TABLE C.3B

1994 Average Grade 4 Reading Proficiency by Parents' Education Level Public Schools Only (continued)

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Did Not Finish High School		I Don't Know	
	Percentage of Students	Average Proficiency	Percentage of Students	Average Proficiency
Nation	4 (0.4)	188 (3.5)	34 (0.9)	204 (1.3)
Region				
Northeast	3 (0.8)	*** (***)	34 (1.7)	205 (1.9)
Southeast	6 (0.9)	186 (4.8)	34 (1.6)	200 (2.8)
Central	4 (0.6)	*** (***)	31 (1.9)	210 (3.2)
West	5 (0.6)	188 (6.6)	38 (1.8)	203 (2.4)
State				
Alabama	8 (0.7)	197 (3.0)	28 (1.0)	201 (2.2)
Arizona	5 (0.6)	189 (3.5)	42 (1.4)	198 (2.3)
Arkansas	6 (0.6)<	196 (3.8)	31 (1.2)	204 (2.6)
California	4 (0.5)	166 (4.3)	39 (1.6)	189 (2.6)
Colorado	3 (0.4)	192 (5.9)	35 (1.3)	204 (1.7)
Connecticut	3 (0.5)	204 (6.9)	30 (1.2)	212 (2.1)
Delaware	3 (0.4)	185 (4.6)	37 (1.0)	199 (1.8)<<
Florida	4 (0.4)	187 (4.8)	37 (1.3)	200 (2.1)
Georgia	6 (0.7)	185 (5.4)	31 (1.2)	199 (2.5)
Hawaii	3 (0.4)	192 (5.3)	39 (1.1)	195 (2.2)
Indiana	4 (0.5)	198 (4.6)	31 (1.4)	210 (1.4)<
Iowa	3 (0.3)	211 (4.5)	33 (1.2)	215 (1.7)
Kentucky	8 (0.6)	195 (3.2)	33 (1.4)	206 (2.1)
Louisiana	8 (0.7)	188 (2.4)	33 (1.3)	194 (2.0)<
Maine	4 (0.3)	214 (3.3)	29 (1.1)	218 (1.6)
Maryland	3 (0.4)	195 (5.1)	31 (1.3)	203 (2.0)
Massachusetts	3 (0.4)	206 (3.4)	29 (1.4)	212 (1.8)
Minnesota	2 (0.3)	*** (***)	37 (1.1)	210 (2.0)
Mississippi	8 (0.6)	192 (3.2)	32 (1.3)	197 (2.1)
Missouri	5 (0.6)	199 (3.7)<	32 (1.1)	208 (1.7)
Montana†	3 (0.4)	211 (4.2)	35 (1.2)	215 (1.9)
Nebraska†	2 (0.4)	*** (***)	34 (1.6)	208 (1.6)
New Hampshire†	4 (0.5)	207 (5.6)	35 (1.2)>	215 (1.8)<
New Jersey	3 (0.4)	193 (5.9)	30 (1.3)	209 (1.6)
New Mexico	6 (0.6)	188 (4.8)	36 (1.3)	196 (2.1)
New York	4 (0.4)	196 (4.2)	36 (1.3)	202 (2.1)
North Carolina	5 (0.5)<	195 (2.9)	30 (1.1)	206 (1.6)
North Dakota	2 (0.3)	*** (***)	33 (1.5)	217 (2.0)
Pennsylvania†	4 (0.5)	187 (5.7)<	28 (1.5)<	208 (2.3)
Rhode Island†	4 (0.4)	203 (4.9)	35 (1.1)	211 (1.7)
South Carolina	6 (0.5)	189 (3.0)	30 (1.3)	198 (1.4)<
Tennessee†	7 (0.6)	200 (3.7)	30 (1.4)	204 (2.2)
Texas	6 (0.7)	195 (3.2)	35 (1.6)	205 (1.9)
Utah	2 (0.3)	*** (***)	37 (1.1)	209 (1.4)
Virginia	5 (0.5)	196 (4.3)	32 (1.2)	208 (1.9)
Washington	2 (0.3)	197 (4.6)	38 (1.1)	203 (1.8)
West Virginia	7 (0.5)	196 (3.1)	31 (1.2)	205 (1.4)
Wisconsin†	4 (0.4)	212 (4.1)	37 (1.3)	217 (1.5)
Wyoming	4 (0.4)	203 (4.1)	35 (1.1)	216 (1.4)
Other Jurisdictions				
DoDEA	2 (0.3)	*** (***)	36 (1.0)	212 (1.3)
Guam	5 (0.5)	164 (4.8)	41 (0.9)	181 (1.6)

<< The value for the 1994 assessment was significantly lower (>> higher) than the value for 1992 at or about the 95 percent confidence level. These notations indicate statistical significance from a multiple comparison procedure based on 38 jurisdictions participating in both 1992 and 1994. If looking at only one state, < indicates the value for 1994 was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level. Statistically significant differences between 1994 and 1992 for the state comparison samples for the nation and regions are not indicated.

*** Sample size in the 1994 assessment is insufficient to permit a reliable estimate.

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1994 Reading Assessment

TABLE C.4A

1992 Average Grade 4 Reading Proficiency by Type of Location Public Schools Only

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Central City		Urban Fringe/Large Town		Rural/Small Town	
	Percentage of Students	Average Proficiency	Percentage of Students	Average Proficiency	Percentage of Students	Average Proficiency
Nation*	32 (2.8)	207 (1.5)	41 (3.5)	219 (2.2)	27 (2.6)	217 (2.5)
State						
Alabama	34 (2.9)	206 (3.4)	26 (4.2)	213 (3.2)	39 (3.7)	204 (2.4)
Arizona	57 (2.5)	213 (1.1)	25 (3.4)	210 (3.1)	19 (2.1)	199 (4.5)
Arkansas	23 (3.1)	209 (4.0)	15 (4.1)	215 (2.3)!	63 (3.2)	211 (1.5)
California	47 (4.0)	200 (2.8)	47 (4.1)	203 (3.5)	7 (2.4)	*** (***)
Colorado	33 (3.1)	211 (2.0)	47 (3.8)	220 (1.7)	20 (2.3)	218 (2.7)
Connecticut	30 (3.1)	204 (3.8)	46 (4.6)	229 (1.8)	24 (4.1)	230 (1.9)
Delaware‡	46 (0.2)	213 (0.9)	30 (0.1)	213 (1.1)	24 (0.1)	212 (1.3)
Florida	33 (4.4)	202 (3.5)	56 (4.9)	212 (1.6)	11 (2.3)	209 (2.2)!
Georgia	24 (2.7)	203 (3.9)	38 (3.7)	219 (2.3)	38 (2.8)	211 (1.8)
Hawaii	26 (1.7)	209 (3.2)	41 (3.6)	199 (2.8)	32 (3.1)	204 (2.1)
Indiana	37 (2.7)	217 (2.9)	31 (3.5)	225 (1.8)	33 (2.7)	222 (1.9)
Iowa	27 (2.3)	224 (2.2)	17 (3.1)	231 (2.1)	56 (3.0)	224 (1.3)
Kentucky	18 (2.3)	215 (3.4)	25 (3.2)	217 (3.5)	57 (2.9)	210 (1.3)
Louisiana	34 (2.2)	200 (2.8)	34 (3.6)	207 (1.9)	32 (3.6)	204 (1.9)
Maine‡	9 (2.4)	*** (***)	13 (3.6)	228 (2.5)!	77 (4.0)	227 (1.4)
Maryland	27 (2.8)	200 (4.4)	66 (3.2)	216 (1.7)	7 (1.8)	*** (***)
Massachusetts	27 (2.4)	210 (2.2)	59 (3.2)	232 (1.1)	14 (2.8)	229 (2.6)!
Minnesota	16 (3.0)	212 (4.0)	52 (3.9)	224 (1.6)	33 (2.7)	220 (1.8)
Mississippi	12 (1.7)	198 (3.5)	19 (3.7)	208 (3.5)	68 (3.6)	197 (1.8)
Missouri	19 (2.7)	209 (4.0)	40 (3.7)	223 (2.1)	41 (2.8)	222 (1.2)
Montana	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)
Nebraska‡	34 (2.5)	222 (1.7)	9 (2.6)	222 (3.7)!	56 (2.6)	221 (1.6)
New Hampshire‡	19 (3.3)	229 (2.1)	44 (5.0)	229 (2.1)	37 (4.2)	225 (2.0)
New Jersey‡	15 (2.7)	194 (3.9)	82 (2.9)	228 (1.6)	3 (1.7)	*** (***)
New Mexico	34 (2.9)	214 (2.1)	29 (4.2)	210 (3.1)	37 (4.9)	208 (2.1)
New York‡	41 (2.2)	199 (3.0)	47 (3.4)	225 (1.5)	12 (3.1)	225 (2.4)!
North Carolina	35 (2.9)	214 (3.0)	25 (3.9)	212 (2.4)	40 (3.9)	209 (1.7)
North Dakota	25 (2.4)	228 (2.3)	14 (2.0)	226 (2.4)	62 (3.0)	224 (1.5)
Pennsylvania	28 (3.8)	207 (4.0)	49 (4.7)	226 (1.6)	22 (4.1)	225 (1.6)
Rhode Island	35 (3.1)	208 (2.6)	47 (3.7)	218 (3.1)	18 (3.6)	231 (2.6)!
South Carolina	29 (3.3)	209 (2.8)	26 (3.3)	218 (2.2)	45 (3.2)	205 (1.9)
Tennessee	39 (3.0)	208 (2.7)	28 (3.9)	218 (2.7)	32 (3.1)	213 (1.9)
Texas	47 (4.1)	209 (2.5)	35 (4.2)	219 (2.7)	19 (3.8)	209 (4.6)!
Utah	25 (3.4)	219 (2.5)	52 (4.0)	220 (1.5)	23 (2.4)	222 (1.6)
Virginia	34 (2.9)	217 (2.3)	41 (4.0)	227 (2.3)	24 (3.0)	214 (2.0)
Washington	— (—)	— (—)	— (—)	— (—)	— (—)	— (—)
West Virginia	13 (1.4)	216 (4.3)	28 (3.9)	218 (2.2)	59 (3.5)	214 (1.8)
Wisconsin	31 (2.4)	222 (2.1)	28 (3.3)	225 (1.6)	40 (3.0)	224 (1.8)
Wyoming	24 (2.1)	221 (3.0)	5 (1.2)	*** (***)	72 (1.9)	224 (1.1)
Other Jurisdictions**						

Type of location results are not reported for the four regions of the country, DoDEA schools, or Guam.

*** Sample size in the 1992 assessment is insufficient to permit a reliable estimate.

— Jurisdiction did not participate in 1992 Trial State Assessment.

! Interpret with caution any comparisons involving this statistic. The nature of the sample does not allow accurate determination of the variability of this value.

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).

* School sample size is insufficient to permit reliable regional results for type of location.

** Results for type of location are not available for the Department of Defense Education Activity (DoDEA) Overseas Schools and Guam.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 Reading Assessment

TABLE C.4B

1994 Average Grade 4 Reading Proficiency by Type of Location Public Schools Only

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	Central City		Urban Fringe/Large Town		Rural/Small Town	
	Percentage of Students	Average Proficiency	Percentage of Students	Average Proficiency	Percentage of Students	Average Proficiency
Nation*	34 (2.1)	203 (2.4)	43 (2.5)	219 (1.9)	23 (2.3)	213 (1.8)
State						
Alabama	34 (2.3)	205 (3.0)	24 (3.6)	216 (3.0)	43 (3.2)	206 (1.7)
Arizona	59 (2.5)	207 (2.3)	29 (3.2)	207 (3.4)	12 (2.2)	199 (5.6)
Arkansas	28 (3.3)	207 (3.8)	18 (4.0)	212 (4.1)!	54 (3.5)	208 (1.8)
California	39 (3.1)	190 (3.6)<	56 (4.0)	202 (2.3)	5 (2.5)	*** (***)
Colorado	35 (2.5)	209 (2.5)	45 (2.6)	216 (2.3)	20 (2.4)	217 (2.5)
Connecticut	34 (3.7)	204 (4.3)	41 (4.9)	228 (1.6)	25 (4.8)	238 (2.5)>
Delaware	48 (0.2)>>	207 (1.2)<<	28 (0.2)<<	206 (2.3)<	24 (0.1)<<	206 (2.5)
Florida	33 (4.2)	199 (3.3)	56 (4.8)	210 (2.5)	10 (2.3)	198 (4.3)!
Georgia	19 (2.1)	195 (5.7)	43 (4.1)	213 (4.8)	38 (3.5)	206 (2.6)
Hawaii	27 (1.3)	210 (3.9)	39 (2.3)	198 (2.0)	34 (2.2)	197 (2.5)
Indiana	36 (3.2)	210 (2.6)	29 (4.7)	228 (2.6)	35 (3.6)	223 (2.2)
Iowa	24 (1.8)	218 (3.8)	15 (2.8)	222 (4.0)	62 (2.7)	225 (1.3)
Kentucky	21 (3.3)	214 (4.9)	25 (3.8)	216 (4.3)	54 (3.2)	209 (1.7)
Louisiana	34 (2.4)	190 (2.7)<	33 (3.8)	203 (3.1)	33 (3.6)	197 (2.7)
Maine	9 (1.5)	*** (***)	19 (3.6)	228 (3.5)	72 (3.7)	229 (1.4)
Maryland	29 (4.1)	200 (3.8)	63 (4.5)	216 (1.8)	7 (2.4)	*** (***)
Massachusetts	25 (2.5)	201 (3.3)<	59 (4.2)	231 (1.5)	16 (3.8)	230 (2.7)!
Minnesota	16 (2.6)	207 (6.6)	48 (3.6)	224 (1.6)	36 (3.2)	215 (2.0)
Mississippi	13 (2.2)	204 (3.7)	20 (3.6)	213 (4.2)	67 (2.9)	198 (2.0)
Missouri	26 (3.2)	212 (4.4)	35 (3.2)	221 (2.2)	38 (2.6)	217 (1.6)<
Montana†	21 (1.3)	218 (3.1)	13 (2.0)	224 (4.2)	66 (2.1)	223 (1.7)
Nebraska†	29 (3.0)	218 (2.9)	7 (2.6)	*** (***)	65 (3.8)	222 (1.7)
New Hampshire†	17 (2.5)	220 (2.9)<	47 (4.7)	226 (2.3)	36 (4.1)	222 (2.4)
New Jersey	16 (3.1)	190 (5.6)	79 (3.6)	225 (1.6)	5 (2.3)	*** (***)
New Mexico	34 (2.7)	205 (3.3)	28 (3.9)	206 (3.1)	38 (3.3)	202 (3.1)
New York	43 (2.2)	194 (2.7)	48 (3.3)	224 (1.7)	10 (2.4)	227 (4.1)!
North Carolina	38 (3.0)	218 (2.9)	22 (3.2)	213 (2.9)	40 (3.7)	211 (2.2)
North Dakota	32 (2.7)	224 (2.1)	14 (2.0)	229 (2.6)	55 (2.5)	225 (1.7)
Pennsylvania†	29 (3.6)	197 (3.5)	56 (4.3)	224 (1.9)	15 (2.7)	220 (2.9)
Rhode Island†	38 (3.2)	211 (1.7)	43 (3.8)	223 (1.8)	20 (4.0)	229 (3.1)!
South Carolina	27 (3.0)	208 (2.9)	29 (3.8)	211 (2.7)	44 (3.7)	196 (2.8)<
Tennessee†	37 (3.5)	207 (4.0)	30 (5.1)	218 (2.2)	33 (4.2)	213 (2.3)
Texas	49 (3.3)	208 (3.1)	33 (4.5)	219 (3.6)	19 (3.4)	211 (3.4)
Utah	28 (2.4)	215 (3.5)	51 (3.3)	219 (1.5)	21 (2.4)	217 (2.8)
Virginia	34 (2.7)	208 (2.2)<	44 (4.1)	221 (2.4)	23 (2.9)	208 (2.4)
Washington	30 (3.6)	210 (3.4)	52 (4.1)	215 (1.9)	17 (2.4)	210 (3.7)
West Virginia	15 (1.7)	213 (2.8)	23 (2.8)	214 (2.3)	62 (2.7)	213 (1.3)
Wisconsin†	34 (1.8)	221 (2.4)	29 (3.4)	226 (1.7)	37 (3.5)	226 (1.5)
Wyoming	26 (2.0)	221 (2.7)	6 (1.4)	*** (***)	68 (1.7)	222 (1.4)
Other Jurisdictions**						

Type of location results are not reported for the four regions of the country, DoDEA schools, or Guam

<< The value for the 1994 assessment was significantly lower (>> higher) than the value for 1992 at or about the 95 percent confidence level. These notations indicate statistical significance from a multiple comparison procedure based on 38 jurisdictions participating in both 1992 and 1994. If looking at only one state, < indicates the value for 1994 was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level. Statistically significant differences between 1994 and 1992 for the state comparison samples for the nation and regions are not indicated.

! Interpret with caution any comparisons involving this statistic. The nature of the sample does not allow accurate determination of the variability of this value.

*** Sample size in the 1994 assessment is insufficient to permit a reliable estimate.

* School sample size is insufficient to permit reliable regional results for type of location.

** Results for type of location are not available for the Department of Defense Education Activity (DoDEA) Overseas Schools and Guam.

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP) 1994 Reading Assessment

TABLE C.5A

1992 and 1994 Grade 4 Reading Achievement Levels by Gender Public Schools Only

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	At or Above Advanced				At or Above Proficient			
	Male		Female		Male		Female	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation	5 (0.7)	6 (0.8)	7 (0.9)	8 (0.9)	24 (1.5)	24 (1.3)	30 (1.5)	32 (1.6)
Region								
Northeast	8 (3.0)	7 (2.1)	10 (3.0)	7 (1.8)	30 (5.7)	25 (3.4)	35 (4.6)	31 (2.6)
Southeast	3 (0.8)	4 (0.9)	5 (1.2)	7 (1.0)	18 (2.4)	20 (2.3)	25 (3.2)	27 (3.1)
Central	5 (1.4)	6 (1.7)	7 (1.7)	9 (1.9)	27 (2.8)	27 (2.9)	30 (2.6)	39 (4.2)
West	3 (0.9)	6 (1.1)	6 (1.7)	9 (1.2)	21 (2.3)	25 (1.9)	29 (2.3)	32 (2.8)
State								
Alabama	2 (0.6)	4 (0.7)	4 (0.6)	6 (1.1)	17 (1.6)	20 (1.6)	23 (2.0)	26 (1.9)
Arizona	2 (0.5)	4 (0.9)	4 (0.7)	8 (1.0)>	17 (1.4)	20 (2.0)	24 (1.6)	28 (2.0)
Arkansas	3 (0.6)	3 (0.7)	4 (0.8)	6 (0.7)	20 (1.3)	21 (1.6)	25 (1.8)	27 (1.7)
California	2 (0.6)	3 (0.6)	5 (1.2)	4 (0.9)	16 (2.0)	15 (1.6)	22 (1.9)	20 (2.1)
Colorado	3 (0.6)	5 (0.8)	5 (0.7)	7 (1.0)	22 (1.6)	25 (2.0)	29 (1.9)	31 (2.0)
Connecticut	5 (0.8)	8 (1.1)>	8 (1.6)	14 (1.7)	30 (1.9)	34 (1.9)	37 (1.8)	43 (2.3)
Delaware‡	3 (0.7)	4 (0.8)	6 (1.0)	6 (1.4)	21 (1.6)	19 (1.9)	27 (1.3)	27 (1.3)
Florida	3 (0.7)	4 (0.9)	3 (0.6)	7 (0.9)>	20 (1.4)	19 (1.7)	23 (1.3)	26 (1.8)
Georgia	4 (0.7)	6 (1.3)	6 (1.1)	7 (1.1)	23 (1.5)	23 (2.2)	27 (1.9)	28 (2.4)
Hawaii	2 (0.6)	3 (0.7)	3 (0.7)	5 (0.7)	14 (1.4)	16 (1.4)	20 (1.8)	22 (2.0)
Indiana	5 (0.7)	6 (0.9)	6 (1.4)	8 (1.0)	28 (1.6)	29 (1.6)	32 (2.0)	36 (1.8)
Iowa	5 (0.7)	6 (1.0)	9 (1.2)	10 (1.4)	32 (2.0)	30 (1.9)	40 (1.9)	40 (1.9)
Kentucky	3 (0.8)	4 (0.9)	4 (0.7)	8 (1.2)>	21 (1.9)	22 (1.8)	25 (1.9)	29 (2.6)
Louisiana	2 (0.6)	2 (0.8)	2 (0.5)	3 (0.6)	14 (1.5)	13 (1.2)	17 (1.4)	16 (1.4)
Maine‡	5 (0.8)	8 (1.0)	8 (1.4)	12 (1.7)	34 (1.8)	38 (2.1)	38 (2.3)	44 (2.1)
Maryland	3 (0.8)	5 (0.7)	5 (0.9)	8 (0.9)	20 (1.5)	23 (1.8)	28 (1.9)	30 (1.7)
Massachusetts	5 (0.7)	7 (1.4)	8 (1.2)	9 (1.5)	34 (2.3)	33 (2.1)	38 (1.6)	39 (2.1)
Minnesota	4 (0.7)	5 (0.9)	8 (0.9)	10 (1.3)	27 (1.5)	28 (1.9)	36 (2.4)	37 (2.1)
Mississippi	1 (0.4)	3 (0.5)	2 (0.5)	5 (0.8)>	12 (1.1)	14 (1.4)	15 (1.2)	21 (1.7)>
Missauri	4 (0.7)	6 (1.3)	7 (1.0)	9 (1.1)	27 (1.9)	28 (2.2)	33 (2.0)	34 (2.3)
Montana†	— (—)	6 (0.8)	— (—)	9 (1.0)	— (—)	30 (2.0)	— (—)	40 (2.0)
Nebraska†‡	4 (1.0)	6 (0.7)	7 (1.0)	11 (1.7)	27 (1.5)	30 (2.0)	34 (2.5)	39 (2.2)
New Hampshire†‡	7 (1.1)	6 (0.8)	9 (1.4)	12 (1.6)	34 (1.9)	30 (1.7)	42 (1.7)	42 (2.4)
New Jersey‡	6 (1.1)	7 (1.4)	9 (1.6)	10 (1.0)	31 (2.1)	29 (1.6)	38 (2.5)	37 (2.2)
New Mexica	4 (0.8)	3 (0.7)	4 (0.9)	6 (0.8)	21 (1.8)	17 (1.7)	24 (2.3)	24 (1.9)
New York‡	4 (0.8)	5 (1.0)	5 (0.7)	8 (1.1)	24 (1.8)	24 (1.9)	29 (1.6)	31 (1.9)
North Carolina	5 (0.8)	5 (0.8)	6 (0.9)	10 (1.3)>	23 (1.4)	26 (1.8)	26 (1.7)	34 (2.1)>
North Dakota	5 (1.2)	6 (1.3)	7 (1.1)	10 (1.1)	33 (2.2)	33 (2.5)	37 (2.1)	42 (2.2)
Pennsylvania†	5 (0.8)	5 (1.1)	7 (1.1)	9 (1.1)	29 (2.4)	25 (1.9)	34 (1.7)	35 (2.0)
Rhode Island†	5 (0.7)	5 (1.0)	6 (1.0)	10 (1.5)	26 (1.8)	27 (1.8)	30 (2.3)	37 (1.9)
South Carolina	3 (0.7)	3 (0.6)	5 (1.0)	5 (1.0)	19 (1.4)	17 (1.4)	24 (1.9)	23 (1.8)
Tennessee†	3 (0.9)	5 (0.8)	5 (0.8)	7 (1.4)	21 (1.9)	23 (1.7)	26 (1.9)	30 (2.2)
Texas	3 (1.0)	5 (1.1)	5 (0.8)	7 (0.9)	20 (1.9)	24 (2.1)	27 (2.4)	28 (2.4)
Utah	4 (0.5)	5 (0.8)	6 (1.0)	8 (1.1)	27 (2.0)	26 (1.8)	33 (1.9)	34 (2.3)
Virginia	5 (0.9)	6 (0.9)	7 (1.2)	9 (1.1)	28 (1.9)	21 (2.1)	35 (1.9)	32 (1.8)
Washington	— (—)	5 (0.7)	— (—)	7 (1.1)	— (—)	24 (1.7)	— (—)	29 (1.5)
West Virginia	3 (0.7)	4 (0.7)	6 (1.2)	7 (1.0)	21 (1.6)	22 (1.7)	30 (1.9)	30 (1.8)
Wisconsin†	5 (1.0)	5 (0.8)	7 (0.8)	9 (1.3)	30 (1.7)	31 (2.0)	37 (1.8)	39 (2.3)
Wyoming	5 (0.7)	4 (0.7)	6 (0.8)	7 (0.9)	30 (2.2)	28 (1.5)	35 (1.5)	36 (2.0)
Other Jurisdictions								
DoDEA	— (—)	4 (0.7)	— (—)	8 (1.1)	— (—)	22 (1.5)	— (—)	34 (1.6)
Guam	0 (0.2)	1 (0.3)	1 (0.5)	2 (0.5)	5 (1.0)	5 (0.9)	11 (1.6)	11 (1.2)

<< The value for the 1994 assessment was significantly lower (>> higher) than the value for 1992 at or about the 95 percent confidence level. These notations indicate statistical significance from a multiple comparison procedure based on 38 jurisdictions participating in both 1992 and 1994. If looking at only one state, < indicates the value for 1994 was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level. Statistically significant differences between 1994 and 1992 for the state comparison samples for the nation and regions are not indicated.

