

## DOCUMENT RESUME

ED 381 749

CS 012 102

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 TITLE 1994 NAEP Reading: A First Look--Findings from the National Assessment of Educational Progress.  
 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 ISBN-0-16-048016-7; ISBN-0-88685-171-8; NCES-95-748  
 PUB DATE 95  
 NOTE 65p.  
 AVAILABLE FROM U.S. Government Printing Office, Superintendent of Documents, Mail Stop: SSOP, Washington, DC 20402-9328.  
 PUB TYPE Reports - Research/Technical (143)  
 EDRS PRICE MF01/PC03 Plus Postage.  
 DESCRIPTORS Comparative Analysis; Elementary Secondary Education; Grade 4; Grade 8; Grade 12; \*National Competency Tests; Racial Differences; \*Reading Achievement; Reading Research; Regional Characteristics; Sex Differences; \*Student Evaluation; \*Test Results  
 IDENTIFIERS \*National Assessment of Educational Progress

## ABSTRACT

This report presents a first look at national and state-level findings of students' overall proficiency in the National Assessment of Educational Progress (NAEP) 1994 reading assessment for grades 4, 8, and 12 and provides comparisons with the performance of their 1992 counterparts. The first chapter introduces the report, discussing topics such as the NAEP, the national sample, the trial state assessment program, the proficiency scale, achievement levels, and cautions in interpretations. The second and third chapters present a first look at the average reading proficiency and the attainment of achievement levels by America's students, discussing average national reading proficiency and average reading proficiency by region and by major reporting subgroups (race/ethnicity, gender, parents' educational level, public and nonpublic schools, and cross-state proficiency findings). Major findings include: (1) the average reading proficiency of twelfth-grade students declined significantly from 1992 to 1994; (2) across all three grade levels, female students continued to display higher reading achievement than male students; (3) reading proficiency was higher on average for students whose parents had more education; and (4) students attending nonpublic schools displayed higher average reading proficiency than their counterparts attending public schools. Appendixes present national and state sample descriptions, reporting subgroup(s) definitions, comparisons among states based on average proficiency, cross-state proficiency and achievement level tabular summaries, and state contextual background factors. Contains 7 figures and 12 tables of data. (RS)

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READING

FINDINGS FROM THE NATIONAL ASSESSMENT OF EDUCATIONAL PROGRESS



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# 1994 NAEP READING : A First Look

*Findings from the  
National Assessment of Educational Progress*

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Prepared by Educational Testing Service under contract  
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Library of Congress, Catalog Card Number: 95-68728

ISBN: 0-88685-171-8

The work upon which this publication is based was performed for the  
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# HIGHLIGHTS

The 1994 National Assessment of Educational Progress (NAEP) in reading continues a 25-year mandate to assess and report the educational progress of students at grades 4, 8, and 12. National results are provided that describe students' reading achievement at each grade and within various subgroups of the general population. In addition, results are reported for individual states that choose to participate. The 1994 NAEP Reading Assessment included a state-by-state component at Grade 4, as well as the national component at all three grades.

This report is a *first look* at the results of the 1994 reading assessment. It presents national and state-level findings of students' overall proficiency in reading. Furthermore, this report provides comparisons between students' reading performance in 1994 and the performance of their counterparts in 1992. Results are also reported according to the reading achievement levels established by the National Assessment Governing Board. The following highlights represent the major findings presented in this report:

- ▶ 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 for the nation at grades 4 or 8.
- ▶ The percentage of twelfth-grade students reaching the Proficient achievement level in reading declined since 1992. There also was a decrease from 1992 to 1994 in the percentage of twelfth graders at or above the Basic level.
- ▶ In 1994, 25 percent of fourth graders, 28 percent of eighth graders, and 34 percent of twelfth graders attained the Proficient level in reading. Across the three grades, two to five percent reached the Advanced level.
- ▶ In 1994, twelfth graders in the Northeast, Central, and West regions displayed lower average reading proficiency than their counterparts in 1992.
- ▶ Across the nation, declines in average proficiency from 1992 to 1994 were observed for fourth-grade Hispanic students as well as for White, Black, and Hispanic students in grade 12.
- ▶ Across all three grades, female students continued to display higher reading achievement than male students. The national decline in twelfth-grade reading performance since 1992 was evident for both males and females.
- ▶ Consistent with previous reports, reading proficiency at all 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 at all levels of parental education except the highest level.
- ▶ In 1994, fourth-, eighth-, and twelfth-grade students attending nonpublic schools displayed higher average reading proficiency than their counterparts attending public schools. Both public school and nonpublic school twelfth graders demonstrated a decline in performance since 1992.
- ▶ The eight states with the highest average reading proficiency in 1994 for public school fourth graders included — Maine, North Dakota, Wisconsin, New Hampshire, Massachusetts, Iowa, Connecticut, and Montana.
- ▶ Between 1992 and 1994, there were significant declines in average reading proficiency in ten jurisdictions — Delaware, Louisiana, Massachusetts, New Hampshire, New Jersey, New Mexico, Pennsylvania, South Carolina, Utah, and Virginia.

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# CHAPTER 1

## Introduction

With the completion of its 1994 assessment program, the National Assessment of Educational Progress (NAEP) concluded its 25th year as the only nationally representative and continuous assessment of what America's students know and can do in various subject areas. This report, which highlights selected portions of the 1994 Reading Assessment results, is a *first look* into the reading assessment program that was conducted during this milestone year. The complete results of the assessment will be presented in the forthcoming *NAEP 1994 Reading Report Card*.

This report provides a discussion of the initial findings for public and nonpublic school students in grades 4, 8, and 12 across the nation. The report also presents state-level findings for representative samples of fourth-grade public school students in jurisdictions that participated in NAEP's 1994 Trial State Assessment Program in Reading. State-level results for nonpublic schools will appear in the *NAEP 1994 Reading Report Card*.

## The National Assessment of Educational Progress (NAEP)

NAEP is a congressionally mandated survey administered by the National Center for Education Statistics, U.S. Department of Education. Since 1969, NAEP has reported on the educational achievement of American students and provided accurate and useful information to parents, educators, and policymakers at the national, state, and local levels. NAEP has become an integral part of our nation's evaluation of the condition and progress of education.

Since its beginning, NAEP assessments have been conducted periodically in reading, mathematics, science, writing, history, geography, and other fields. The 1994 NAEP program included assessments in reading, United States history, and world geography.

## The NAEP National Sample

The 1994 NAEP assessment was based on a national probability sample of public and nonpublic school students enrolled in fourth, eighth, and twelfth grade. The sample was selected using a stratified, three-stage sampling plan.

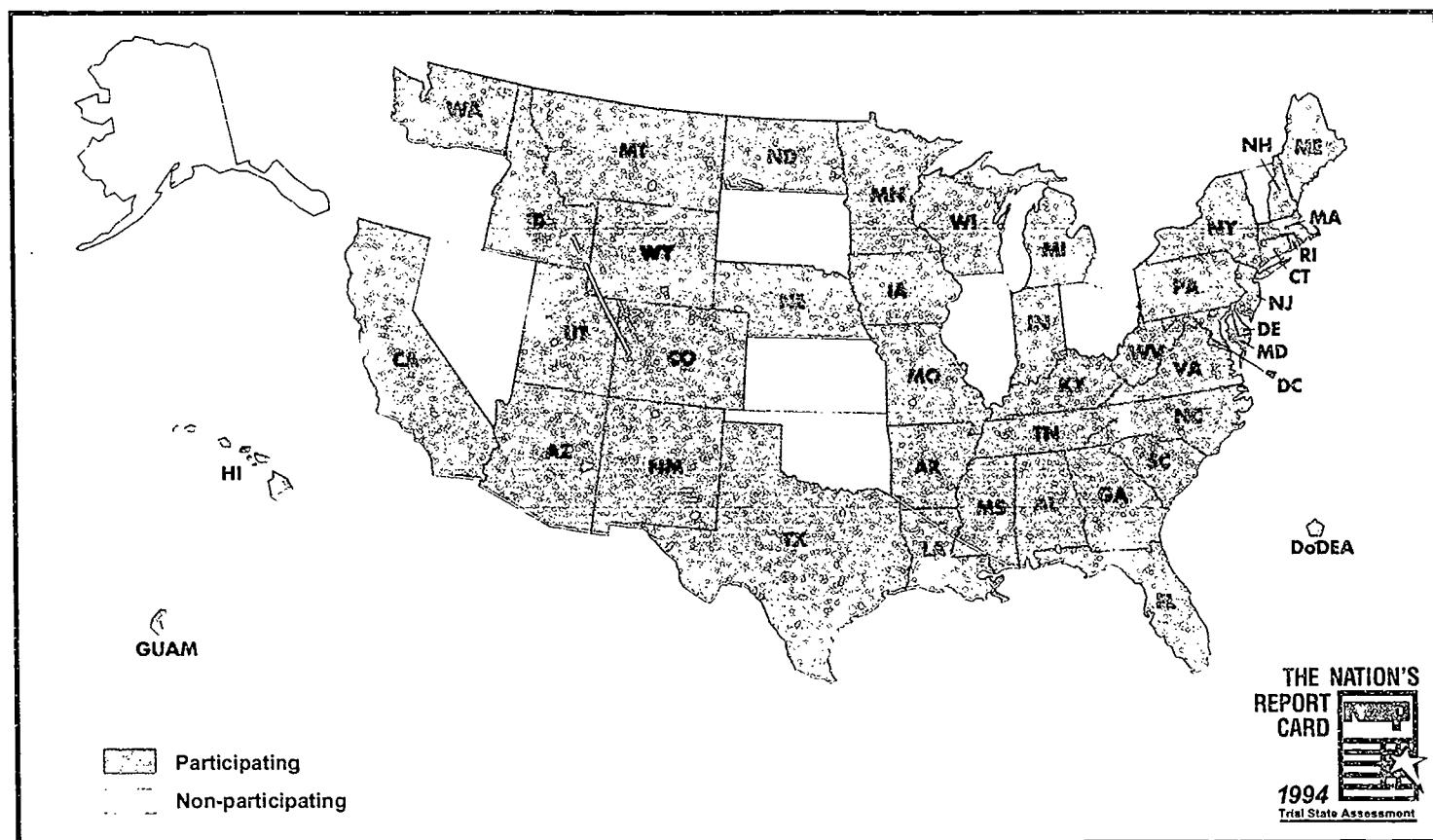
This sampling process resulted in the selection of three grade-specific, national samples of approximately 7,400 fourth-grade students, 10,000 eighth-grade students, and 10,000 twelfth-grade students. Detailed information regarding the student and school national sample sizes and participation rates is presented in Tables A.1 and A.2 in Appendix A. The national sample includes students attending domestic Department of Defense schools and Bureau of Indian Affairs schools. Students attending Department of Defense Education Activity (DoDEA) Overseas Schools and schools in Guam are not included in the national sample but are included as jurisdictions in the 1994 Trial State Assessment.

## The NAEP Trial State Assessment Program

In response to legislation passed by Congress in 1988, the NAEP program includes voluntary state-by-state assessments. The state assessment program was initiated in 1990 on a trial basis with an assessment of the mathematics achievement of eighth-grade students in public schools. These efforts were expanded in the 1992 assessment, in which public school students were assessed in fourth-grade reading and fourth- and eighth-grade mathematics.

The 1994 Trial State Assessment Program was comprised of state-by-state reading assessments of fourth-grade students attending public and nonpublic schools. Forty-four jurisdictions participated in the voluntary program (see Figure 1). To help ensure valid state-by-state results, the 1994 Trial State Assessment Program established a number of school and student participation rate standards that jurisdictions were required to meet (see Appendix A for details). 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. Another jurisdiction, Washington, DC, withdrew from the Trial State Assessment after the data collection phase. Results for Washington, DC, are not contained in this report. The sample selection process yielded student sample sizes typically in excess of 2,500 students for each participating jurisdiction. A tabular description of the school and student samples at the state-level and related participation rates is presented in Table A.2 in Appendix A.

Figure 1. Participating Jurisdictions in the 1994 Trial State Assessments in Reading



## The NAEP Reading Assessment

The 1994 NAEP Reading Assessment was developed to correspond with the framework established and used for the 1992 assessment. In both the 1992 and 1994 reading assessments, multiple-choice and constructed-response questions were used to assess the reading abilities of students. Constructed-response questions required students to write short (one or two sentences) or extended (a paragraph or more) answers. The percentage of students' response time devoted to answering constructed-response questions was approximately 60 percent in 1992 and 70 percent in 1994. New exercises were created for the 1994 assessment and in addition, a subset of the reading exercises used in 1992 was re-administered. The common framework and common exercises of the two assessments facilitate the reporting of trend results.

The framework, developed by the National Assessment Governing Board through a national consensus process, considers students' performance in situations that involve reading different kinds of materials for different purposes. The framework was designed to measure three global purposes – **reading for literary experience, reading to gain information, and reading to perform a task.** At grade 4, however, only the *literary experience* and *gain information* purposes were assessed.

The NAEP Reading Assessment asks students to build, extend, and examine text meaning from four stances or orientations.

- ▷ *Initial Understanding* – comprehending the overall or general meaning of the text selection
- ▷ *Developing an Interpretation* – extending the ideas in the text by making inferences and connections
- ▷ *Personal Response* – making explicit connections between ideas in the text and a student's own background knowledge and experiences
- ▷ *Critical Stance* – considering how the author crafted a text

These stances are not considered to be hierarchical or completely independent of each other. They provide a foundation from which to generate questions and to consider student performance at all levels.

At each grade, the NAEP Reading Assessment consisted of a set of test booklets that each contained student background questions and reading exercises. The background section requested information from the students about their experiences in and out of school and their motivation in completing the assessment.



The reading exercise section included reading passages and associated questions designed to assess students' reading comprehension. The booklets were distributed randomly to the students and required about one hour to complete.

## NAEP Proficiency Scale

Student responses to the 1994 NAEP Reading Assessment were analyzed to determine the percentage of students responding correctly to each multiple-choice question and the percentage of students responding in each of the score categories for constructed-response questions. Item response theory (IRT) methods were used to produce scales that summarize results for each of the three purposes for reading. 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 0 to 500 scale, which is linked to the 1992 reading scale through IRT equating procedures, is the reporting metric used in Chapter 2 to present results.

## Achievement Levels

In addition to the NAEP proficiency scale, this report also presents data using the reading achievement levels as authorized by the NAEP legislation and adopted by the National Assessment Governing Board (NAGB)<sup>1</sup>. 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 frameworks. For reporting purposes, the achievement level cut scores for each grade are placed on the traditional NAEP scale resulting in four ranges: *basic*, *proficient*, *advanced*, and the region *below basic*. The definitions of the three achievement levels are presented below.

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

It should be noted that the setting of achievement levels on the National Assessment is relatively new and in transition. There have been evaluations which concluded that the percentages of students at certain levels may be underestimated.<sup>2</sup> On the other hand, there have been critiques of those evaluations, which found that such conclusions were not supported by the weight of the empirical evidence present in the evaluations.<sup>3</sup>

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 review of 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 American students.

Definitions of the three levels of reading achievement for each of the three grades that were assessed are shown on the following page. For each grade, the definitions are cumulative from Basic through Advanced.



# Reading Achievement Levels

## GRADE 4

- BASIC** (212) 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** (243) 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** (275) 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** (244) 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** (283) 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** (328) 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** (269) 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** (304) 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** (348) 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.

## Overview of this Report

The two remaining chapters of this report present results expressed in terms of *average reading proficiency* and *student achievement levels*, respectively. Within each of these chapters, findings are presented for the nation, for the regions, and for states. In addition, each chapter presents national results for the major reporting subgroups described below. State-by-state subgroup results are presented in Appendix D. More detailed descriptions of the reporting subgroups are presented in Appendix B.

- ▶ **Race/Ethnicity.** Estimates are reported for students' self-identification of their race/ethnicity according to one of the following mutually exclusive categories: White, Black, Hispanic, Asian, Pacific Islander, and American Indian (including Alaskan Native). Between the 1992 and 1994 reading assessments, the student racial/ethnic subgroup question was revised. Asian and Pacific Islander categories were a combined data collection category in the 1992 assessment, preventing 1992 estimates and trend results from being reported for these categories.
- ▶ **Gender.** Estimates are reported separately for males and females.
- ▶ **Parents' Education Level.** Estimates are reported based on students' reports of the highest level of their parents' education: did not finish high school, graduated from high school, some education after high school, or graduated from college.
- ▶ **Public/Nonpublic Schools.** Estimates are reported for students attending public schools and nonpublic schools, including Catholic and other nonpublic schools.

This report examines and compares the results for groups of students defined by shared demographic characteristics or responses to background questions (e.g., males compared to females) and does not include an analysis of the relationships among combinations of these groups (e.g., White males compared to Black males).

The means and percentages presented in the 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 error* of the estimate. Although standard errors are not provided with the estimates presented in this report, a full set of standard errors will be available in future NAEP reports. The significant differences presented in the following chapters take into account the standard errors associated with the estimates.

The comparisons presented in the report are based on statistical tests that consider both the magnitude of the difference between the group means 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 statistically significant at the 0.05 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.

This report also contains a series of appendices. Appendix A provides information about sampling and participation rates. Appendix B includes descriptions of the reporting subgroups. Appendices C through E provide cross-state tabular summaries related to the 1994 Trial State Assessment Program in Reading. Detailed information about measurement methodology and data analysis techniques will be available in the forthcoming *NAEP 1994 Reading Report Card* and the national and state technical reports.

## Cautions in Interpretations

The reader is cautioned against making simple or causal inferences related to subgroup membership, effectiveness of public and nonpublic schools, and state educational systems. For example, differences observed among racial/ethnic subgroups can almost certainly be 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' education 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.

## Endnotes

1. P.L. 103-382. Improving America's School Act of 1994.
2. *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.)
3. 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 NAE evaluation of the NAGB achievement levels* (Washington, DC: National Assessment Governing Board, 1993.)  
American College Testing, *NAEP Reading Revisit: An Evaluation of the 1992 Achievement Levels Descriptions* (Washington, DC: National Assessment Governing Board, 1995.)

# CHAPTER 2

## A First Look at the Average Reading Proficiency of America's Students

### Overview

This chapter presents the overall average reading proficiency of students in grades 4, 8, and 12. Findings are presented for the nation, by region, and by major subgroups of students. In addition, results from the 1994 Trial State Assessment Program are provided.

The most striking finding from the 1994 NAEP Reading Assessment concerns the nation's high school seniors – *twelfth-grade students scored, on average, significantly lower on the 1994 reading assessment than they did on the 1992 assessment.* This overall decline did not result from a large decline in the reading proficiency of just one subgroup of students. Rather, a broad range of subgroups showed significant decreases in reading proficiency, including male and female students; White, Black, and Hispanic students; and students from the Northeast, Central, and West regions of the country.

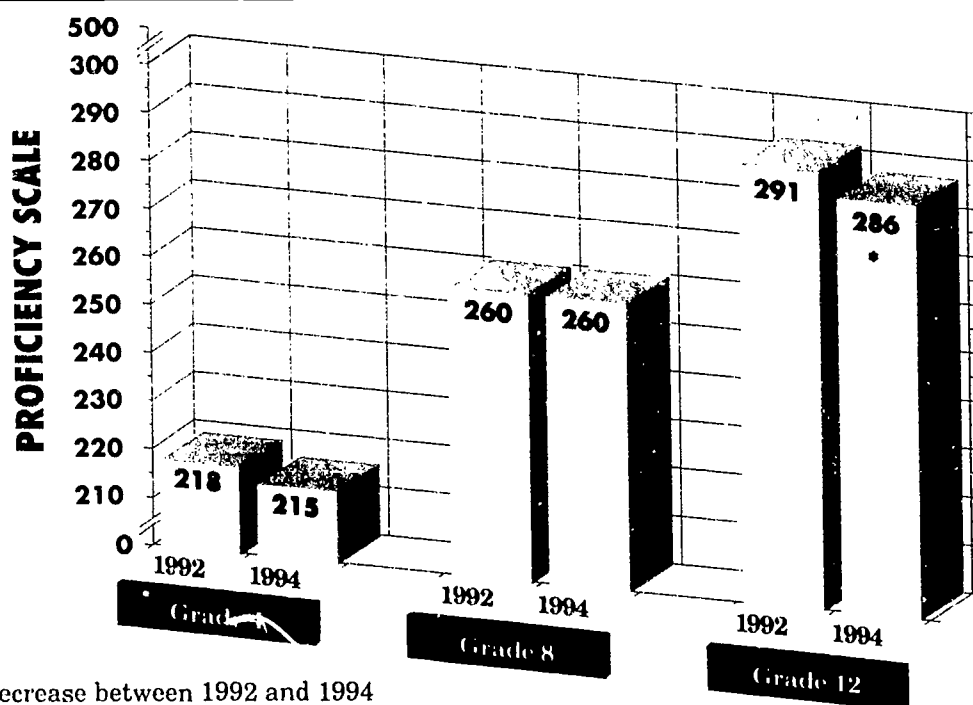
The magnitude of the changes in average proficiency did not differ significantly among regions of the country, racial/ethnic subgroups, parents' education levels, or types of schools (i.e., the four-point decline for public school twelfth graders is not statistically different from the six-point decline for nonpublic school twelfth graders). However, at grade 12, the decline in average proficiency for males (six points) was significantly larger than the decline for females (three points).

Reasons for the decline in average reading proficiency at grade 12 will be explored in greater detail in the forthcoming *NAEP 1994 Reading Report Card*. Average reading proficiency at grades 4 and 8 showed no statistically significant changes between 1992 and 1994.

### Average National Reading Proficiency

Table 1 and Figure 2 present national estimates of the 1992 and 1994 average student proficiency scores on the NAEP reading scale. The average proficiency of twelfth-grade students declined by five points between 1992 and 1994. This difference represents a statistically significant change. The estimates of the average proficiency of fourth- and eighth-grade students in 1994 were not statistically different from their 1992 counterparts.

Figure 2. Overall National Reading Proficiency by Grade — NAEP 1992 and 1994



\*Significant decrease between 1992 and 1994

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



## Average Reading Proficiency by Region

Average proficiencies by region are presented in Table 1 and Figure 3 for both the 1992 and 1994 NAEP Reading Assessments. The 1994 results show regional differences that are similar to those reported in 1992.<sup>1</sup> In 1994, eighth- and twelfth-grade students in the Southeast exhibited lower average reading proficiencies than their counterparts did in the other three regions of the country. Eighth-grade students in the Central region exhibited a higher average proficiency than students in the West, while the average proficiency of fourth-grade students in the Central region was higher than that of their counterparts in the Southeast. The average proficiency estimates among the other regions for the 1994 assessment for grade 4 were not statistically different.

The overall average proficiency decline between 1992 and 1994 for twelfth-grade students was clearly evident in three of the four regions of the country. The statistically significant declines from 1992 levels reported for the three regions were six points in the West region, five points in the Northeast region, and four points in the Central region. In the Southeast, the 1994 estimate of average proficiency was not significantly different from the 1992 estimate. Other changes in regional proficiency estimates between 1992 and 1994 were not statistically significant, including the seven-point change in the estimates for fourth-grade students in the Northeast.

Figure 3. Average Reading Proficiency by Grade and by Region — NAEP 1992 and 1994

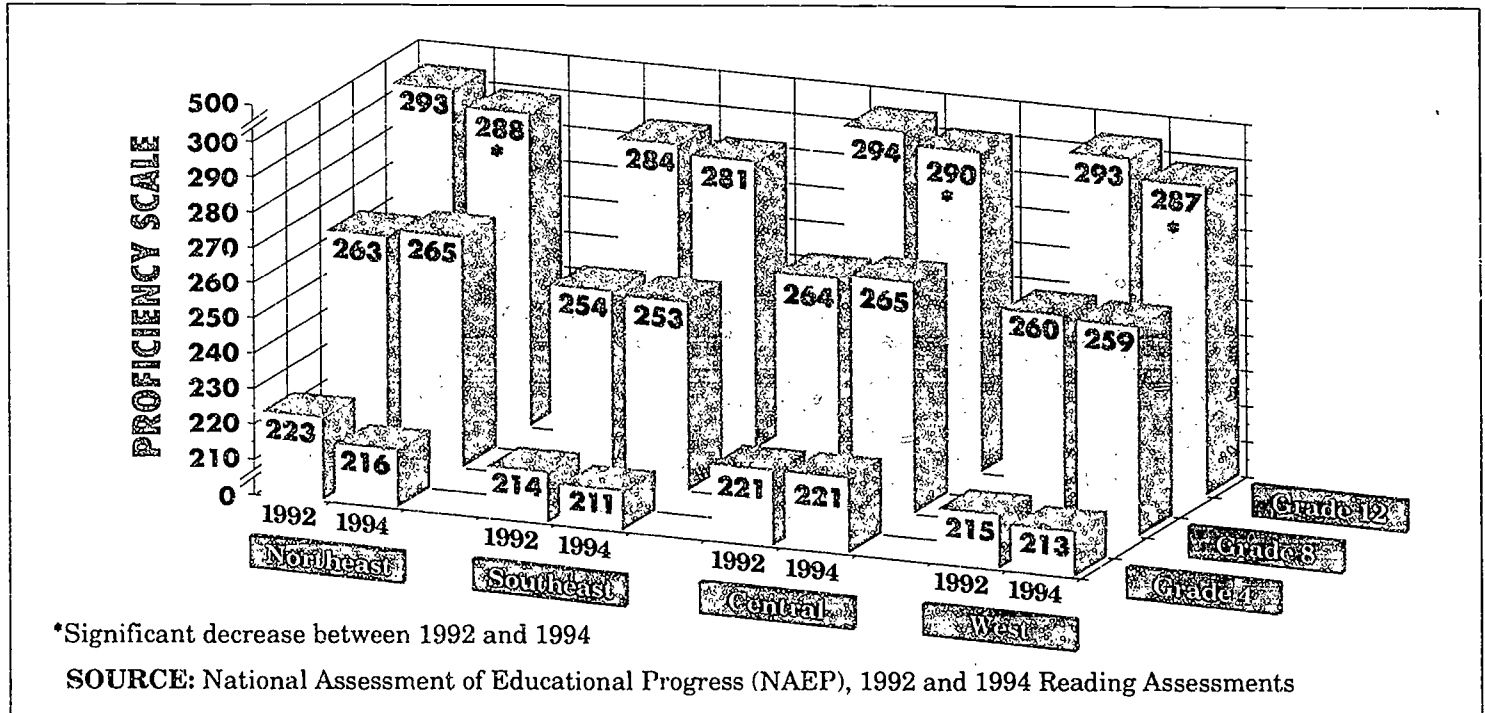




TABLE 1

Average Reading Proficiency  
by RegionTHE NATION'S  
REPORT  
CARD  
1992  
1994  
Reading Assessment

	1994		Change From 1992
	Percentage of Students	Average Proficiency	
<b>Grade 4</b>			
<b>Total</b>	100	215	-3
<b>Region</b>			
Northeast	23	216	-7
Southeast	23	211	-2
Central	25	221	0
West	29	214	-1
<b>Grade 8</b>			
<b>Total</b>	100	260	0
<b>Region</b>			
Northeast	20	265	1
Southeast	26	253	-1
Central	24	265	1
West	30	259	0
<b>Grade 12</b>			
<b>Total</b>	100	286	-5*
<b>Region</b>			
Northeast	20	288	-5*
Southeast	23	281	-2
Central	27	290	-4*
West	29	287	-6*

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

The NAEP reading scale ranges from 0 to 500.

\* The value for the 1994 assessment was significantly different from the value for 1992 at about the 95 percent confidence level.

The standard errors for the national averages are between 0.6 and 1.0 scale score points. The standard errors for the regional averages range from 1.1 to 3.7 points.

Percentages may not total 100 percent due to rounding.

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

Average Reading Proficiency by Major  
Reporting Subgroups

Tables 2 through 5 present the average reading proficiency estimates for major subgroups of the fourth-, eighth-, and twelfth-grade student populations. The results provided in this section of the report address the *statistically significant differences* that were reported either between reporting subgroups or between assessment years. There are, of course, other differences in reading proficiency estimates among the student subgroups, but these differences were not statistically significant.

*Race/Ethnicity.* Table 2 presents the average proficiencies by racial/ethnic subgroups. The 1994 assessment, like previous assessments, reported substantial variation in the average reading proficiency estimates among the different racial/ethnic subgroups (see Endnote 1). 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.

The overall decline in reading proficiency at grade 12 between 1992 and 1994 can be seen in large decreases in the average proficiencies of White, Black, and Hispanic students. In addition, the proficiency of Hispanic fourth-grade students showed a significant decline of 10 points between 1992 and 1994. No racial/ethnic group of students at any grade level showed a significant improvement in reading proficiency between 1992 and 1994.

Note that trends could not be estimated for Asian and Pacific Islander students at any grade because their race/ethnicity data were collected as a single category for the 1992 assessment. It is also important to reiterate that differences among the NAEP reading proficiency estimates should not be associated, in a simple or causal manner, with subgroup membership because any difference can almost certainly be associated with a broad range of socioeconomic and educational factors, many of which are not addressed directly by the NAEP assessment program.

TABLE 2

### Average Reading Proficiency by Race/Ethnicity



	1994		Change From 1992
	Percentage of Students	Average Proficiency	
<b>Grade 4</b>			
<b>Total</b>	100	215	-3
<b>Race/Ethnicity</b>			
White	69	225	-1
Black	15	189	-5
Hispanic	12	192	-10*
Asian	2	233	—
Pacific Islander	1	220	—
American Indian	2	202	-5
<b>Grade 8</b>			
<b>Total</b>	100	260	0
<b>Race/Ethnicity</b>			
White	70	268	0
Black	15	237	-1
Hispanic	11	241	-1
Asian	2	274	—
Pacific Islander	1	260	—
American Indian	1	251	0
<b>Grade 12</b>			
<b>Total</b>	100	286	-5*
<b>Race/Ethnicity</b>			
White	73	293	-4*
Black	13	264	-8*
Hispanic	8	269	-9*
Asian	3	279	—
Pacific Islander	1	280	—
American Indian	1	273	-2

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

The NAEP reading scale ranges from 0 to 500.

\* The value for the 1994 assessment was significantly different from the value for 1992 at about the 95 percent confidence level.

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

The standard errors for the national averages are between 0.6 and 1.0 scale score points. The standard errors for the race/ethnicity averages range from 0.6 to 7.4 points.

— 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 subgroups are not presented.

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 Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

*Gender.* As can be seen in Table 3, female students at all three grades had significantly higher reading proficiencies than male students. Specifically, female students scored 10 points higher than males at grade 4, 14 points higher than males at grade 8, and 14 points higher than males at grade 12.<sup>2</sup> Similar reading proficiency differences also were observed in the 1992 assessment (see Endnote 1).

The overall decline in reading proficiency at grade 12 between 1992 and 1994 was reflected again in the proficiency estimates of both male and female students. Neither male nor female students showed an improvement in proficiency at any of the assessed grades between 1992 and 1994.

TABLE 3

### Average Reading Proficiency by Gender



	1994		Change From 1992
	Percentage of Students	Average Proficiency	
<b>Grade 4</b>			
<b>Total</b>	100	215	-3
<b>Gender</b>			
Male	51	210	-4
Female	49	220	-2
<b>Grade 8</b>			
<b>Total</b>	100	260	0
<b>Gender</b>			
Male	50	253	-1
Female	50	267	1
<b>Grade 12</b>			
<b>Total</b>	100	286	-5*
<b>Gender</b>			
Male	50	280	-6*
Female	50	293	-3*

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

The NAEP reading scale ranges from 0 to 500.

\* The value for the 1994 assessment was significantly different from the value for 1992 at about the 95 percent confidence level.

The standard errors for the national averages are between 0.6 and 1.0 scale score points. The standard errors for the gender averages range from 0.7 to 1.2 points.

Percentages may not total 100 percent due to rounding.

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

**Parents' Education Level.** The NAEP 1994 Reading Assessment results are consistent with previous results that reveal a relationship between the students' reading proficiency and their description of their parents' education level (see Table 4). In fairness, it should be noted that substantial numbers of fourth-grade students (34 percent) report that they do not know the education level of either of their parents. Even at grade 8, almost one in 10 students reported that they do not know their parents' education level. Furthermore, existing research has raised at least some question about the accuracy of student-reported data among these groups of students.<sup>3</sup>

Despite these data limitations, a degree of consistency among the parents' education level results is evident across the three grade levels. For 1994, as in past assessments, increasing levels of parents' education in general corresponded with higher average reading proficiencies. In comparing the groups of students at all three grades that report knowing their parents' education levels, students with at least one parent who either graduated from college or had some education after high school had higher average proficiencies than did students who reported lower levels of parents' education. Furthermore, at all three grades, students who reported that their parents did not finish high school had lower average proficiencies than those with at least one parent who graduated from high school.

Once again, the overall drop in proficiency at grade 12 is shown, to varying degrees, regardless of parents' education level. For four of the five levels, estimated differences between 1992 and 1994 were statistically significant. The only exception was students who reported that at least one parent graduated from college; the decline for this group was not statistically significant. 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. No students, at any grade, with respect to any parents' education level group, showed significant improvement in reading proficiency between 1992 and 1994.

		1994		Change From 1992
		Percentage of Students	Average Proficiency	
<b>Grade 4</b>				
<b>Total</b>		100	215	-3
<b>Parents' Education Level</b>				
Graduated College		42	225	-2
Some Education After HS		8	224	0
Graduated HS		13	208	-5
Did Not Finish HS		4	189	-10
I Don't Know		34	207	-4
<b>Grade 8</b>				
<b>Total</b>		100	260	0
<b>Parents' Education Level</b>				
Graduated College		43	270	-1
Some Education After HS		20	266	0
Graduated HS		21	252	1
Did Not Finish HS		7	238	-4
I Don't Know		9	239	1
<b>Grade 12</b>				
<b>Total</b>		100	286	-5*
<b>Parents' Education Level</b>				
Graduated College		43	297	-3
Some Education After HS		25	288	-5*
Graduated HS		21	276	-6*
Did Not Finish HS		7	265	-9*
I Don't Know		3	247	-10*

Differences between two groups may be partially explained by other factors not included in this table.  
 The NAEP reading scale ranges from 0 to 500.  
 \*The value for the 1994 assessment was significantly different from the value for 1992 at about the 95 percent confidence level.  
 The standard errors for the national averages are between 0.6 and 1.0 scale score points. The standard errors for the parents' education level averages range from 0.8 to 3.3 points.  
 Percentages may not total 100 percent due to rounding.  
 SOURCE: National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments



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*Public and Nonpublic Schools.* The 1994 results presented in Table 5 are consistent with the 1992 results; students at all three grades who attended nonpublic schools (either Catholic or other nonpublic schools) had a significantly higher average proficiency than did students attending public schools. The overall decline in twelfth-grade proficiency, however, was reflected in the 1994 results for both public and nonpublic schools. For both types of schools, estimates of reading proficiency decreased from 1992 levels, and these changes were statistically significant. At grades 4 and 8, no statistically significant changes from 1992 levels were observed for either school type.

As was discussed in Chapter 1, the reader is cautioned against making simplistic inferences about the relative effectiveness of public and nonpublic schools. Average performance differences between the two types of schools are in part related to socioeconomic and students' home factors, such as parents' education and involvement. To interpret more fully the differences noted in Table 5, more in-depth analyses need to be considered. Such analyses will be featured in a future NAEP research and development report.

	1994		Change From 1992
	Percentage of Students	Average Proficiency	
<b>Grade 4</b>			
<b>Total</b>	100	215	-3
<b>Type of School</b>			
Public Schools Only	90	213	-3
Nonpublic Schools Only	10	232	-2
Catholic Schools	7	230	0
Other Nonpublic Schools	4	235	-5
<b>Grade 8</b>			
<b>Total</b>	100	260	0
<b>Type of School</b>			
Public Schools Only	89	258	0
Nonpublic Schools Only	11	280	1
Catholic Schools	7	279	4
Other Nonpublic Schools	4	281	-3
<b>Grade 12</b>			
<b>Total</b>	100	286	-5*
<b>Type of School</b>			
Public Schools Only	89	285	-4*
Nonpublic Schools Only	10	301	-6*
Catholic Schools	6	297	-9*
Other Nonpublic Schools	4	306	-2

Differences between two groups may be partially explained by other factors not included in this table.  
 The NAEP reading scale ranges from 0 to 500.  
 \* The value for the 1994 assessment was significantly different from the value for 1992 at about the 95 percent confidence level.  
 The standard errors for the national averages are between 0.6 and 1.0 scale score points. The standard errors for the type of school averages range from 0.7 to 3.6 points.  
 Percentages may not total 100 percent due to rounding.  
 SOURCE: National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments



*Cross-State Proficiency Findings.* In addition to the 1994 reading proficiency findings discussed above, state-level results also are reported for 41 jurisdictions. Table 6 presents the average reading proficiency for *fourth-grade public school* students by jurisdiction from the 1992 and 1994 NAEP Trial State Assessments. (Note that two states, Montana and Washington, and the Department of Defense Education Activity (DoDEA) Overseas Schools participated in the 1994 assessment but did not participate in 1992.)