— Jurisdiction did not participate in 1992 Trial State Assessment.

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

TABLE C.5B

1992 and 1994 Grade 4 Reading Achievement Levels by Gender Public Schools Only (continued)

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

	At or Above Basic				Below Basic			
	Male		Female		Male		Female	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation	56 (1.7)	53 (1.5)	65 (1.5)	64 (1.3)	44 (1.7)	47 (1.5)	35 (1.5)	36 (1.3)
Region								
Northeast	61 (5.0)	53 (2.9)	68 (4.2)	63 (3.0)	39 (5.0)	47 (2.9)	32 (4.2)	37 (3.0)
Southeast	48 (4.0)	46 (2.8)	62 (3.8)	59 (3.0)	52 (4.0)	54 (2.8)	38 (3.8)	41 (3.0)
Central	62 (2.7)	59 (3.1)	67 (3.6)	71 (3.6)	38 (2.7)	41 (3.1)	33 (3.6)	29 (3.6)
West	51 (2.8)	54 (3.0)	62 (2.0)	64 (2.6)	49 (2.8)	46 (3.0)	38 (2.0)	36 (2.6)
State								
Alabama	48 (2.1)	48 (2.0)	55 (2.5)	57 (2.0)	52 (2.1)	52 (2.0)	45 (2.5)	43 (2.0)
Arizona	50 (2.2)	47 (2.6)	58 (2.0)	56 (1.9)	50 (2.2)	53 (2.6)	42 (2.0)	44 (1.9)
Arkansas	52 (2.1)	49 (1.8)	59 (1.9)	58 (2.0)	48 (2.1)	51 (1.8)	41 (1.9)	42 (2.0)
California	43 (2.4)	41 (2.2)	52 (2.6)	48 (2.4)	57 (2.4)	59 (2.2)	48 (2.6)	52 (2.4)
Colorado	61 (2.1)	55 (2.1)	67 (2.1)	64 (1.8)	39 (2.1)	45 (2.1)	33 (2.1)	36 (1.8)
Connecticut	66 (2.2)	65 (2.2)	71 (2.2)	71 (2.1)	34 (2.2)	35 (2.2)	29 (2.2)	29 (2.1)
Delaware‡	53 (1.6)	46 (2.5)	62 (1.9)	59 (1.6)	47 (1.6)	54 (2.5)	38 (1.9)	41 (1.6)
Florida	49 (2.0)	45 (2.6)	56 (1.9)	55 (1.9)	51 (2.0)	55 (2.6)	44 (1.9)	45 (1.9)
Georgia	54 (2.2)	47 (2.7)	60 (2.1)	57 (2.5)	46 (2.2)	53 (2.7)	40 (2.1)	43 (2.5)
Hawaii	43 (2.2)	41 (2.1)	53 (2.2)	52 (2.1)	57 (2.2)	59 (2.1)	47 (2.2)	48 (2.1)
Indiana	64 (2.0)	63 (1.9)	71 (2.1)	69 (2.0)	36 (2.0)	37 (1.9)	29 (2.1)	31 (2.0)
Iowa	69 (1.9)	66 (2.2)	77 (1.4)	73 (1.6)	31 (1.9)	34 (2.2)	23 (1.4)	27 (1.6)
Kentucky	54 (2.0)	51 (1.9)	62 (2.0)	62 (2.3)	46 (2.0)	49 (1.9)	38 (2.0)	38 (2.3)
Louisiana	42 (2.2)	38 (1.8)	50 (1.9)	43 (2.1)	58 (2.2)	62 (1.8)	50 (1.9)	57 (2.1)
Maine‡	73 (2.3)	72 (2.1)	78 (1.9)	78 (1.8)	27 (2.3)	28 (2.1)	22 (1.9)	22 (1.8)
Maryland	51 (2.1)	51 (1.9)	62 (2.5)	60 (2.1)	49 (2.1)	49 (1.9)	38 (2.5)	40 (2.1)
Massachusetts	73 (1.4)	67 (1.8)<	75 (1.8)	72 (1.8)	27 (1.4)	33 (1.8)>	25 (1.8)	28 (1.8)
Minnesota	65 (2.0)	61 (1.8)	71 (1.8)	69 (2.2)	35 (2.0)	39 (1.8)	29 (1.8)	31 (2.2)
Mississippi	39 (2.2)	40 (1.8)	44 (2.2)	50 (2.2)	61 (2.2)	60 (1.8)	56 (2.2)	50 (2.2)
Missouri	64 (2.0)	58 (2.3)	70 (2.0)	66 (2.1)	36 (2.0)	42 (2.3)	30 (2.0)	34 (2.1)
Montana†	— (—)	64 (2.0)	— (—)	74 (2.2)	— (—)	36 (2.0)	— (—)	26 (2.2)
Nebraska†‡	64 (2.0)	63 (1.9)	73 (1.7)	69 (2.4)	36 (2.0)	37 (1.9)	27 (1.7)	31 (2.4)
New Hampshire†‡	72 (2.2)	65 (2.3)	80 (1.9)	76 (2.2)	28 (2.2)	35 (2.3)	20 (1.9)	24 (2.2)
New Jersey‡	66 (2.2)	63 (1.9)	72 (2.3)	67 (1.7)	34 (2.2)	37 (1.9)	28 (2.3)	33 (1.7)
New Mexico	52 (2.1)	46 (2.3)	57 (2.0)	52 (1.9)	48 (2.1)	54 (2.3)	43 (2.0)	48 (1.9)
New York‡	59 (2.0)	53 (2.4)	64 (2.2)	62 (1.8)	41 (2.0)	47 (2.4)	36 (2.2)	38 (1.8)
North Carolina	53 (1.8)	54 (1.9)	59 (1.9)	64 (1.8)	47 (1.8)	46 (1.9)	41 (1.9)	36 (1.8)
North Dakota	72 (2.4)	69 (1.8)	76 (2.2)	76 (1.6)	28 (2.4)	31 (1.8)	24 (2.2)	24 (1.6)
Pennsylvania†	64 (2.1)	57 (2.0)	71 (1.9)	65 (2.0)	36 (2.1)	43 (2.0)	29 (1.9)	35 (2.0)
Rhode Island†	61 (2.9)	61 (2.0)	65 (2.3)	69 (2.1)	39 (2.9)	39 (2.0)	35 (2.3)	31 (2.1)
South Carolina	49 (2.2)	44 (1.9)	57 (2.3)	52 (1.8)	51 (2.2)	56 (1.9)	43 (2.3)	48 (1.8)
Tennessee†	53 (1.9)	53 (2.4)	60 (2.0)	62 (2.4)	47 (1.9)	47 (2.4)	40 (2.0)	38 (2.4)
Texas	53 (2.4)	56 (2.6)	60 (2.4)	59 (2.5)	47 (2.4)	44 (2.6)	40 (2.4)	41 (2.5)
Utah	63 (2.1)	59 (2.4)	71 (1.9)	69 (1.9)	37 (2.1)	41 (2.4)	29 (1.9)	31 (1.9)
Virginia	62 (2.5)	52 (2.3)<	72 (1.8)	63 (2.0)<	38 (2.5)	48 (2.3)>	28 (1.8)	37 (2.0)>
Washington	— (—)	55 (1.9)	— (—)	62 (2.1)	— (—)	45 (1.9)	— (—)	38 (2.1)
West Virginia	57 (1.6)	53 (1.9)	65 (1.8)	63 (1.8)	43 (1.6)	47 (1.9)	35 (1.8)	37 (1.8)
Wisconsin†	68 (1.6)	67 (2.1)	73 (1.8)	75 (1.9)	32 (1.6)	33 (2.1)	27 (1.8)	25 (1.9)
Wyoming	67 (2.2)	66 (2.1)	75 (1.6)	71 (2.0)	33 (2.2)	34 (2.1)	25 (1.6)	29 (2.0)
Other Jurisdictions								
DoDEA	— (—)	57 (2.4)	— (—)	68 (1.3)	— (—)	43 (2.4)	— (—)	32 (1.3)
Guam	22 (1.4)	20 (1.0)	33 (1.8)	35 (2.0)	78 (1.4)	80 (1.0)	67 (1.8)	65 (2.0)

<< The value for the 1994 assessment was significantly lower (>> higher) than the value for 1992 at or about the 95 percent confidence level. These notations indicate statistical significance from a multiple comparison procedure based on 38 jurisdictions participating in both 1992 and 1994. If looking at only one state, < indicates the value for 1994 was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level. Statistically significant differences between 1994 and 1992 for the state comparison samples for the nation and regions are not indicated.

-- Jurisdiction did not participate in 1992 Trial State Assessment.

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

TABLE C.6A

1992 and 1994 Grade 4 Reading Achievement Levels by Race/Ethnicity Public Schools Only

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

At or Above Advanced

	White		Black		Hispanic	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation	8 (1.0)	9 (0.9)	1 (0.5)	1 (0.4)	2 (1.0)	2 (0.7)
Region						
Northeast	12 (3.4)	9 (1.8)	1 (0.6)	1 (0.8)	1 (1.6)	2 (1.9)
Southeast	6 (1.1)	8 (0.8)	1 (0.9)	1 (0.6)	1 (0.6)!	1 (1.6)
Central	7 (1.5)	9 (1.7)	0 (0.7)	0 (0.4)	6 (3.8)	3 (1.5)
West	7 (1.0)	9 (1.1)	0 (0.2)	1 (1.3)!	2 (1.1)	2 (1.1)
State						
Alabama	5 (0.6)	7 (1.2)	0 (0.1)	1 (0.5)	1 (0.9)	0 (***)
Arizona	5 (0.7)	9 (1.1)	2 (1.6)	2 (3.9)	1 (0.5)	3 (0.8)
Arkansas	5 (0.8)	6 (0.9)	0 (0.5)	0 (0.3)	0 (0.3)	3 (1.7)
California	6 (1.0)	5 (0.8)	1 (1.1)	1 (0.6)	1 (0.4)	1 (0.6)
Colorado	5 (0.8)	8 (1.0)	1 (0.9)!	2 (1.8)	1 (0.5)	1 (0.6)
Connecticut	8 (1.2)	14 (1.4)>	1 (1.0)	1 (0.7)	1 (0.8)	2 (0.8)
Delaware‡	7 (0.6)	7 (1.2)	1 (0.3)	1 (0.6)	0 (0.3)	1 (0.7)
Florida	5 (0.7)	7 (0.8)	1 (0.4)	1 (0.4)	2 (1.1)	3 (1.1)
Georgia	8 (1.2)	10 (1.5)	1 (0.6)	2 (0.5)	2 (1.8)	2 (1.3)
Hawaii	4 (1.3)	7 (1.7)	1 (2.0)	1 (1.4)	2 (1.1)	2 (1.0)
Indiana	6 (1.0)	9 (0.9)	1 (1.0)	1 (0.6)	3 (2.5)	1 (1.8)
Iowa	7 (0.7)	8 (1.1)	1 (1.8)	0 (***)	3 (1.3)	5 (2.3)
Kentucky	4 (0.6)	6 (0.9)	0 (0.7)	1 (0.7)	3 (1.8)	2 (1.6)
Louisiana	3 (0.7)	4 (0.9)	0 (0.2)	0 (0.5)	0 (0.9)	0 (0.5)
Maine‡	7 (0.9)	10 (1.0)>	*** (***)	*** (***)	0 (1.1)	5 (3.4)
Maryland	6 (0.9)	10 (1.2)	1 (0.6)	1 (0.4)	1 (0.9)	1 (1.2)
Massachusetts	8 (0.9)	10 (1.3)	1 (0.7)	2 (1.7)	1 (0.5)	1 (0.6)
Minnesota	6 (0.8)	8 (0.8)	0 (1.3)	2 (1.1)	2 (1.6)	4 (2.7)
Mississippi	4 (0.8)	7 (1.2)	0 (0.2)	1 (0.3)	1 (0.8)	1 (0.6)
Missouri	7 (0.8)	9 (1.0)	1 (0.8)	3 (1.6)	1 (1.1)	2 (1.7)
Montana†	— (—)	9 (0.9)	— (—)	*** (***)	— (—)	2 (1.2)
Nebraska†‡	6 (0.9)	9 (1.0)	0 (0.5)	1 (1.1)!	2 (1.2)	4 (2.2)
New Hampshire†‡	8 (1.1)	9 (1.1)	*** (***)	*** (***)	3 (1.8)	4 (2.8)
New Jersey‡	10 (1.4)	11 (0.9)	1 (1.1)	2 (1.2)	2 (1.1)	4 (1.0)
New Mexico	7 (1.3)	7 (1.1)	1 (2.4)	1 (1.6)	1 (0.5)	3 (0.6)
New York‡	7 (1.1)	9 (1.2)	2 (1.0)	1 (0.5)	1 (0.4)	3 (1.0)
North Carolina	7 (0.9)	11 (1.1)	1 (0.6)	1 (0.5)	2 (1.6)	2 (2.1)
North Dakota	6 (0.9)	9 (1.0)	*** (***)	*** (***)	6 (3.8)	4 (2.2)
Pennsylvania†	7 (0.9)	8 (1.0)	1 (0.4)	1 (0.4)	2 (1.1)	1 (1.6)
Rhode Island†	6 (0.8)	9 (1.2)	1 (1.1)	3 (1.3)	1 (0.6)	2 (1.3)
South Carolina	6 (1.0)	7 (1.0)	1 (0.3)	1 (0.3)	1 (1.2)	1 (0.9)
Tennessee†	5 (0.9)	8 (1.1)	1 (0.4)	1 (0.6)	2 (1.9)	2 (2.4)
Texas	7 (1.2)	10 (1.2)	1 (0.6)	1 (0.7)	1 (0.5)	2 (0.7)
Utah	5 (0.7)	7 (0.9)	*** (***)	*** (***)	2 (1.1)	2 (1.1)
Virginia	9 (1.3)	10 (1.0)	1 (0.5)	1 (0.6)	1 (1.3)	4 (1.8)
Washington	— (—)	7 (0.8)	— (—)	1 (1.1)	— (—)	1 (0.7)
West Virginia	5 (0.8)	6 (0.6)	3 (2.3)	2 (1.7)	2 (2.5)	1 (1.5)
Wisconsin†	7 (0.7)	8 (0.7)	1 (0.8)	0 (0.7)	2 (1.1)	1 (1.6)
Wyoming	6 (0.7)	6 (0.8)	*** (***)	*** (***)	2 (1.1)	3 (1.4)
Other Jurisdictions						
DoDEA	— (—)	8 (1.2)	— (—)	1 (0.6)	— (—)	3 (1.0)
Guam	2 (0.9)	2 (1.7)	1 (1.4)	0 (0.6)	0 (0.4)	1 (0.5)

The percentage for race/ethnicity may not add to 100 percent because a small percentage of students categorized themselves as "other."

< < The value for the 1994 assessment was significantly lower (> > higher) than the value for 1992 at or about the 95 percent confidence level. These notations indicate statistical significance from a multiple comparison procedure based on 38 jurisdictions participating in both 1992 and 1994. If looking at only one state, < indicates the value for 1994 was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level. Statistically significant differences between 1994 and 1992 for the state comparison samples for the nation and regions are not indicated.

No significant differences between the two assessments observed at this achievement level.

*** Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate. — Jurisdiction did not participate in 1992 Trial State Assessment.

! Interpret with caution any comparison involving this statistic. The nature of the sample does not allow accurate determination of the variability of this value.

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

TABLE C.6B

1992 and 1994 Grade 4 Reading Achievement Levels by Race/Ethnicity Public Schools Only (continued)

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

At or Above Advanced

	Asian		Pacific Islander		American Indian	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation	*** (***)	15 (6.5)	*** (***)	6 (4.6)	3 (1.9)	3 (2.5)
Region						
Northeast	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Southeast	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Central	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
West	*** (***)	12 (5.0)!	*** (***)	*** (***)	*** (***)	*** (***)
State						
Alabama	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Arizona	*** (***)	*** (***)	*** (***)	*** (***)	1 (0.5)	1 (0.7)
Arkansas	*** (***)	*** (***)	*** (***)	*** (***)	1 (1.5)	*** (***)
California	*** (***)	9 (3.2)	*** (***)	2 (1.9)!	*** (***)	*** (***)
Colorado	*** (***)	*** (***)	*** (***)	*** (***)	3 (2.2)	5 (3.0)
Connecticut	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Delaware‡	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Florida	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Georgia	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Hawaii	*** (***)	9 (1.6)	*** (***)	1 (0.6)	*** (***)	*** (***)
Indiana	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Iowa	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Kentucky	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Louisiana	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Maine‡	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Maryland	*** (***)	13 (6.5)	*** (***)	*** (***)	*** (***)	*** (***)
Massachusetts	*** (***)	4 (3.9)!	*** (***)	*** (***)	*** (***)	*** (***)
Minnesota	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	3 (3.3)
Mississippi	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Missouri	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	4 (4.9)
Montana†	— (—)	*** (***)	— (—)	*** (***)	— (—)	2 (1.0)
Nebraska†‡	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	3 (3.2)
New Hampshire†‡	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
New Jersey‡	*** (***)	17 (6.6)	*** (***)	*** (***)	*** (***)	*** (***)
New Mexico	*** (***)	*** (***)	*** (***)	*** (***)	0 (***)	2 (0.8)
New York‡	*** (***)	13 (6.5)	*** (***)	*** (***)	*** (***)	*** (***)
North Carolina	*** (***)	*** (***)	*** (***)	*** (***)	4 (3.8)!	0 (1.0)!
North Dakota	*** (***)	*** (***)	*** (***)	*** (***)	2 (1.7)!	1 (1.4)!
Pennsylvania†	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Rhode Island†	*** (***)	4 (5.1)	*** (***)	*** (***)	*** (***)	*** (***)
South Carolina	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Tennessee†	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Texas	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Utah	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	0 (0.6)
Virginia	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Washington	— (—)	9 (4.1)	— (—)	6 (4.3)	— (—)	4 (2.0)
West Virginia	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Wisconsin†	*** (***)	*** (***)	*** (***)	*** (***)	1 (2.2)!	*** (***)
Wyoming	*** (***)	*** (***)	*** (***)	*** (***)	3 (2.2)!	2 (1.7)!
Other Jurisdictions						
DoDEA	— (—)	10 (4.2)	— (—)	5 (2.1)	— (—)	2 (2.5)
Guam	*** (***)	2 (2.0)	*** (***)	1 (0.4)	*** (***)	*** (***)

The percentage for race/ethnicity may not add to 100 percent because a small percentage of students categorized themselves as "other."
Due to significant changes in the wording of the race/ethnicity question between the 1992 and 1994 assessments, the 1992 results for Asian and Pacific Islander students are not comparable to 1994 results. Therefore, 1992 results for these two groups are not presented.
No significant differences between the two assessments observed at this achievement level.
*** Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate. — Jurisdiction did not participate in 1992 Trial State Assessment.
! Interpret with caution any comparison involving this statistic. The nature of the sample does not allow accurate determination of the variability of this value.
† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).
‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

TABLE C.6C

1992 and 1994 Grade 4 Reading Achievement Levels by Race/Ethnicity Public Schools Only (continued)