Similar to the results cited at the national level for fourth grade, most states exhibited no significant change in average proficiency between 1992 and 1994. However, approximately 25 percent of the jurisdictions that participated in both assessments did show significant decreases in average reading proficiency between the two assessments. States exhibiting a significant decrease are indicated with < or << next to the 1994 average. The difference between the two symbols is explained in the table's footnote. No state exhibited a significant increase. (For detailed comparisons among the states, readers should refer to the cross-state, multiple comparisons figure in Appendix C.)

Each jurisdiction faces a unique set of challenges with respect to the demographic characteristics of its school-age populations and the economic and political environment in which its public school systems operate. These factors no doubt influence the effectiveness of each jurisdiction's school systems and need to be considered when comparing performance. Results presented in Appendices D and E provide some background to inform discussion of state differences. *The NAEP 1994 Reading Report Card* and other future reports will contain state-level data, which will provide a more complete context for interpreting state differences.

TABLE 6 Average Grade 4 Reading Proficiency NAEP Trial State Assessments in Reading Public Schools Only		
	1992 Average Proficiency	1994 Average Proficiency
<b>Nation</b>	216	213
<b>Region</b>		
Northeast	221	213
Southeast	212	209
East	219	219
West	213	213
<b>State</b>		
Alabama	208	209
Arizona	210	207
Arkansas	212	210
California	203	198
Colorado	218	214
Connecticut	223	223
Delaware	214	207<<
Florida	209	206
Georgia	213	208
Hawaii	204	202
Indiana	222	221
Iowa	227	224
Kentucky	214	213
Louisiana	205	198<<
Maine	228	229
Maryland	212	211
Massachusetts	227	224<
Minnesota	222	219
Mississippi	200	203
Missouri	221	218
Montana†	—	223
Nebraska†	222	221
New Hampshire†	229	224<
New Jersey	224	220<
New Mexico	212	206<
New York	216	213
North Carolina	213	215
North Dakota	227	226
Pennsylvania†	222	216<
Rhode Island†	218	221
South Carolina	211	205<
Tennessee†	213	214
Texas	214	213
Utah	222	218<
Virginia	222	214<<
Washington	—	214
West Virginia	217	214
Wisconsin†	225	225
Wyoming	224	222
<b>Other Jurisdictions</b>		
DoDEA	—	219
Guam	183	183

Differences between two groups 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 (see Appendix A).  
 — Jurisdiction did not participate in 1992 Trial State Assessment  
 DoDEA Department of Defense Education Activity Overseas Schools  
 SOURCE: National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments



## Endnotes

1. Mullis, I.V.S., Campbell, J.R., & Farstrup, A.E., *NAEP 1992 Reading Report Card for the Nation and the States* (Washington, DC: National Center for Education Statistics, Government Printing Office, 1993.)
2. 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 displayed in the "Change from 1992" or 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).
3. Looker, E. Dianne, "Accuracy of Proxy Reports of Parental Status Characteristics," in *Sociology of Education*, 62(4), pp. 257-276, 1989.

# CHAPTER 3

## A First Look at Attainment of Achievement Levels by America's Students

### Overview

The reading achievement levels attained by fourth-, eighth-, and twelfth-grade students from the NAEP Reading Assessment are presented in this chapter. Results are displayed for the nation, by region, and by the major reporting subgroups. In addition, state-level reading achievement results from the 1992 and 1994 Trial State Assessments are presented. When interpreting differences among subgroups and among states, the reader is reminded of the cautions presented in Chapter 1.

The three reading achievement levels — Basic, Proficient, and Advanced — were established by the National Assessment Governing Board (NAGB) for reporting NAEP results. The *Basic* level denotes partial mastery of prerequisite knowledge and skills that are fundamental for proficient work at each grade. The *Proficient* level, the central level, represents solid academic performance and demonstrated competence

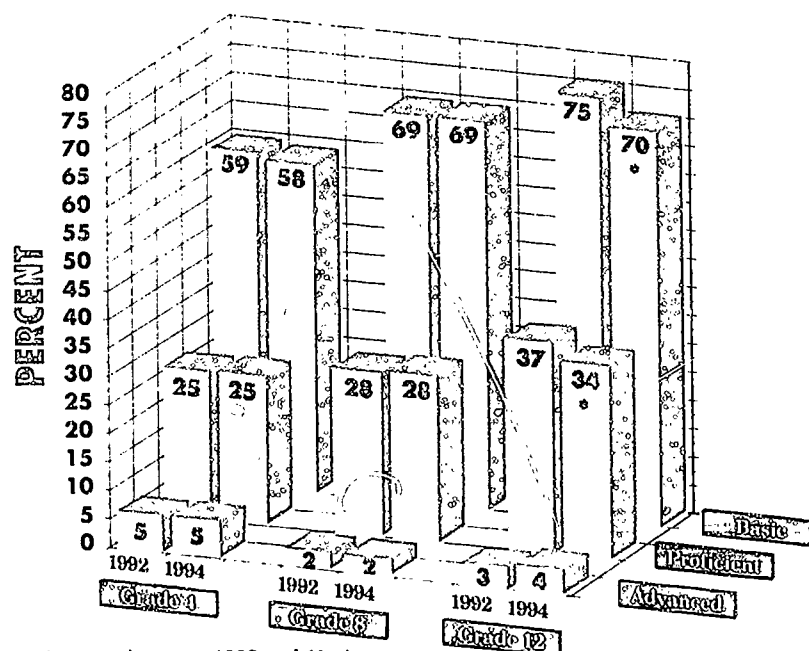
over challenging subject matter. The *Advanced* level signifies superior performance beyond Proficient.

Many of the findings presented in the prior chapter also were reflected in the NAEP achievement level findings, which also revealed a decline in the reading achievement of our nation's twelfth-grade students. The NAEP achievement level results show that on the 1994 assessments, *proportionately fewer twelfth-grade students were performing at or above the Proficient and Basic levels in 1994 than in 1992.*

### Reading Achievement Levels for the Nation

The percentages of fourth-, eighth-, and twelfth-grade students at the three reading achievement levels are shown in Figure 4 and Table 7 for the 1992 and 1994 NAEP Reading Assessments. The percentage of students at or above the Basic level for the 1994 reading assessment ranged from 58 at grade 4 to 70 for grade 12. When looking at the central level, the achievement level identified by NAGB as the level all students should reach, one quarter of fourth-grade students were classified as at or above Proficient. Slightly more eighth-grade students (28 percent) and approximately a third of twelfth-grade students (34 percent) were at or above the Proficient level. Few students at any grade were at or above the Advanced level — five percent at grade 4; two percent at grade 8; and four percent at grade 12.

Figure 4. Percent of Students At or Above the Reading Achievement Levels by Grade — NAEP 1992 and 1994



\*Significant decrease between 1992 and 1994

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

Consistent with the results reported in Chapter 2, the percentage of twelfth-grade students *at or above the Proficient level* decreased by three percentage points from 1992 to 1994. Furthermore, the percentage of 1994 twelfth-grade students *below the Basic level* increased by five percentage points. Fourth- and eighth-grade results indicate little or no change from 1992 to 1994 in the percentage of students at or above any of the three achievement levels. As mentioned in Chapter 2, possible explanations for the decline in the achievement levels of twelfth-grade students will be explored in the forthcoming *1994 Reading Report Card*.

## Reading Achievement Levels by Region

Figure 5 and Table 7 present the regional percentages of students at or above each achievement level for the 1992 and 1994 NAEP Reading Assessments. Across the three grades, no statistically significant differences among regions were found in the percentage of students at or above the Advanced level. However, significant differences were observed in the percentages of students attaining the Proficient and Basic levels.

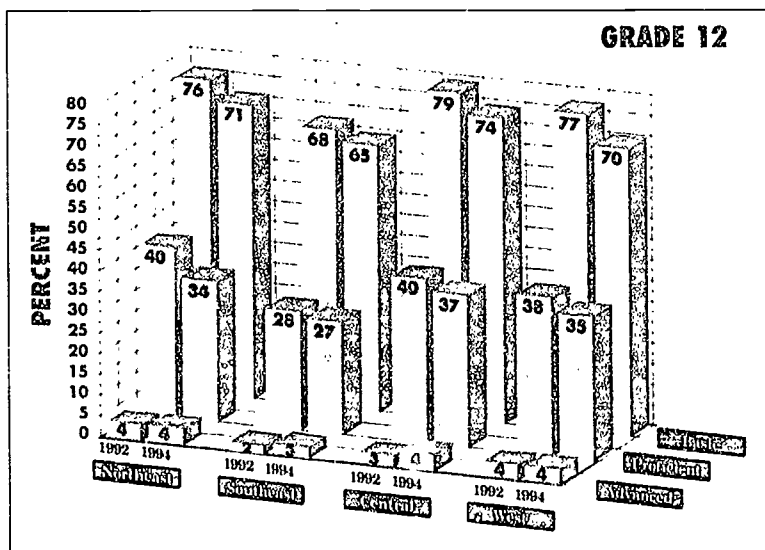
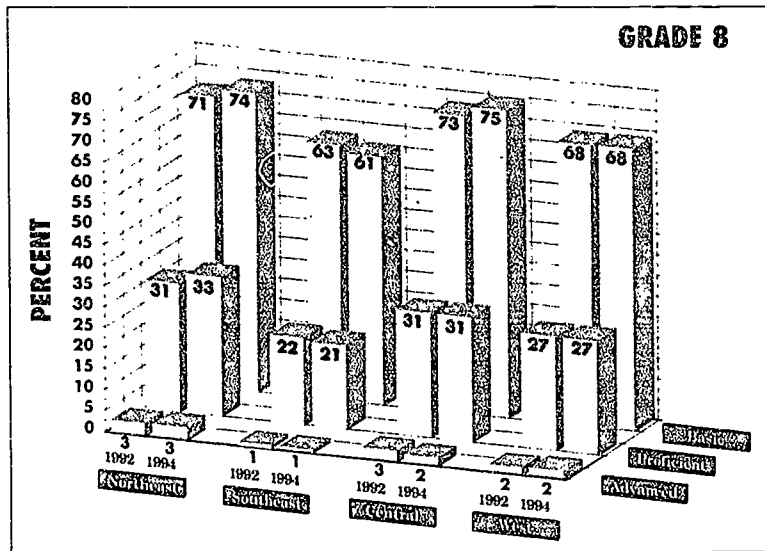
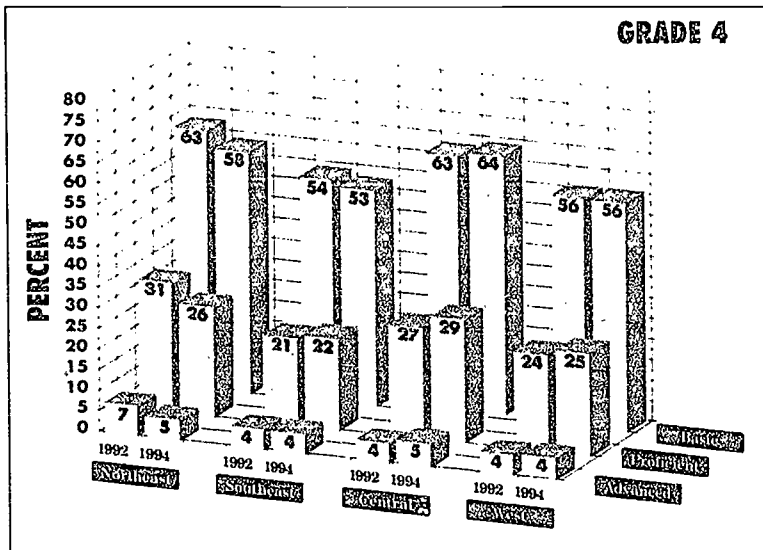
In 1994, no statistically significant differences among the regions were found in the percentages of students at or above the Proficient level at the fourth grade. The percentage of fourth-grade students at or above the Basic level for the Southeast region was less than that for the Central region. Other regional differences at or above the Basic level were not significant.

	Reading Achievement Levels by Region									
	1992 Assessment					1994 Assessment				
	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
<b>Grade 4</b>										
<b>Nation</b>	100	5	25	59	41	100	5	25	58	42
<b>Region</b>										
Northeast	21	7	31	63	37	23	5	26	58	42
Southeast	23	4	21	54	46	23	4	22	53	47
Central	27	4	27	63	37	25	5	29	64	36
West	28	4	24	56	44	29	4	25	56	44
<b>Grade 8</b>										
<b>Nation</b>	100	2	28	69	31	100	2	28	69	31
<b>Region</b>										
Northeast	22	3	31	71	29	20	3	33	74	26
Southeast	25	1	22	63	37	26	1	21	61	39
Central	25	3	31	73	27	24	2	31	75	25
West	28	2	27	68	32	30	2	27	68	32
<b>Grade 12</b>										
<b>Nation</b>	100	3	37	75	25	100	4	34<	70<	30>
<b>Region</b>										
Northeast	24	4	40	76	24	20	4	34	71	29
Southeast	23	2	28	68	32	23	3	27	65	35
Central	26	3	40	79	21	27	4	37	74	26
West	27	4	38	77	23	29	4	35	70	30

Differences between 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 about the 95 percent confidence level.  
 The percentages of students in the regions may not total 100 percent due to rounding.  
 The standard errors for the (a) Advanced Level, regional percentages range from 0.3 to 2.2; (b) Proficient Level, regional percentages range from 1.2 to 4.1; and (c) Basic Level, regional percentages range from 1.3 to 3.5.  
 SOURCE: National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments



**Figure 5. Percent of Students At or Above the Reading Achievement Levels L, grade and by Region — NAEP 1992 and 1994**



At the eighth grade, a smaller percentage of students were at or above the Proficient level in the Southeast than in the other three regions. Similarly, the percentage of students at or above Basic in the Southeast region was less than the other regions. The percentage of eighth graders at or above Basic in the West was less than in the Central region.

At the twelfth grade, the percentage of Southeast students at or above the Proficient level was less than that of the corresponding percentages of students in the Central and West regions. The percentage of students at or above Basic in the Southeast region was less than the other regions.

The results from the 1992 and 1994 NAEP Reading Assessments indicate no significant change in the percentage of students at any of the three achievement levels for the four regions of the country. Decreases in the percentage of students at or above the Basic and Proficient levels at grade 12 were observed; these drops, however, were not significant. The significant decrease observed nationally for grade 12 students was not reflected by significant changes in the four regional estimates.

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

# Reading Achievement Levels by Major Reporting Subgroups

Tables 8 through 11 present the percentages of fourth-, eighth-, and twelfth-grade students at or above the three achievement levels — Basic, Proficient, and Advanced — by major reporting subgroups. As previously noted, the discussion of the findings is restricted to *statistically significant differences* between reporting subgroups and assessment years.

*Race/Ethnicity.* Consistent with past assessments, results presented in Table 8 from the 1994 reading assessment indicated large racial/ethnic differences. Significant differences among racial/ethnic groups were observed in the percentage of students at or above each of the three achievement levels — Basic, Proficient, and Advanced.

At grade 12, few significant differences are found for the percent of students reaching the Advanced achievement level. The percentage of White students at or above this level was significantly higher than the corresponding percentages of Black or Hispanic students.

	1992 Assessment					1994 Assessment				
	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
<b>Grade 4</b>										
<b>Total</b>	100	5	25	59	41	100	5	25	58	42
<b>Race/Ethnicity</b>										
White	71	6	31	68	32	69	6	32	68	32
Black	16	0	7	31	69	15	1	7	28	72
Hispanic	9	2	13	41	59	12	1	11	33	67
Asian	—	—	—	—	—	2	10	43	77	23
Pacific Islander	—	—	—	—	—	1	5	29	64	36
American Indian	2	2	15	50	50	2	2	15	45	55
<b>Grade 8</b>										
<b>Total</b>	100	2	28	69	31	100	2	28	69	31
<b>Race/Ethnicity</b>										
White	70	3	34	77	23	70	2	34	78	22
Black	15	0	8	44	56	15	0	8	43	57
Hispanic	10	1	13	49	51	11	0	13	49	51
Asian	—	—	—	—	—	2	4	42	80	20
Pacific Islander	—	—	—	—	—	1	2!	25!	67!	33!
American Indian	1	1	18	60	40	1	0	19	62	38
<b>Grade 12</b>										
<b>Total</b>	100	3	37	75	25	100	4	34<	70<	30>
<b>Race/Ethnicity</b>										
White	72	4	43	82	18	73	4	40	77<	23>
Black	15	0	16	54	46	13	0	12	46	54
Hispanic	9	1	21	61	39	8	1	18	52	48
Asian	—	—	—	—	—	3	3	30	63	37
Pacific Islander	—	—	—	—	—	1	2!	25!	66!	34!
American Indian	0	1	***	***	***	1	2!	18!	55!	45!

Differences between 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 about the 95 percent confidence level

! 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

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

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

The standard errors for the (a) Advanced Level, race/ethnicity percentages range from 0.2 to 3.5; (b) Proficient Level, race/ethnicity percentages range from 0.9 to 7.8; and (c) Basic Level, race/ethnicity percentages range from 0.3 to 10.3.

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





No other significant differences were observed at grade 12. At grades 4 and 8, slightly more variability among subgroups can be seen. At both grades, the percentages of Asian and White students at or above the Advanced level were higher than the corresponding percentages of Black or Hispanic students. Also, at grade 8 the percentage of American Indian students at or above Advanced was significantly lower than the percentages for Asian or White students.

The Proficient level is defined to represent solid academic achievement in reading. When the percentages of students from various subgroups reaching or exceeding this level are compared, significant differences are found at all three grades. At grades 4, 8, and 12, the percentages of Asian and White students at or above the Proficient level are significantly greater than the percentages for Black or Hispanic students. The percentage of Pacific Islander students at grade 4 also was higher than the percentages for Black or Hispanic students. At the lower two grades, the percentage of Asian students at or above this level also exceeded that of American Indian students. Finally, at grade 12, the percentage of White students at or above the Proficient level was significantly greater than the percentage of Asian students.

The lowest achievement level defined for the NAEP Reading Assessment is the Basic level. For the nation as a whole, 30 percent or more of the students at each grade fail to reach this lowest level. The percentage 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 larger than the percentages for Black or Hispanic

students. At grades 4 and 8, the percentage of Asian students at or above Basic also was larger than that of Black and Hispanic students. The percentage of twelfth-grade Asian students at or above this level was significantly greater than that of Black students but not of Hispanic students.

At grades 4 and 8, the percentage of American Indian students at or above Basic was greater than that of Black students. And, at grade 4, the percentage of Pacific Islander students performing at or above Basic was greater than that of Black or Hispanic students. Finally, at grade 12, the percentage of White students at or above the Basic level was significantly higher than the percentage of Asian students.

For the Pacific Islander student samples at grades 8 and 12, and for the American Indian student sample at grade 12, the nature of the samples does not allow accurate determination of the variability of the percentages. For this reason, differences among these samples and other racial/ethnic subgroups are not discussed.

Across all three grades, the only significant change from 1992 to 1994 occurred for White students at grade 12. Significantly fewer twelfth-grade White students were at the Basic level in 1994 than in 1992. No other significant differences were found between 1992 and 1994 in the percentages at or above any of the achievement levels for White, Black, Hispanic, and American Indian students. 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.

*Gender.* Table 9 presents achievement level results for males and females. Consistent with results from the 1992 reading assessment (see Endnote 1 in Chapter 2), the 1994 assessment showed that across 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. No significant change was noted in the percentages of students at or above Advanced for either males or females. At the fourth- and eighth-grade, no significant differences were noted in the percentages of male and female students at or above any of the achievement levels.

*Parents' Education Level.* In general, across all three grade levels, a positive relationship between levels of parents' education and the percentage of students at or above the three achievement levels is evident (see Table 10). This finding is consistent with prior assessments and with the proficiency results discussed in the previous chapter. Again it should be noted that a sizable number of

fourth-grade students were not able to identify their parents' education level.

At all three grades, the percentage of students reporting that at least one of their parents graduated from college who performed at or above the Advanced achievement level was significantly greater than the corresponding percentages for students reporting that at least one parent graduated from high school or that neither parent graduated from high school. Also, at grade 12, the percentage at or above the Advanced level for the group of students reporting that at least one parent had some education after high school was higher than that of students reporting neither parent graduated from high school but significantly lower than the group reporting at least one parent graduated from college.

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

	Reading Achievement Levels by Gender									
	1992 Assessment					1994 Assessment				
	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
<b>Grade 4</b>										
<b>Total</b>	100	5	25	59	41	100	5	25	58	42
<b>Gender</b>										
Male	51	4	22	55	45	51	4	22	53	47
Female	49	6	28	64	36	49	5	29	63	37
<b>Grade 8</b>										
<b>Total</b>	100	2	28	69	31	100	2	28	69	31
<b>Gender</b>										
Male	51	1	22	63	37	50	1	21	62	38
Female	49	3	33	75	25	50	3	35	76	24
<b>Grade 12</b>										
<b>Total</b>	100	3	37	75	25	100	4	34<	70<	30>
<b>Gender</b>										
Male	49	2	31	70	30	50	2	27<	64<	36>
Female	51	4	42	80	20	50	5	40	76	24

Differences between 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 about the 95 percent confidence level.  
 The standard errors for the (a) Advanced Level, gender percentages range from 0.2 to 0.7; (b) Proficient Level, gender percentages range from 1.0 to 1.5; and (c) Basic Level, gender percentages range from 0.9 to 1.7.  
 SOURCE: National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments



from college or received some education after high school than among those who reported having parents who only graduated from high school.

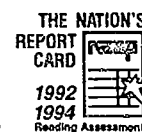
For students who reported that neither of their parents graduated from high school, a significantly smaller percentage were at or above Basic when compared to students reporting higher levels of parents' education. Also, students who reported that at least one parent graduated from high school had a lower percentage at or above Basic compared to students reporting that at least one of their parents continued their education after high school. 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.

The only significant difference between 1992 and 1994 was a significant decrease in the percentage of students at or above Basic for those twelfth-grade students who reported that at least one parent graduated from college. No other significant differences between the 1992 and 1994 assessments in the percentages of fourth-, eighth, and twelfth-grade students at or above the Advanced and Proficient levels were found for any of the parents' education level groups.

TABLE 10

Reading Achievement Levels  
by Parents' Education Level



	1992 Assessment					1994 Assessment				
	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
<b>Grade 4</b>										
<b>Total</b>	100	5	25	59	41	100	5	25	58	42
<b>Parent's Education Level</b>										
Graduated College	39	8	35	68	32	42	8	34	68	32
Some Education after H.S.	9	6	29	66	34	8	5	32	67	33
Graduated High School	12	2	19	55	45	13	2	19	52	48
Did Not Finish High School	4	1	10	35	65	4	1	7	29	71
I Don't Know	36	2	18	52	48	34	2	18	49	51
<b>Grade 8</b>										
<b>Total</b>	100	2	28	69	31	100	2	28	69	31
<b>Parent's Education Level</b>										
Graduated College	41	4	38	79	21	43	3	38	78	22
Some Education after H.S.	19	2	31	76	24	20	2	31	77	23
Graduated High School	24	1	17	60	40	21	1	18	61	39
Did Not Finish High School	8	0	12	50	50	7	0	9	46	54
I Don't Know	8	0	11	44	56	9	0	11	47	53
<b>Grade 12</b>										
<b>Total</b>	100	3	37	75	25	100	4	34<	70<	30>
<b>Parent's Education Level</b>										
Graduated College	41	5	48	84	16	43	6	45	80<	20>
Some Education after H.S.	27	3	38	78	22	25	3	33	73	27
Graduated High School	22	1	25	66	34	21	1	21	60	40
Did Not Finish High School	8	0	18	56	44	7	1	13	47	53
I Don't Know	2	0	8	38	62	3	0	5	27	73

Differences between 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 about the 95 percent confidence level

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

The standard errors for the (a) Advanced Level, parents' education level percentages range from 0.1 to 1.9; (b) Proficient Level, parents' education level percentages range from 1.1 to 3.0, and (c) Basic Level, parents' education level percentages range from 0.8 to 6.1

SOURCE National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

**Public and Nonpublic Schools.** Results from public and nonpublic school students are presented in Table 11. At each grade level for the 1994 assessment, the percentages of nonpublic school students at or above the three achievement levels were significantly higher than the percentages for students attending public schools. No significant differences between the 1992 and 1994 assessments in the percentages of students at or above the Advanced or Proficient levels were observed for either public or nonpublic schools at any of the three grades. However, at grade 12 for both types of schools, the percentage of students at or above Basic decreased between 1992 and 1994. This is consistent with the decrease in average proficiency at grade 12.

**Cross-State Achievement Level Findings.** Table 12 presents the percentage of students at or above the three achievement levels for fourth-grade public school

students. Results from the 1992 and 1994 Trial State Assessments in Reading are provided for 41 jurisdictions. [Note that two states, Montana and Washington, as well as the Department of Defense Education Activities (DoDEA) Overseas Schools participated only in the 1994 assessment; therefore, only 1994 results are presented for these three jurisdictions.]

Overall, only one state, Arizona, showed a significant change between the 1992 and 1994 assessments in the percentage of students at or above the Advanced achievement level — an increase. Mississippi showed a significant increase in the percentage of students at or above Proficient, the only significant change at this level. Finally, only one state, Virginia, had a significant decrease in the percentage of students at or above Basic. No other jurisdiction showed a significant difference at this lowest level.

	Reading Achievement Levels by Type of School									
	1992 Assessment					1994 Assessment				
	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
<b>Grade 4</b>										
<b>Total</b>	100	5	25	59	41	100	5	25	58	42
<b>Type of School</b>										
Public Schools Only	88	4	24	57	43	90	4	24	56	44
Nonpublic Schools Only	11	9	40	76	24	10	8	38	75	25
Catholic Schools	8	7	36	73	27	7	7	36	73	27
Other Nonpublic Schools	4	12 <sup>1</sup>	49 <sup>1</sup>	82 <sup>1</sup>	18 <sup>1</sup>	4	10	41	77	23
<b>Grade 8</b>										
<b>Total</b>	100	2	28	69	31	100	2	28	69	31
<b>Type of School</b>										
Public Schools Only	89	2	25	67	33	89	2	26	67	33
Nonpublic Schools Only	11	5	46	86	14	11	4	47	88	12
Catholic Schools	6	4	43	84	16	7	4	47	88	12
Other Nonpublic Schools	4	7	52	90	10	4	5	48	89	11
<b>Grade 12</b>										
<b>Total</b>	100	3	37	75	25	100	4	34 <sup>&lt;</sup>	70 <sup>&lt;</sup>	30 <sup>&gt;</sup>
<b>Type of School</b>										
Public Schools Only	87	3	34	73	27	89	3	32	69 <sup>&lt;</sup>	31 <sup>&gt;</sup>
Nonpublic Schools Only	13	8	56	90	10	10	7	48	84 <sup>&lt;</sup>	16 <sup>&gt;</sup>
Catholic Schools	9	6	55	91	9	6	5	44	82 <sup>&lt;</sup>	18 <sup>&gt;</sup>
Other Nonpublic Schools	4	10	58	87	13	4	9	56	87	13

Differences between two groups may be partially explained by other factors not included in this table.  
<sup><</sup>The value for the 1994 assessment was significantly lower (> higher) than the value for 1992 at about the 95 percent confidence level.  
<sup>1</sup> 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.  
The standard errors for the (a) Advanced Level, type of school percentages range from 0.3 to 2.3; (b) Proficient Level, type of school percentages range from 0.9 to 4.9; and (c) Basic Level, type of school percentages range from 0.8 to 4.2.  
SOURCE: National Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments



TABLE 12

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

THE NATION'S  
 REPORT  
 CARD  
 1992  
 1994  
 Reading Assessment

## Grade 4 - 1992 Assessment

## Grade 4 - 1994 Assessment

## Percentage of Students

## Percentage of Students

	Grade 4 - 1992 Assessment					Grade 4 - 1994 Assessment				
	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
<b>Nation</b>	216	4	24	57	43	213	4	24	56	44
<b>Region</b>										
Northeast	221	6	29	62	38	213	4	24	55	45
Southeast	212	3	19	52	48	209	3	19	50	50
Central	219	4	25	62	38	219	5	28	62	38
West	213	3	22	53	47	213	4	24	56	44
<b>State</b>										
Alabama	208	2	17	48	52	209	3	20	49	51
Arizona	210	2	18	51	49	207	4>	21	49	51
Arkansas	212	3	20	53	47	210	3	20	51	49
California	203	3	17	45	55	198	2	14	41	59
Colorado	218	3	22	60	40	214	4	23	56	44
Connecticut	223	5	30	66	34	223	7	33	66	34
Delaware	214	3	21	54	46	207<<	3	19	50	50
Florida	209	2	18	49	51	206	3	19	47	53
Georgia	213	4	22	53	47	208	4	22	50	50
Hawaii	204	2	15	44	56	202	2	16	44	56
Indiana	222	4	27	64	36	221	4	27	63	37
Iowa	227	5	32	70	30	224	5	29	66	34
Kentucky	214	2	19	55	45	213	4	22	53	47
Louisiana	205	1	13	42	58	198<<	1	12	38	62
Maine	228	4	31	72	28	229	6	35	73	27
Maryland	212	3	21	53	47	211	4	22	52	48
Massachusetts	227	4	32	71	29	224<	5	31	67	33
Minnesota	222	4	28	65	35	219	4	27	62	38
Mississippi	200	1	12	38	62	203	2	15>	42	58
Missouri	221	4	26	63	37	218	4	26	59	41
Montana†	—	—	—	—	—	223	4	29	66	34
Nebraska†	222	4	27	65	35	221	5	29	63	37
New Hampshire†	229	6	34	73	27	224<	5	30	67	33
New Jersey	224	6	31	66	34	220<	5	29	62	38
New Mexico	212	3	20	51	49	206<	3	17	46	54
New York	216	3	23	58	42	213	4	23	54	46
North Carolina	213	4	22	53	47	215	5	26	56	44
North Dakota	227	4	31	71	29	226	5	32	70	30
Pennsylvania†	222	4	28	64	36	216<	4	26	58	42
Rhode Island†	218	3	24	59	41	221	5	27	63	37
South Carolina	211	2	19	49	51	205<	3	16	44	56
Tennessee†	213	3	20	53	47	214	4	22	55	45
Texas	214	3	20	53	47	213	4	22	54	46
Utah	222	3	26	64	36	218<	4	25	61	39
Virginia	222	5	28	64	36	214<<	4	23	54<<	46>>
Washington	—	—	—	—	—	214	3	22	56	44
West Virginia	217	3	22	58	42	214	3	22	55	45
Wisconsin†	225	4	29	67	33	225	4	30	68	32
Wyoming	224	4	28	68	32	222	3	26	65	35
<b>Other Jurisdictions</b>										
DoDEA	—	—	—	—	—	219	3	23	60	40
Guam	183	1	6	25	75	183	1	6	25	75

Differences between 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 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 (see Appendix A).

— Jurisdiction did not participate in 1992 Trial State Assessment.

DoDEA Department of Defense Education Activity Overseas Schools

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



# APPENDIX A

## National and State Sample Descriptions

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 are required to account for disproportionate representation due to oversampling of students attending schools with a high concentration of Black and/or Hispanic students and oversampling of students attending nonpublic schools. Lower sampling rates for very small schools must also be accounted for with the sampling weights.

Table A.1 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 the report are based on state-level samples of fourth-grade public school students. The samples were selected based on a two-stage sample design — selection of schools within participating states and selection of 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 having a small number of schools.

As with the national samples, the state samples were weighted to allow for valid inferences back to the populations of interest. Table A.2 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 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 a substitute. The denominator is the same as that for the weighted participation rate for the initial sample. This means, 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 Table A.2 are the weighted percentages of students participating after make-up sessions. This rate provides 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.2). 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 school participation rate of 70 percent. For these two states, results for the 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.

NCES standards specify weighted school participation rates of at least 85 percent to guard against potential bias due to school non-response. Six states (Nebraska, New Hampshire, Pennsylvania, Rhode Island, Tennessee, and Wisconsin) failed to meet the following NCES guideline:

**A jurisdiction will receive a notation if its weighted participation rate for the initial sample of public schools was below 85 percent AND the weighted public school participation rate after substitution was below 90 percent.**

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 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.

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, it was of concern, regardless of the overall participation rate. One state, Montana, failed to meet the following NCES guideline concerning strata-specific participation rates.

**A jurisdiction with otherwise adequate weighted public school participation will receive a notation if the nonparticipating public 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 public 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 fact 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. Non-response adjustment cells for public 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 five percent (weighted) of the sample schools (after substitution) were nonparticipants from a single adjustment cell, then the potential for non-response bias was too great. This guideline was based on the NCES standard for strata-specific school non-response rates.

**Table A.1** Unweighted and Weighted Sample Size by Grade for the  
1994 Assessment in Reading, Public and Nonpublic Schools

Unweighted Sample Size (and Percent of Total)			
	Grade 4	Grade 8	Grade 12
<b>Nation</b>	7382 (100.0%)	10,135 (100.0%)	9,935 (100.0%)
<b>Region</b>			
Northeast	1816 ( 24.6%)	1918 ( 18.9%)	2289 ( 23.0%)
Southeast	1888 ( 25.6%)	3132 ( 30.9%)	2777 ( 28.0%)
Central	1571 ( 21.3%)	2149 ( 21.2%)	2005 ( 20.2%)
West	2107 ( 28.6%)	2936 ( 29.0%)	2864 ( 28.8%)
Weighted Sample Size (and Percent of Total)			
	Grade 4	Grade 8	Grade 12
<b>Nation</b>	3,527,410 (100.0%)	2,245,276 (100.0%)	1,811,014 (100.0%)
<b>Region</b>			
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 Assessment of Educational Progress (NAEP), 1992 and 1994 Reading Assessments

Table A.2 School and Student Participation Rates by State for the 1994 Trial State Assessment, Grade 4, Public Schools Only

	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 <sup>1</sup>	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 <sup>1</sup>	63	80	83	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 <sup>3</sup>	85	89	111	96	2,501
Nebraska <sup>2</sup>	71	77	109	95	2,395
New Hampshire <sup>2</sup>	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 <sup>2</sup>	80	84	89	94	2,290
Rhode Island <sup>2</sup>	80	86	92	95	2,341
South Carolina	95	97	102	96	2,707
Tennessee <sup>2</sup>	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 <sup>2</sup>	79	86	91	96	2,331
Wyoming	98	98	112	96	2,699
Other Jurisdictions					
DoDEA	99	99	81	95	2,413
Guam	100	100	21	96	2,203

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</sup> The nonparticipating public schools included a class of schools with similar characteristics, which together account for more than five percent of the state's total fourth-grade weighted sample of public schools.

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



# APPENDIX B

## Reporting Subgroup(s) Definitions

Findings from the 1994 NAEP Reading Assessment are presented for groups of students that are defined by shared characteristics. Data are reported for subpopulations 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. However, 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: race/ethnicity, gender, parents' education level, public/nonpublic school, and region. Definitions of these subgroups are provided below.

**Race/Ethnicity.** Results are presented for students of 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, the 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 the student's report of the extent of schooling for 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. Note that a substantial percentage of fourth-grade students did not know their parents' education level.

**Public/Nonpublic School.** Results are reported by the type of school that the student attends — public or nonpublic school. Nonpublic schools include Catholic and other nonpublic schools. Bureau of Indian Affairs (BIA) schools and domestic Department of Defense (DoD) schools were not classified in either the public or nonpublic categories. Results for the BIA and DoD schools are included, however, in the overall national results.

**Region.** Results are reported for four regions of the nation: Northeast, Southeast, Central, and West. States included in each region are shown in the following figure. 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 statistical 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.

### NORTHEAST

Connecticut  
Delaware  
District of Columbia  
Maine  
Maryland  
Massachusetts  
New Hampshire  
New Jersey  
New York  
Pennsylvania  
Rhode Island  
Vermont  
Virginia

### SOUTHEAST

Alabama  
Arkansas  
Florida  
Georgia  
Kentucky  
Louisiana  
Mississippi  
North Carolina  
South Carolina  
Tennessee  
Virginia  
West Virginia

### CENTRAL

Illinois  
Indiana  
Iowa  
Kansas  
Michigan  
Minnesota  
Missouri  
Nebraska  
North Dakota  
Ohio  
South Dakota  
Wisconsin

### WEST

Alaska  
Arizona  
California  
Colorado  
Hawaii  
Idaho  
Montana  
Nevada  
New Mexico  
Oklahoma  
Oregon  
Texas  
Utah  
Washington  
Wyoming



## APPENDIX C

### Comparisons Among States Based on Average Proficiency

Figure C.1 is provided as a visual representation of the distribution of proficiency results for each participating jurisdiction. The darkest box at the midpoint of each distribution shows the 95 percent confidence interval around the average proficiency. The lighter shaded boxes indicate the locations of selected percentiles of each jurisdiction distribution. The intervals take into account the sampling and measurement error associated with the estimates of average proficiency. Jurisdictions are listed by overall average reading proficiency — beginning with the state of Maine whose average reading proficiency for fourth-grade public school students is 229 with a standard error of 1.3 points.

Figure C.2 is provided to help interpret differences in the average proficiencies across states for grade 4 in 1994.