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

At or Above Proficient

	White		Black		Hispanic	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation	33 (1.9)	35 (1.5)	8 (1.4)	8 (0.9)	14 (1.8)	12 (1.6)
Region						
Northeast	41 (5.4)	37 (3.3)	11 (3.1)	7 (1.7)	15 (5.5)	12 (3.6)
Southeast	29 (3.9)	31 (2.9)	9 (2.2)	9 (1.7)	12 (2.9)!	8 (2.5)
Central	33 (2.9)	37 (3.2)	4 (2.0)	7 (2.0)	23 (5.6)	23 (7.8)
West	32 (2.7)	36 (2.5)	6 (2.2)	9 (3.8)!	11 (1.5)	10 (2.1)
State						
Alabama	28 (1.9)	32 (1.5)	5 (1.3)	8 (1.1)	7 (3.1)	4 (3.1)
Arizona	29 (1.7)	32 (1.9)	16 (4.2)	10 (3.4)	10 (1.5)	13 (1.6)
Arkansas	29 (1.5)	30 (1.7)	6 (1.1)	6 (1.2)	8 (2.9)	14 (3.3)
California	30 (2.4)	25 (1.9)	8 (2.7)	8 (3.7)	6 (1.4)	6 (1.5)
Colorado	30 (1.6)	35 (1.6)	12 (3.0)!	11 (5.7)	13 (1.7)	12 (1.8)
Connecticut	42 (1.7)	48 (1.8)	9 (2.0)	9 (2.5)	8 (1.6)	14 (3.0)
Delaware‡	32 (1.4)	30 (1.5)	9 (1.9)	10 (2.1)	7 (2.9)	10 (2.4)
Florida	29 (1.6)	31 (2.0)	7 (1.6)	7 (1.7)	14 (2.1)	13 (1.8)
Georgia	34 (1.9)	36 (2.4)	9 (1.3)	10 (2.0)	15 (3.6)	13 (2.9)
Hawaii	26 (3.4)	34 (2.5)	10 (3.7)	10 (4.0)	11 (2.6)	13 (2.8)
Indiana	33 (1.7)	37 (1.8)	11 (2.7)	8 (2.6)	22 (5.4)	14 (3.5)
Iowa	38 (1.6)	37 (1.4)	17 (4.8)	7 (4.1)!	17 (4.0)	16 (3.1)
Kentucky	25 (1.7)	28 (1.9)	8 (3.2)	12 (3.5)	13 (4.9)	11 (5.0)
Louisiana	23 (1.6)	25 (1.8)	6 (1.0)	4 (0.8)	7 (2.7)	6 (2.4)
Maine‡	37 (1.7)	42 (1.5)	*** (***)	*** (***)	14 (4.7)	25 (6.2)
Maryland	32 (1.7)	37 (2.0)	9 (1.3)	8 (1.3)	12 (2.8)	12 (4.3)
Massachusetts	41 (1.7)	42 (1.9)	10 (3.2)	13 (2.3)	11 (2.5)	10 (2.1)
Minnesota	34 (1.5)	35 (1.6)	5 (2.8)	9 (3.8)	14 (4.4)	21 (4.1)
Mississippi	26 (1.9)	31 (2.3)	5 (0.6)	7 (1.2)	3 (2.2)	6 (2.1)
Missouri	35 (1.5)	35 (1.6)	9 (2.1)	12 (3.1)	12 (2.9)	17 (3.9)
Montana†	— (—)	39 (1.5)	— (—)	*** (***)	— (—)	20 (2.8)
Nebraska†‡	34 (1.8)	37 (1.8)	10 (3.1)	9 (4.7)!	16 (3.0)	21 (3.9)
New Hampshire†‡	39 (1.6)	37 (1.5)	*** (***)	*** (***)	25 (5.0)	21 (6.6)
New Jersey‡	44 (2.2)	42 (2.2)	10 (2.1)	12 (2.3)	14 (2.5)	17 (1.9)
New Mexico	35 (2.8)	30 (2.3)	12 (7.8)	11 (5.4)	13 (1.1)	15 (1.5)
New York‡	36 (1 8)	39 (2.2)	12 (2.6)	9 (1.5)	9 (1.7)	13 (1.8)
North Carolina	33 (1.8)	39 (2.0)	9 (1.8)	11 (1.5)	14 (3.8)	11 (3.1)
North Dakota	36 (1.5)	40 (1.5)	*** (***)	*** (***)	29 (5.8)	22 (4.5)
Pennsylvania†	37 (1.8)	36 (1.4)	7 (1.4)	7 (2.2)	14 (3.4)	11 (4.7)
Rhode Island†	33 (1.9)	37 (1.6)	7 (2.5)	11 (2.7)	9 (1.9)	12 (2.9)
South Carolina	32 (1.7)	31 (1.8)	7 (1.2)	6 (1.1)	11 (3.5)	8 (2.4)
Tennessee†	29 (1.7)	32 (1.7)	8 (1.2)	9 (2.7)	14 (4.3)	12 (5.4)
Texas	35 (2.4)	38 (2.2)	8 (1.6)	10 (2.6)	12 (1.9)	13 (1.4)
Utah	32 (1.7)	33 (1.7)	*** (***)	*** (***)	14 (3.1)	15 (2.7)
Virginia	40 (2.0)	35 (2.1)	12 (2.0)	8 (1.4)	12 (3.3)	20 (3.2)
Washington	— (—)	31 (1.5)	— (—)	11 (3.6)	— (—)	9 (2.2)
West Virginia	26 (1.4)	28 (1.4)	12 (5.5)	13 (2.9)	16 (5.3)	11 (3.9)
Wisconsin†	37 (1.5)	39 (1.7)	10 (2.5)	9 (2.5)	17 (2.7)	14 (3.5)
Wyoming	36 (1.7)	35 (1.4)	*** (***)	*** (***)	17 (2.3)	20 (2.6)
Other Jurisdictions						
DoDEA	— (—)	36 (1.7)	— (—)	14 (2.1)	— (—)	22 (2.5)
Guam	15 (2.1)	15 (3.4)	5 (2.7)	5 (3.1)	4 (1.3)	6 (1.1)

The percentage for race/ethnicity may not add to 100 percent because a small percentage of students categorized themselves as "other."

No significant differences between the two assessments observed at this achievement level.

*** Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate. — Jurisdiction did not participate in 1992 Trial State Assessment.

! Interpret with caution any comparison involving this statistic. The nature of the sample does not allow accurate determination of the variability of this value.

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

TABLE C.6D

1992 and 1994 Grade 4 Reading Achievement Levels by Race/Ethnicity Public Schools Only (continued)

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

At or Above Proficient

	Asian		Pacific Islander		American Indian	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation	*** (***)	45 (7.7)	*** (***)	33 (5.2)	16 (4.5)	18 (4.2)
Region						
Northeast	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Southeast	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Central	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
West	*** (***)	40 (7.9)!	*** (***)	*** (***)	*** (***)	*** (***)
State						
Alabama	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Arizona	*** (***)	*** (***)	*** (***)	*** (***)	6 (1.8)	10 (2.8)
Arkansas	*** (***)	*** (***)	*** (***)	*** (***)	16 (5.5)	*** (***)
California	*** (***)	32 (5.0)	*** (***)	24 (6.3)!	*** (***)	*** (***)
Colorado	*** (***)	*** (***)	*** (***)	*** (***)	16 (5.6)	22 (5.0)
Connecticut	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Delaware‡	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Florida	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Georgia	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Hawaii	*** (***)	33 (2.8)	*** (***)	11 (1.5)	*** (***)	*** (***)
Indiana	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Iowa	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Kentucky	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Louisiana	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Maine‡	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Maryland	*** (***)	49 (7.6)	*** (***)	*** (***)	*** (***)	*** (***)
Massachusetts	*** (***)	16 (6.2)!	*** (***)	*** (***)	*** (***)	*** (***)
Minnesota	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	15 (5.5)
Mississippi	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Missouri	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	22 (5.9)
Montana†	— (—)	*** (***)	— (—)	*** (***)	— (—)	17 (3.7)
Nebraska†‡	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	17 (6.8)
New Hampshire†‡	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
New Jersey‡	*** (***)	52 (5.8)	*** (***)	*** (***)	*** (***)	*** (***)
New Mexico	*** (***)	*** (***)	*** (***)	*** (***)	9 (4.9)!	8 (2.9)
New York‡	*** (***)	46 (8.7)	*** (***)	*** (***)	*** (***)	*** (***)
North Carolina	*** (***)	*** (***)	*** (***)	*** (***)	19 (5.6)!	11 (5.9)!
North Dakota	*** (***)	*** (***)	*** (***)	*** (***)	17 (5.5)!	15 (5.1)!
Pennsylvania†	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Rhode Island†	*** (***)	19 (6.6)	*** (***)	*** (***)	*** (***)	*** (***)
South Carolina	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Tennessee†	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Texas	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Utah	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	9 (4.3)
Virginia	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Washington	— (—)	33 (7.7)	— (—)	19 (6.8)	— (—)	20 (5.0)
West Virginia	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Wisconsin†	*** (***)	*** (***)	*** (***)	*** (***)	16 (6.4)!	*** (***)
Wyoming	*** (***)	*** (***)	*** (***)	*** (***)	17 (5.0)!	20 (5.0)!
Other Jurisdictions						
DoDEA	— (—)	34 (5.0)	— (—)	23 (4.8)	— (—)	17 (4.8)
Guam	*** (***)	9 (4.3)	*** (***)	8 (0.9)	*** (***)	*** (***)

The percentage for race/ethnicity may not add to 100 percent because a small percentage of students categorized themselves as "other."
Due to significant changes in the wording of the race/ethnicity question between the 1992 and 1994 assessments, the 1992 results for Asian and Pacific Islander students are not comparable to 1994 results. Therefore, 1992 results for these two groups are not presented.
No significant differences between the two assessments observed at this achievement level.
*** Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate. — Jurisdiction did not participate in 1992 Trial State Assessment
! Interpret with caution any comparison involving this statistic. The nature of the sample does not allow accurate determination of the variability of this value.
† Did not satisfy one of the guidelines for school sample participation rate; for the 1994 Trial State Assessment (see Appendix A).
‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

TABLE C.6E

1992 and 1994 Grade 4 Reading Achievement Levels by Race/Ethnicity Public Schools Only (continued)

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

At or Above Basic

	White		Black		Hispanic	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation	70 (1.5)	69 (1.3)	32 (2.1)	30 (2.5)	42 (2.1)	33 (2.6)
Region						
Northeast	75 (3.6)	72 (3.3)	37 (4.7)	27 (2.7)	43 (5.8)	37 (4.9)
Southeast	67 (4.8)	65 (2.2)	34 (3.9)	32 (4.3)	39 (4.9)!	26 (4.3)
Central	71 (1.8)	71 (3.0)	28 (4.5)	28 (8.6)	54 (7.4)	42 (10.1)
West	66 (2.3)	69 (2.1)	26 (4.2)	31 (4.1)!	37 (2.7)	32 (3.8)
State						
Alabama	64 (2.2)	65 (1.9)	28 (2.5)	29 (1.8)	33 (5.1)	21 (5.1)
Arizona	67 (1.7)	65 (2.1)	43 (6.2)	31 (6.0)	41 (2.5)	34 (2.3)
Arkansas	66 (1.5)	64 (1.8)	29 (2.0)	25 (2.1)	31 (5.2)	36 (5.7)
California	65 (2.7)	59 (2.9)	29 (4.6)	31 (5.7)	26 (2.8)	22 (2.5)
Colorado	70 (1.6)	69 (1.6)	48 (6.2)!	36 (7.2)	46 (2.9)	37 (2.7)
Connecticut	80 (1.3)	80 (1.6)	34 (5.2)	33 (4.6)	37 (4.1)	38 (3.6)
Delaware‡	69 (1.5)	62 (1.9)	35 (2.5)	33 (2.2)	31 (3.9)	34 (4.1)
Florida	65 (1.6)	64 (1.7)	27 (3.0)	28 (2.3)	43 (3.2)	35 (2.7)
Georgia	71 (1.6)	67 (2.0)	36 (2.7)	30 (3.2)	34 (5.8)	36 (4.8)
Hawaii	62 (3.6)	67 (2.6)	33 (4.6)	35 (5.2)	34 (3.8)	33 (3.0)
Indiana	73 (1.5)	71 (1.8)	41 (3.5)	34 (3.4)	54 (5.1)	46 (4.6)
Iowa	75 (1.4)	72 (1.5)	54 (7.0)	26 (5.8)!	58 (4.7)	49 (6.0)
Kentucky	61 (1.7)	59 (1.5)	38 (4.7)	37 (4.7)	34 (7.1)	36 (4.8)
Louisiana	62 (1.9)	58 (1.9)	28 (1.8)	21 (1.9)<	32 (6.1)	22 (4.5)
Maine‡	77 (1.5)	76 (1.7)	*** (***)	*** (***)	52 (6.0)	65 (5.6)
Maryland	68 (1.9)	69 (2.0)	35 (3.1)	31 (2.5)	39 (3.9)	39 (4.5)
Massachusetts	80 (1.1)	78 (1.3)	48 (4.4)	39 (4.0)	42 (4.3)	37 (4.0)
Minnesota	71 (1.6)	69 (1.3)	29 (6.0)	27 (6.1)	45 (5.9)	49 (4.1)
Mississippi	64 (2.3)	65 (2.6)	25 (1.7)	28 (2.1)	23 (5.0)	27 (4.0)
Missouri	74 (1.5)	68 (1.6)	38 (3.5)	36 (4.9)	42 (4.6)	43 (5.1)
Montana†	— (—)	73 (1.6)	— (—)	*** (***)	— (—)	55 (5.1)
Nebraska†‡	73 (1.6)	70 (1.5)	35 (3.9)	34 (5.1)!	49 (4.5)	50 (5.8)
New Hampshire†‡	77 (1.9)	71 (2.1)	*** (***)	*** (***)	62 (4.9)	59 (6.8)
New Jersey‡	81 (1.5)	78 (1.5)	40 (4.0)	35 (3.6)	39 (4.3)	44 (3.1)
New Mexico	70 (2.1)	63 (2.0)	41 (7.0)	39 (8.4)	42 (2.2)	41 (2.0)
New York‡	74 (1.6)	73 (1.9)	44 (3.4)	33 (2.6)	32 (3.2)	39 (3.3)
North Carolina	67 (1.6)	71 (1.7)	36 (3.1)	35 (2.1)	37 (4.2)	34 (5.3)
North Dakota	75 (1.8)	75 (1.3)	*** (***)	*** (***)	71 (7.5)	58 (5.1)
Pennsylvania†	76 (1.6)	70 (1.4)<	29 (3.3)	26 (4.1)	41 (4.7)	35 (5.4)
Rhode Island†	72 (1.7)	72 (1.6)	27 (3.5)	39 (4.0)	32 (5.4)	38 (3.5)
South Carolina	68 (2.3)	66 (1.7)	34 (2.3)	25 (1.9)<	32 (5.3)	27 (4.0)
Tennessee†	65 (1.7)	66 (2.3)	33 (2.9)	30 (2.8)	39 (5.8)	40 (8.6)
Texas	71 (2.5)	73 (2.4)	40 (3.8)	38 (4.7)	41 (2.4)	41 (2.6)
Utah	70 (1.5)	68 (1.8)	*** (***)	*** (***)	45 (4.2)	47 (3.4)
Virginia	76 (1.9)	70 (1.9)	44 (3.7)	31 (2.3)<	45 (5.1)	49 (4.7)
Washington	— (—)	64 (1.7)	— (—)	41 (4.7)	— (—)	36 (3.9)
West Virginia	63 (1.3)	59 (1.3)	42 (7.6)	44 (8.9)	39 (6.2)	39 (6.5)
Wisconsin†	75 (1.3)	76 (1.4)	41 (4.4)	39 (6.5)	56 (4.8)	46 (6.3)
Wyoming	75 (1.8)	71 (1.6)	*** (***)	*** (***)	53 (3.8)	53 (5.0)
Other Jurisdictions						
DoDEA	— (—)	70 (1.8)	— (—)	49 (3.1)	— (—)	57 (3.2)
Guam	41 (3.8)	39 (3.9)	19 (5.5)	21 (5.8)	17 (2.2)	20 (2.1)

The percentage for race/ethnicity may not add to 100 percent because a small percentage of students categorized themselves as "other."

<< The value for the 1994 assessment was significantly lower (> > higher) than the value for 1992 at or about the 95 percent confidence level. These notations indicate statistical significance from a multiple comparison procedure based on 38 jurisdictions participating in both 1992 and 1994. If looking at only one state, < indicates the value for 1994 was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level. Statistically significant differences between 1994 and 1992 for the state comparison samples for the nation and regions are not indicated.

*** Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate. — Jurisdiction did not participate in 1992 Trial State Assessment.

! Interpret with caution any comparison involving this statistic. The nature of the sample does not allow accurate determination of the variability of this value.

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

TABLE C.6F

1992 and 1994 Grade 4 Reading Achievement Levels by Race/Ethnicity Public Schools Only (continued)

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

At or Above Basic

	Asian		Pacific Islander		American Indian	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation	••• (•••)	77 (5.7)	••• (•••)	63 (8.4)	52 (6.7)	47 (4.7)
Region						
Northeast	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Southeast	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Central	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
West	••• (•••)	73 (9.8)!	••• (•••)	••• (•••)	••• (•••)	••• (•••)
State						
Alabama	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Arizona	••• (•••)	••• (•••)	••• (•••)	••• (•••)	25 (4.6)	27 (3.9)
Arkansas	••• (•••)	••• (•••)	••• (•••)	••• (•••)	51 (6.9)	••• (•••)
California	••• (•••)	55 (5.8)	••• (•••)	58 (7.0)!	••• (•••)	••• (•••)
Colorado	••• (•••)	••• (•••)	••• (•••)	••• (•••)	47 (7.1)	49 (6.0)
Connecticut	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Delaware‡	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Florida	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Georgia	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Hawaii	••• (•••)	65 (2.8)	••• (•••)	35 (2.4)	••• (•••)	••• (•••)
Indiana	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Iowa	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Kentucky	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Louisiana	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Maine‡	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Maryland	••• (•••)	79 (4.9)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Massachusetts	••• (•••)	42 (9.5)!	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Minnesota	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	38 (7.3)
Mississippi	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Missouri	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	58 (7.3)
Montana†	— (—)	••• (•••)	— (—)	••• (•••)	— (—)	47 (5.4)
Nebraska†‡	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	42 (7.0)
New Hampshire†‡	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
New Jersey‡	••• (•••)	83 (5.1)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
New Mexico	••• (•••)	••• (•••)	••• (•••)	••• (•••)	42 (7.2)!	30 (4.2)
New York‡	••• (•••)	75 (5.9)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
North Carolina	••• (•••)	••• (•••)	••• (•••)	••• (•••)	43 (8.8)!	45 (5.8)!
North Dakota	••• (•••)	••• (•••)	••• (•••)	••• (•••)	56 (7.7)!	40 (7.7)!
Pennsylvania†	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Rhode Island†	••• (•••)	45 (7.5)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
South Carolina	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Tennessee†	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Texas	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Utah	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	39 (10.6)
Virginia	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Washington	— (—)	65 (5.7)	— (—)	51 (9.2)	— (—)	51 (6.0)
West Virginia	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)	••• (•••)
Wisconsin†	••• (•••)	••• (•••)	••• (•••)	••• (•••)	49 (9.3)!	••• (•••)
Wyoming	••• (•••)	••• (•••)	••• (•••)	••• (•••)	54 (6.4)!	55 (5.8)!
Other Jurisdictions						
DoDEA	— (—)	64 (5.9)	— (—)	57 (6.7)	— (—)	52 (8.0)
Guam	••• (•••)	28 (7.5)	••• (•••)	28 (1.4)	••• (•••)	••• (•••)

The percentage for race/ethnicity may not add to 100 percent because a small percentage of students categorized themselves as "other."
Due to significant changes in the wording of the race/ethnicity question between the 1992 and 1994 assessments, the 1992 results for Asian and Pacific Islander students are not comparable to 1994 results. Therefore 1992 results for these two groups are not presented.
••• Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate. — Jurisdiction did not participate in 1992 Trial State Assessment.
! Interpret with caution any comparison involving this statistic. The nature of the sample does not allow accurate determination of the variability of this value.
† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).
‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

TABLE C.6G

1992 and 1994 Grade 4 Reading Achievement Levels by Race/Ethnicity Public Schools Only (continued)

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

Below Basic

	White		Black		Hispanic	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation	30 (1.5)	31 (1.3)	68 (2.1)	70 (2.5)	58 (2.1)	67 (2.6)
Region						
Northeast	25 (3.6)	28 (3.3)	63 (4.7)	73 (2.7)	57 (5.8)	63 (4.9)
Southeast	33 (4.8)	35 (2.2)	66 (3.9)	68 (4.3)	61 (4.9)!	74 (4.3)
Central	29 (1.8)	29 (3.0)	72 (4.5)	72 (8.6)	46 (7.4)	58 (10.1)
West	34 (2.3)	31 (2.1)	74 (4.2)	69 (4.1)!	63 (2.7)	68 (3.8)
State						
Alabama	36 (2.2)	35 (1.9)	72 (2.5)	71 (1.8)	67 (5.1)	79 (5.1)
Arizona	33 (1.7)	35 (2.1)	57 (6.2)	69 (6.0)	59 (2.5)	66 (2.3)
Arkansas	34 (1.5)	36 (1.8)	71 (2.0)	75 (2.1)	69 (5.2)	64 (5.7)
California	35 (2.7)	41 (2.9)	71 (4.6)	69 (5.7)	74 (2.8)	78 (2.5)
Colorado	30 (1.6)	31 (1.6)	52 (6.2)!	64 (7.2)	54 (2.9)	63 (2.7)
Connecticut	20 (1.3)	20 (1.6)	66 (5.2)	67 (4.6)	63 (4.1)	62 (3.6)
Delaware‡	31 (1.5)	38 (1.9)	65 (2.5)	67 (2.2)	69 (3.9)	66 (4.1)
Florida	35 (1.6)	36 (1.7)	73 (3.0)	72 (2.3)	57 (3.2)	65 (2.7)
Georgia	29 (1.6)	33 (2.0)	64 (2.7)	70 (3.2)	66 (5.8)	64 (4.8)
Hawaii	38 (3.6)	33 (2.6)	67 (4.6)	65 (5.2)	66 (3.8)	67 (3.0)
Indiana	27 (1.5)	29 (1.8)	59 (3.5)	66 (3.4)	46 (5.1)	54 (4.6)
Iowa	25 (1.4)	28 (1.5)	46 (7.0)	74 (5.8)!	42 (4.7)	51 (6.0)
Kentucky	39 (1.7)	41 (1.5)	62 (4.7)	63 (4.7)	66 (7.1)	64 (4.8)
Louisiana	38 (1.9)	42 (1.9)	72 (1.8)	79 (1.9)>	68 (6.1)	78 (4.5)
Maine‡	23 (1.5)	24 (1.7)	*** (***)	*** (***)	48 (6.0)	35 (5.6)
Maryland	32 (1.9)	31 (2.0)	65 (3.1)	69 (2.5)	61 (3.9)	61 (4.5)
Massachusetts	20 (1.1)	22 (1.3)	52 (4.4)	61 (4.0)	58 (4.3)	63 (4.0)
Minnesota	29 (1.6)	31 (1.3)	71 (6.0)	73 (6.1)	55 (5.9)	51 (4.1)
Mississippi	36 (2.3)	35 (2.6)	75 (1.7)	72 (2.1)	77 (5.0)	73 (4.0)
Missouri	26 (1.5)	32 (1.6)	62 (3.5)	64 (4.9)	58 (4.6)	57 (5.1)
Montana†	— (—)	27 (1.6)	— (—)	*** (***)	— (—)	45 (5.1)
Nebraska†‡	27 (1.6)	30 (1.5)	65 (3.9)	66 (5.1)!	51 (4.5)	50 (5.8)
New Hampshire†‡	23 (1.9)	29 (2.1)	*** (***)	*** (***)	38 (4.9)	41 (6.8)
New Jersey‡	19 (1.5)	22 (1.5)	60 (4.0)	65 (3.6)	61 (4.3)	56 (3.1)
New Mexico	30 (2.1)	37 (2.0)	59 (7.0)	61 (8.4)	58 (2.2)	59 (2.0)
New York‡	26 (1.6)	27 (1.9)	56 (3.4)	67 (2.6)	68 (3.2)	61 (3.3)
North Carolina	33 (1.6)	29 (1.7)	64 (3.1)	65 (2.1)	60 (4.2)	66 (5.3)
North Dakota	25 (1.8)	25 (1.3)	*** (***)	*** (***)	29 (7.5)	42 (5.1)
Pennsylvania†	24 (1.6)	30 (1.4)>	71 (3.3)	74 (4.1)	59 (4.7)	65 (5.4)
Rhode Island†	28 (1.7)	28 (1.6)	73 (3.5)	61 (4.0)	68 (5.4)	62 (3.5)
South Carolina	32 (2.3)	34 (1.7)	66 (2.3)	75 (1.9)>	68 (5.3)	73 (4.0)
Tennessee†	35 (1.7)	34 (2.3)	67 (2.9)	70 (2.8)	61 (5.8)	60 (8.6)
Texas	29 (2.5)	27 (2.4)	60 (3.8)	62 (4.7)	59 (2.4)	59 (2.6)
Utah	30 (1.5)	32 (1.8)	*** (***)	*** (***)	55 (4.2)	53 (3.4)
Virginia	24 (1.9)	30 (1.9)	56 (3.7)	69 (2.3)>	55 (5.1)	51 (4.7)
Washington	— (—)	36 (1.7)	— (—)	59 (4.7)	— (—)	64 (3.9)
West Virginia	37 (1.3)	41 (1.3)	58 (7.6)	56 (8.9)	61 (6.2)	61 (6.5)
Wisconsin†	25 (1.3)	24 (1.4)	59 (4.4)	61 (6.5)	44 (4.8)	54 (6.3)
Wyoming	25 (1.8)	29 (1.6)	*** (***)	*** (***)	47 (3.8)	47 (5.0)
Other Jurisdictions						
DoDEA	— (—)	30 (1.8)	— (—)	51 (3.1)	— (—)	43 (3.2)
Guam	59 (3.8)	61 (3.9)	81 (5.5)	79 (5.8)	83 (2.2)	80 (2.1)

The percentage for race/ethnicity may not add to 100 percent because a small percentage of students categorized themselves as "other."
Due to significant changes in the wording of the race/ethnicity question between the 1992 and 1994 assessments, the 1992 results for Asian and Pacific Islander students are not comparable to 1994 results. Therefore, 1992 results for these two groups are not presented.
<< The value for the 1994 assessment was significantly lower (>> higher) than the value for 1992 at or about the 95 percent confidence level. These notations indicate statistical significance from a multiple comparison procedure based on 38 jurisdictions participating in both 1992 and 1994. If looking at only one state, < indicates the value for 1994 was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level. Statistically significant differences between 1994 and 1992 for the state comparison samples for the nation and regions are not indicated.
*** Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate. — Jurisdiction did not participate in 1992 Trial State Assessment.
! Interpret with caution any comparison involving this statistic. The nature of the sample does not allow accurate determination of the variability of this value.
† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).
‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

TABLE C.6H

1992 and 1994 Grade 4 Reading Achievement Levels by Race/Ethnicity Public Schools Only (continued)

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

Below Basic

	Asian		Pacific Islander		American Indian	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation	*** (***)	23 (5.7)	*** (***)	37 (8.4)	48 (6.7)	53 (4.7)
Region						
Northeast	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Southeast	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Central	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
West	*** (***)	27 (9.8)!	*** (***)	*** (***)	*** (***)	*** (***)
State						
Alabama	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Arizona	*** (***)	*** (***)	*** (***)	*** (***)	75 (4.6)	73 (3.9)
Arkansas	*** (***)	*** (***)	*** (***)	*** (***)	49 (6.9)	*** (***)
California	*** (***)	45 (5.8)	*** (***)	42 (7.0)!	*** (***)	*** (***)
Colorado	*** (***)	*** (***)	*** (***)	*** (***)	53 (7.1)	51 (6.0)
Connecticut	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Delaware‡	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Florida	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Georgia	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Hawaii	*** (***)	35 (2.8)	*** (***)	65 (2.4)	*** (***)	*** (***)
Indiana	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Iowa	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Kentucky	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Louisiana	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Maine‡	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Maryland	*** (***)	21 (4.9)	*** (***)	*** (***)	*** (***)	*** (***)
Massachusetts	*** (***)	58 (9.5)!	*** (***)	*** (***)	*** (***)	*** (***)
Minnesota	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	62 (7.3)
Mississippi	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Missouri	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	42 (7.3)
Montana†	— (—)	*** (***)	— (—)	*** (***)	— (—)	53 (5.4)
Nebraska†‡	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	58 (7.0)
New Hampshire†‡	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
New Jersey‡	*** (***)	17 (5.1)	*** (***)	*** (***)	*** (***)	*** (***)
New Mexico	*** (***)	*** (***)	*** (***)	*** (***)	58 (7.2)!	70 (4.2)
New York‡	*** (***)	25 (5.9)	*** (***)	*** (***)	*** (***)	*** (***)
North Carolina	*** (***)	*** (***)	*** (***)	*** (***)	57 (8.8)!	55 (5.8)!
North Dakota	*** (***)	*** (***)	*** (***)	*** (***)	44 (7.7)!	60 (7.7)!
Pennsylvania†	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Rhode Island†	*** (***)	55 (7.5)	*** (***)	*** (***)	*** (***)	*** (***)
South Carolina	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Tennessee†	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Texas	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Utah	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	61 (10.6)
Virginia	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Washington	— (—)	35 (5.7)	— (—)	49 (9.2)	— (—)	49 (6.0)
West Virginia	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)	*** (***)
Wisconsin†	*** (***)	*** (***)	*** (***)	*** (***)	51 (9.3)!	*** (***)
Wyoming	*** (***)	*** (***)	*** (***)	*** (***)	46 (6.4)!	45 (5.8)!
Other Jurisdictions						
DoDEA	— (—)	36 (5.9)	— (—)	43 (6.7)	— (—)	48 (8.0)
Guam	*** (***)	72 (7.5)	*** (***)	72 (1.4)	*** (***)	*** (***)

The percentage for race/ethnicity may not add to 100 percent because a small percentage of students categorized themselves as "other."
Due to significant changes in the wording of the race/ethnicity question between the 1992 and 1994 assessments, the 1992 results for Asian and Pacific Islander students are not comparable to 1994 results. Therefore, 1992 results for these two groups are not presented.
*** Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate. — Jurisdiction did not participate in 1992 Trial State Assessment.
! Interpret with caution any comparison involving this statistic. The nature of the sample does not allow accurate determination of the variability of this value.
† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).
‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).
SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments.

TABLE C.7A

1992 and 1994 Grade 4 Reading Achievement Levels by Parents' Education Level Public Schools Only

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

At or Above Advanced

	College Graduate		Some Education After High School		Graduated High School	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation	10 (1.2)	11 (1.3)	8 (2.3)	9 (2.1)	3 (1.1)	4 (1.3)
Region						
Northeast	15 (4.4)	11 (3.1)	10 (8.5)	8 (3.5)	3 (2.8)	4 (2.8)
Southeast	8 (1.2)	9 (1.3)	6 (3.3)	11 (3.1)	2 (1.6)	4 (1.5)
Central	8 (1.9)	11 (2.4)	7 (4.3)	7 (3.7)	3 (1.7)	6 (3.4)
West	8 (2.2)	11 (1.7)	9 (3.2)	9 (2.6)	3 (2.4)	2 (1.4)
State						
Alabama	5 (0.9)	8 (1.3)	5 (2.1)	8 (2.4)	3 (0.9)	2 (0.9)
Arizona	5 (1.2)	9 (1.6)	3 (1.6)	11 (3.0)	2 (1.3)	3 (2.0)
Arkansas	6 (1.2)	7 (1.3)	6 (2.4)	8 (2.4)	3 (0.7)	3 (1.2)
California	7 (1.4)	6 (0.9)	3 (1.8)	4 (2.6)	2 (1.7)	2 (0.9)
Colorado	6 (1.0)	8 (1.3)	5 (1.7)	7 (2.2)	2 (1.0)	5 (2.1)
Connecticut	11 (2.0)	15 (2.0)	8 (2.0)	14 (3.2)	2 (0.8)	5 (2.0)
Delaware‡	7 (1.0)	8 (1.4)	7 (2.6)	8 (3.8)	2 (0.8)	3 (1.3)
Florida	5 (0.8)	7 (1.3)	5 (2.2)	7 (2.9)	3 (0.9)	4 (1.3)
Georgia	8 (1.6)	11 (1.8)	8 (3.0)	9 (2.9)	3 (1.4)	4 (1.4)
Hawaii	3 (0.8)	5 (0.9)	3 (1.7)	9 (2.4)	2 (1.0)	2 (1.0)
Indiana	9 (1.3)	11 (1.6)	8 (2.3)	11 (2.3)	4 (1.7)	6 (1.6)
Iowa	10 (1.0)	11 (1.6)	8 (2.2)	12 (2.7)	6 (1.9)	5 (2.0)
Kentucky	5 (1.5)	8 (1.6)	6 (2.1)	9 (2.7)	3 (1.0)	6 (1.4)
Louisiana	3 (1.0)	4 (1.0)	4 (2.2)	5 (2.1)	1 (0.5)	2 (0.8)
Maine‡	11 (1.5)	14 (1.8)	6 (3.1)	13 (2.6)	3 (1.3)	7 (1.7)
Maryland	7 (1.2)	9 (1.2)	4 (2.3)	7 (2.6)	3 (1.2)	5 (1.9)
Massachusetts	10 (1.2)	11 (1.6)	7 (3.0)	10 (2.8)	3 (1.7)	3 (2.1)
Minnesota	8 (1.1)	11 (1.3)	9 (2.8)	6 (1.6)	4 (1.2)	7 (1.8)
Mississippi	2 (0.6)	6 (1.1)	4 (2.2)	7 (3.7)	1 (0.4)	2 (0.8)
Missouri	9 (1.4)	11 (1.6)	8 (2.0)	11 (2.6)	3 (0.9)	7 (1.9)
Montana†	— (—)	11 (1.6)	— (—)	8 (2.7)	— (—)	5 (1.7)
Nebraska†‡	8 (1.1)	12 (1.8)	10 (3.8)	12 (3.0)	3 (1.4)	6 (1.7)
New Hampshire†‡	11 (1.8)	11 (1.7)	10 (2.7)	15 (3.0)	5 (1.6)	8 (2.6)
New Jersey‡	12 (1.9)	12 (1.3)	9 (3.3)	10 (2.4)	4 (1.6)	4 (1.6)
New Mexico	7 (1.3)	8 (1.2)	5 (2.0)	7 (1.9)	2 (1.1)	2 (0.8)
New York‡	9 (1.3)	9 (1.3)	4 (1.8)	9 (4.5)	2 (1.2)	4 (2.2)
North Carolina	8 (1.6)	12 (1.3)	5 (1.8)	12 (3.2)	3 (1.0)	3 (1.1)
North Dakota	9 (1.2)	12 (1.5)	7 (2.2)	10 (2.7)	5 (1.8)	3 (2.0)
Pennsylvania†	10 (1.4)	11 (1.6)	10 (3.0)	8 (2.2)	3 (1.5)	3 (0.9)
Rhode Island†	9 (1.5)	12 (2.0)	7 (2.7)	8 (2.6)	2 (1.5)	5 (1.9)
South Carolina	6 (1.3)	7 (1.0)	6 (2.3)	6 (2.1)	2 (0.9)	2 (1.0)
Tennessee†	7 (1.7)	8 (1.6)	7 (1.9)	11 (3.8)	2 (0.9)	5 (1.6)
Texas	8 (1.4)	10 (1.7)	3 (1.7)	7 (1.7)	2 (0.8)	4 (1.6)
Utah	7 (1.2)	9 (1.3)	8 (2.9)	8 (2.3)	2 (1.2)	4 (1.4)
Virginia	10 (1.7)	10 (1.3)	7 (2.6)	9 (2.7)	3 (1.2)	4 (1.5)
Washington	— (—)	9 (1.3)	— (—)	5 (2.0)	— (—)	4 (1.3)
West Virginia	8 (1.5)	8 (1.4)	7 (1.9)	10 (2.2)	3 (0.7)	5 (1.4)
Wisconsin†	10 (1.2)	11 (1.4)	9 (1.6)	8 (2.9)	3 (1.3)	6 (1.8)
Wyoming	8 (1.2)	8 (1.1)	8 (1.9)	7 (2.1)	2 (1.1)	3 (1.2)
Other Jurisdictions						
DoDEA	— (—)	8 (1.3)	— (—)	7 (1.6)	— (—)	2 (1.7)
Guam	1 (0.5)	2 (0.6)	2 (1.4)	3 (1.8)	1 (0.6)	0 (0.5)

No significant differences between the two assessments observed at this achievement level.

— Jurisdiction did not participate in 1992 Trial State Assessment.

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

TABLE C.7B

1992 and 1994 Grade 4 Reading Achievement Levels by Parents' Education Level Public Schools Only (continued)

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

At or Above Advanced

	Did Not Finish High School		I Don't Know	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation	1 (1.4)	1 (1.3)	3 (0.8)	4 (0.7)
Region				
Northeast	*** (***)	*** (***)	4 (1.7)	3 (1.0)
Southeast	0 (0.6)	1 (1.7)	2 (0.9)	3 (1.2)
Central	*** (***)	*** (***)	4 (1.4)	4 (1.5)
West	2 (1.8)	1 (2.0)	3 (1.5)	5 (1.3)
State				
Alabama	1 (0.6)	2 (1.3)	1 (0.5)	3 (0.9)
Arizona	2 (1.6)	2 (1.7)	2 (0.5)	4 (0.7)
Arkansas	1 (1.1)	1 (1.7)	2 (0.8)	3 (1.0)
California	0 (0.7)	0 (***)	1 (0.7)	2 (0.8)
Colorado	1 (1.7)	2 (1.8)	2 (0.7)	3 (0.8)
Connecticut	0 (***)	7 (3.8)	2 (0.7)	6 (1.1)
Delaware‡	0 (0.4)	1 (0.9)	3 (0.8)	3 (1.0)
Florida	1 (2.0)	1 (1.4)	2 (0.5)	4 (0.8)
Georgia	2 (1.1)	1 (1.0)	3 (0.9)	3 (0.9)
Hawaii	1 (1.3)	2 (2.7)	2 (0.8)	3 (1.0)
Indiana	1 (1.3)	1 (0.9)	3 (1.1)	3 (0.9)
Iowa	3 (1.9)	2 (2.3)	4 (1.3)	5 (1.1)
Kentucky	1 (0.8)	3 (1.3)	2 (0.8)	3 (1.3)
Louisiana	1 (1.2)	0 (0.5)	2 (0.5)	1 (0.8)
Maine‡	0 (0.7)	3 (3.0)	3 (0.7)	5 (0.8)
Maryland	1 (0.9)	2 (2.5)	2 (0.6)	4 (0.9)
Massachusetts	1 (2.0)	2 (2.8)	2 (0.8)	4 (1.2)
Minnesota	*** (***)	*** (***)	3 (0.8)	4 (0.8)
Mississippi	1 (0.6)	2 (1.0)	2 (0.6)	2 (0.8)
Missouri	3 (1.7)	1 (0.6)	3 (0.7)	4 (0.9)
Montana†‡	— (—)	1 (1.3)	— (—)	4 (0.9)
Nebraska†‡	*** (***)	*** (***)	2 (0.9)	4 (1.0)
New Hampshire†‡	1 (1.5)	5 (3.2)	4 (1.3)	4 (1.3)
New Jersey‡	3 (2.3)	3 (3.0)	4 (0.9)	4 (0.9)
New Mexico	0 (***)	2 (1.3)	2 (1.0)	2 (0.6)
New York‡	1 (1.1)	2 (1.6)	2 (0.5)	4 (0.6)
North Carolina	2 (1.0)	1 (1.0)	3 (0.7)	4 (1.1)
North Dakota	*** (***)	*** (***)	3 (1.0)	4 (0.8)
Pennsylvania†	1 (1.9)	1 (0.7)	2 (0.6)	3 (0.8)
Rhode Island†	1 (1.1)	6 (3.3)	3 (1.0)	4 (1.1)
South Carolina	1 (1.0)	1 (1.2)	2 (0.6)	2 (0.6)
Tennessee†	1 (0.8)	1 (1.1)	1 (0.5)	3 (0.9)
Texas	1 (1.4)	0 (0.7)	3 (0.8)	3 (0.6)
Utah	1 (0.8)	*** (***)	3 (0.5)	3 (0.8)
Virginia	1 (0.9)	2 (1.9)	2 (0.7)	5 (1.3)
Washington	— (—)	2 (2.5)	— (—)	3 (0.9)
West Virginia	1 (1.4)	2 (1.7)	3 (0.7)	3 (0.7)
Wisconsin†	1 (1.1)	4 (2.7)	3 (0.6)	3 (1.4)
Wyoming	2 (2.7)	1 (1.1)	3 (0.7)	4 (0.8)
Other Jurisdictions				
DoDEA	— (—)	*** (***)	— (—)	3 (0.9)
Guam	1 (1.1)	0 (***)	1 (0.3)	1 (0.3)

No significant differences between the two assessments observed at this achievement level

*** Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate.

— Jurisdiction did not participate in 1992 Trial State Assessment.