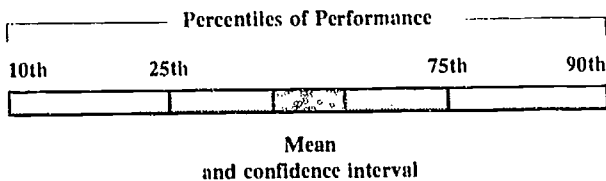
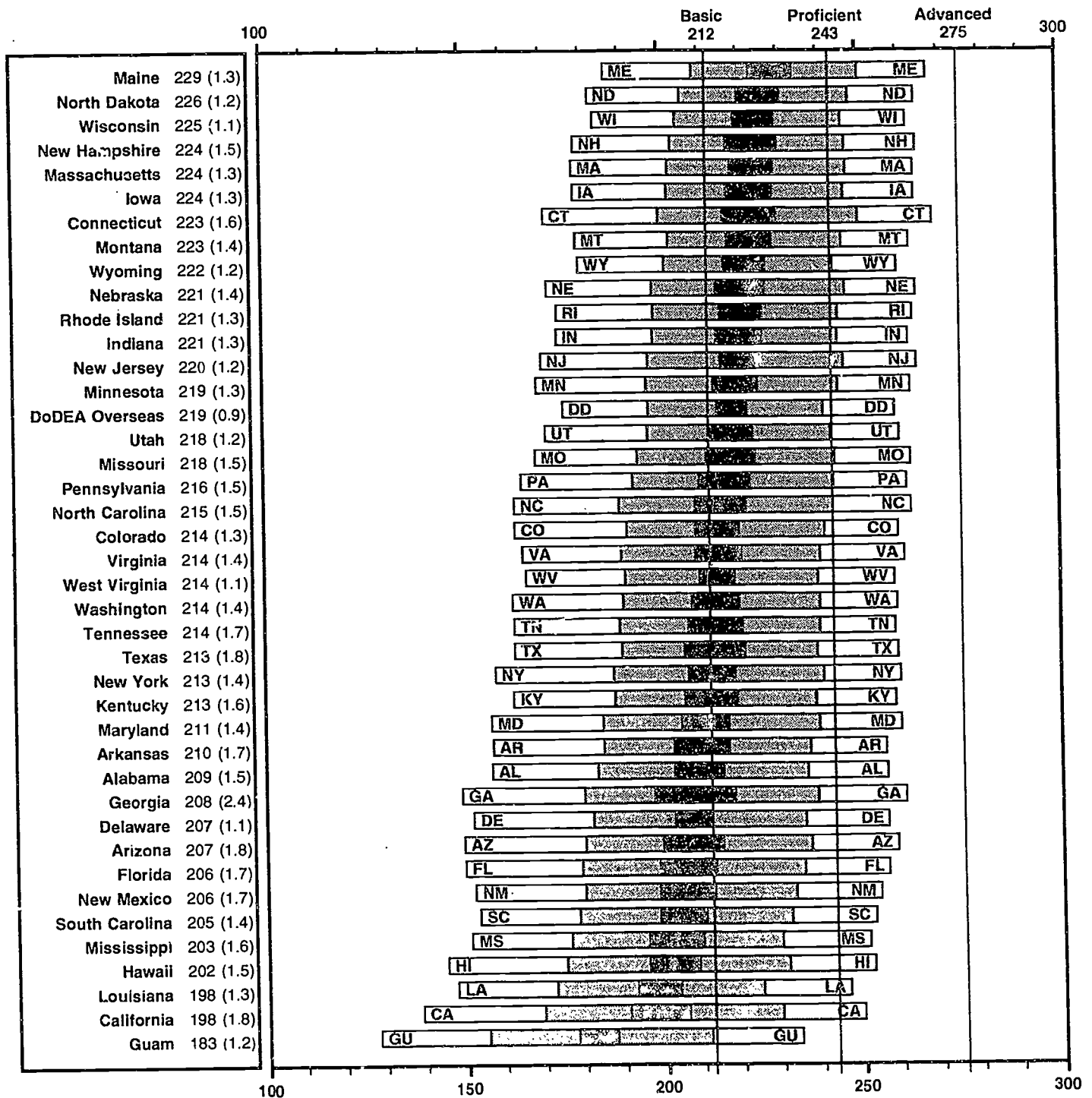
The figure provides a method for making appropriate comparisons in average overall reading proficiency across the participating jurisdictions. The figure shows whether or not the differences in average performance between the pairs of jurisdictions are statistically significant.<sup>1</sup>

For example, in Figure C.2, although the average proficiencies in the fourth grade appear to be different between Maine (229) and Montana (223), they in fact are not statistically different. The computations underlying Figure C.2 take the sampling and measurement error associated with the estimates of average proficiency into account, as well as controlling for the large number of comparisons that are being made.

As an example of how to read Figure C.2, let us say we are attempting to compare the state of Texas to all other jurisdictions. Reading vertically down the Figure C.2 column labeled Texas, we see that, on average, students in Texas scored lower than did students in all the states listed from Maine through Montana (the dark grey shaded states), about the same, on average, as students in the states listed from Wyoming through South Carolina (the white shaded states), and better, on average, than students in all the states from Mississippi to Guam (the light grey shaded states).

1. The significance tests in Figure C.2 are based on a Bonferroni procedure for multiple comparisons that holds to five percent across all possible comparisons the probability of erroneously declaring the means of any two states to be different when they are not.

Figure C.1 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.

Figure C.2 Comparisons of Overall Reading Average 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.

Maine (ME)	North Dakota (ND)	Wisconsin (WI)	New Hampshire (NH)	Massachusetts (MA)	Iowa (IA)	Connecticut (CT)	Montana (MT)	Wyoming (WY)	Nebraska (NE)	Rhode Island (RI)	Indiana (IN)	New Jersey (NJ)	Minnesota (MN)	DoDEA Overseas (DD)	Utah (UT)	Missouri (MO)	Pennsylvania (PA)	North Carolina (NC)	Colorado (CO)	Virginia (VA)	West Virginia (WV)	Washington (WA)	Tennessee (TN)	Texas (TX)	New York (NY)	Kentucky (KY)	Maryland (MD)	Arkansas (AR)	Alabama (AL)	Georgia (GA)	Delaware (DE)	Arizona (AZ)	Florida (FL)	New Mexico (NM)	South Carolina (SC)	Mississippi (MS)	Hawaii (HI)	Louisiana (LA)	California (CA)	Guam (GU)
ME	ND	WI	NH	MA	IA	CT	MT	WY	NE	RI	IN	NJ	MN	DD	UT	MO	PA	NC	CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU
ND	WI	NH	MA	IA	CT	MT	WY	NE	RI	IN	NJ	MN	DD	UT	MO	PA	NC	CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU	
WI	NH	MA	IA	CT	MT	WY	NE	RI	IN	NJ	MN	DD	UT	MO	PA	NC	CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU		
NH	MA	IA	CT	MT	WY	NE	RI	IN	NJ	MN	DD	UT	MO	PA	NC	CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU			
MA	IA	CT	MT	WY	NE	RI	IN	NJ	MN	DD	UT	MO	PA	NC	CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU				
IA	CT	MT	WY	NE	RI	IN	NJ	MN	DD	UT	MO	PA	NC	CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU					
CT	MT	WY	NE	RI	IN	NJ	MN	DD	UT	MO	PA	NC	CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU						
MT	WY	NE	RI	IN	NJ	MN	DD	UT	MO	PA	NC	CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU							
WY	NE	RI	IN	NJ	MN	DD	UT	MO	PA	NC	CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU								
NE	RI	IN	NJ	MN	DD	UT	MO	PA	NC	CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU									
RI	IN	NJ	MN	DD	UT	MO	PA	NC	CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU										
IN	NJ	MN	DD	UT	MO	PA	NC	CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU											
NJ	MN	DD	UT	MO	PA	NC	CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU												
MN	DD	UT	MO	PA	NC	CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU													
DD	UT	MO	PA	NC	CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU														
UT	MO	PA	NC	CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU															
MO	PA	NC	CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU																
PA	NC	CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU																	
NC	CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU																		
CO	VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU																			
VA	WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU																				
WV	WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU																					
WA	TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU																						
TN	TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU																							
TX	NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU																								
NY	KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU																									
KY	MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU																										
MD	AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU																											
AR	AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU																												
AL	GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU																													
GA	DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU																														
DE	AZ	FL	NM	SC	MS	HI	LA	CA	GU																															
AZ	FL	NM	SC	MS	HI	LA	CA	GU																																
FL	NM	SC	MS	HI	LA	CA	GU																																	
NM	SC	MS	HI	LA	CA	GU																																		
SC	MS	HI	LA	CA	GU																																			
MS	HI	LA	CA	GU																																				
HI	LA	CA	GU																																					
LA	CA	GU																																						
CA	GU																																							
GU																																								

- 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 based on 820 comparisons by comparing the difference between the two means with four times the square root of the sum of the squared standard errors.

# APPENDIX D

## Cross-State Proficiency and Achievement Level Tabular Summaries

Selected tabular summaries of the 1994 Trial State Assessment in Reading for fourth-grade public school students are presented in this appendix. Tables D.1 through D.3 present average reading proficiency results for selected reporting subgroups — gender, race/ethnicity, and level of parents' education — by participating jurisdictions. Tables D.4 through D.6 provide similar summaries related to the percentage of students at or above the three achievement levels.



Table D.1 Average Reading Proficiency for Grade 4 Students by Gender for the 1994 Trial State Assessment with Changes in Average Proficiency from 1992, Public Schools Only

	Male			Female		
	Percentage of Students	Average Proficiency	Change from 1992	Percentage of Students	Average Proficiency	Change from 1992
Nation	51	208	-4	49	219	-1
Region						
Northeast	50	209	-10	50	217	-8
Southeast	52	203	-3	48	215	-2
Central	53	213	-4	47	226	4
West	51	208	-1	49	218	0
States						
Alabama	51	204	0	49	214	2
Arizona	50	202	-4	50	212	-2
Arkansas	50	205	-3	50	214	-1
California	51	195	-3	49	201	-7
Colorado	50	210	-5	50	219	-2
Connecticut	50	219	-1	50	227	2
Delaware	49	201	-9 **	51	213	-5 *
Florida	49	200	-6 *	51	211	-1
Georgia	48	203	-8 *	52	213	-3
Hawaii	51	195	-4	49	209	-1
Indiana	49	217	-2	51	224	-1
Iowa	51	219	-4	49	228	-2
Kentucky	51	208	-2	49	218	0
Louisiana	49	195	-6 *	51	201	-7 *
Maine	50	226	0	50	232	2
Maryland	52	206	-1	48	215	-1
Massachusetts	50	222	-5 *	50	226	-2
Minnesota	51	215	-3	49	223	-3
Mississippi	49	197	1	51	208	5
Missouri	51	214	-5	49	222	-2
Montana†	51	219	---	49	228	---
Nebraska†	51	217	-2	49	225	-1
New Hampshire†	50	219	-7 *	50	230	-3
New Jersey	49	217	-4	51	223	-4
New Mexico	48	202	-8 *	52	209	-5
New York	50	209	-4	50	217	-2
North Carolina	51	210	1	49	221	5 *
North Dakota	50	222	-4	50	230	2
Pennsylvania†	50	212	-7 *	50	220	-4
Rhode Island†	49	216	0	51	225	6 *
South Carolina	51	201	-6 *	49	209	-6 *
Tennessee†	49	209	-1	51	218	2
Texas	50	211	2	50	215	-2
Utah	50	214	-4	50	223	-2
Virginia	50	209	-9 **	50	220	-6 *
Washington	52	210	---	48	218	---
West Virginia	51	209	-3	49	219	-2
Wisconsin†	49	222	0	51	228	0
Wyoming	51	219	-2	49	225	-2
Other Jurisdictions						
DoDEA	50	214	---	50	223	---
Guam	51	174	-1	49	191	1

\*\* The value for 1994 was significantly different from 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 different from 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.

--- jurisdiction did not participate in the 1992 Trial State Assessment.

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

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



**Table D.2** Average Reading Proficiency for Grade 4 Students by Race/Ethnicity for the 1994 Trial State Assessment with Changes in Average Proficiency from 1992, Public Schools Only

	White			Black			Hispanic		
	Percentage of Students	Average Proficiency	Change from 1992	Percentage of Students	Average Proficiency	Change from 1992	Percentage of Students	Average Proficiency	Change from 1992
Nation	68	223	-1	16	187	-5	12	190	-10 *
Region									
Northeast	62	225	-5	22	185	-13 *	10	192	-9
Southeast	63	220	-1	26	190	-5	8	186	-9!
Central	80	225	1	11	184	-3	6	200	-10
West	66	223	1	7	188!	3	20	187	-10
States									
Alabama	62	221	2	29	189	1	6	180	-11
Arizona	58	220	-1	4	185	-16	29	190	-9 *
Arkansas	70	219	-2	21	185	-6	6	193	5
California	44	212	-7 *	7	184	-1	33	176	-8
Colorado	67	223	0	5	192	-11!	21	194	-9 *
Connecticut	70	235	3	12	191	-5	14	192	-2
Delaware	63	216	-7 **	23	190	-6	9	192	3
Florida	57	219	-1	21	185	-2	19	190	-12 *
Georgia	56	223	-2	32	187	-9	9	187	-6
Hawaii	17	220	5	3	192	0	11	186	-7
Indiana	81	225	-1	10	194	-7	7	202	-10
Iowa	88	226	-2	3	187!	-23	6	205	-7
Kentucky	83	216	0	10	192	-5	5	198	2
Louisiana	51	214	-3	38	182	-10 **	8	177	-12
Maine	92	230	1	1	***	***	5	219	9
Maryland	57	224	2	32	187	-7	6	199	1
Massachusetts	77	231	-1	7	200	-6	11	196	-6
Minnesota	84	223	-2	3	174	-17	8	203	0
Mississippi	46	221	3	45	188	1	7	183	-3
Missouri	75	224	-3	14	194	-3	7	201	-2
Montana†	79	227	---	1	---	---	10	209	---
Nebraska†	82	225	-2	4	192!	-6	10	206	0
New Hampshire†	91	225	-5 *	1	---	---	5	214	-2
New Jersey	60	231	-2	16	194	-6	17	201	2
New Mexico	41	219	-5	3	197	-5	44	198	-3
New York	54	227	-1	21	192	-11 *	19	195	7
North Carolina	65	226	3	26	195	-1	4	190	-3
North Dakota	88	228	1	1	---	---	6	213	-9
Pennsylvania†	76	225	-4	14	182	-9	7	189	-12
Rhode Island†	80	226	1	6	198	10	9	196	5
South Carolina	53	220	-2	37	186	-10 **	8	184	-12 *
Tennessee†	74	221	0	19	189	-5	4	197	0
Texas	51	227	2	12	192	-9	34	199	-2
Utah	82	222	-2	1	---	---	12	201	-4
Virginia	59	225	-5	29	194	-10 **	7	207	4
Washington	73	218	---	5	199	---	11	191	---
West Virginia	90	216	-2	3	203	-1	4	193	-3
Wisconsin†	84	229	0	5	198	-3	7	204	-7
Wyoming	82	225	-2	1	---	---	13	210	0
Other Jurisdictions									
DoDEA	47	225	---	19	206	---	18	213	---
Guam	9	193	-3	4	172	7	18	173	8

\*\* The value for 1994 was significantly different from 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 different from 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.

\*\*\* Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate.

--- Jurisdiction did not participate in the 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 (see Appendix A).

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

Table D.2 Average Reading Proficiency for Grade 4 Students by Race/Ethnicity for the 1994 Trial State Assessment with Changes in Average Proficiency from 1992, Public Schools Only (continued)

	Asian			Pacific Islander			American Indian		
	Percentage of Students	Average Proficiency	Change from 1992	Percentage of Students	Average Proficiency	Change from 1992	Percentage of Students	Average Proficiency	Change from 1992
Nation	2	231	***	1	217	***	2	201	-4
Region									
Northeast	2	***	***	1	***	***	1	***	***
Southeast	1	***	***	0	***	***	1	***	***
Central	1	***	***	0	***	***	1	***	***
West	3	227!	***	1	***	***	2	***	***
States									
Alabama	1	***	***	0	***	***	2	***	***
Arizona	1	***	***	1	***	***	8	183	-2
Arkansas	1	***	***	0	***	***	2	***	***
California	8	212	***	5	214!	***	2	***	***
Colorado	2	***	***	1	***	***	4	205	1
Connecticut	2	***	***	0	***	***	1	***	***
Delaware	1	***	***	0	***	***	3	***	***
Florida	1	***	***	1	***	***	2	***	***
Georgia	2	***	***	0	***	***	1	***	***
Hawaii	19	218	***	46	192	***	2	***	***
Indiana	1	***	***	0	***	***	1	***	***
Iowa	1	***	***	0	***	***	2	***	***
Kentucky	1	***	***	0	***	***	1	***	***
Louisiana	1	***	***	0	***	***	2	***	***
Maine	1	***	***	0	***	***	2	***	***
Maryland	3	233	***	1	***	***	2	***	***
Massachusetts	2	203!	***	0	***	***	2	***	***
Minnesota	2	***	***	0	***	***	3	19	***
Mississippi	0	***	***	0	***	***	1	***	***
Missouri	1	***	***	0	***	***	2	213	***
Montana†	1	---	---	0	---	---	9	204	---
Nebraska†	1	***	***	1	***	***	3	203	***
New Hampshire†	1	***	***	0	***	***	2	***	***
New Jersey	4	238	***	1	***	***	1	***	***
New Mexico	1	***	***	0	***	***	10	187	-15!
New York	3	230	***	1	***	***	2	***	***
North Carolina	1	***	***	0	***	***	3	202!	-2!
North Dakota	1	***	***	0	***	***	4	198!	-14!
Pennsylvania†	1	***	***	1	***	***	1	***	***
Rhode Island†	3	204	***	0	***	***	1	***	***
South Carolina	0	***	***	1	***	***	2	***	***
Tennessee†	1	***	***	0	***	***	1	***	***
Texas	2	***	***	0	***	***	1	***	***
Utah	1	***	***	1	***	***	3	196	***
Virginia	2	***	***	1	***	***	1	***	***
Washington	4	221	---	2	209	---	4	208	---
West Virginia	1	***	***	0	***	***	1	***	***
Wisconsin	2	***	***	0	***	***	2	***	***
Wyoming†	1	***	***	0	***	***	4	211!	-1!
Other Jurisdictions									
DoDEA	5	223	---	5	216	---	3	211	---
Guam	3	181	***	64	184	***	1	***	***

\*\* The value for 1994 was significantly different from 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 different from 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.

\*\*\* Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate.

--- Jurisdiction did not participate in the 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 (see Appendix A).