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

TABLE C.7C

1992 and 1994 Grade 4 Reading Achievement Levels by Parents' Education Level Public Schools Only (continued)

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

At or Above Proficient

	College Graduate		Some Education After High School		Graduated High School	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation	36 (2.0)	37 (1.9)	32 (3.6)	36 (2.9)	21 (2.3)	22 (2.7)
Region						
Northeast	47 (6.1)	37 (5.0)	34 (9.5)	38 (7.5)	19 (4.9)	21 (4.8)
Southeast	31 (3.8)	31 (2.8)	28 (5.0)	36 (3.7)	18 (4.2)	19 (4.2)
Central	35 (3.6)	40 (3.9)	32 (7.4)	36 (6.8)	22 (4.1)	30 (4.4)
West	32 (3.4)	39 (2.8)	33 (4.4)	34 (6.6)	24 (6.5)	20 (5.2)
State						
Alabama	27 (2.3)	32 (2.4)	27 (3.2)	30 (4.1)	17 (2.4)	16 (2.2)
Arizona	29 (1.9)	34 (2.2)	27 (4.2)	34 (4.3)	16 (3.2)	18 (3.4)
Arkansas	29 (2.6)	31 (2.5)	34 (4.3)	35 (3.4)	22 (2.2)	20 (2.0)
California	30 (2.8)	24 (1.9)	23 (4.9)	23 (4.0)	15 (5.1)	11 (3.7)
Colorado	33 (1.9)	36 (1.7)	33 (4.0)	33 (4.5)	18 (2.7)	25 (4.2)
Connecticut	47 (2.3)	47 (2.2)	42 (4.8)	49 (3.3)	21 (3.6)	22 (3.6)
Delaware‡	33 (1.8)	30 (1.8)	28 (4.4)	32 (5.3)	16 (3.5)	20 (2.9)
Florida	26 (1.9)	28 (2.1)	26 (3.5)	34 (3.4)	20 (2.6)	17 (2.5)
Georgia	34 (2.4)	35 (3.1)	33 (3.1)	34 (3.9)	18 (2.9)	19 (2.5)
Hawaii	21 (1.8)	24 (2.0)	22 (4.2)	33 (4.9)	12 (2.2)	13 (2.7)
Indiana	38 (2.3)	44 (2.0)	40 (4.8)	42 (4.1)	27 (2.9)	29 (2.7)
Iowa	47 (2.2)	41 (1.9)	42 (3.8)	46 (3.8)	29 (2.3)	28 (3.0)
Kentucky	30 (3.1)	31 (2.4)	33 (3.8)	38 (3.5)	22 (2.2)	24 (2.0)
Louisiana	18 (1.9)	18 (2.0)	26 (2.6)	24 (3.3)	12 (1.7)	14 (2.3)
Maine‡	46 (2.8)	50 (2.1)	47 (5.5)	49 (5.1)	30 (3.2)	34 (3.9)
Maryland	31 (1.6)	33 (2.4)	29 (4.5)	27 (4.1)	19 (3.5)	20 (4.5)
Massachusetts	48 (2.0)	45 (2.2)	41 (3.7)	40 (4.1)	28 (4.5)	24 (3.5)
Minnesota	38 (2.5)	43 (2.1)	45 (4.8)	33 (4.1)	27 (3.0)	29 (4.7)
Mississippi	17 (1.7)	22 (1.8)	23 (4.2)	28 (4.4)	12 (2.1)	16 (2.4)
Missouri	40 (2.5)	40 (2.8)	38 (3.8)	40 (3.7)	24 (2.5)	29 (2.7)
Montana†	— (—)	44 (2.5)	— (—)	41 (3.9)	— (—)	32 (3.0)
Nebraska†‡	39 (2.3)	45 (2.1)	43 (6.3)	47 (5.6)	21 (3.0)	28 (3.6)
New Hampshire†‡	46 (2.5)	43 (2.3)	46 (5.4)	50 (5.2)	29 (2.9)	32 (4.1)
New Jersey‡	46 (2.5)	44 (2.4)	44 (4.4)	38 (4.3)	25 (4.0)	22 (4.4)
New Mexico	33 (2.3)	29 (2.3)	29 (3.2)	32 (3.6)	18 (2.8)	15 (2.3)
New York‡	36 (2.4)	34 (2.7)	32 (4.6)	40 (4.0)	21 (3.1)	25 (3.5)
North Carolina	34 (2.2)	39 (2.3)	30 (3.5)	40 (3.6)	18 (2.2)	19 (2.5)
North Dakota	44 (2.2)	47 (2.1)	41 (3.7)	43 (4.7)	31 (4.2)	27 (2.7)
Pennsylvania†	43 (2.0)	40 (2.9)	44 (4.1)	36 (4.0)	25 (3.2)	22 (2.4)
Rhode Island†	37 (3.2)	42 (2.5)	39 (4.6)	41 (3.5)	19 (3.3)	26 (3.2)
South Carolina	30 (2.0)	28 (2.2)	31 (5.0)	32 (5.0)	13 (2.1)	11 (1.6)
Tennessee†	32 (3.0)	33 (3.1)	36 (5.9)	38 (5.3)	19 (2.6)	25 (4.1)
Texas	35 (3.4)	36 (3.5)	29 (3.5)	36 (4.9)	17 (3.0)	20 (3.8)
Utah	39 (2.4)	39 (2.3)	40 (3.8)	36 (4.1)	21 (4.0)	24 (3.5)
Virginia	42 (2.5)	35 (2.6)	35 (3.4)	29 (3.9)	23 (2.5)	18 (3.4)
Washington	— (—)	37 (1.9)	— (—)	25 (3.0)	— (—)	24 (3.4)
West Virginia	36 (2.4)	35 (2.6)	33 (3.4)	37 (3.7)	21 (2.3)	25 (2.8)
Wisconsin†	43 (2.6)	47 (2.5)	42 (4.0)	39 (5.2)	27 (2.1)	32 (3.5)
Wyoming	42 (2.2)	39 (2.2)	41 (3.8)	43 (3.5)	25 (3.4)	25 (3.0)
Other Jurisdictions						
DoDEA	— (—)	34 (1.8)	— (—)	34 (3.2)	— (—)	19 (3.9)
Guam	9 (1.4)	10 (1.4)	11 (3.9)	14 (3.2)	9 (2.0)	7 (1.7)

No significant differences between the two assessments observed at this achievement level.

*** Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate.

— Jurisdiction did not participate in 1992 Trial State Assessment.

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A)

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

TABLE C.7D

1992 and 1994 Grade 4 Reading Achievement Levels by Parents' Education Level Public Schools Only (continued)

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

At or Above Proficient

	Did Not Finish High School		I Don't Know	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation	11 (2.4)	9 (2.4)	20 (1.6)	21 (1.7)
Region				
Northeast	••• (•••)	••• (•••)	23 (4.6)	21 (1.8)
Southeast	9 (4.4)	7 (2.9)	15 (2.9)	16 (2.3)
Central	••• (•••)	••• (•••)	24 (3.1)	25 (4.0)
West	14 (4.0)	11 (6.6)	18 (1.8)	21 (2.2)
State				
Alabama	10 (2.2)	11 (2.3)	13 (1.9)	19 (2.1)
Arizona	11 (3.5)	13 (3.2)	15 (1.3)	17 (1.7)
Arkansas	14 (2.9)	11 (3.0)	15 (1.5)	18 (1.6)
California	5 (3.0)	3 (2.1)	12 (1.7)	13 (1.8)
Colorado	14 (2.8)	13 (5.0)	17 (1.7)	19 (2.0)
Connecticut	10 (4.2)	26 (6.3)	20 (1.7)	27 (2.1)
Delaware‡	9 (3.8)	8 (4.5)	19 (1.7)	16 (1.5)
Florida	14 (4.2)	11 (3.3)	17 (1.4)	18 (1.7)
Georgia	13 (3.1)	8 (2.3)	18 (1.7)	18 (2.2)
Hawaii	14 (4.6)	12 (4.2)	14 (1.9)	15 (1.5)
Indiana	17 (4.1)	15 (4.7)	24 (2.2)	21 (2.1)
Iowa	13 (3.8)	19 (7.0)	25 (2.0)	27 (2.0)
Kentucky	11 (2.4)	11 (2.9)	17 (1.8)	21 (2.9)
Louisiana	9 (2.1)	8 (3.2)	12 (1.5)	11 (1.3)
Maine‡	17 (6.7)	27 (5.7)	24 (2.1)	29 (2.0)
Maryland	12 (3.8)	11 (5.8)	16 (1.9)	19 (1.8)
Massachusetts	14 (4.0)	17 (5.1)	22 (2.5)	25 (2.1)
Minnesota	••• (•••)	••• (•••)	23 (2.0)	22 (2.2)
Mississippi	7 (1.8)	9 (2.5)	10 (1.2)	14 (2.2)
Missouri	17 (4.2)	12 (4.7)	21 (1.8)	21 (1.8)
Montana†	— (—)	20 (7.8)	— (—)	26 (1.8)
Nebraska†‡	••• (•••)	••• (•••)	19 (2.0)	21 (2.6)
New Hampshire†‡	17 (4.7)	22 (6.2)	31 (2.6)	27 (2.2)
New Jersey‡	14 (6.0)	13 (6.4)	23 (2.0)	22 (2.2)
New Mexico	8 (3.0)	12 (3.5)	17 (1.8)	13 (1.4)
New York‡	12 (3.7)	14 (4.1)	18 (1.7)	19 (1.9)
North Carolina	9 (2.6)	12 (3.5)	19 (2.0)	20 (1.8)
North Dakota	••• (•••)	••• (•••)	22 (1.9)	28 (2.2)
Pennsylvania†	18 (3.4)	8 (2.9)	22 (1.6)	22 (1.8)
Rhode Island†	14 (3.2)	19 (6.1)	21 (1.9)	22 (2.3)
South Carolina	9 (2.7)	10 (3.7)	16 (1.4)	13 (1.7)
Tennessee†	12 (2.7)	15 (3.6)	14 (1.7)	19 (2.3)
Texas	12 (2.7)	9 (3.2)	17 (1.9)	18 (1.6)
Utah	19 (5.9)	••• (•••)	22 (1.9)	21 (1.7)
Virginia	16 (3.8)	10 (4.3)	22 (1.9)	21 (1.8)
Washington	— (—)	13 (4.7)	— (—)	18 (1.5)
West Virginia	13 (2.9)	13 (3.4)	16 (2.1)	18 (1.8)
Wisconsin†	14 (5.5)	22 (6.4)	25 (2.1)	25 (2.3)
Wyoming	17 (4.6)	13 (3.7)	24 (2.2)	25 (2.0)
Other Jurisdictions				
DoDEA	— (—)	••• (•••)	— (—)	22 (1.9)
Guam	6 (2.8)	2 (1.6)	6 (1.2)	6 (1.1)

No significant differences between the two assessments observed at this achievement level

••• Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate.

— Jurisdiction did not participate in 1992 Trial State Assessment

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A)

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading)

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

TABLE C.7E

1992 and 1994 Grade 4 Reading Achievement Levels by Parents' Education Level Public Schools Only

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

At or Above Basic

	College Graduate		Some Education After High School		Graduated High School	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation	68 (1.9)	68 (1.5)	68 (3.3)	68 (3.2)	56 (2.3)	54 (2.2)
Region						
Northeast	77 (4.8)	67 (3.6)	65 (9.5)	68 (6.1)	57 (5.0)	51 (4.3)
Southeast	63 (3.4)	60 (3.7)	61 (7.1)	68 (5.5)	53 (4.5)	52 (4.9)
Central	71 (3.7)	72 (3.9)	72 (4.4)	71 (5.8)	62 (4.9)	61 (4.5)
West	64 (3.3)	71 (2.2)	70 (6.7)	66 (7.4)	52 (4.8)	52 (5.0)
State						
Alabama	59 (2.8)	61 (2.1)	63 (4.3)	62 (4.9)	51 (3.5)	46 (2.8)
Arizona	64 (2.4)	63 (2.3)	64 (4.7)	63 (3.9)	49 (3.6)	46 (3.2)
Arkansas	62 (2.6)	60 (2.5)	68 (2.6)	68 (4.2)	57 (2.9)	48 (2.4)
California	61 (2.9)	54 (2.4)	53 (5.9)	54 (4.4)	45 (5.1)	37 (5.4)
Colorado	74 (1.8)	68 (1.5)	73 (3.3)	65 (3.9)	56 (3.4)	60 (3.4)
Connecticut	80 (1.9)	77 (1.7)	79 (3.3)	79 (3.4)	59 (4.1)	53 (4.8)
Delaware‡	65 (2.3)	59 (2.4)	68 (4.1)	64 (3.7)	49 (3.5)	49 (3.6)
Florida	58 (2.1)	57 (2.4)	61 (3.5)	65 (4.1)	50 (4.0)	41 (2.9)
Georgia	67 (2.4)	61 (3.0)	61 (4.0)	62 (4.5)	53 (3.3)	44 (3.1)
Hawaii	54 (2.6)	54 (2.1)	56 (4.8)	63 (4.8)	37 (3.1)	40 (4.0)
Indiana	74 (1.9)	75 (2.2)	78 (3.1)	78 (3.8)	64 (3.0)	63 (3.4)
Iowa	82 (1.5)	75 (2.0)	81 (3.0)	80 (3.7)	69 (2.7)	66 (2.5)
Kentucky	66 (2.6)	62 (2.6)	70 (3.2)	68 (3.4)	61 (3.0)	56 (2.5)
Louisiana	50 (2.8)	44 (2.7)	59 (3.4)	55 (2.9)	43 (2.6)	41 (2.6)
Maine‡	83 (2.1)	82 (1.8)	86 (3.6)	83 (4.1)	74 (3.3)	73 (4.4)
Maryland	63 (2.1)	62 (2.2)	65 (3.5)	60 (5.4)	51 (3.4)	50 (3.9)
Massachusetts	84 (1.4)	79 (1.6)	85 (3.4)	77 (4.0)	72 (3.5)	59 (4.2)
Minnesota	74 (2.4)	75 (1.9)	79 (3.0)	68 (3.7)	67 (3.2)	61 (4.2)
Mississippi	47 (2.4)	50 (2.4)	52 (3.8)	60 (5.4)	42 (3.2)	44 (3.0)
Missouri	75 (2.1)	70 (2.1)	75 (3.9)	72 (4.0)	62 (3.4)	63 (2.7)
Montana†	— (—)	78 (2.2)	— (—)	75 (4.0)	— (—)	67 (2.9)
Nebraska†‡	76 (1.9)	76 (1.6)	79 (3.7)	78 (4.4)	64 (3.5)	62 (3.5)
New Hampshire†‡	83 (2.1)	78 (3.0)	83 (3.4)	83 (3.9)	69 (3.5)	66 (3.4)
New Jersey‡	80 (1.9)	76 (1.8)	80 (3.2)	73 (3.8)	62 (3.5)	54 (4.2)
New Mexico	67 (2.5)	59 (2.0)	64 (3.7)	66 (3.3)	55 (3.1)	45 (3.5)
New York‡	74 (2.5)	66 (2.3)	69 (4.0)	69 (4.2)	56 (4.1)	53 (3.7)
North Carolina	65 (1.9)	68 (1.8)	63 (3.8)	72 (3.4)	50 (3.1)	49 (2.6)
North Dakota	82 (1.9)	80 (1.3)	80 (3.9)	81 (4.0)	73 (4.2)	65 (3.5)
Pennsylvania†	76 (2.1)	69 (2.2)	78 (3.2)	68 (3.1)	63 (3.2)	56 (3.2)
Rhode Island†	73 (2.7)	73 (2.3)	76 (3.6)	79 (3.7)	54 (3.9)	62 (4.4)
South Carolina	61 (2.3)	57 (2.9)	70 (3.9)	61 (4.7)	43 (3.1)	35 (4.0)
Tennessee†	65 (2.7)	63 (3.5)	70 (4.3)	71 (4.1)	56 (3.3)	59 (3.5)
Texas	67 (2.5)	67 (4.2)	67 (4.3)	72 (3.2)	52 (3.3)	54 (4.5)
Utah	75 (2.0)	73 (1.8)	76 (3.3)	73 (3.8)	62 (3.6)	56 (3.5)
Virginia	75 (2.3)	65 (2.4)<	74 (3.9)	65 (4.0)	61 (3.3)	52 (3.7)
Washington	— (—)	69 (1.9)	— (—)	64 (3.6)	— (—)	58 (3.9)
West Virginia	72 (1.9)	67 (1.6)	71 (3.0)	70 (3.9)	58 (2.7)	59 (2.9)
Wisconsin†	78 (2.1)	79 (2.1)	82 (2.9)	75 (3.4)	67 (2.5)	69 (3.8)
Wyoming	80 (1.7)	76 (2.0)	80 (3.4)	78 (3.0)	66 (4.2)	62 (3.4)
Other Jurisdictions						
DoDEA	— (—)	68 (1.8)	— (—)	75 (4.2)	— (—)	52 (3.7)
Guam	28 (2.2)	30 (1.8)	38 (6.5)	37 (4.9)	28 (2.6)	24 (3.2)

<< The value for the 1994 assessment was significantly lower (>> higher) than the value for 1992 at or about the 95 percent confidence level. These notations indicate statistical significance from a multiple comparison procedure based on 38 jurisdictions participating in both 1992 and 1994. If looking at only one state, < indicates the value for 1994 was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level. Statistically significant differences between 1994 and 1992 for the state comparison samples for the nation and regions are not indicated.

*** Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate.

— Jurisdiction did not participate in 1992 Trial State Assessment.

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

TABLE C.7F

1992 and 1994 Grade 4 Reading Achievement Levels by Parents' Education Level Public Schools Only (continued)

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

At or Above Basic

	Did Not Finish High School		I Don't Know	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation	38 (3.9)	32 (4.1)	54 (1.7)	51 (1.4)
Region				
Northeast	*** (***)	*** (***)	56 (4.5)	51 (2.4)
Southeast	39 (8.6)	28 (5.3)	50 (4.9)	45 (3.6)
Central	*** (***)	*** (***)	59 (2.3)	57 (3.6)
West	36 (5.1)	37 (6.1)	52 (1.9)	49 (2.7)
State				
Alabama	39 (3.8)	40 (4.6)	43 (3.0)	45 (2.5)
Arizona	37 (5.3)	35 (4.4)	48 (2.3)	44 (2.3)
Arkansas	43 (3.6)	41 (4.4)	48 (2.2)	48 (3.3)
California	25 (5.2)	16 (5.6)	38 (2.5)	37 (2.9)
Colorado	45 (4.9)	37 (5.5)	54 (2.4)	49 (2.2)
Connecticut	47 (6.3)	48 (7.7)	57 (2.4)	58 (2.7)
Delaware‡	38 (6.9)	29 (5.9)	53 (2.7)	46 (2.2)
Florida	41 (5.0)	31 (5.6)	47 (2.3)	45 (2.6)
Georgia	43 (5.5)	34 (4.6)	49 (1.9)	46 (2.8)
Hawaii	44 (6.7)	34 (7.0)	43 (2.3)	39 (2.4)
Indiana	57 (6.2)	45 (6.1)	62 (2.6)	55 (2.1)
Iowa	46 (7.2)	59 (6.4)	64 (2.4)	60 (2.6)
Kentucky	43 (3.5)	37 (5.1)	49 (2.3)	51 (2.6)
Louisiana	34 (5.0)	28 (4.0)	42 (2.0)	36 (2.7)
Maine‡	58 (8.6)	60 (6.9)	65 (3.1)	65 (2.7)
Maryland	38 (6.2)	40 (7.0)	49 (2.6)	48 (2.4)
Massachusetts	45 (7.0)	48 (6.4)	61 (2.7)	56 (2.4)
Minnesota	*** (***)	*** (***)	60 (2.2)	55 (2.3)
Mississippi	28 (4.2)	34 (5.1)	37 (2.3)	40 (2.5)
Missouri	56 (5.5)	43 (3.7)	59 (2.3)	53 (2.8)
Montana†	— (—)	60 (8.3)	— (—)	60 (2.6)
Nebraska†‡	*** (***)	*** (***)	56 (2.3)	54 (2.2)
New Hampshire†‡	58 (7.8)	50 (8.5)	70 (2.9)	62 (2.5)
New Jersey†	49 (6.2)	34 (6.3)	57 (2.6)	53 (2.1)
New Mexico	31 (6.0)	35 (4.3)	45 (1.9)	40 (2.2)
New York‡	39 (6.9)	41 (5.4)	53 (2.2)	47 (2.3)
North Carolina	39 (3.9)	36 (5.3)	50 (2.1)	51 (2.3)
North Dakota	*** (***)	*** (***)	62 (2.3)	64 (2.4)
Pennsylvania†	55 (4.8)	35 (7.1)	59 (2.4)	54 (2.6)
Rhode Island†	48 (6.7)	47 (5.6)	54 (3.1)	55 (2.3)
South Carolina	39 (5.0)	34 (4.4)	48 (3.1)	41 (2.2)
Tennessee†	44 (4.8)	42 (6.5)	47 (2.2)	50 (2.7)
Texas	42 (4.2)	40 (5.3)	50 (2.5)	49 (2.2)
Utah	50 (6.7)	*** (***)	60 (2.8)	56 (2.1)
Virginia	50 (4.7)	38 (5.9)	59 (2.9)	51 (2.7)
Washington	— (—)	44 (7.5)	— (—)	48 (2.0)
West Virginia	47 (4.1)	38 (4.3)	51 (2.3)	48 (2.1)
Wisconsin†	61 (7.3)	57 (7.4)	63 (2.0)	64 (2.4)
Wyoming	52 (6.6)	50 (7.3)	62 (2.4)	62 (2.6)
Other Jurisdictions				
DoDEA	— (—)	*** (***)	— (—)	56 (2.3)
Guam	20 (5.4)	13 (4.2)	27 (2.1)	26 (1.7)

No significant differences between the two assessments observed at this achievement level

*** Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate.

— Jurisdiction did not participate in 1992 Trial State Assessment.