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

**Table D.3** Average Reading Proficiency for Grade 4 Students by Parents' Education Level for the 1994 Trial State Assessment with Changes in Average Proficiency from 1992, Public Schools Only

	Graduated College			Some Education After High School			Graduated High School		
	Percentage of Students	Average Proficiency	Change from 1992	Percentage of Students	Average Proficiency	Change from 1992	Percentage of Students	Average Proficiency	Change from 1992
Nation	41	223	-1	8	222	0	13	208	-4
Region									
Northeast	43	222	-11	6	223	0	14	203	-9
Southeast	35	217	-2	9	223	6	17	208	0
Central	45	227	2	8	222	-3	12	216	1
West	40	224	3	7	222	-2	10	203	-9
States									
Alabama	37	218	2	9	218	0	18	202	-5
Arizona	34	219	0	9	220	2	10	202	-3
Arkansas	33	216	-2	10	222	2	19	204	-8
California	39	208	-8	8	208	1	9	193	-7
Colorado	44	223	-3	8	221	-4	10	214	3
Connecticut	49	232	-2	8	234	3	9	210	-4
Delaware	40	215	-6*	8	218	-4	12	203	-2
Florida	40	213	-1	8	220	3	12	196	-11*
Georgia	40	218	-4	6	220	0	15	200	-7
Hawaii	38	208	-2	7	215	6	13	196	0
Indiana	37	230	2	10	230	0	18	217	-2
Iowa	43	230	-5*	8	232	0	13	220	-3
Kentucky	30	219	-2	11	223	0	19	213	-2
Louisiana	34	201	-6	8	210	-6	18	197	-5
Maine	44	236	0	9	237	1	14	226	1
Maryland	48	218	-1	7	216	-4	11	204	-4
Massachusetts	49	233	-3	9	230	-3	10	213	-10
Minnesota	42	229	2	8	221	-11*	11	213	-6
Mississippi	37	208	3	7	214	3	17	200	2
Missouri	37	226	-4	9	228	-1	17	217	0
Montana†	39	231	---	10	228	---	13	220	---
Nebraska†	43	231	2	7	233	1	13	216	-1
New Hampshire†	41	231	-5	9	236	1	11	221	-1
New Jersey	46	230	-4	10	226	-5	11	210	-7
New Mexico	34	216	-7	9	221	1	14	201	-10*
New York	42	221	-7*	7	224	2	11	209	0
North Carolina	44	224	3	8	227	7	13	205	-2
North Dakota	46	234	0	8	233	2	11	217	-8
Pennsylvania†	37	225	-5	12	222	-11*	18	211	-6
Rhode Island†	40	229	1	11	230	1	10	218	8
South Carolina	40	214	-5	7	217	-6	17	194	-7
Tennessee†	36	219	-2	9	226	3	18	214	3
Texas	37	223	0	9	225	4	13	209	-1
Utah	42	227	-2	9	226	-4	10	213	-4
Virginia	41	222	-9*	8	221	-6	13	208	-8
Washington	40	224	---	8	217	---	10	210	---
West Virginia	35	222	-4	9	227	1	21	214	1
Wisconsin	37	233	1	9	228	-5	14	224	3
Wyoming†	39	228	-3	9	230	-2	13	216	-3
Other Jurisdictions									
DoDEA	42	224	---	11	226	---	9	210	---
Guam	36	186	3	6	191	-2	13	177	-5

\*\* The value for 1994 was significantly different from 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 different from 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.

--- Jurisdiction did not participate in the 1992 Trial State Assessment.

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

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

Table D.3 Average Reading Proficiency for Grade 4 Students by Parents' Education Level for the 1994 Trial State Assessment with Changes in Average Proficiency from 1992, Public Schools Only (continued)

	Did Not Finish High School			I Don't Know		
	Percentage of Students	Average Proficiency	Change from 1992	Percentage of Students	Average Proficiency	Change from 1992
Nation	4	189	-9	34	206	-4
Region						
Northeast	3	***	***	34	206	-6
Southeast	6	188	-10	34	201	-5
Central	4	***	***	31	211	-3
West	5	189	-6	38	204	-3
States						
Alabama	8	198	1	28	202	3
Arizona	5	190	-6	42	199	-6
Arkansas	6	198	-5	31	205	1
California	4	167	-11	39	191	-3
Colorado	3	193	-9	35	205	-4
Connecticut	3	206	4	30	213	1
Delaware	3	186	-12	37	200	-10 **
Florida	4	188	-12	37	201	-4
Georgia	6	189	-13	31	200	-7
Hawaii	3	191	-8	39	196	-5
Indiana	4	200	-13	31	211	-6 *
Iowa	3	212	5	33	216	-3
Kentucky	9	196	-5	33	207	0
Louisiana	8	189	-8	33	195	-7 *
Maine	4	215	1	29	219	0
Maryland	3	196	-1	31	204	-1
Massachusetts	3	208	1	29	213	-4
Minnesota	2	***	***	37	211	-5
Mississippi	8	193	4	32	199	3
Missouri	5	200	-12 *	32	209	-5
Montana†	3	212	***	35	216	***
Nebraska†	2	***	***	34	209	-3
New Hampshire†	4	208	-4	35	216	-8 *
New Jersey	3	194	-12	30	210	-3
New Mexico	6	189	-5	36	197	-7
New York	4	197	-1	36	204	-5
North Carolina	5	197	0	30	207	1
North Dakota	2	***	***	33	218	1
Pennsylvania†	4	189	-22 *	28	209	-5
Rhode Island†	4	205	0	35	212	2
South Carolina	6	190	-8	30	199	-7 *
Tennessee†	7	201	-2	30	205	0
Texas	6	196	-5	35	206	-2
Utah	2	***	***	37	210	-5
Virginia	5	197	-11	32	209	-5
Washington	2	198	***	38	204	***
West Virginia	7	197	-7	31	206	-3
Wisconsin	4	213	0	37	218	0
Wyoming†	4	204	-7	35	217	0
Other Jurisdictions						
DoDEA	2	***	***	36	213	***
Guam	5	166	-9	41	182	0

\*\* The value for 1994 was significantly different from 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 different from 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.

\*\*\* Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate.

--- Jurisdiction did not participate in the 1992 Trial State Assessment.

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

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

Table D.4 Percentage of Grade 4 Students by Gender At or Above the Achievement Levels for the 1994 Trial State Assessment with Changes in this Percentage from 1992, Public Schools Only

	At or Above Advanced				At or Above Proficient			
	Male		Female		Male		Female	
	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992
Nation	3	0	5	0	20	-1	28	2
Region								
Northeast	4	-1	4	-3	21	-6	27	-5
Southeast	2	0	5	1	16	0	23	1
Central	4	0	6	1	22	-1	35	8
West	3	1	5	1	22	3	27	1
States								
Alabama	2	1	4	1	17	2	22	3
Arizona	3	1	5	3	17	3	24	3
Arkansas	2	0	4	0	17	0	23	1
California	2	0	3	-1	12	-2	17	-3
Colorado	3	1	4	1	20	2	27	2
Connecticut	5	2	8	2	29	2	38	5
Delaware	2	0	4	0	16	-3	23	-1
Florida	2	0	4	2	16	-1	23	3
Georgia	4	1	5	0	20	0	24	0
Hawaii	2	0	3	1	13	1	18	1
Indiana	4	0	5	1	24	0	31	2
Iowa	3	0	7	0	25	-2	34	-1
Kentucky	2	1	5	2	19	1	25	3
Louisiana	1	0	2	0	11	0	13	-1
Maine	5	2	7	2	32	2	38	5
Maryland	3	1	5	1	19	2	26	2
Massachusetts	4	0	5	0	27	-3	34	0
Minnesota	3	0	6	0	24	0	31	0
Mississippi	1	1	3	1	11	1	18	5*
Missouri	4	1	5	0	23	-1	30	1
Montana†	3	---	5	---	25	---	33	---
Nebraska†	4	1	7	2	26	2	34	3
New Hampshire†	3	-2	7	0	25	-5	36	-1
New Jersey	4	0	6	0	25	-3	33	-2
New Mexico	2	-1	3	0	14	-4	20	-1
New York	3	0	5	1	20	-2	27	1
North Carolina	3	0	6	2	22	2	30	6
North Dakota	4	0	6	2	27	-1	36	4
Pennsylvania†	3	-1	6	0	21	-4	30	0
Rhode Island†	3	0	6	2	22	0	32	6
South Carolina	2	0	3	0	14	-3	19	-2
Tennessee†	3	1	5	2	19	1	25	3
Texas	3	1	4	1	20	3	23	0
Utah	3	0	5	1	22	-1	29	0
Virginia	3	0	5	0	19	-6	28	-3
Washington	3	---	4	---	20	---	25	---
West Virginia	2	0	4	0	19	1	26	0
Wisconsin	3	-1	5	0	26	1	33	0
Wyoming†	2	-1	4	0	23	-3	30	-1
Other Jurisdictions								
DoDEA	2	---	5	---	18	---	29	---
Guam	0	0	1	0	4	0	9	0

\*\* The value for 1994 was significantly different from 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 different from 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.

--- Jurisdiction did not participate in the 1992 Trial State Assessment.

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

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



Table D.4 Percentage of Grade 4 Students by Gender At or Above the Achievement Levels for the 1994 Trial State Assessment with Changes in this Percentage from 1992, Public Schools Only (Continued)

	At or Above Basic				Below Basic			
	Male		Female		Male		Female	
	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992
Nation	50	-2	61	0	50	2	39	0
Region								
Northeast	50	-8	60	-5	50	8	40	5
Southeast	44	-2	57	-2	56	2	43	2
Central	56	-3	69	4	44	3	31	-4
West	51	3	61	2	49	-3	39	-2
States								
Alabama	45	0	54	2	55	0	46	-2
Arizona	44	-3	53	-1	56	3	47	1
Arkansas	47	-2	55	-1	53	2	45	1
California	38	-3	45	-4	62	3	55	4
Colorado	52	-5	61	-3	48	5	39	3
Connecticut	62	-1	69	1	38	1	31	-1
Delaware	43	-6	56	-3	57	6	44	3
Florida	43	-3	52	-1	57	3	48	1
Georgia	45	-6	55	-2	55	6	45	2
Hawaii	38	-1	49	0	62	1	51	0
Indiana	59	-1	66	-2	41	1	34	2
Iowa	62	-3	70	-4	38	3	30	4
Kentucky	48	-3	59	0	52	3	41	0
Louisiana	35	-4	40	-6	65	4	60	6
Maine	69	0	76	1	31	0	24	-1
Maryland	48	0	57	-1	52	0	43	1
Massachusetts	64	-6	70	-3	36	6	30	3
Minnesota	58	-4	67	-1	42	4	33	1
Mississippi	37	2	47	6	63	-2	53	-6
Missouri	56	-4	64	-3	44	4	36	3
Montana†	61	---	71	---	39	---	29	---
Nebraska†	59	-2	67	-2	41	2	33	2
New Hampshire†	61	-7	73	-4	39	7	27	4
New Jersey	60	-4	65	-5	40	4	35	5
New Mexico	43	-6	49	-5	57	6	51	5
New York	50	-6	59	-2	50	6	41	2
North Carolina	51	1	61	6	49	-1	39	-6
North Dakota	66	-3	74	0	34	3	26	0
Pennsylvania†	54	-6	63	-5	46	6	37	5
Rhode Island†	59	1	66	5	41	-1	34	-5
South Carolina	40	-5	49	-5	60	5	51	5
Tennessee†	50	1	59	2	50	-1	41	-2
Texas	53	3	56	-1	47	-3	44	1
Utah	56	-4	66	-2	44	4	34	2
Virginia	49	-10*	60	-9*	51	10*	40	9*
Washington	52	---	60	---	48	---	40	---
West Virginia	50	-3	59	-2	50	3	41	2
Wisconsin	64	0	72	2	36	0	28	-2
Wyoming†	62	-2	68	-4	38	2	32	4
Other Jurisdictions								
DoDEA	54	---	66	---	46	---	34	---
Guam	18	-2	32	1	82	2	68	-1

\*\* The value for 1994 was significantly different from 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 different from 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.

--- Jurisdiction did not participate in the 1992 Trial State Assessment.

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

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

**Table D.5** Percentage of Grade 4 Students by Race/Ethnicity At or Above the Achievement Levels for the 1994 Trial State Assessment with Changes in this Percentage from 1992, Public Schools Only

	White		Black		Hispanic		Asian		Pacific Islander		American Indian	
	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992
Nation	5	0	1	0	1	0	9	***	3	***	2	0
Region												
Northeast	6	-3	1	0	1	0	***	***	***	***	***	***
Southeast	5	1	1	0	1	1!	***	***	***	***	***	***
Central	6	1	0	0	2	-2	***	***	***	***	***	***
West	5	1	1!	1	1	0	8!	***	***	***	***	***
States												
Alabama	5	1	1	0	0	0	***	***	***	***	***	***
Arizona	6	2	1	0	2	1	***	***	***	***	0	0
Arkansas	4	0	0	0	1	1	***	***	***	***	***	***
California	3	-1	0	0	0	0	6	***	1!	***	***	***
Colorado	5	2	1	1!	1	0	***	***	***	***	3	1
Connecticut	9	3	1	0	1	1	***	***	***	***	***	***
Delaware	4	0	1	1	0	0	***	***	***	***	***	***
Florida	4	1	0	0	2	1	***	***	***	***	***	***
Georgia	7	1	1	0	1	0	***	***	***	***	***	***
Hawaii	5	2	1	0	1	0	5	***	1	***	***	***
Indiana	5	1	0	0	1	-2	***	***	***	***	***	***
Iowa	5	0	0!	-1	3	1	***	***	***	***	***	***
Kentucky	4	1	1	1	1	-1	***	***	***	***	***	***
Louisiana	3	0	0	0	0	0	***	***	***	***	***	***
Maine	6	2	***	***	2	2	***	***	***	***	***	***
Maryland	6	2	1	0	1	0	9	***	***	***	***	***
Massachusetts	6	1	1	0	0	0	2!	***	***	***	***	***
Minnesota	5	0	0	0	2	1	***	***	***	***	2	***
Mississippi	4	2	0	0	0	0	***	***	***	***	***	***
Missouri	5	1	1	1	1	1	***	***	***	***	2	***
Montana†	5	---	***	---	1	---	***	---	***	---	1	---
Nebraska†	6	1	1!	1	3	2	***	***	***	***	3	***
New Hampshire†	5	0	***	***	1	-1	***	***	***	***	***	***
New Jersey	7	-1	2	1	2	1	12	***	***	***	***	***
New Mexico	5	0	1	0	1	1	***	***	***	***	1	1!
New York	6	1	0	-1	1	1	8	***	***	***	***	***
North Carolina	7	1	1	0	1	0	***	***	***	***	0!	-3!
North Dakota	5	1	***	***	2	-4	***	***	***	***	0!	-1!
Pennsylvania†	5	0	0	0	0	-1	***	***	***	***	***	***
Rhode Island†	5	1	1	1	1	1	2	***	***	***	***	***
South Carolina	4	0	0	0	0	0	***	***	***	***	***	***
Tennessee†	5	1	0	0	2	1	***	***	***	***	***	***
Texas	6	2	0	0	1	0	***	***	***	***	***	***
Utah	4	1	***	***	1	0	***	***	***	***	0	***
Virginia	6	0	1	0	3	2	***	***	***	***	***	***
Washington	4	---	0	---	0	---	6	---	3	---	2	---
West Virginia	4	0	2	0	0	-1	***	***	***	***	***	***
Wisconsin	5	0	0	0	1	-1	***	***	***	***	***	***
Wyoming†	3	-1	***	***	2	0	***	***	***	***	1!	-1!
Other Jurisdictions												
DoDEA	5	---	0	---	1	---	5	---	3	---	1	---
Guam	2	0	0	-1	0	0	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 the 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 (see Appendix A).

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

**Table D.5** Percentage of Grade 4 Students by Race/Ethnicity At or Above the Achievement Levels for the 1994 Trial State Assessment with Changes in this Percentage from 1992, Public Schools Only (Continued)

	At or Above Proficient											
	White		Black		Hispanic		Asian		Pacific Islander		American Indian	
	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992
Nation	30	1	6	0	10	-3	40	***	27	***	14	1
Region												
Northeast	32	-5	6	-3	10	-3	***	***	***	***	***	***
Southeast	27	1	7	-1	6	-4!	***	***	***	***	***	***
Central	32	3	6	3	18	-2	***	***	***	***	***	***
West	30	2	7!	3	9	-1	35!	***	***	***	***	***
States												
Alabama	27	3	6	3	3	-3	***	***	***	***	***	***
Arizona	28	3	8	-6	11	3	***	***	***	***	8	2
Arkansas	25	0	5	0	12	5	***	***	***	***	***	***
California	20	-7	6	-2	4	-1	27	***	20!	***	***	***
Colorado	29	3	8	-2!	10	0	***	***	***	***	19	6
Connecticut	42	5	7	1	11	4	***	***	***	***	***	***
Delaware	25	-3	8	1	8	2	***	***	***	***	***	***
Florida	27	2	6	0	11	-1	***	***	***	***	***	***
Georgia	31	0	8	0	11	-2	***	***	***	***	***	***
Hawaii	29	7	10	1	9	0	26	***	8	***	***	***
Indiana	32	2	5	-3	11	-7	***	***	***	***	***	***
Iowa	31	-2	5!	-9	13	-2	***	***	***	***	***	***
Kentucky	24	3	9	3	8	-3	***	***	***	***	***	***
Louisiana	21	0	3	-2	5	-1	***	***	***	***	***	***
Maine	36	3	***	***	19	9	***	***	***	***	***	***
Maryland	32	4	6	-1	9	0	44	***	***	***	***	***
Massachusetts	36	0	11	2	8	-1	13!	***	***	***	***	***
Minnesota	29	0	8	4	18	7	***	***	***	***	12	***
Mississippi	26	4	6	1	5	3	***	***	***	***	***	***
Missouri	31	0	10	2	12	2	***	***	***	***	18	***
Montana†	33	---	***	---	15	---	***	---	***	---	12	---
Nebraska†	32	3	6!	-2	17	4	***	***	***	***	15	***
New Hampshire†	31	-3	---	---	19	-1	***	***	***	***	***	***
New Jersey	37	-2	10	1	15	3	47	***	***	***	6	0!
New Mexico	26	-5	8	-1	12	1	***	***	***	***	***	***
New York	33	1	7	-3	10	3	41	***	***	***	***	***
North Carolina	34	5	9	1	10	-2	***	***	***	***	9!	-8!
North Dakota	34	2	***	***	18	-6	***	***	***	***	12!	-4!
Pennsylvania†	31	-2	6	0	8	-4	***	***	***	***	***	***
Rhode Island†	32	3	9	3	10	3	15	***	***	***	***	***
South Carolina	26	-2	4	-2	5	-4	***	***	***	***	***	***
Tennessee†	27	2	6	0	9	-2	***	***	***	***	***	***
Texas	33	3	7	0	9	-1	***	***	***	***	***	***
Utah	28	0	***	***	12	1	***	***	***	***	6	***
Virginia	31	-4	7	-3	18	7	***	***	***	***	***	***
Washington	26	---	9	---	7	---	29	---	17	---	16	---
West Virginia	24	1	11	1	8	-5	***	***	***	***	***	***
Wisconsin	33	0	7	0	12	-2	***	***	***	***	***	***
Wyoming†	29	-3	***	***	16	3	***	***	***	---	16!	1!
Other Jurisdictions												
DoDEA	30	---	11	---	17	---	29	---	20	---	16	---
Guam	11	-2	4	-1	4	1	8	***	6	***	***	***

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 the 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 (see Appendix A).

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

Table D.5

Percentage of Grade 4 Students by Race/Ethnicity At or Above the Achievement Levels for the 1994 Trial State Assessment with Changes in this Percentage from 1992, Public Schools Only (Continued)

	At or Above Basic											
	White		Black		Hispanic		Asian		Pacific Islander		American Indian	
	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992
Nation	67	0	27	-3	31	-8	76	***	61	***	44	-5
Region												
Northeast	69	-2	24	-10	35	-6	***	***	***	***	***	***
Southeast	62	-1	29	-2	24	-13!	***	***	***	***	***	***
Central	69	0	26	0	41	-10	***	***	***	***	***	***
West	66	3	28!	4	29	-5	71!	***	***	***	***	***
States												
Alabama	62	2	27	2	20	-9	***	***	***	***	***	***
Arizona	62	-2	27	-13	32	-5	***	***	***	***	25	3
Arkansas	61	-2	23	-4	35	6	***	***	***	***	***	***
California	56	-6	29	3	19	-5	53	***	55!	***	***	***
Colorado	66	-1	34	-12!	34	-8	***	***	***	***	47	3
Connecticut	78	1	29	-1	35	3	***	***	***	***	***	***
Delaware	59	-6	31	-1	31	5	***	***	***	***	***	***
Florida	60	-2	25	1	33	-7	***	***	***	***	***	***
Georgia	65	-3	28	-4	34	2	***	***	***	***	***	***
Hawaii	65	6	30	1	32	0	61	***	32	***	***	***
Indiana	69	0	29	-8	43	-8	***	***	***	***	***	***
Iowa	69	-3	24!	-25	46	-8	***	***	***	***	***	***
Kentucky	56	-1	34	-2	33	3	***	***	***	***	***	***
Louisiana	55	-3	19	-6	20	-10	***	***	***	***	***	***
Maine	73	0	***	***	62	15	***	***	***	***	***	***
Maryland	66	1	28	-4	36	0	77	***	***	***	***	***
Massachusetts	75	-1	36	-8	35	-4	40!	***	***	***	***	***
Minnesota	66	-2	24	-2	47	5	***	***	***	***	34	***
Mississippi	62	2	25	3	24	4	***	***	***	***	***	***
Missouri	66	-5	33	-1	40	3	***	***	***	***	55	***
Montana†	71	---	***	---	51	---	***	---	***	---	43	---
Nebraska†	68	-2	32!	0	46	0	***	***	***	***	40	***
New Hampshire†	68	-6	***	***	56	-2	***	***	***	***	***	***
New Jersey	75	-3	32	-4	41	6	82	***	***	***	***	***
New Mexico	60	-7	36	-2	38	0	***	***	***	***	27	-11!
New York	70	-1	30	-10	36	6	72	***	***	***	***	***
North Carolina	68	4	32	0	32	-2	***	***	***	***	41!	3!
North Dakota	72	0	***	***	55	-13	***	***	***	***	37!	-16!
Pennsylvania†	67	-5	24	-2	33	-5	***	***	***	***	***	***
Rhode Island†	69	1	35	12	36	6	44	***	***	***	***	***
South Carolina	62	-2	22	-9 *	24	-5	***	***	***	***	***	***
Tennessee†	63	1	28	-1	37	1	***	***	***	***	***	***
Texas	70	2	34	-1	37	-1	***	***	***	***	***	***
Utah	65	-2	***	***	44	3	***	***	***	***	34	***
Virginia	67	-6	28	-12 *	47	6	***	***	***	***	***	***
Washington	61	---	38	---	32	---	63	---	47	---	48	---
West Virginia	56	-3	40	3	37	1	***	***	***	***	***	***
Wisconsin	73	1	36	0	42	-11	***	***	***	***	***	***
Wyoming†	69	-3	***	***	49	-1	***	***	***	***	50!	0!
Other Jurisdictions												
DoDEA	68	---	45	---	54	---	61	---	53	---	48	---
Guam	36	-3	18	1	18	2	24	***	25	***	***	***

\*\* The value for 1994 was significantly different from 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 different from 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.

\*\*\* Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate.

--- Jurisdiction did not participate in the 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 (see Appendix A).



**Table D.5** Percentage of Grade 4 Students by Race/Ethnicity At or Above the Achievement Levels for the 1994 Trial State Assessment with Changes in this Percentage from 1992, Public Schools Only (Continued)

	White		Black		Hispanic		Asian		Pacific Islander		American Indian	
	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992
<b>Nation</b>	33	0	73	3	69	8	24	***	39	***	56	5
<b>Region</b>												
Northeast	31	2	76	10	65	6	***	***	***	***	***	***
Southeast	38	1	71	2	76	13!	***	***	***	***	***	***
Central	31	0	74	0	59	10	***	***	***	***	***	***
West	34	-3	72!	-4	71	5	29!	***	***	***	***	***
<b>States</b>												
Alabama	38	-2	73	-2	80	9	***	***	***	***	***	***
Arizona	38	2	73	13	68	5	***	***	***	***	75	-3
Arkansas	39	2	77	4	65	-6	***	***	***	***	***	***
California	44	6	71	-3	81	5	47	***	45!	***	***	***
Colorado	34	1	66	12!	66	8	***	***	***	***	53	-3
Connecticut	22	-1	71	1	65	-3	***	***	***	***	***	***
Delaware	41	6	69	1	69	-5	***	***	***	***	***	***
Florida	40	2	75	-1	67	7	***	***	***	***	***	***
Georgia	35	3	72	4	66	-2	***	***	***	***	***	***
Hawaii	35	-6	70	-1	68	0	39	***	68	***	***	***
Indiana	31	0	71	8	57	8	***	***	***	***	***	***
Iowa	31	3	76!	25	54	8	***	***	***	***	***	***
Kentucky	44	1	66	2	67	-3	***	***	***	***	***	***
Louisiana	45	3	81	6	80	10	***	***	***	***	***	***
Maine	27	0	***	***	38	-15	***	***	***	***	***	***
Maryland	34	-1	72	4	64	0	23	***	***	***	***	***
Massachusetts	25	1	64	8	65	4	60!	***	***	***	***	***
Minnesota	34	2	76	2	53	-5	***	***	***	***	66	***
Mississippi	38	-2	75	-3	76	-4	***	***	***	***	***	***
Missouri	34	5	67	1	60	-3	***	***	***	***	45	***
Montana†	29	---	***	---	49	---	***	---	***	---	57	---
Nebraska†	32	2	68!	0	54	0	***	***	***	***	60	***
New Hampshire†	32	6	***	***	44	2	***	***	***	***	***	***
New Jersey	25	3	68	4	59	-6	18	***	***	***	***	***
New Mexico	40	7	64	2	62	0	***	***	***	***	73	11!
New York	30	1	70	10	64	-6	28	***	***	***	***	***
North Carolina	32	-4	68	0	68	2	***	***	***	***	59!	-3!
North Dakota	28	0	***	***	45	13	***	***	***	***	63!	16!
Pennsylvania†	33	5	76	2	67	5	***	***	***	***	***	***
Rhode Island†	31	-1	65	-12	64	-6	56	***	***	***	***	***
South Carolina	38	2	78	9 *	76	5	***	***	***	***	***	***
Tennessee†	37	-1	72	1	63	-1	***	***	***	***	***	***
Texas	30	-2	66	1	63	1	***	***	***	***	***	***
Utah	35	2	***	***	56	-3	***	***	***	***	66	***
Virginia	33	6	72	12 *	53	-6	***	***	***	***	***	***
Washington	39	---	62	---	68	---	37	---	53	---	52	---
West Virginia	44	3	60	-3	63	-1	***	***	***	***	***	***
Wisconsin	27	-1	64	0	58	11	***	***	***	***	***	***
Wyoming†	31	3	***	***	51	1	***	***	***	***	50!	0!
<b>Other Jurisdictions</b>												
DoDEA	32	---	55	---	46	---	39	---	47	---	52	---
Guam	64	3	82	-1	82	-2	76	***	75	***	***	***

\* The value for 1994 was significantly different from 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 different from 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.

\*\*\* Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate.

--- Jurisdiction did not participate in the 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 (see Appendix A).

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

Table D.6 Percentage of Grade 4 Students by Parents' Education Level At or Above the Achievement Levels for the 1994 Trial State Assessment with Changes in this Percentage from 1992, Public Schools Only

	College Graduate		Some Education After High School		At or Above Advanced Graduated High School		Did Not Finish High School		I Don't Know	
	1994	Change	1994	Change	1994	Change	1994	Change	1994	Change
	Percentage	from 1992	Percentage	from 1992	Percentage	from 1992	Percentage	from 1992	Percentage	from 1992
Nation	7	0	5	-1	2	0	1	0	2	0
Region										
Northeast	7	-4	5	-1	2	-1	***	***	2	-1
Southeast	6	0	5	0	3	1	1	1	1	0
Central	7	2	4	-1	3	1	***	***	2	-1
West	7	2	5	-2	1	-1	0	-1	2	1
States										
Alabama	5	2	5	2	1	0	1	0	2	1
Arizona	6	3	7	5	2	0	1	0	2	1
Arkansas	4	0	5	1	1	0	1	0	2	0
California	4	-2	2	0	1	-1	0	0	1	0
Colorado	5	1	5	2	3	2	1	1	2	1
Connecticut	9	2	8	2	3	1	4	4	3	2
Delaware	5	0	5	0	2	1	0	0	1	-1
Florida	4	1	4	1	2	0	1	0	2	1
Georgia	8	2	6	-1	3	0	1	0	2	0
Hawaii	3	1	6	4	1	-1	2	1	2	1
Indiana	7	1	7	2	3	1	0	0	2	-1
Iowa	7	0	7	1	3	-1	1	-1	3	0
Kentucky	5	2	6	2	3	1	2	1	2	1
Louisiana	2	1	3	1	1	0	0	0	1	0
Maine	9	1	9	4	4	2	2	2	2	1
Maryland	6	1	4	1	3	1	1	0	2	1
Massachusetts	7	0	6	1	2	0	1	0	2	1
Minnesota	7	1	3	-3	4	2	***	***	2	0
Mississippi	4	2	3	1	1	0	1	0	1	0
Missouri	7	0	7	2	4	2	0	-1	2	0
Montana†	6	---	5	---	2	---	1	---	2	---
Nebraska†	8	3	8	0	4	1	***	***	2	0
New Hampshire†	7	-1	9	2	5	2	2	1	2	-1
New Jersey	8	-1	6	0	3	0	1	1	2	0
New Mexico	5	-1	5	1	1	0	1	1	1	0
New York	6	-1	6	3	3	2	2	2	2	0
North Carolina	8	1	7	4	2	0	0	-1	2	0
North Dakota	7	1	6	2	2	-1	***	***	2	1
Pennsylvania†	7	0	5	-2	2	0	1	0	2	0
Rhode Island†	7	1	4	0	3	2	4	4	2	1
South Carolina	4	0	3	0	1	1	0	-1	1	0
Tennessee†	5	0	6	1	3	2	0	0	2	1
Texas	6	1	5	3	2	1	0	-1	2	0
Utah	6	1	5	-1	2	1	***	***	2	0
Virginia	7	-1	6	0	2	0	1	0	3	1
Washington	6	---	3	---	2	---	0	---	2	---
West Virginia	5	-1	6	0	3	1	1	0	2	0
Wisconsin	7	-1	4	-3	4	2	1	1	2	0
Wyoming†	5	-1	4	-2	1	0	0	-1	2	0
Other Jurisdictions										
DoDEA	5	---	4	---	1	---	***	---	2	---
Guam	1	0	1	0	0	0	0	0	0	0

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 the 1992 Trial State Assessment.

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

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

Table D.6 Percentage of Grade 4 Students by Parents' Education Level At or Above the Achievement Levels for the 1994 Trial State Assessment with Changes in this Percentage from 1992, Public Schools Only (Continued)

	At or Above Proficient									
	College Graduate		Some Education After High School		Graduated High School		Did Not Finish High School		I Don't Know	
	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992
Nation	32	0	31	3	19	1	7	-3	17	0
Region										
Northeast	32	-12	32	2	18	1	***	***	17	-3
Southeast	27	0	31	7	16	0	5	-3	13	1
Central	35	4	31	3	27	8	***	***	20	-1
West	33	4	39	0	16	-4	9	-3	18	2
States										
Alabama	27	3	25	0	12	-2	9	0	16	5
Arizona	29	4	30	8	15	2	11	2	14	1
Arkansas	26	0	29	-1	16	-3	9	-3	15	2
California	20	-7	19	-1	9	-4	2	-1	10	0
Colorado	31	2	28	0	21	6	10	-2	15	1
Connecticut	41	-2	44	8	19	3	23	17	23	5
Delaware	26	-4	26	2	17	4	7	-1	13	-4
Florida	24	1	29	6	14	-3	8	-3	14	1
Georgia	32	1	31	0	14	-1	7	-4	14	-1
Hawaii	19	1	25	7	10	0	9	-3	13	1
Indiana	38	4	35	1	23	0	10	-5	17	-3
Iowa	36	-6	40	3	24	-1	13	4	22	0
Kentucky	27	1	34	5	20	1	9	0	17	3
Louisiana	15	0	20	-2	11	1	6	-2	9	-1
Maine	44	2	44	2	28	3	22	9	24	3
Maryland	28	1	23	-3	17	0	9	0	16	3
Massachusetts	39	-4	34	-2	20	-3	15	2	20	2
Minnesota	38	4	27	-11	24	1	***	***	18	-1
Mississippi	19	4	25	5	13	2	7	0	12	3
Missouri	35	-1	36	2	24	4	10	-5	17	-1
Montana†	38	---	35	---	25	---	14	---	21	---
Nebraska†	40	5	41	2	24	6	***	***	17	2
New Hampshire†	37	-5	44	2	28	2	19	6	22	-5
New Jersey	39	-3	32	-6	19	-2	9	-2	19	-1
New Mexico	25	-4	28	3	12	-5	10	4	11	-4
New York	29	-5	33	5	21	4	11	1	16	0
North Carolina	35	4	36	10	16	0	9	2	17	1
North Dakota	41	2	37	1	21	-4	***	***	23	4
Pennsylvania†	36	-2	32	-8	18	-4	6	-8	17	-1
Rhode Island†	36	3	36	2	21	5	16	5	18	1
South Carolina	23	-4	28	2	9	-3	6	-1	11	-3
Tennessee†	28	0	34	3	20	4	12	2	15	3
Texas	31	1	30	6	17	3	7	-4	15	1
Utah	33	-1	30	-6	20	3	***	***	17	-1
Virginia	31	-7	26	-5	15	-5	8	-5	18	0
Washington	32	---	20	---	20	---	10	---	15	---
West Virginia	29	-3	33	4	21	3	11	1	14	1
Wisconsin	41	2	32	-4	26	2	18	5	20	-1
Wyoming†	34	-3	36	-1	20	0	9	-5	20	0
Other Jurisdictions										
DoDEA	29	---	29	---	15	---	***	---	18	---
Guam	8	1	13	4	5	-2	1	-3	5	0

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 the 1992 Trial State Assessment.

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

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

Table D.6 Percentage of Grade 4 Students by Parents' Education Level At or Above the Achievement Levels for the 1994 Trial State Assessment with Changes in this Percentage from 1992, Public Schools Only (Continued)

	College Graduate		Some Education After High School		At or Above Basic Graduated High School		Did Not Finish High School		I Don't Know	
	1994	Change	1994	Change	1994	Change	1994	Change	1994	Change
	Percentage	from 1992	Percentage	from 1992	Percentage	from 1992	Percentage	from 1992	Percentage	from 1992
Nation	66	0	65	0	51	-2	29	-5	48	-3
Region										
Northeast	65	-9	66	2	49	-5	***	***	48	-5
Southeast	58	-1	64	7	49	0	26	-8	42	-4
Central	70	2	67	-1	59	0	***	***	54	-2
West	68	7	63	-3	48	-2	35	1	47	-2
States										
Alabama	59	4	59	-2	43	-4	37	3	42	2
Arizona	61	0	60	0	42	-3	33	-2	41	-4
Arkansas	57	-2	65	-2	45	-8	39	-1	46	2
California	51	-7	51	1	34	-7	14	-9	34	-1
Colorado	66	-5	61	-8	57	4	34	-7	46	-4
Connecticut	75	-3	77	1	50	-6	45	3	55	3
Delaware	57	-5	62	-2	47	2	26	-8	43	-7
Florida	55	-1	62	3	39	-8	28	-9	41	-2
Georgia	59	-5	62	4	42	-7	32	-7	42	-2
Hawaii	51	-1	60	6	37	3	29	-11	37	-3
Indiana	73	2	75	0	60	-1	43	-10	51	-7
Iowa	72	-7	78	0	62	-5	56	14	57	-3
Kentucky	59	-4	66	-1	53	-4	35	-5	48	2
Louisiana	41	-6	53	-3	38	-1	26	-4	33	-6
Maine	80	-1	81	-3	70	0	57	6	62	1
Maryland	59	-1	57	-5	48	-1	37	3	44	-1
Massachusetts	77	-4	75	-5	56	-13	45	7	53	-5
Minnesota	73	2	66	-10	58	-6	***	***	53	-4
Mississippi	47	4	57	9	40	3	29	4	37	4
Missouri	68	-4	69	-3	60	2	40	-13	50	-5
Montana†	76	---	72	---	63	---	56	---	56	---
Nebraska†	74	0	76	-1	58	-2	***	***	51	-2
New Hampshire†	75	-5	80	-1	63	-2	48	-6	59	-8
New Jersey	74	-4	70	-7	52	-8	32	-13	50	-3
New Mexico	56	-8	63	2	42	-9	32	3	37	-5
New York	63	-7	67	1	50	-2	38	2	44	-5
North Carolina	65	3	70	10	47	1	32	-3	47	1
North Dakota	78	-2	79	2	61	-9	***	***	61	2
Pennsylvania†	67	-7	65	-11	53	-6	33	-18	51	-4
Rhode Island†	71	1	77	4	59	8	45	0	52	1
South Carolina	54	-3	59	-7	32	-7	31	-3	38	-6
Tennessee†	60	-2	69	1	56	4	39	0	46	3
Texas	64	0	69	5	50	2	35	-4	45	-1
Utah	70	-2	71	-3	53	-5	***	***	52	-4
Virginia	62	-10*	61	-10	48	-9	35	-12	48	-7
Washington	66	---	60	---	54	---	41	---	45	---
West Virginia	64	-5	67	0	55	0	34	-9	45	-2
Wisconsin	77	2	73	-7	66	3	53	-4	61	2
Wyoming†	73	-5	76	-1	60	-3	45	-4	58	0
Other Jurisdictions										
DoDEA	65	---	72	---	49	---	***	---	53	---
Guam	27	1	34	-2	23	-3	11	-7	23	-1

\*\* The value for 1994 was significantly different from 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 different from 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.