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A)

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading)

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

TABLE C.7G

1992 and 1994 Grade 4 Reading Achievement Levels by Parents' Education Level Public Schools Only (continued)

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

Below Basic

	College Graduate		Some Education After High School		Graduated High School	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation	32 (1.9)	32 (1.5)	32 (3.3)	32 (3.2)	44 (2.3)	46 (2.2)
Region						
Northeast	23 (4.8)	33 (3.6)	35 (9.5)	32 (6.1)	43 (5.0)	49 (4.3)
Southeast	37 (3.4)	40 (3.7)	39 (7.1)	32 (5.5)	47 (4.5)	48 (4.9)
Central	29 (3.7)	28 (3.9)	28 (4.4)	29 (5.8)	38 (4.9)	39 (4.5)
West	36 (3.3)	29 (2.2)	30 (6.7)	34 (7.4)	48 (4.8)	48 (5.0)
State						
Alabama	41 (2.8)	39 (2.1)	37 (4.3)	38 (4.9)	49 (3.5)	54 (2.8)
Arizona	36 (2.4)	37 (2.3)	36 (4.7)	37 (3.9)	51 (3.6)	54 (3.2)
Arkansas	38 (2.6)	40 (2.5)	32 (2.6)	32 (4.2)	43 (2.9)	52 (2.4)
California	39 (2.9)	46 (2.4)	47 (5.9)	46 (4.4)	55 (5.1)	63 (5.4)
Colorado	26 (1.8)	32 (1.5)	27 (3.3)	35 (3.9)	44 (3.4)	40 (3.4)
Connecticut	20 (1.9)	23 (1.7)	21 (3.3)	21 (3.4)	41 (4.1)	47 (4.8)
Delaware‡	35 (2.3)	41 (2.4)	32 (4.1)	36 (3.7)	51 (3.5)	51 (3.6)
Florida	42 (2.1)	43 (2.4)	39 (3.5)	35 (4.1)	50 (4.0)	59 (2.9)
Georgia	33 (2.4)	39 (3.0)	39 (4.0)	38 (4.5)	47 (3.3)	56 (3.1)
Hawaii	46 (2.6)	46 (2.1)	44 (4.8)	37 (4.8)	63 (3.1)	60 (4.0)
Indiana	26 (1.9)	25 (2.2)	22 (3.1)	22 (3.8)	36 (3.0)	37 (3.4)
Iowa	18 (1.5)	25 (2.0)	19 (3.0)	20 (3.7)	31 (2.7)	34 (2.5)
Kentucky	34 (2.6)	38 (2.6)	30 (3.2)	32 (3.4)	39 (3.0)	44 (2.5)
Louisiana	50 (2.8)	56 (2.7)	41 (3.4)	45 (2.9)	57 (2.6)	59 (2.6)
Maine‡	17 (2.1)	18 (1.8)	14 (3.6)	17 (4.1)	26 (3.3)	27 (4.4)
Maryland	37 (2.1)	38 (2.2)	35 (3.5)	40 (5.4)	49 (3.4)	50 (3.9)
Massachusetts	16 (1.4)	21 (1.6)	15 (3.4)	23 (4.0)	28 (3.5)	41 (4.2)
Minnesota	26 (2.4)	25 (1.9)	21 (3.0)	32 (3.7)	33 (3.2)	39 (4.2)
Mississippi	53 (2.4)	50 (2.4)	48 (3.8)	40 (5.4)	58 (3.2)	56 (3.0)
Missouri	25 (2.1)	30 (2.1)	25 (3.9)	28 (4.0)	38 (3.4)	37 (2.7)
Montana†	— (—)	22 (2.2)	— (—)	25 (4.0)	— (—)	33 (2.9)
Nebraska†‡	24 (1.9)	24 (1.6)	21 (3.7)	22 (4.4)	36 (3.5)	38 (3.5)
New Hampshire†‡	17 (2.1)	22 (3.0)	17 (3.4)	17 (3.9)	31 (3.5)	34 (3.4)
New Jersey‡	20 (1.9)	24 (1.8)	20 (3.2)	27 (3.8)	38 (3.5)	46 (4.2)
New Mexico	33 (2.5)	41 (2.0)	36 (3.7)	34 (3.3)	45 (3.1)	55 (3.5)
New York‡	26 (2.5)	34 (2.3)	31 (4.0)	31 (4.2)	44 (4.1)	47 (3.7)
North Carolina	35 (1.9)	32 (1.8)	37 (3.8)	28 (3.4)	50 (3.1)	51 (2.6)
North Dakota	18 (1.9)	20 (1.3)	20 (3.9)	19 (4.0)	27 (4.2)	35 (3.5)
Pennsylvania†	24 (2.1)	31 (2.2)	22 (3.2)	32 (3.1)	37 (3.2)	44 (3.2)
Rhode Island†	27 (2.7)	27 (2.3)	24 (3.6)	21 (3.7)	46 (3.9)	38 (4.4)
South Carolina	39 (2.3)	43 (2.9)	30 (3.9)	39 (4.7)	57 (3.1)	65 (4.0)
Tennessee†	35 (2.7)	37 (3.5)	30 (4.3)	29 (4.1)	44 (3.3)	41 (3.5)
Texas	33 (2.5)	33 (4.2)	33 (4.3)	28 (3.2)	48 (3.3)	46 (4.5)
Utah	25 (2.0)	27 (1.8)	24 (3.3)	27 (3.8)	38 (3.6)	44 (3.5)
Virginia	25 (2.3)	35 (2.4)>	26 (3.9)	35 (4.0)	39 (3.3)	48 (3.7)
Washington	— (—)	31 (1.9)	— (—)	36 (3.6)	— (—)	42 (3.9)
West Virginia	28 (1.9)	33 (1.6)	29 (3.0)	30 (3.9)	42 (2.7)	41 (2.9)
Wisconsin†	22 (2.1)	21 (2.1)	18 (2.9)	25 (3.4)	33 (2.5)	31 (3.8)
Wyoming	20 (1.7)	24 (2.0)	20 (3.4)	22 (3.0)	34 (4.2)	38 (3.4)
Other Jurisdictions						
DoDEA	— (—)	32 (1.8)	— (—)	25 (4.2)	— (—)	48 (3.7)
Guam	72 (? ?)	70 (1.8)	62 (6.5)	63 (4.9)	72 (2.6)	76 (3.2)

<< The value for the 1994 assessment was significantly lower (>> higher) than the value for 1992 at or about the 95 percent confidence level. These notations indicate statistical significance from a multiple comparison procedure based on 38 jurisdictions participating in both 1992 and 1994. If looking at only one state, < indicates the value for 1994 was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level. Statistically significant differences between 1994 and 1992 for the state comparison samples for the nation and regions are not indicated.

*** Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate.

— Jurisdiction did not participate in 1992 Trial State Assessment.

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

TABLE C.7H

1992 and 1994 Grade 4 Reading Achievement Levels by Parents' Education Level Public Schools Only (continued)

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

Below Basic

	Did Not Finish High School		I Don't Know	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation	62 (3.9)	68 (4.1)	46 (1.7)	49 (1.4)
Region				
Northeast	*** (***)	*** (***)	44 (4.5)	49 (2.4)
Southeast	61 (8.6)	72 (5.3)	50 (4.9)	55 (3.6)
Central	*** (***)	*** (***)	41 (2.3)	43 (3.6)
West	64 (5.1)	63 (6.1)	48 (1.9)	51 (2.7)
State				
Alabama	61 (3.8)	60 (4.6)	57 (3.0)	55 (2.5)
Arizona	63 (5.3)	65 (4.4)	52 (2.3)	56 (2.3)
Arkansas	57 (3.6)	59 (4.4)	52 (2.2)	52 (3.3)
California	75 (5.2)	84 (5.6)	62 (2.5)	63 (2.9)
Colarada	55 (4.9)	63 (5.5)	46 (2.4)	51 (2.2)
Connecticut	53 (6.3)	52 (7.7)	43 (2.4)	42 (2.7)
Delaware‡	62 (6.9)	71 (5.9)	47 (2.7)	54 (2.2)
Florida	59 (5.0)	69 (5.6)	53 (2.3)	55 (2.6)
Geargia	57 (5.5)	66 (4.6)	51 (1.9)	54 (2.8)
Hawaii	56 (6.7)	66 (7.0)	57 (2.3)	61 (2.4)
Indiana	43 (6.2)	55 (6.1)	38 (2.6)	45 (2.1)
Iowa	54 (7.2)	41 (6.4)	36 (2.4)	40 (2.6)
Kentucky	57 (3.5)	63 (5.1)	51 (2.3)	49 (2.6)
Louisiana	66 (5.0)	72 (4.0)	58 (2.0)	64 (2.7)
Maine‡	42 (8.6)	40 (6.9)	35 (3.1)	35 (2.7)
Maryland	62 (6.2)	60 (7.0)	51 (2.6)	52 (2.4)
Massachusetts	55 (7.0)	52 (6.4)	39 (2.7)	44 (2.4)
Minnesata	*** (***)	*** (***)	40 (2.2)	45 (2.3)
Mississippi	72 (4.2)	66 (5.1)	63 (2.3)	60 (2.5)
Missouri	44 (5.5)	57 (3.7)	41 (2.3)	47 (2.8)
Mantana†	— (—)	40 (8.3)	— (—)	40 (2.6)
Nebraska†‡	*** (***)	*** (***)	44 (2.3)	46 (2.2)
New Hampshire†‡	42 (7.8)	50 (8.5)	30 (2.9)	38 (2.5)
New Jersey‡	51 (6.2)	66 (6.3)	43 (2.6)	47 (2.1)
New Mexico	69 (6.0)	65 (4.3)	55 (1.9)	60 (2.2)
New York‡	61 (6.9)	59 (5.4)	47 (2.2)	53 (2.3)
North Caralina	61 (3.9)	64 (5.3)	50 (2.1)	49 (2.3)
North Dakata	*** (***)	*** (***)	38 (2.3)	36 (2.4)
Pennsylvania†	45 (4.8)	65 (7.1)	41 (2.4)	46 (2.6)
Rhode Island†	52 (6.7)	53 (5.6)	46 (3.1)	45 (2.3)
South Carolina	61 (5.0)	66 (4.4)	52 (3.1)	59 (2.2)
Tennessee†	56 (4.8)	58 (6.5)	53 (2.2)	50 (2.7)
Texas	58 (4.2)	60 (5.3)	50 (2.5)	51 (2.2)
Utah	50 (6.7)	*** (***)	40 (2.8)	44 (2.1)
Virginia	50 (4.7)	62 (5.9)	41 (2.9)	49 (2.7)
Washingtan	— (—)	56 (7.5)	— (—)	52 (2.0)
West Virginia	53 (4.1)	62 (4.3)	49 (2.3)	52 (2.1)
Wiscansin†	39 (7.3)	43 (7.4)	37 (2.0)	36 (2.4)
Wyoming	48 (6.6)	50 (7.3)	38 (2.4)	38 (2.6)
Other Jurisdictions				
DoDEA	— (—)	*** (***)	— (—)	44 (2.3)
Guam	80 (5.4)	87 (4.2)	73 (2.1)	74 (1.7)

No significant differences between the two assessments observed at this achievement level

*** Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate.

— Jurisdiction did not participate in 1992 Trial State Assessment.

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

TABLE C.8A

1992 and 1994 Grade 4 Reading Achievement Levels by Type of Location Public Schools Only

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

At or Above Advanced

	Central City		Urban Fringe/Large Town		Rural/Small Town	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation*	4 (0.7)	5 (0.9)	7 (1.2)	8 (1.1)	5 (1.5)	6 (0.7)
State						
Alabama	3 (0.7)	5 (1.3)	5 (1.1)	7 (1.5)	2 (0.9)	4 (1.0)
Arizona	3 (0.5)	7 (1.1)	3 (1.0)	6 (1.4)	3 (1.5)	4 (1.4)
Arkansas	4 (1.7)	4 (1.0)	5 (0.9)!	6 (1.7)!	3 (0.6)	5 (1.0)
California	3 (1.1)	2 (0.7)	4 (0.8)	5 (0.8)	*** (***)	*** (***)
Colorado	2 (0.7)	5 (1.0)	5 (1.1)	6 (1.3)	4 (1.2)	7 (1.8)
Connecticut	2 (0.7)	6 (1.4)	8 (1.6)	10 (1.5)	7 (1.5)	18 (2.6)>
Delaware‡	5 (0.8)	6 (1.4)	5 (0.8)	5 (1.2)	4 (0.8)	3 (0.8)
Florida	2 (0.5)	4 (0.8)	4 (0.7)	6 (0.9)	3 (1.3)!	2 (0.9)!
Georgia	4 (1.5)	6 (1.8)	6 (1.3)	9 (1.8)	5 (0.9)	4 (1.0)
Hawaii	4 (1.0)	6 (1.2)	2 (0.5)	3 (0.7)	2 (0.8)	4 (0.8)
Indiana	5 (1.0)	5 (1.0)	6 (1.2)	10 (1.8)	5 (1.2)	8 (1.3)
Iowa	7 (1.6)	7 (2.4)	8 (1.2)	7 (1.7)	7 (1.0)	9 (1.3)
Kentucky	5 (1.7)	8 (2.1)	4 (1.7)	8 (2.8)	3 (0.6)	4 (0.7)
Louisiana	3 (0.8)	3 (0.8)	2 (0.6)	3 (1.1)	2 (0.7)	2 (0.6)
Maine‡	*** (***)	*** (***)	7 (2.0)!	11 (2.5)	6 (1.0)	10 (1.1)>
Maryland	2 (0.7)	4 (1.5)	6 (0.9)	8 (0.9)	*** (***)	*** (***)
Massachusetts	3 (0.9)	3 (1.3)	8 (1.0)	10 (1.5)	6 (2.4)!	11 (1.9)!
Minnesota	5 (1.6)	8 (1.8)	6 (0.9)	9 (1.1)	5 (1.2)	5 (1.0)
Mississippi	1 (1.3)	5 (1.8)	3 (0.7)	7 (1.7)	2 (0.5)	3 (0.5)
Missouri	5 (1.2)	7 (2.6)	6 (1.4)	8 (1.4)	5 (0.9)	7 (1.5)
Montana†	— (—)	5 (0.9)	— (—)	8 (2.9)	— (—)	8 (0.9)
Nebraska†‡	6 (1.2)	9 (1.7)	5 (1.6)!	*** (***)	5 (1.0)	8 (0.9)
New Hampshire†‡	7 (2.5)	6 (1.3)	9 (1.7)	9 (1.8)	7 (1.6)	9 (1.5)
New Jersey‡	1 (0.7)	2 (0.7)	9 (1.2)	10 (1.0)	*** (***)	*** (***)
New Mexico	5 (1.0)	6 (1.2)	4 (1.6)	5 (1.4)	2 (0.6)	3 (0.9)
New York‡	2 (0.6)	3 (1.0)	7 (1.0)	9 (1.3)	5 (2.0)!	8 (3.0)!
North Carolina	6 (1.4)	10 (1.9)	6 (0.9)	6 (1.3)	4 (0.7)	6 (1.2)
North Dakota	7 (1.9)	8 (1.1)	7 (2.6)	9 (2.4)	6 (0.9)	8 (1.2)
Pennsylvania†	4 (1.0)	4 (1.2)	7 (1.1)	9 (1.3)	6 (1.9)	6 (1.6)
Rhode Island†	3 (0.7)	4 (0.7)	6 (1.2)	9 (1.8)	8 (2.4)!	11 (2.4)!
South Carolina	3 (1.3)	5 (1.5)	6 (1.6)	5 (1.0)	3 (0.8)	3 (0.8)
Tennessee†	4 (1.2)	7 (1.9)	5 (1.4)	7 (1.2)	3 (1.0)	5 (1.0)
Texas	3 (1.0)	5 (1.4)	6 (1.3)	8 (1.5)	3 (1.2)!	4 (1.7)
Utah	5 (1.1)	7 (1.5)	5 (0.7)	6 (1.1)	5 (1.7)	5 (1.7)
Virginia	5 (1.5)	6 (1.6)	8 (1.8)	9 (1.2)	4 (1.4)	4 (1.0)
Washington	— (—)	5 (1.2)	— (—)	6 (1.0)	— (—)	6 (1.9)
West Virginia	4 (2.0)	7 (1.7)	7 (1.5)	6 (1.2)	4 (0.7)	5 (0.6)
Wisconsin†	8 (1.5)	7 (1.4)	5 (1.2)	7 (1.5)	5 (1.0)	8 (1.1)
Wyoming	6 (1.9)	5 (1.3)	*** (***)	*** (***)	5 (0.6)	6 (0.7)
Other Jurisdictions**						

Type of location results are not reported for the four regions of the country, DoDEA schools, or Guam

<< The value for the 1994 assessment was significantly lower (>> higher) than the value for 1992 at or about the 95 percent confidence level. These notations indicate statistical significance from a multiple comparison procedure based on 38 jurisdictions participating in both 1992 and 1994. If looking at only one state, < indicates the value for 1994 was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level. Statistically significant differences between 1994 and 1992 for the state comparison samples for the nation and regions are not indicated.

*** Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate.

! Interpret with caution any comparisons involving this statistic. The nature of the sample does not allow accurate determination of the variability of this value

— Jurisdiction did not participate in 1992 Trial State Assessment.

† Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading)

* School sample size is insufficient to permit reliable regional results for type of location.

** Results for type of location are not available for the Department of Defense Education Activity (DoDEA) Overseas Schools and Guam.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

TABLE C.8B

1992 and 1994 Grade 4 Reading Achievement Levels by Type of Location Public Schools Only

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

At or Above Proficient

	Central City		Urban Fringe/Large Town		Rural/Small Town	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation*	20 (1.4)	22 (2.0)	31 (2.6)	33 (2.0)	27 (2.7)	27 (2.0)
State						
Alabama	20 (2.4)	23 (2.5)	24 (2.9)	30 (2.9)	17 (2.3)	20 (1.5)
Arizona	23 (1.6)	25 (1.8)	19 (2.2)	24 (3.1)	15 (3.0)	21 (3.5)
Arkansas	22 (4.3)	23 (2.8)	27 (2.7)!	28 (3.8)!	22 (1.3)	23 (1.7)
California	19 (2.5)	14 (2.2)	20 (2.8)	21 (1.8)	*** (***)	*** (***)
Colorado	19 (1.9)	26 (2.4)	29 (2.2)	29 (2.5)	26 (3.2)	29 (2.9)
Connecticut	19 (3.1)	25 (3.3)	40 (2.4)	40 (1.9)	40 (3.1)	53 (3.7)
Delaware‡	25 (1.4)	24 (1.5)	24 (2.3)	23 (1.8)	22 (1.3)	20 (1.4)
Florida	18 (2.4)	18 (2.2)	24 (1.6)	27 (2.2)	20 (3.1)!	17 (3.9)!
Georgia	17 (3.4)	19 (4.3)	31 (2.8)	31 (3.5)	23 (2.0)	22 (2.9)
Hawaii	21 (2.8)	25 (3.2)	14 (2.3)	17 (1.4)	17 (1.7)	17 (1.9)
Indiana	27 (3.0)	24 (2.6)	36 (2.4)	40 (3.3)	29 (2.7)	35 (2.8)
Iowa	34 (3.3)	30 (3.9)	43 (3.8)	34 (4.5)	35 (1.8)	36 (1.5)
Kentucky	27 (3.8)	31 (4.7)	28 (4.9)	29 (4.9)	19 (1.4)	22 (1.4)
Louisiana	15 (2.4)	13 (1.9)	16 (2.0)	18 (2.3)	15 (1.7)	13 (2.0)
Maine‡	*** (***)	*** (***)	36 (4.8)!	39 (3.5)	36 (2.2)	41 (1.5)
Maryland	14 (2.4)	20 (3.9)	29 (1.5)	30 (1.9)	*** (***)	*** (***)
Massachusetts	19 (2.7)	16 (2.5)	43 (2.0)	43 (2.0)	37 (4.3)!	41 (4.8)!
Minnesota	25 (4.2)	28 (4.2)	34 (2.1)	37 (2.4)	29 (2.3)	29 (1.8)
Mississippi	11 (2.1)	18 (3.4)	19 (3.4)	27 (4.3)	12 (1.1)	15 (1.4)
Missouri	24 (3.9)	30 (4.4)	32 (3.0)	32 (2.8)	31 (1.8)	30 (2.1)
Montana†	— (—)	29 (2.5)	— (—)	34 (6.5)	— (—)	37 (1.9)
Nebraska†‡	33 (2.5)	35 (3.3)	34 (4.6)!	*** (***)	29 (2.0)	35 (2.3)
New Hampshire†‡	39 (3.2)	32 (3.6)	40 (2.7)	38 (2.6)	35 (2.9)	35 (2.8)
New Jersey‡	9 (2.8)	12 (4.2)	39 (2.1)	38 (1.9)	*** (***)	*** (***)
New Mexico	26 (2.6)	23 (2.5)	24 (3.1)	21 (3.3)	19 (2.5)	18 (2.4)
New York‡	16 (2.2)	15 (1.9)	35 (2.1)	37 (2.0)	32 (3.4)!	37 (6.3)!
North Carolina	27 (3.0)	34 (2.8)	26 (2.5)	28 (3.1)	22 (1.8)	27 (2.3)
North Dakota	38 (3.5)	35 (2.7)	34 (2.9)	41 (3.3)	33 (1.8)	38 (1.8)
Pennsylvania†	22 (3.6)	18 (2.5)	37 (2.3)	36 (1.9)	33 (2.8)	32 (3.9)
Rhode Island†	21 (2.5)	24 (2.1)	27 (3.0)	36 (2.3)	41 (3.9)!	39 (2.9)!
South Carolina	21 (2.9)	23 (2.9)	29 (2.5)	24 (2.3)	18 (2.0)	15 (2.0)
Tennessee†	21 (2.8)	25 (3.4)	28 (3.3)	29 (2.6)	21 (1.8)	26 (2.0)
Texas	20 (2.9)	23 (3.0)	29 (3.1)	32 (3.6)	22 (4.7)!	24 (3.7)
Utah	29 (3.3)	31 (3.0)	30 (2.0)	30 (2.1)	31 (3.0)	29 (3.4)
Virginia	28 (2.7)	22 (2.4)	39 (2.9)	33 (2.7)	23 (2.0)	21 (2.0)
Washington	— (—)	25 (2.6)	— (—)	28 (1.8)	— (—)	26 (3.5)
West Virginia	25 (5.2)	28 (3.2)	28 (2.7)	28 (2.8)	24 (1.8)	25 (1.5)
Wisconsin†	32 (2.8)	33 (2.9)	35 (2.6)	37 (3.1)	34 (2.3)	36 (2.3)
Wyoming	30 (3.8)	31 (2.9)	*** (***)	*** (***)	34 (1.5)	32 (1.5)
Other Jurisdictions**						

Type of location results are not reported for the four regions of the country, DoDEA schools, or Guam.

No significant differences between the two assessments observed at this achievement level.

*** Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate.

! Interpret with caution any comparisons involving this statistic. The nature of the sample does not allow accurate determination of the variability of this value.

— Jurisdiction did not participate in 1992 Trial State Assessment. † Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A)

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).

* School sample size is insufficient to permit reliable regional results for type of location.

** Results for type of location are not available for the Department of Defense Education Activity (DoDEA) Overseas Schools and Guam

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

TABLE C.8C

1992 and 1994 Grade 4 Reading Achievement Levels by Type of Location Public Schools Only

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

At or Above Basic

	Central City		Urban Fringe/Large Town		Rural/Small Town	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation*	51 (2.0)	50 (2.7)	65 (2.5)	65 (1.8)	64 (2.5)	59 (2.6)
State						
Alabama	50 (3.9)	51 (3.1)	58 (4.1)	60 (4.0)	48 (3.4)	49 (2.3)
Arizona	58 (1.5)	53 (2.3)	55 (4.1)	53 (3.4)	43 (5.9)	45 (6.0)
Arkansas	52 (4.8)	53 (3.9)	60 (2.9)!	57 (4.8)!	56 (2.2)	53 (2.0)
California	46 (2.9)	39 (3.9)	48 (3.7)	49 (2.4)	*** (***)	*** (***)
Colorado	56 (2.6)	55 (2.8)	68 (2.1)	61 (2.2)	66 (3.7)	62 (2.9)
Connecticut	48 (5.0)	49 (4.1)	77 (2.4)	75 (1.8)	79 (2.6)	83 (3.0)
Delaware‡	57 (1.5)	53 (1.9)	57 (1.9)	52 (2.2)	56 (2.4)	52 (3.4)
Florida	46 (4.4)	45 (3.2)	57 (2.0)	55 (2.6)	51 (2.4)!	42 (6.1)!
Georgia	45 (4.6)	41 (5.7)	65 (2.6)	59 (4.3)	56 (2.1)	50 (3.0)
Hawaii	53 (3.7)	56 (4.2)	44 (3.2)	44 (2.3)	48 (2.6)	42 (2.7)
Indiana	62 (3.6)	55 (3.2)	74 (2.2)	74 (3.0)	70 (2.2)	70 (2.5)
Iowa	72 (2.5)	63 (3.8)	81 (2.4)	68 (4.5)	72 (1.8)	72 (1.8)
Kentucky	61 (5.0)	59 (4.9)	64 (4.1)	60 (4.1)	54 (1.9)	53 (1.8)
Louisiana	42 (3.3)	34 (2.5)	50 (3.0)	47 (3.3)	45 (2.7)	40 (3.4)
Maine‡	*** (***)	*** (***)	76 (3.6)!	75 (3.6)	76 (1.8)	75 (1.8)
Maryland	45 (4.4)	46 (3.9)	62 (2.1)	61 (2.1)	*** (***)	*** (***)
Massachusetts	54 (3.2)	43 (4.1)	82 (1.4)	78 (1.8)	79 (4.2)!	76 (2.6)!
Minnesota	56 (5.4)	54 (6.0)	72 (2.3)	71 (2.0)	68 (2.4)	62 (2.4)
Mississippi	39 (4.9)	46 (3.4)	50 (4.5)	57 (4.6)	39 (2.2)	42 (2.2)
Missouri	54 (4.9)	55 (4.4)	71 (2.2)	67 (2.5)	69 (2.0)	62 (2.4)
Montana†	— (—)	65 (3.8)	— (—)	72 (3.9)	— (—)	70 (2.1)
Nebraska†‡	68 (2.3)	62 (3.0)	69 (5.3)!	*** (***)	69 (2.3)	69 (2.0)
New Hampshire†‡	78 (3.1)	66 (3.7)	77 (2.7)	73 (2.6)	74 (2.7)	68 (2.6)
New Jersey†	34 (5.5)	34 (6.2)	75 (1.9)	71 (1.8)	*** (***)	*** (***)
New Mexico	58 (2.7)	51 (2.8)	53 (3.1)	50 (2.9)	52 (2.8)	48 (3.5)
New York‡	45 (2.7)	39 (2.9)	73 (2.2)	70 (2.4)	75 (2.3)!	73 (4.5)!
North Carolina	58 (3.3)	63 (2.4)	56 (3.0)	58 (3.7)	54 (2.2)	56 (2.6)
North Dakota	77 (3.1)	70 (2.0)	74 (2.9)	78 (3.3)	73 (2.4)	72 (2.1)
Pennsylvania†	52 (5.5)	43 (3.6)	74 (2.1)	69 (2.0)	73 (2.7)	66 (3.3)
Rhode Island†	52 (3.5)	57 (2.4)	64 (3.7)	68 (2.4)	81 (3.4)!	76 (3.8)!
South Carolina	52 (3.6)	52 (3.1)	63 (3.6)	56 (2.9)	48 (2.8)	39 (2.9)
Tennessee†	51 (3.4)	51 (4.3)	64 (3.1)	64 (2.7)	58 (2.6)	59 (3.1)
Texas	52 (3.4)	53 (3.6)	64 (3.9)	66 (4.3)	53 (6.4)!	56 (4.2)
Utah	65 (3.8)	62 (3.7)	67 (2.1)	65 (1.8)	70 (2.2)	64 (4.3)
Virginia	62 (2.9)	50 (2.7)<	74 (3.0)	66 (2.6)	58 (2.8)	52 (3.5)
Washington	— (—)	55 (3.7)	— (—)	62 (2.0)	— (—)	56 (3.6)
West Virginia	63 (4.6)	58 (3.1)	64 (2.5)	60 (3.1)	59 (2.2)	57 (1.7)
Wisconsin†	67 (2.8)	67 (3.2)	73 (2.3)	73 (2.3)	72 (2.5)	73 (2.4)
Wyoming	68 (3.8)	68 (3.9)	*** (***)	*** (***)	72 (1.7)	69 (1.9)
Other Jurisdictions**						

Type of location results are not reported for the four regions of the country, DoDEA schools, or Guam.

<< The value for the 1994 assessment was significantly lower (>> higher) than the value for 1992 at or about the 95 percent confidence level. These notations indicate statistical significance from a multiple comparison procedure based on 38 jurisdictions participating in both 1992 and 1994. If looking at only one state, < indicates the value for 1994 was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level. Statistically significant differences between 1994 and 1992 for the state comparison samples for the nation and regions are not indicated.

*** Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate.

! Interpret with caution any comparisons involving this statistic. The nature of the sample does not allow accurate determination of the variability of this value.

— Jurisdiction did not participate in 1992 Trial State Assessment. † Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A).

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).

* School sample size is insufficient to permit reliable regional results for type of location.

** Results for type of location are not available for the Department of Defense Education Activity (DoDEA) Oversees Schools and Guam.

SOURCE: National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

TABLE C.8D

1992 and 1994 Grade 4 Reading Achievement Levels by Type of Location Public Schools Only

THE NATION'S REPORT CARD 1992 1994 Reading Assessment

Below Basic

	Central City		Urban Fringe/Large Town		Rural/Small Town	
	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage	1992 Percentage	1994 Percentage
Nation*	49 (2.0)	50 (2.7)	35 (2.5)	35 (1.8)	36 (2.5)	41 (2.6)
State						
Alabama	50 (3.9)	49 (3.1)	42 (4.1)	40 (4.0)	52 (3.4)	51 (2.3)
Arizona	42 (1.5)	47 (2.3)	45 (4.1)	47 (3.4)	57 (5.9)	55 (6.0)
Arkansas	48 (4.8)	47 (3.9)	40 (2.9)!	43 (4.8)!	44 (2.2)	47 (2.0)
California	54 (2.9)	61 (3.9)	52 (3.7)	51 (2.4)	••• (•••)	••• (•••)
Colorado	44 (2.6)	45 (2.8)	32 (2.1)	39 (2.2)	34 (3.7)	38 (2.9)
Connecticut	52 (5.0)	51 (4.1)	23 (2.4)	25 (1.8)	21 (2.6)	17 (3.0)
Delaware‡	43 (1.5)	47 (1.9)	43 (1.9)	48 (2.2)	44 (2.4)	48 (3.4)
Florida	54 (4.4)	55 (3.2)	43 (2.0)	45 (2.6)	49 (2.4)!	58 (6.1)!
Georgia	55 (4.6)	59 (5.7)	35 (2.6)	41 (4.3)	44 (2.1)	50 (3.0)
Hawaii	47 (3.7)	44 (4.2)	56 (3.2)	56 (2.3)	52 (2.6)	58 (2.7)
Indiana	38 (3.6)	45 (3.2)	26 (2.2)	26 (3.0)	30 (2.2)	30 (2.5)
Iowa	28 (2.5)	37 (3.8)	19 (2.4)	32 (4.5)	28 (1.8)	28 (1.8)
Kentucky	39 (5.0)	41 (4.9)	36 (4.1)	40 (4.1)	46 (1.9)	47 (1.8)
Louisiana	58 (3.3)	66 (2.5)	50 (3.0)	53 (3.3)	55 (2.7)	60 (3.4)
Maine‡	••• (•••)	••• (•••)	24 (3.6)!	25 (3.6)	24 (1.8)	25 (1.8)
Maryland	55 (4.4)	54 (3.9)	38 (2.1)	39 (2.1)	••• (•••)	••• (•••)
Massachusetts	46 (3.2)	57 (4.1)	18 (1.4)	22 (1.8)	21 (4.2)!	24 (2.6)!
Minnesota	44 (5.4)	46 (6.0)	28 (2.3)	29 (2.0)	32 (2.4)	38 (2.4)
Mississippi	61 (4.9)	54 (3.4)	50 (4.5)	43 (4.6)	61 (2.2)	58 (2.2)
Missouri	46 (4.9)	45 (4.4)	29 (2.2)	33 (2.5)	31 (2.0)	38 (2.4)
Montana†	— (—)	35 (3.8)	— (—)	28 (3.9)	— (—)	30 (2.1)
Nebraska†‡	32 (2.3)	38 (3.0)	31 (5.3)!	••• (•••)	31 (2.3)	31 (2.0)
New Hampshire†‡	22 (3.1)	34 (3.7)	23 (2.7)	27 (2.6)	26 (2.7)	32 (2.6)
New Jersey‡	66 (5.5)	66 (6.2)	25 (1.9)	29 (1.8)	••• (•••)	••• (•••)
New Mexico	42 (2.7)	49 (2.8)	47 (3.1)	50 (2.9)	48 (2.8)	52 (3.5)
New York‡	55 (2.7)	61 (2.9)	27 (2.2)	30 (2.4)	25 (2.3)!	27 (4.5)!
North Carolina	42 (3.3)	37 (2.4)	44 (3.0)	42 (3.7)	46 (2.2)	44 (2.6)
North Dakota	23 (3.1)	30 (2.0)	26 (2.9)	22 (3.3)	27 (2.4)	28 (2.1)
Pennsylvania†	48 (5.5)	57 (3.6)	26 (2.1)	31 (2.0)	27 (2.7)	34 (3.3)
Rhode Island†	48 (3.5)	43 (2.4)	36 (3.7)	32 (2.4)	19 (3.4)!	24 (3.8)!
South Carolina	48 (3.6)	48 (3.1)	37 (3.6)	44 (2.9)	52 (2.8)	61 (2.9)
Tennessee†	49 (3.4)	49 (4.3)	36 (3.1)	36 (2.7)	42 (2.6)	41 (3.1)
Texas	48 (3.4)	47 (3.6)	36 (3.9)	34 (4.3)	47 (6.4)!	44 (4.2)
Utah	35 (3.8)	38 (3.7)	33 (2.1)	35 (1.8)	30 (2.2)	36 (4.3)
Virginia	38 (2.9)	50 (2.7)>	26 (3.0)	34 (2.6)	42 (2.8)	48 (3.5)
Washington	— (—)	45 (3.7)	— (—)	38 (2.0)	— (—)	44 (3.6)
West Virginia	37 (4.6)	42 (3.1)	36 (2.5)	40 (3.1)	41 (2.2)	43 (1.7)
Wisconsin†	33 (2.8)	33 (3.2)	27 (2.3)	27 (2.3)	28 (2.5)	27 (2.4)
Wyoming	32 (3.8)	32 (3.9)	••• (•••)	••• (•••)	28 (1.7)	31 (1.9)
Other Jurisdictions**						

Type of location results are not reported for the four regions of the country, DoDEA schools, or Guam

<< The value for the 1994 assessment was significantly lower (>> higher) than the value for 1992 at or about the 95 percent confidence level. These notations indicate statistical significance from a multiple comparison procedure based on 38 jurisdictions participating in both 1992 and 1994. If looking at only one state, < indicates the value for 1994 was significantly lower (> higher) than the value for 1992 at or about the 95 percent confidence level. Statistically significant differences between 1994 and 1992 for the state comparison samples for the nation and regions are not indicated.

••• Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate.

! Interpret with caution any comparisons involving this statistic. The nature of the sample does not allow accurate determination of the variability of this value.

— Jurisdiction did not participate in 1992 Trial State Assessment. † Did not satisfy one of the guidelines for school sample participation rates for the 1994 Trial State Assessment (see Appendix A)

‡ Did not satisfy one of the guidelines for school sample participation rates for the 1992 Trial State Assessment (see Technical Report of the NAEP 1992 Trial State Assessment Program in Reading).

* School sample size is insufficient to permit reliable regional results for type of location

** Results for type of location are not available for the Department of Defense Education Activity (DoDEA) Overseas Schools and Guam.

SOURCE. National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

APPENDIX D

Sample Texts and Questions from the 1994 NAEP Reading Assessment

This appendix presents the stories and articles from the 1994 NAEP Reading Assessment that have been released for publication in this report. Also included here are additional sample questions and student responses selected for each grade by the National Assessment Governing Board (NAGB) to exemplify the range of reading abilities demonstrated by students in the 1994 assessment. (A different set of sample questions and student responses are presented in Chapter 1.) For each question, the reading purpose and reading stance being addressed is indicated. For multiple-choice questions, the correct answer is marked. For constructed-response questions, an abbreviated scoring rubic is provided. The sample student responses have been reproduced from assessment booklets and represent typical student performance.

The table accompanying each sample question presents two types of percentages: (1) the overall percentage of students within a grade who answered the question successfully, and (2) the conditional percentages representing the percentages of students within specific score ranges on the NAEP reading composite scale who answered the question successfully. The score ranges correspond to the three achievement level intervals — *Basic*, *Proficient*, and *Advanced*. Conditional percentages for students within the *Advanced* achievement level interval are not presented, however, because of the small sample size. (Sample size criteria for reporting results are described in Appendix A.)

HUNGRY SPIDER AND THE TURTLE

by Harold Courlander and George Herzog

Spider was a hungry one, he always wanted to eat. Everybody in Ashanti knew about his appetite. He was greedy, too, and always wanted more than his share of things. So people steered clear of Spider.

But one day a stranger came to Spider's habitation out in the back country. His name was Turtle. Turtle was a long way from his home. He had been walking all day in the hot sun, and he was tired and hungry. So Spider had to invite Turtle into his house and offer him something to eat. He hated to do it, but if he didn't extend hospitality to a tired traveler it would get around the countryside and people would soon be talking about Spider behind his back.

So he said to Turtle:

"There is water at the spring for you to wash your feet in. Follow the trail and you'll get there. I'll get the dinner ready."

Turtle turned and waddled down to the spring with a gourd bowl as fast as he could. He dipped some water from the spring and carefully washed his feet in it. Then he waddled back up the trail to the house. But the trail was dusty. By the time Turtle got back to the house his feet were covered with dirt again.

Spider had the food all set out. It was steaming, and the smell of it made Turtle's mouth water. He hadn't eaten since sunrise. Spider looked disapprovingly at Turtle's feet.

"Your feet are awfully dirty," he said. "Don't you think you ought to wash them before you start to eat?"

Turtle looked at his feet. He was ashamed, they were so dirty. So he turned around and waddled as fast as he could down to the spring again. He dipped some water out of the spring with the gourd bowl and carefully washed himself. Then he scurried as fast as he could back to the house. But it takes a turtle a while to get anywhere. When he came into the house Spider was already eating.

"Excellent meal, isn't it?" Spider said. He looked at Turtle's feet with disapproval. "Hm, aren't you going to wash yourself?"

Turtle looked down at his feet. In his hurry to get back he had stirred up a lot of dust, and his feet were covered with it again.

"I washed them," he said. "I washed them twice. It's your dusty trail that does it."

"Oh," Spider said, "so you are abusing my house now!" He took a big mouthful of food and chewed it up, looking very hurt.

"No," Turtle said, sniffing the food, "I was just explaining."

"Well, run along and wash up so we can get on with the eating," Spider said.

Turtle looked. The food was already half gone and Spider was eating as fast as he could.

Turtle spun around and hurried down to the spring. He dipped up some water in the gourd bowl and splashed it over his feet. Then he scrambled back to the house. This time he didn't go on the trail, though, but on the grass and through the bushes. It took him a little longer, but he didn't get dust all over his feet. When he got to the house he found Spider licking his lips.

"Ah, what a fine meal we had!" Spider said.

Turtle looked in the dish. Everything was gone. Even the smell was gone. Turtle was very hungry. But he said nothing. He smiled.

"Yes, it was very good," he said. "You are certainly good to travelers in your village. If you are ever in my country you may be assured of a welcome."

"It's nothing," Spider said. "Nothing at all."

Turtle went away. He didn't tell other people about the affair at Spider's house. He was very quiet about his experience there.

But one day many months later Spider was a long distance from home and he found himself in Turtle's country. He found Turtle on the shore of the lake getting a sunbath.

"Ah, friend Spider, you are far from your village," Turtle said. "Will you have something to eat with me?"

"Yes, that is the way it is when a person is far from home—generosity merits generosity," Spider said hungrily.

"Wait here on the shore and I'll go below and prepare the food," Turtle said. He slipped into the water and went down to the bottom of the lake. When he got there he set out the food to eat. Then he came to the top of the water and said to Spider, who was sitting impatiently on the shore, "All right, everything is ready. Let's go down and eat." He put his head under water and swam down.

Spider was famished. He jumped into the water to follow Turtle. But Spider was very light. He floated. He splashed and splashed, kicked and kicked, but he stayed right there on top of the water. For a long time he tried to get down where Turtle was eating, but nothing happened.

After a while Turtle came up, licking his lips.

"What's the matter, aren't you hungry?" he said. "The food is very good. Better hurry." And he went down again.

Spider made one more desperate try, but he just floated. Then he had an idea. He went back to the shore, picked up pebbles and put them in the pockets of his jacket. He put so many pebbles in his pockets that he became very heavy. He was so heavy he could hardly walk. Then he jumped into the water again, and this time he sank to the bottom, where Turtle was eating. The food was half gone. Spider was very hungry. He was just reaching for the food when Turtle said politely:

"Excuse me, my friend. In my country we never eat with our jackets on. Take off your jacket so that we can get down to business."

Turtle took a great mouthful of food and started chewing. In a few minutes there wouldn't be anything left. Spider was aching all over with hunger. Turtle took another mouthful. So Spider wriggled out of his coat and grabbed at the food. But without the pebbles he was so light again that he popped right up to the top of the water.

People always say that one good meal deserves another.

Story:

Hungry Spider and the Turtle

Questions:

When Turtle remains quiet about his mistreatment by Spider, the author wants you to

A. believe Turtle is afraid

▶B. have sympathy for Turtle

C. feel dislike for Turtle

D. think Turtle deserved no dinner

Reading Purpose: Literary Experience

Reading Stance: Critical Stance

Grade 4	Percentage Correct within Achievement Level Intervals		
Overall Percentage Correct	*Basic* 208-237*	*Proficient* 238-267*	*Advanced* 268 and above*
60 (1.5)	69 (2.7)	84 (2.1)	**

* Achievement Level scale range. ** Sample size insufficient to permit reliable estimate. The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

There is a saying, "Don't get mad, get even." How does this apply to the story?

Reading Purpose: Literary Experience

Reading Stance: Critical Stance

Responses to this question were scored
1) Unacceptable, or 2) Acceptable

Grade 4	Percentage "Acceptable" within Achievement Level Intervals		
Overall Percentage "Acceptable"	***Basic*** **208-237***	***Proficient*** **238-267***	***Advanced*** **268 and above***
55 (1.5)	**71 (2.9)**	**92 (2.0)**	**

* Achievement Level scale range. ** Sample size insufficient to permit reliable estimate. The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Sample response (score of 2):

Spider invited Turtle to eat and didn't let him so when Spider wanted to eat Turtle didn't let him.

Acceptable responses (score of 2) indicated that Turtle got back at Spider for not sharing his food.

Spider's behavior during the first part of the story is most like that of

A. mothers protecting their children

B. thieves robbing banks

C. runners losing races

►**D.** people not sharing their wealth

Reading Purpose: Literary Experience

Reading Stance: Personal Response

Grade 4	Percentage Correct within Achievement Level Intervals		
Overall Percentage Correct	***Basic*** **208-237***	***Proficient*** **238-267***	***Advanced*** **268 and above***
73 (1.1)	**83 (1.8)**	**87 (2.0)**	**

* Achievement Level scale range. ** Sample size insufficient to permit reliable estimate. The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

What do Turtle's actions at Spider's house tell you about Turtle?

Reading Purpose: Literary Experience Reading Stance: Developing an Interpretation

Responses to this question were scored
1) Unacceptable, or 2) Acceptable

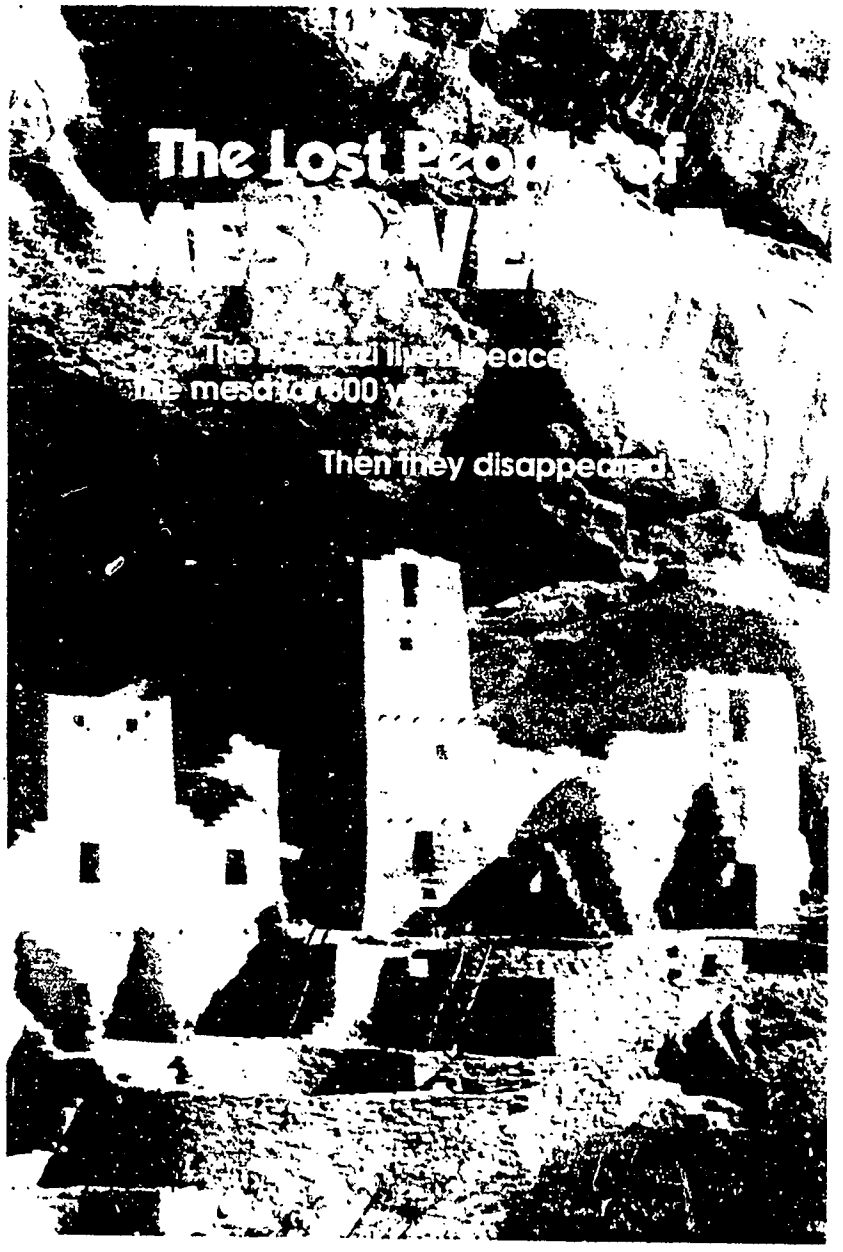
Grade 4	Percentage "Acceptable" within Achievement Level Intervals		
Overall Percentage "Acceptable"	***Basic* 212-242***	***Proficient* 243-274***	***Advanced* 275 and above***
41 (1.4)	**48 (3.3)**	**66 (3.5)**	**

* Achievement Level scale range. ** Sample size insufficient to permit reliable estimate. The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Sample response (score of 2):

He is a very nice calm smart person, and that he wouldn't do anything to hurt anybody unless he had to.