\*\*\* Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate.  
 --- Jurisdiction did not participate in the 1992 Trial State Assessment.

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

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

**Table D.6** Percentage of Grade 4 Students by Parents' Education Level At or Above the Achievement Levels for the 1994 Trial State Assessment with Changes in this Percentage from 1992, Public Schools Only (Continued)

	Below Basic									
	College Graduate		Some Education After High School		Graduated High School		Did Not Finish High School		I Don't Know	
	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992	1994 Percentage	Change from 1992
Nation	34	0	35	0	49	2	71	5	52	3
Region										
Northeast	35	9	34	-2	51	5	***	***	52	5
Southeast	42	1	36	-7	51	0	74	8	58	4
Central	30	-2	33	1	41	0	***	***	46	2
West	32	-7	37	3	52	2	65	-1	53	2
States										
Alabama	41	-4	41	2	57	4	63	-3	58	-2
Arizona	39	0	40	0	58	3	67	2	59	4
Arkansas	43	2	35	2	55	8	61	1	54	-2
California	49	7	49	-1	66	7	86	9	66	1
Colorado	34	5	39	8	43	-4	66	7	54	4
Connecticut	25	3	23	-1	50	6	55	-3	45	-3
Delaware	43	5	38	2	53	-2	74	8	57	7
Florida	45	1	38	-3	61	8	72	9	59	2
Georgia	41	5	38	-4	58	7	68	7	58	2
Hawaii	49	1	40	-6	63	-3	71	11	63	3
Indiana	27	-2	25	0	40	1	57	10	49	7
Iowa	28	7	22	0	38	5	44	-14	43	3
Kentucky	41	4	34	1	47	4	65	5	52	-2
Louisiana	59	6	47	3	62	1	74	4	67	6
Maine	20	1	19	3	30	0	43	-6	38	-1
Maryland	41	1	43	5	52	1	63	-3	56	1
Massachusetts	23	4	25	5	44	13	55	-7	47	5
Minnesota	27	-2	34	10	42	6	***	***	47	4
Mississippi	53	-4	43	-9	60	-3	71	-4	63	-4
Missouri	32	4	31	3	40	-2	60	13	50	5
Montana†	24	---	28	---	37	---	44	---	44	---
Nebraska†	26	0	24	1	42	2	***	***	49	2
New Hampshire†	25	5	20	1	37	2	52	6	41	8
New Jersey	26	4	30	7	48	8	68	13	50	3
New Mexico	44	8	37	-2	58	9	68	-3	63	5
New York	37	7	33	-1	50	2	62	-2	56	5
North Carolina	35	-3	30	-10	53	-1	68	3	53	-1
North Dakota	22	2	21	-2	39	9	***	***	39	-2
Pennsylvania†	33	7	35	11	47	6	67	18	49	4
Rhode Island†	29	-1	23	-4	41	-8	55	0	48	-1
South Carolina	46	3	41	7	68	7	69	3	62	6
Tennessee†	40	2	31	-1	44	-4	61	0	54	-3
Texas	36	0	31	-5	50	-2	65	4	55	1
Utah	30	2	29	3	47	5	***	***	48	4
Virginia	38	10*	39	10	52	9	65	12	52	7
Washington	34	---	40	---	46	---	59	---	55	---
West Virginia	36	5	33	0	45	0	66	9	55	2
Wisconsin	23	-2	27	7	34	-3	47	4	39	-2
Wyoming†	27	5	24	1	40	3	55	4	42	0
Other Jurisdictions										
DoDEA	35	---	28	---	51	---	***	---	47	---
Guam	73	-1	66	2	77	3	89	7	77	1

\*\* The value for 1994 was significantly different from 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 different from 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.

\*\*\* Sample size in the 1992 or 1994 assessment is insufficient to permit a reliable estimate.

--- Jurisdiction did not participate in the 1992 Trial State Assessment.

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

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



# APPENDIX E

## State Contextual Background Factors

Included in this appendix are summaries of contextual variables collected as part of the NAEP assessment on a state-by-state basis. The contextual variables are classified as school-level (Table E.1), teacher-level (Tables E.2), and student-level (Table E.3). To supplement the data available from the NAEP assessment, co-statistics have been compiled from sources external to NAEP (Table E.4).

**Table E.1** Selected School-Level Educational Characteristics by State for the 1994 Trial State Assessment, Public Schools Only

	Percent of Students Whose		
	Schools Report at Least Moderate Absenteeism	Teachers Report Getting All or Most of the Resources They Need	Teachers Report Their Average Class Size is Less Than 25 Students
Nation	16	65	59
Region			
Northeast	10	59	73
Southeast	20	68	63
Central	15	66	62
West	18	64	44
States			
Alabama	22	65	57
Arizona	34	63	49
Arkansas	26	68	75
California	29	58	14
Colorado	14	71	56
Connecticut	20	63	85
Delaware	12	57	57
Florida	21	67	38
Georgia	12	76	67
Hawaii	17	47	46
Indiana	12	77	74
Iowa	7	70	79
Kentucky	15	76	69
Louisiana	20	61	54
Maine	5	63	95
Maryland	22	63	52
Massachusetts	5	58	79
Minnesota	9	70	56
Mississippi	23	66	70
Missouri	17	70	67
Montana†	16	69	72
Nebraska†	9	85	85
New Hampshire†	6	54	76
New Jersey	10	72	85
New Mexico	24	49	61
New York	12	62	53
North Carolina	10	61	64
North Dakota	3	59	80
Pennsylvania†	10	70	61
Rhode Island†	9	38	77
South Carolina	11	74	70
Tennessee†	25	61	72
Texas	25	76	100
Utah	17	60	24
Virginia	15	73	79
Washington	16	62	51
West Virginia	14	69	85
Wisconsin	4	73	77
Wyoming†	9	83	88
Other Jurisdictions			
DoDEA	0	80	75
Guam	34	38	88

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

SOURCE: National Assessment of Educational Progress (NAEP), 1994 Reading Assessment

Table E.2 Selected Teacher-Level Educational Characteristics by State for the 1994 Trial State Assessment, Public Schools Only

	Percent of Students Whose Teachers			
	Primarily Use Trade Books for Reading Instruction	Ask Students to Write About What They Have Read Almost Every Day	Have Students Read Books of Their Own Choosing Almost Every Day	Use a Variety of Books Almost Every Day
Nation	20	30	69	49
Region				
Northeast	20	46	62	53
Southeast	13	24	62	42
Central	15	26	70	37
West	29	26	81	61
States				
Alabama	6	20	60	37
Arizona	17	33	75	48
Arkansas	8	18	65	31
California	37	47	82	61
Colorado	43	39	84	69
Connecticut	28	43	74	53
Delaware	17	34	66	51
Florida	12	27	73	49
Georgia	7	24	68	51
Hawaii	21	32	78	47
Indiana	13	15	62	34
Iowa	23	34	86	56
Kentucky	25	40	63	56
Louisiana	3	15	53	27
Maine	54	38	80	69
Maryland	36	52	68	52
Massachusetts	17	33	74	48
Minnesota	15	29	68	45
Mississippi	3	15	49	29
Missouri	11	26	69	41
Montana†	19	29	69	47
Nebraska†	14	30	78	54
New Hampshire†	30	32	82	54
New Jersey	23	33	62	48
New Mexico	18	28	67	46
New York	29	42	68	57
North Carolina	14	34	74	50
North Dakota	4	20	69	37
Pennsylvania†	15	28	68	45
Rhode Island†	22	33	76	56
South Carolina	15	25	74	54
Tennessee†	6	10	47	30
Texas	10	32	69	44
Utah	16	22	81	53
Virginia	27	35	76	60
Washington	24	31	84	57
West Virginia	4	18	62	36
Wisconsin	25	28	75	45
Wyoming†	20	28	67	53
Other Jurisdictions				
DoDEA	4	32	75	45
Guam	20	38	73	56

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

SOURCE: National Assessment of Educational Progress (NAEP), 1994 Reading Assessment

Table E.3 Selected Student-Level Educational Characteristics by State for the 1994 Trial State Assessment, Public Schools Only

	Percent of Students Who		
	Read More Than 10 Pages in School and for Homework	Watch Television 5 Hours or More a Day	Regularly Read for Fun on Their Own Time
Nation	54	31	45
Region			
Northeast	49	35	45
Southeast	51	37	40
Central	60	27	46
West	56	27	46
States			
Alabama	51	31	41
Arizona	58	25	44
Arkansas	54	35	41
California	63	30	45
Colorado	63	20	47
Connecticut	60	28	48
Delaware	49	36	42
Florida	51	32	41
Georgia	53	32	45
Hawaii	61	28	42
Indiana	58	29	41
Iowa	67	23	50
Kentucky	57	36	40
Louisiana	48	38	38
Maine	62	20	46
Maryland	52	34	45
Massachusetts	62	21	46
Minnesota	64	20	48
Mississippi	45	39	39
Missouri	60	31	44
Montana†	65	17	49
Nebraska†	63	23	46
New Hampshire†	59	21	47
New Jersey	57	33	43
New Mexico	55	20	44
New York	55	33	49
North Carolina	59	29	46
North Dakota	66	19	47
Pennsylvania†	54	28	43
Rhode Island†	59	25	48
South Carolina	53	33	44
Tennessee†	51	29	39
Texas	55	30	42
Utah	64	15	47
Virginia	57	34	47
Washington	58	21	48
West Virginia	58	31	39
Wisconsin	65	23	49
Wyoming†	62	19	51
Other Jurisdictions			
DoDEA	55	27	48
Guam	45	31	44

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

SOURCE: National Assessment of Educational Progress (NAEP), 1994 Reading Assessment

Table E.4 School System Characteristics from Non-NAEP Sources

	Current Expenditure	Percent of Total Current Expenditures, by Function		
	Per Pupil 1991-92	Instruction	Non-Instructional	Support Services
Nation	5,421			
States				
Alabama	3,616	62.1	8.4	29.6
Arizona	4,381	51.2	3.0	45.8
Arkansas	4,031	60.3	8.9	30.9
California	4,746	59.3	4.1	36.6
Colorado	5,172	61.0	3.6	35.4
Connecticut	8,017	63.2	4.2	32.6
Delaware	6,093	62.6	3.9	33.5
Florida	5,243	58.5	5.0	36.6
Georgia	4,375	62.5	5.8	31.7
Hawaii	5,420	60.6	6.6	32.8
Indiana	5,074	62.1	4.5	33.5
Iowa	5,096	61.6	4.5	33.9
Kentucky	4,719	61.2	4.9	33.9
Louisiana	4,354	59.8	9.0	31.1
Maine	5,652	66.8	2.5	30.7
Maryland	6,679	60.5	4.9	34.6
Massachusetts	6,408	60.0	3.4	36.6
Minnesota	5,409	63.5	4.0	32.6
Mississippi	3,245	62.5	8.3	29.2
Missouri	4,830	60.7	4.4	35.0
Montana	5,423	61.1	4.2	34.7
Nebraska	5,263	60.3	10.8	28.9
New Hampshire	5,790	63.4	3.3	33.4
New Jersey	9,317	56.9	3.6	39.5
New Mexico	3,765	58.3	4.9	36.8
New York	8,527	66.9	3.0	30.1
North Carolina	4,555	61.7	7.8	30.5
North Dakota	4,441	60.7	7.9	31.3
Pennsylvania	6,613	63.3	3.8	33.0
Rhode Island	6,546	66.6	2.3	31.1
South Carolina	4,436	59.0	8.9	32.1
Tennessee	3,692	63.6	3.4	33.0
Texas	4,632	60.1	6.3	33.6
Utah	3,040	65.7	6.2	28.2
Virginia	4,880	59.5	5.3	35.1
Washington	5,271	59.8	4.7	35.6
West Virginia	5,109	60.5	6.5	33.0
Wisconsin	6,139	63.1	3.1	33.9
Wyoming	5,812	62.4	3.6	34.1
Other Jurisdictions				
DoDEA	8,510	64.3	9.8	18.5
Guam	5,349	46.5	6.6	46.9

Current Expenditure per Pupil, 1991-92 -- Source: Table 166, "Current expenditure per pupil in average daily attendance in public elementary and secondary schools, by State: 1959-60 to 1991-92." U.S. Department of Education, National Center for Education Statistics. *Statistics of State School Systems*; and Common Core of Data surveys. Percent of Total Current Expenditures, by Function -- Source: *State Profiles of Public Elementary and Secondary Education, 1991-1992*. U.S. Department of Education, National Center for Education Statistics, Office of Educational Research and Improvement. Information for DoDEA Schools was provided by the DoDEA.



Table E.4 School System Characteristics from Non-NAEP Sources (continued)

	Pupil-Teacher Ratio Fall 1992	1992-93 Average Annual Teacher Salary		Percent Nonpublic School Enrollment	Status Dropout Rate, Persons Ages 16-19 1990
		NEA	AFT		
Nation	17.4	35,934	35,104	---	11.2
States					
Alabama	17.4	27,651	27,490	7.2	12.6
Arizona	18.7	32,164	31,352	4.8	14.3
Arkansas	17.0	28,144	28,013	5.1	10.9
California	24.1	41,072	39,922	9.8	14.3
Colorado	18.3	34,410	33,541	5.7	9.6
Connecticut	14.3	49,595	48,918	10.7	9.2
Delaware	16.7	37,155	36,217	19.3	11.2
Florida	18.4	31,979	31,172	9.6	14.2
Georgia	18.0	30,829	28,758	6.0	14.1
Hawaii	17.6	37,415	36,472	6.3	7.0
Indiana	17.6	35,974	35,068	10.1	11.4
Iowa	15.8	30,910	30,124	11.0	6.5
Kentucky	17.3	31,921	31,115	9.0	13.0
Louisiana	16.6	28,332	26,074	15.2	11.9
Maine	14.1	31,034	30,250	4.6	8.4
Maryland	16.9	39,757	38,753	9.6	11.0
Massachusetts	15.0	39,213	39,245	11.4	9.5
Minnesota	17.6	36,002	35,093	12.0	6.1
Mississippi	18.2	24,998	24,367	8.9	11.7
Missouri	16.2	30,143	29,421	13.5	11.2
Montana	15.8	28,332	27,617	4.5	7.1
Nebraska	14.6	29,513	28,768	12.3	6.6
New Hampshire	15.6	34,810	33,931	6.5	9.9
New Jersey	13.6	43,786	43,355	15.5	9.3
New Mexico	17.6	27,219	26,463	5.2	10.8
New York	15.2	46,165	44,999	16.0	10.1
North Carolina	16.7	30,074	29,108	4.7	13.2
North Dakota	15.2	25,864	25,211	6.7	4.3
Pennsylvania	17.0	42,283	41,515	18.0	9.4
Rhode Island	14.3	38,916	40,548	13.3	12.9
South Carolina	17.0	29,981	29,151	6.5	11.9
Tennessee	19.4	29,710	29,313	6.8	13.6
Texas	15.7	30,710	30,974	5.2	12.5
Utah	24.2	27,945	26,997	1.5	7.9
Virginia	15.9	33,143	32,896	6.7	10.4
Washington	20.2	36,685	35,870	6.6	10.2
West Virginia	15.2	31,086	30,301	4.7	10.6
Wisconsin	15.5	36,857	36,477	18.0	6.9
Wyoming	17.2	30,859	30,317	2.8	6.3
Other Jurisdictions					
DoDEA	25.0	---	---	---	---
Guam	18.5	---	---	---	---

Pupil-Teacher Ratio, Fall 1992 -- Source: Table 66, "Teachers, enrollment, and pupil-teacher ratios in public elementary and secondary schools, by State: Fall 1985 to 1992". U.S. Department of Education, National Center for Education Statistics, Common Core of Data surveys. 1992-93 Average Annual Teacher Salary (NEA) -- Source: Table 78, "Estimated average annual salary of teachers in public elementary and secondary schools, by State: 1969-70 to 1993-94". National Educational Association *Estimates of School Statistics*; and unpublished data. 1992-93 Average Annual Teacher Salary (AFT) -- Source: Table 79, "Minimum and average teacher salaries, by State: 1989-90, 1990-91, and 1992-93. American Federation of Teachers, *Survey and Analysis of Salary Trends*, 1991 and 1993. Note: Data in this table reflect results of surveys conducted by the American Federation of Teachers. Because of differing survey and estimation methods, these data are not entirely comparable with figures appearing in other tables. Percent Nonpublic School Enrollment -- Source: Quality Education Data, Inc., December 1994. Status Dropout Rate, Persons Ages 16-19, 1990 -- Source: 1990 Census data in Table C1 in *Dropout Rates in the United States: 1991*, U.S. Department of Education, National Center for Education Statistics, 1992.

--- information not available.

# ACKNOWLEDGMENTS

NAEP'S 1994 Reading Assessment, including the Trial State Assessment Program, was a collaborative effort among staff from State Education Agencies, 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. Emerson Elliott, Commissioner, provided consistent support and guidance. The staff — particularly Gary Phillips, Steve Gorman, Susan Ahmed, Peggy Carr, Sharif Shakrani, Sheida White, Maureen Treacy, Shi-Chang Wu, and Mary Naifeh — worked closely and collegially with ETS, Westat, and NCS staff and played a crucial role in all aspects of the program. 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 John Olson coordinated state services. 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. Rocco Russo, Karen Miller, and Steve Lazer contributed substantially to report design activities. Doug Rhodes and Mary Michaels oversaw the production aspects, and Roderick Rudder and Sheri Barnes provided further design assistance. Many thanks are provided to the numerous reviewers, internal to ETS and NCES as well as external, who suggested improvements to successive drafts. Alice Kass and Sharon Davis-Johnson provided the excellent desktop publishing skills essential to the project.

ISBN 0-16-048016-7



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