Acceptable responses (score of 2) provided a description of Turtle that was consistent with the traits portrayed by the character in a specific part of the story.



The Image Bank

By Elsa Marston

In the dry land of southwestern Colorado a beautiful plateau rises. It has so many trees that early Spanish explorers called it Mesa Verde, which means "green table." For about eight hundred years Native Americans called the Anasazi lived on this mesa. And then they left. Ever since the cliff houses were first discovered a hundred years ago, scientists and historians have wondered why.

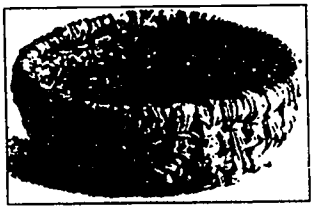
Anasazi is a Navajo word meaning "the ancient ones." When they first settled there, around 500 A.D., the Anasazi lived in alcoves in the walls of the high canyons. Later they moved to the level land on top, where they built houses of stone and mud mortar. As time passed, they constructed more elaborate houses, like apartment buildings, with several families living close together.

The Anasazi made beautiful pottery, turquoise jewelry, fine sashes of woven hair, and baskets woven tightly enough to hold water. They lived by hunting and by growing corn and squash. Their way of life went on peacefully for several hundred years.

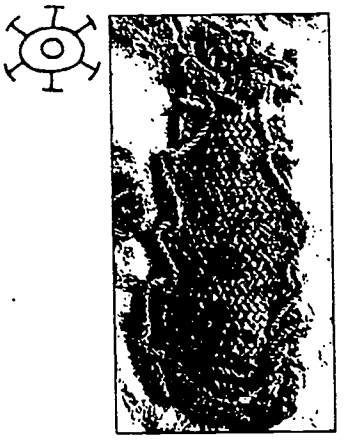
Then around 1200 A.D. something strange happened, for which the reasons are not quite clear. Most of the people moved from the level plateau back down into alcoves in the cliffs. The move must have made their lives difficult because they had to climb back up to the plateau to do the farming. But it seems the Anasazi planned to stay in the canyon walls, for they soon filled the

alcoves with amazing cliff dwellings. "Cliff Palace," the most famous of these, had more than two hundred rooms.

For all the hard work that went into building these new homes, the Anasazi did not live in them long. By 1300 A.D. the cliff dwellings were empty. Mesa Verde was deserted and remained a ghost country for almost six hundred years. Were the people driven out of their homes by enemies? No sign of attack or fighting, or even the presence of other tribes, has been found.



The sturdy baskets, woven sandals, and beautiful pottery left behind by the Anasazi may be 1,000 years old.



Bureau of Land Management—Anasazi Heritage Center Collections

Archaeologists who have studied the place now believe there are other reasons. Mesa Verde, the beautiful green table, was no longer a good place to live. For one thing, in the second half of the thirteenth century there were long periods of cold, and very little rain fell—or else it came at the wrong time of year. Scientists know this from examining the wood used in the cliff dwellings. The growth rings in trees show good and bad growing seasons. But the people had survived drought and bad weather before, so there must have been another reason.

As the population grew, more land on the mesa top had to be farmed in order to feed the people. That meant that trees had to be cut to clear the land and also to use for houses and fuel. Without the forests, the rain began to wash away the mesa top.

How do we know about erosion problems that happened about eight hundred years ago? The Anasazi built many low dams across the smaller valleys on the mesa to slow down rain runoff. Even so, good soil washed away, and the people could no longer raise enough food. As the forests dwindled, the animals, already overhunted, left the mesa for mountainous areas with more trees.

And as the mesa "wore out," so did the people. It appears that the Anasazi were not healthy. Scientists can learn a lot about ancient people's health by studying the bones and teeth found in burials. The mesa dwellers had arthritis, and their teeth were worn down by the grit in corn meal, a main part of their diet.

As food became scarce, people grew weaker. Not many lived beyond their twenties. Women died very young, and few babies survived. Living so close together in the cliff houses, where everyone was hungry and worried, the people must have suffered from emotional strain. They probably quarreled often.

In the end the Anasazi must have given up hope that things would get better.

Families packed up and went away. Of course, the "ancient ones" did not simply disappear. They moved southeast to another area and mingled with other peoples. After a while their heritage as the people of the Mesa Verde was forgotten.

In time the trees grew back and the plateau became green once more. But, for the Anasazi it was too late. Although they respected nature and tried to farm wisely, land that was used too hard could not support them forever.

Yet in their cliff houses and crafts the "ancient ones" left us a superb monument. It is truly one of the most fascinating pictures of America's past.

Informative Article:

The Lost People of Mesa Verde

Questions:

After reading this article, what do you think is the most important information about the Anasazi?

Reading Purpose: To Gain Information **Reading Stance:** Initial Understanding

Responses to this question were scored
1) Unacceptable, or 2) Acceptable

Grade 8	Percentage "Acceptable" within Achievement Level Intervals		
Overall Percentage "Acceptable"	*Basic* 243-280*	*Proficient* 281-322*	*Advanced* 323 and above*
60 (1.4)	60 (2.7)	74 (2.9)	**

* Achievement Level scale range. ** Sample size insufficient to permit reliable estimate. The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Sample response (score of 2):

The Anasazi were peaceful, they grew corn and squash. Their way of life went on peacefully for several hundred years.

Acceptable responses (score of 2) provided either a specific aspect or a general impression of the history of the Anasazi as portrayed in the article.

The Anasazi's life before 1200 A.D. was portrayed by the author as being

A. dangerous and warlike

B. busy and exciting

C. difficult and dreary

▶D. productive and peaceful

Reading Purpose: To Gain Information **Reading Stance:** Developing an Interpretation

Grade 8	Percentage Correct within Achievement Level Intervals		
Overall Percentage Correct	***Basic*** **243-280***	***Proficient*** **281-322***	***Advanced*** **323 and above***
59 (1.5)	**59 (2.4)**	**82 (2.9)**	**

* Achievement Level scale range. ** Sample size insufficient to permit reliable estimate. The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Some people say that the Anasazi's success as a civilization may have actually caused their own decline. Using information in the article, explain why you agree or disagree with this statement.

Reading Purpose: To Gain Information

Reading Stance: Personal Response

Responses to this question were scored
1) Unsatisfactory, 2) Partial, 3) Essential, or 4) Extensive

Grade 8	Percentage "Essential" or Better within Achievement Level Intervals		
Overall Percentage "Essential" or Better	*Basic* 243-280*	*Proficient* 281-322*	*Advanced* 323 and above*
28 (1.1)	26 (2.5)	50 (3.4)	**

* Achievement Level scale range. ** Sample size insufficient to permit reliable estimate. The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Sample response (score of 3):

I agree. I think they got all they could out of the land for as long as they could and then it died. If they had worked the land a little less harder maby it would have turned out OK.

Responses scored Essential (score of 3) agreed or disagreed with the statement and demonstrated understanding by providing an explanation based on information in the article.

Sample response (score of 4):

I AGREE BECAUSE IN THE ARTICLE IT EXPLAINS HOW THE TRIBE KEPT GROWING AND GROWING BECAUSE OF HOW SUCCESSFULLY THE FARMED THE LAND AND LIVED IN PEACE, BECAUSE OF THIS THEY WERE ABLE TO LIVE LONGER AND MORE CHILDREN WOULD SURVIVE. THE TRIBE KEPT GROWING FASTER AND FASTER. THEY STARTS TO RUN OUT OF FOOD, BECAUSE THERE WASN'T ENOUGH FARMLAND AND THERE WEREN'T ENOUGH ANIMALS LEFT TO FEED THE WHOLE TRIBE. THIS CAUSED THEM TO BEGIN TO DIE OF STARVATION. THE TRIBE WOULD NEVER BE THE SAME BECAUSE THERE WAS NO FOOD.

Responses scored Extensive (score of 4) agreed or disagreed with the statement and demonstrated an explicit understanding of causal relationships between events and outcomes by connecting ideas from the article.

If you had lived with the Anasazi at Mesa Verde, would you have preferred living on the top of the mesa or in the cliff houses built into the alcoves? Explain your preference by using information from the article.

Reading Purpose: To Gain Information **Reading Stance:** Personal Response

Responses to this question were scored
1) Unsatisfactory, 2) Partial, or 3) Complete

Grade 8	Percentage "Complete" within Achievement Level Intervals		
Overall Percentage "Complete"	***Basic*** **243-280***	***Proficient*** **281-322***	***Advanced*** **323 and above***
29 (1.3)	**29 (2.0)**	**46 (3.0)**	**

* Achievement Level scale range. ** Sample size insufficient to permit reliable estimate. The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

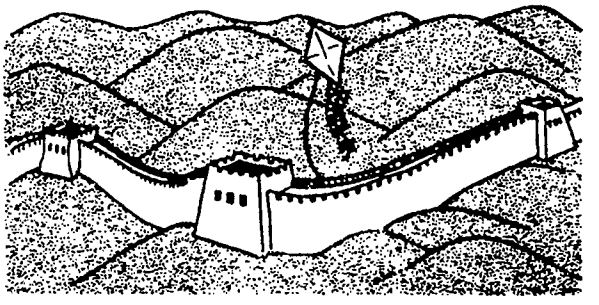
Sample response (score of 3):

Probally at the top of the mesa because you would have the farm land right there. The alcoves also sound damp.

Responses demonstrating Full comprehension (score of 3) stated a preference and used appropriate information from the article to logically support their preference.

RAY BRADBURY

The Flying Machine



In the year A.D. 400, the Emperor Yuan held his throne by the Great Wall of China, and the land was green with rain, readying itself toward the harvest, at peace, the people in his dominion neither too happy nor too sad.

Early on the morning of the first day of the first week of the second month of the new year, the Emperor Yuan was sipping tea and fanning himself against a warm breeze, when a servant ran across the scarlet and blue garden tiles, calling, "Oh, Emperor, Emperor, a miracle!"

"Yes," said the Emperor, "the air is sweet this morning."

"No, no, a miracle!" said the servant, bowing quickly.

"And this tea is good in my mouth, surely that is a miracle."

"No, no, Your Excellency."

"Let me guess then — the sun has risen and a new day is upon us. Or the sea is blue. That now is the finest of all miracles."

"Excellency, a man is flying!"

"What?" The Emperor stopped his fan.

"I saw him in the air, a man flying with wings. I heard a voice call out of the sky, and when I looked up, there he was, a dragon in the heavens with a man in its mouth, a dragon of paper and bamboo, colored like the sun and the grass."

"It is early," said the Emperor, "and you have just wakened from a dream."

"It is early, but I have seen what I have seen! Come, and you will see it too."

"Sit down with me here," said the Emperor. "Drink some tea. It must be a strange thing, if it is true, to see a man fly. You must have time to think of it, even as I must have time to prepare myself for the sight."

They drank tea.

"Please," said the servant at last, "or he will be gone."

The Emperor rose thoughtfully. "Now you may show me what you have seen."

They walked into a garden, across a meadow of grass, over a small bridge, through a grove of trees, and up a tiny hill.

"There!" said the servant.

The Emperor looked into the sky.

And in the sky, laughing so high that you could hardly hear him laugh, was a man; and the man was clothed in bright papers and reeds to make wings and a beautiful yellow tail, and he was soaring all about like the largest bird in a universe of birds, like a new dragon in a land of ancient dragons.

The man called down to them from high in the cool winds of morning. "I fly! I fly!"

The servant waved to him. "Yes, yes!"

The Emperor Yuan did not move. Instead, he looked at the Great Wall of China now taking shape out of the farthest mist in the green hills, that splendid snake of stones which writhed with majesty across the entire land. That wonderful wall which had protected them for a timeless time from enemy hordes and preserved peace for years without number. He saw the town, nestled to itself by a river and a road and a hill, beginning to waken.

"Tell me," he said to his servant, "has anyone else seen this flying man?"

"I am the only one, Excellency," said the servant, smiling at the sky, waving.

The Emperor watched the heavens another minute and then said, "Call him down to me."

"Ho, come down, come down! The Emperor wishes to see you!" called the servant, hands cupped to his shouting mouth.

The Emperor glanced in all directions while the flying man soared down the morning wind. He saw a farmer, early in his fields, watching the sky, and he noted where the farmer stood.

The flying man alit with a rustle of paper and a creak of bamboo reeds. He came proudly to the Emperor, clumsy in his rig, at last bowing before the old man.

"What have you done?" demanded the Emperor.

"I have flown in the sky, Your Excellency," replied the man.

"What have you done?" said the Emperor again.

"I have just told you!" cried the flier.

"You have told me nothing at all."

The Emperor reached out a thin hand to touch the pretty paper and the bird-like keel of the apparatus. It smelled cool, of the wind.

"Is it not beautiful, Excellency?"

"Yes, too beautiful."

"It is the only one in the world!" smiled the man. "And I am the inventor."

"The only one in the world?"

"I swear it!"

"Who else knows of this?"

"No one. Not even my wife, who would think me mad with the sun. She thought I was making a kite. I rose in the night and walked to the cliffs far away. And when the morning breezes blew and the sun rose, I gathered my courage, Excellency, and leaped from the cliff. I flew! But my wife does not know of it."

"Well for her, then," said the Emperor. The sun was full in the sky now, and the smell of the grass was refreshing. The Emperor, the servant, and the flier paused within the huge garden.

The Emperor clapped his hands. "Ho, guards!"

The guards came running.

"Hold this man."

The guards seized the flier.

"Call the executioner," said the Emperor.

"What's this!" cried the flier, bewildered. "What have I done?" He began to weep, so that the beautiful paper apparatus rustled.

"Here is the man who has made a certain machine," said the Emperor, "and yet asks us what he has created. He does not know himself. It is only necessary that he create, without knowing why he has done so, or what this thing will do."

The executioner came running with a sharp silver ax. He stood with his naked, large-muscled arms ready, his face covered with a serene white mask.

"One moment," said the Emperor. He turned to a nearby table upon which sat a machine that he himself had created. The Emperor took a tiny golden key from his own neck. He fitted this key to the tiny, delicate machine and wound it up. Then he set the machine going.

The machine was a garden of metal and jewels. Set in motion, birds sang in tiny metal trees, wolves walked through miniature forests, and tiny people ran in and out of sun and shadow, fanning themselves with miniature fans, listening to the tiny emerald birds, and standing by impossibly small but tinkling fountains.

"Is it not beautiful?" said the Emperor. "If you asked me what I have done here, I could answer you well. I have made birds sing, I have made forests murmur, I have set two people to walking in this woodland, enjoying the leaves and shadows and songs. That is what I have done."

"But, oh, Emperor!" pleaded the flier, on his knees, the tears pouring down his face. "I have done a similar thing! I have found beauty. I have flown on the morning wind. I have looked down on all the sleeping houses and gardens. I have smelled the sea and even seen it, beyond the hills, from my high place. And I have soared like a bird; oh, I cannot say how beautiful it is up there, in the sky, with the wind about me, the wind blowing me here like a feather, there like a fan, the way the sky smells in the morning! And how free one feels! That is beautiful, Emperor, that is beautiful too!"

"Yes," said the Emperor sadly, "I know it must be true. For I felt my heart move with you in the air, and I wondered: What is it like? How does it feel? How do the distant pools look from so high? And how my house and servants? Like ants? And how the distant towns not yet awake?"

"Then spare me!"

"But there are times," said the Emperor, more sadly still, "when one must lose a little beauty if one is to keep what little beauty one already has. I do not fear you, yourself, but I fear another man."

"What man?"

"Some other man who, seeing you, will build a thing of bright papers and bamboo like this. But the other man will have an evil face and an evil heart, and the beauty will be gone. It is this man I fear."

"Why? Why?"

"Who is to say that someday just such a man, in just such an apparatus of paper and reed, might not fly in the sky and drop huge stones upon the Great Wall of China?" said the Emperor.

No one moved or said a word.

"Off with his head," said the Emperor.

The executioner whirled his silver ax.

"Burn the kite and the inventor's body, and bury their ashes together," said the Emperor.

The servant retreated to obey.

The Emperor turned to his hand servant, who had seen the man flying. "Hold your tongue. It was all a dream, a most sorrowful and beautiful dream. And that farmer in the distant field who also saw, tell him it would pay him to consider it only a vision. If ever the word passes around, you and the farmer die within the hour."

"You are merciful, Emperor."

"No, not merciful," said the old man. Beyond the garden wall he saw the guards burning the beautiful machine of paper and reeds that smelled of the morning wind. He saw the dark smoke climb into the sky. "No, only very much bewildered and afraid." He saw the guards digging a tiny pit wherein to bury the ashes. "What is the life of one man against those of a million others? I must take solace from that thought."

He took the key from its chain about his neck and once more wound up the beautiful miniature garden. He stood looking out across the land at the Great Wall, the peaceful town, the green fields, the rivers and streams. He sighed. The tiny garden whirred its hidden and delicate machinery and set itself in motion; tiny people walked in forests, tiny foxes loped through sun-speckled glades in beautiful shining pelts, and among the tiny trees flew little bits of high song and bright blue and yellow color, flying, flying, flying in that small sky.

"Oh," said the Emperor, closing his eyes, "look at the birds, look at the birds!"

Story:

The Flying Machine

Questions:

Who does the Emperor believe should be responsible for an invention? Why does he think this?

Reading Purpose: Literary Experience

Reading Stance: Critical Stance

Responses to this question were scored
1) Unacceptable, or 2) Acceptable

Grade 12	Percentage "Acceptable" within Achievement Level Intervals		
Overall Percentage "Acceptable"	*Basic* 265-301*	*Proficient* 302-345*	*Advanced* 346 and above*
55 (1.6)	56 (3.2)	70 (2.6)	**

* Achievement Level scale range. ** Sample size insufficient to permit reliable estimate. The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

Sample response (score of 2):

He thinks the one to be responsible for an invention is, the inventor, himself cause the emperor believes that those with great talent, should use it wisely.

Acceptable responses (score of 2) evaluated story events to determine who the Emperor believed should be responsible and explained why he thought that way.

The Emperor suggests that creative talents should be used to

A. build airplanes

▶**B.** make elaborate toys

C. tear down walls

D. discipline servants

Reading Purpose: Literary Experience Reading Stance: Developing an Interpretation

Grade 12	Percentage Correct within Achievement Level Intervals		
Overall Percentage Correct	*Basic* 265-301*	*Proficient* 302-345*	*Advanced* 346 and above*
50 (1.4)	46 (3.5)	77 (3.6)	**

* Achievement Level scale range. ** Sample size insufficient to permit reliable estimate. The standard errors of the estimated percentages appear in parentheses. It can be said with 95 percent certainty that for each population of interest, the value for the whole population is within plus or minus two standard errors of the estimate for the sample.

ACKNOWLEDGMENTS

NAEP'S 1994 Reading Assessment, including the Trial State Assessment Program, was a collaborative effort among staff from the National Center for Education Statistics (NCES), the National Assessment Governing Board (NAGB), Educational Testing Service (ETS), Westat, and National Computer Systems (NCS). The program benefited from the contributions of hundreds of individuals at the state and local levels — governors, chief state school officers, state and district test directors, state coordinators, and district administrators — who tirelessly provided their wisdom, experience, and hard work. Most importantly, NAEP is grateful to students and school staff who made the assessment possible.

The assessment was funded through NCES, in the Office of Educational Research and Improvement of the U.S. Department of Education. The NCES staff – particularly Jeanne Griffith, Gary Phillips, Steve Gorman, Susan Ahmed, Peggy Carr, Sharif Shakrani, Sheida White and Maureen Treacy – worked closely and collegially with ETS, Westat, and NCS staff and played a crucial role in all aspects of the program. The 1994 NAEP assessments and reports also benefitted from the consistent support and guidance of Emerson Elliott, past Commissioner of NCES. The members of the National Assessment Governing Board (NAGB) and the NAGB staff provided invaluable advice and guidance throughout. NAEP also owes a debt of gratitude to the numerous panelists and consultants who provided their expertise and worked so conscientiously on developing the assessment.

The NAEP project at ETS is directed by Paul Williams and resides in the Center for the Assessment of Educational Progress (CAEP) managed by Archie Lapointe and Paul Williams. Steve Lazer managed test development activities, and Jay Campbell worked with the Reading Item Development committee to develop the assessment instruments. Jules Goodison managed the operational aspects together with John Olson, and sampling and data collection activities were carried out by Westat under the direction of Rene Slobasky, Nancy Caldwell, and Keith Rust. Printing, distribution, scoring, and processing activities were conducted by NCS, under the supervision of Judy Moyer, Brad Thayer, Mathilde Kennel, Linda Reynolds, and Barbara Price.

Statistical and psychometric activities for the national and state assessments were led by Nancy Allen and John Donoghue under the direction of Eugene Johnson, John Mazzeo, and Jim Carlson. Major contributions were made by Hua Hua Chang, Spencer Swinton, and Eddie Ip. Steve Isham, Dave Freund, Jennifer Nelson, Kate Pashley, and Lois Worthington performed the reading analyses.

Karen Miller, and Steve Lazer contributed substantially to report design activities. Doug Rhodes and Mary Michaels directed the report production aspects, with coordination assistance from Sharon Davis-Johnson. Roderick Rudder, Carol Errickson, Sheri Barnes, Joe Kolodey, Jim Rura, Diane Guthrie, and in particular, Loretta Casalaina provided report design and composition assistance. Beverly Cisney provided the excellent desktop publishing skills essential to the report. Many thanks are provided to the numerous reviewers, internal to ETS and NCES as well as external, especially Lynn Jenkins who suggested improvements to successive drafts. The comments and critical feedback provided by the following reviewers are reflected in the final version of this report: Marilyn Binkley, Marylyn Bourque, Adrienne Chute, Peter Dewitz, Larry Feinberg, Steven Ferrar, Larry Gabbert, Andrew Kolstad, and Mary Naifeh.

UNITED STATES
DEPARTMENT OF EDUCATION
WASHINGTON, DC 20208-5653

OFFICIAL BUSINESS
PENALTY FOR PRIVATE USE, $300

Postage and Fees Paid
U.S. Department of Education
Permit No. G-17

Fourth Class Special
Special Handling

NCES 95-045